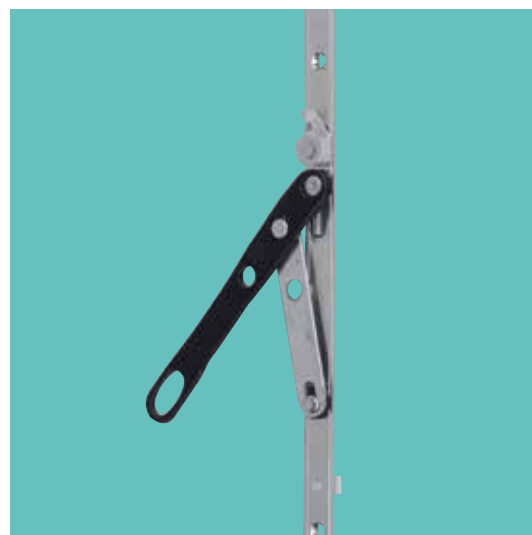
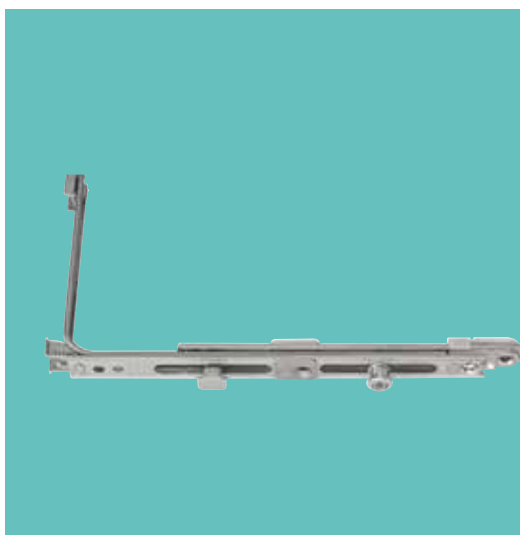
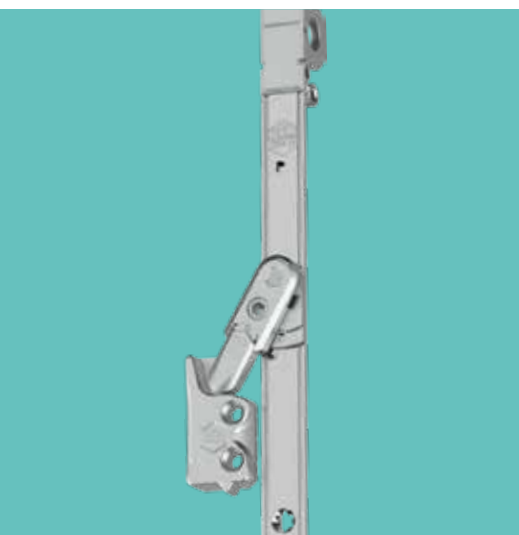




TECHNOLOGY IN MOTION

# MACO MULTI-MATIC

TURN AND TILT HARDWARE



CATALOGUE



	For timber windows		Offset
	For PVC and aluminium windows		Rebate depth
	Part number		Maximum sash weight
	Tricoat number		Number of security cams (i.S.)
	Sash rebate width (SRW) and sash rebate height (SRH)		Number of standard cams
	Sash rebate width (SRW)		Sash lifter and mishandling device
	SRW with standard corner element		Screw diameter
	SRW with short corner element		Faceplate width
	SRW half round window/segmental arch window		Spindle size
	SRW round window		Handle centre (E)
	SRW angled window		Packer thickness
	Sash rebate height (SRH)		Screw
	SRH with short corner element	<b>W</b>	Overall component width
	SRH half round window/segmental arch window	<b>L</b>	Overall component length
	Drive gears FHH		Packing unit
	Drive gears VHH		Packing unit per pallet
	Backset (BS)	MM =	MULTI-MATIC
	Handle height (HH)	MT =	MULTI-TREND
	Hinge side	MP =	MULTI POWER
	Central locking system	KS =	Tilt lock bolt
	Air gap	DK =	Turn&Tilt (T&T)
	Rebate leg	KD =	Tilt before Turn (TBT)
		DR =	Turn-only
		FFB =	Sash rebate width (SRW)
		FFH =	Sash rebate height (SRH)
		FT =	Rebate depth
		L =	Air gap
		V =	Offset (hardware axis)
		AS =	Surface-mounted



DT =	Double routing (Timber)
TO =	Single routing (Timber)
TV =	Partially concealed hardware
VV =	Fully concealed hardware
i.S. =	Security cam
VZ =	Standard cam
DM =	Backset (BS)
GM =	Handle height (HH)
ÜV =	Rebate leg screw-fixing
Ü =	Rebate leg
RZ =	Round cylinder (RC)
PZ =	Profile cylinder (PC)
EH =	Burglar resistant
AR =	Guide ring
BO =	Drill
FR =	Milling cutter
AWB =	Application range
SFG =	French casement drive gear (FCD)
ES =	adjustable
ESH =	self-locking drive gear
HG =	rear-engaging
GL =	secured ventilation position

**MACO  
MULTI-MATIC**





Dear MACO customer,

You are holding our new order catalogue in your hands. Our main aim was to present our product range in a simple and easy-to-understand manner in order to provide you with a practical working document. In addition to this catalogue, our package leaflet and assembly instructions will help you to process and install our products correctly. These are available to download from [www.maco.eu](http://www.maco.eu).

Our products help to ensure that windows, doors and large-scale elements offer optimum function and security. As a premium manufacturer, that carries out its business according to the highest standards, the optimum quality and functionality of our hardware is our top priority. While we guarantee the best possible product characteristics for our hardware components, the responsibility for professional installation and correct fixing lies in your hands.

We want to support you, as a dealer or fabricator, with your responsibility for the safety of your products. Our binding assembly instructions and package leaflets provide information about the general use and processing of our hardware. To ensure the best fabrication and attachment of the hardware components – to suit the relevant installation situation, such as strength and profile design of the timber, arrangement of chambers and reinforcement in PVC profiles, etc., you can have elements tested and evaluated at our certified test centre: an air permeability and driving rain test as well as a pull-out test will help you to meet CE marking requirements. This means that you can rest assured that you are meeting all the standards and directives applicable to you.

You can find information about how to properly store our hardware components in the VHBH guideline of the Quality Assurance Association: Locks and Hardware ([www.fvsb.de](http://www.fvsb.de)) or section Information on storage and transport of hardware components.

***Important for dealers: MACO supplies its products with the corresponding number of package leaflets. As a dealer, you are responsible for enclosing the correct number of package leaflets with the products sold by you. Also, please ensure that you make your customers aware of the relevant binding instructions and legal aspects of the document.***

We also provide you with operation and maintenance instructions for end users for you to pass on to your customers. These can also be downloaded from the MACO website ([www.maco.eu](http://www.maco.eu)).

We are offering an option in our extranet ([extranet.maco.eu](http://extranet.maco.eu)) with our online catalogue, which, in addition to highly up-to-date information, also offers the advantage of extensive additional technical information for all components. You can obtain access details from your contact partner in field sales.

All of our printed documentation is continuously revised and expanded. Please make sure that you are working with our most current documentation. All of our documentation is available for download from [www.maco.eu](http://www.maco.eu). We hope that the catalogue will prove to be a valuable tool for your daily work. We wish you every success and hope to see you online soon.

*Please fill in completely*
















<b>We confirm receipt and approvingly acknowledge its contents.</b>	
Stamp:          	<hr style="border: 0; border-top: 1px solid black; margin-bottom: 10px;"/> <p style="text-align: center;"><i>Please print your name in capital letters</i></p>
Date: _____	Signature: _____

MACO sales manager: \_\_\_\_\_

**MACO  
MULTI-MATIC**





1	General and technical information		9
2	Fundamental processing information		23
3	Drive gears		161
4	Corner elements		187
5	Centre locks / Horizontal tilt locks / Faceplate extensions		195
6	Scissor stays		201
7	Turn-only and tilt-only hinges, turn-only hinge - frame parts and compression devices		219
8	Scissor stay hinges		237
9	Pivot posts		245
10	French casement locks		275
11	Striker plates		291
12	Accessories MULTI-MATIC		311
13	Stackable pallets		327
14	Jigs, tools and adjusting screws		331
15	MACO TRONIC		347
16	Directory		

**MACO  
MULTI-MATIC**





## 1 General and technical information

---

<b>1.1</b>	<b>How to use the catalogue</b> _____	<b>10</b>
<b>1.2</b>	<b>Information on product safety and product liability</b> _____	<b>11</b>
<b>1.3</b>	<b>Information on transport and handling of window units</b> _____	<b>14</b>
<b>1.4</b>	<b>Information on storage and transport of hardware components</b> _____	<b>14</b>
<b>1.5</b>	<b>Profile specifications</b> _____	<b>15</b>
1.5.1	Eurogroove	15
1.5.2	Recommendation for timber profiles	16
1.5.3	Examples for PVC profiles	17
<b>1.6</b>	<b>MACO surface finish</b> _____	<b>18</b>
<b>1.7</b>	<b>Classification code in accordance with EN 13126-8</b> _____	<b>19</b>
<b>1.8</b>	<b>Security for turn and tilt hardware (mechanical burglary resistance)</b> _____	<b>20</b>
1.8.1	General Information	20
1.8.2	MACO security levels (basic security)	20
1.8.3	Security in accordance with EN 1627 - 1630	20
<b>1.9</b>	<b>Certificates and guarantees</b> _____	<b>21</b>
<b>1.10</b>	<b>General terms and conditions</b> _____	<b>21</b>



## 1 General and technical information

### 1.1 How to use the catalogue

If not otherwise specified, all dimensions are stated in millimetres and packing units in items per box.

Drawings and diagrams are not to scale.

The content of this document is constantly being updated, so regular comparison is necessary.

No liabilities are accepted for possible printing errors, mistakes or changes.

The current version is downloadable from our website ([www.maco.eu](http://www.maco.eu)).

Please send comments or suggestions about our catalogues by email to [feedback@maco.eu](mailto:feedback@maco.eu).



## 1.2 Information on product safety and product liability

In accordance with the manufacturer's liability for his products defined in the Product Liability Act (PHG in Austria, ProdHaftG in Germany, PrHG in Switzerland, Codice del Consumo in Italy), the following information on turn-only and turn&tilt hardware for sashes in window and window door must be heeded. Non-compliance shall release the manufacturer from this liability.

### 1.2.1 Product information and proper use

Turn-only and turn&tilt hardware in the terms of this definition are hardware for turn and/or tilt sashes in windows and window doors made of timber. They are used to move windows and/or casement door sashes to an inwards turn position or to a tilt position that is restricted by the scissor stay when a handle is operated. When closing the sash and locking the hardware, it is generally necessary to overcome the counter-force of the seal.

The sashes that are equipped with this turn-only and turn&tilt hardware can:

- turn-only
- turn and tilt or
- tilt before turn or
- tilt-only.

Turn-only and turn&tilt hardware are used on vertically installed windows and window doors made of timber, PVC, aluminium or steel and their corresponding material combinations. Proper use includes compliance with all specifications made in the corresponding product documentation.

Differing applications do not correspond to their proper use. Burglar-resistant window and window doors, windows and window doors for damp rooms and those for use in environments with aggressive, corrosive air content, require hardware that has been adapted to the particular application and specifically agreed performance features. Open windows and window door sashes achieve only a shielding function and do not satisfy the requirements for joint seals, protection against driving rain, sound absorption, thermal protection and burglary resistance.

In the case of wind and draught, the windows and window door sashes must be closed and locked. Wind and draught in the terms of this definition apply when a window or window door sash that is in one of the opening position opens or closes autonomously due to air pressure or draught and in an uncontrolled manner. The resistance against wind loads in a closed and locked state is dependent on the respective designs of windows & window doors. Should wind loads in accordance with DIN EN 12210 (in particular pressure test p3) be accommodated, suitable hardware set combinations must be agreed for the respective window design and frame material and approved individually. Generally speaking, the hardware sliding fulfils the requirements for barrier-free apartments in accordance with DIN 18025, ÖNORM B 1600 or SIA 500. This requires corresponding combinations and installation of hardware sets for

windows and window doors, which must be coordinated and agreed individually.

### 1.2.2 Incorrect use or misuse

The following cases, in particular, shall be deemed to be product misuse - i.e. utilization turn-only and turn&tilt hardware for windows and window doors for purposes other than their specified proper use:

- If obstacles are inserted in the opening area, thereby preventing proper use of the product
- Additional loads act on windows or window door sashes
- When opening and/or closing (turning or tilting), handling between the cover frame and the sash or when a person or limb is present in this area
- When the sash is not guided manually over the entire range of motion to the absolute closing or opening position
- The sash is pressed against the opening edge (window reveal).

### 1.2.3 Principles of liability

The relevant entire hardware set may only consist of hardware components from the MACO turn-only and turn&tilt MULTI-MATIC hardware. The component combination may neither be modified, extended nor restricted. In the case of non factory-approved combinations by and/or inappropriately assembled hardware, and/or the use of non-original and/or non factory-approved accessory components, no liability will be accepted.

All hardware for windows and French casement windows must be inspected and serviced systematically by qualified experts to ensure their functional integrity and safety. This maintenance must be carried out - verifiably and documented - in accordance with our maintenance documentation: otherwise, no liability can be accepted.

Our processing specifications in the product catalogues, installation instructions/information and leaflets are binding and must be heeded without restriction; otherwise, no liability can be accepted for the safety and/or durability of the hardware.

Where timber, PVC, light-metal or steel profiles are used, the specifications the profile manufacturer and/or system owner must be observed. The window fabricator is essentially responsible for ensuring compliance with the specified system-related dimensions (for example, the gasket gap dimensions). These specified system-related dimensions must be checked regularly, in particular when using new hardware components for the first time, and also during production as well as during the window installation process. The hardware components are designed to permit partial or full adjustment of the certain system-related dimensions, provided that the hardware can have an effect on these. Should there be a deviation from these dimensions, resulting in a fault that has not been noted prior to window installation, no liability shall be accepted for the additional expenses incurred.



### 1.2.4 Product performance

The fundamental principle for the suitability of use of MACO hardware is compliance with all specification in the product documentation supplied by MACO. The documents are maintained in a document management system and the current edition is available at [www.maco.eu](http://www.maco.eu). The classification of the products according to EN 13126-8:2006 is shown at Certificates.

#### 1.2.4.1 Maximum sash weights and sash rebate dimensions

The defined maximum sash weights for the individual hardware versions may under no circumstances be exceeded. The component that has the lowest permissible load-bearing capacity determines the max. Application diagrams, installation instructions/information and component assignments must be observed.

#### 1.2.4.2 Hardware composition

The manufacturers guidelines regarding hardware composition (e.g. positioning of exterior handles, hardware design for burglary-resistant windows and window sashes) are legally binding.

#### 1.2.4.3 Fixing of hardware

MACO guarantees as a hardware manufacturer and deliverer, the quality and serviceability of its products. Because of different installation situations there are no general valid instructions for the screw fixing of hardware possible. The TBDK guideline Gütegemeinschaft Schlösser und Beschläge (quality community for locks and hardware - [www.beschlagindustrie.de](http://www.beschlagindustrie.de)) is usually a help for the specifications of screw fixing. This guideline is similar to a standard an industry standard for the instructions of screw fixing of bearing components.

### 1.2.5 Product maintenance

#### 1.2.5.1 General

Inspection and service are fundamental components of maintenance. The verified maintenance is in turn basis for the legal warrant and/or our guarantee.

All inspection intervals and maintenance instructions must be observed. These details must be evident from the operating and maintenance instructions for the corresponding turn-only and/or turn&tilt hardware.

Settings and adjustments for the hardware, as well as replacement of components may only be carried out by specialists. Similarly, inserting and/or removing the sashes may only be carried out by specialists. When treating surfaces - e.g.: painting or glazing windows and window doors, all hardware components must be excluded from this treatment and protected to prevent contamination.

#### 1.2.5.2 Retaining the surface quality

The electrolytically applied zinc coatings are not affected in a normal room climate if no condensation collects on the hard-

ware components (or occasional condensation can dry off quickly). To retain the surface quality of the hardware components over the long term and prevent damage due to corrosion, it is essential to observe the following points:

- The hardware and/or the rebate areas must be ventilated sufficiently – in particular during the building phase – so that they are not exposed to direct wetness impact or to condensation. If systematic ventilation is not possible, because fresh screed cannot be accessed or does not tolerate draughts, bring the windows to the tilt position and seal them off air-tight at the room side. Use condensation dryers to remove any humidity from the room air to outside the area.
- The hardware must be kept free of deposits and soiling thorough construction material (building dust, gypsum plaster, cement etc.). Aggressive vapours in the rebate area (e.g.: due to formic or acetic acids, ammonia, amine or ammonia compounds, aldehydes phenols, tannic acids, etc.) in conjunction with small formations of condensation can lead to fast corrosion on the hardware components. If such aggressive vapours do occur, a sufficient supply of fresh air to the rebate areas must generally be provided for windows and window doors. This applies in particular to windows and window doors made of oak or other wood types that have a high share of tannic acid. No acetic-acid or cross-linked acidic sealing compounds or those with the above mentioned contents may be used, since both direct contact with the sealing compound and its vapours can attack the surface.
- The hardware may only be cleaned with mild, pH-neutral cleaning agent in diluted form. Never use aggressive, acidic cleaning agents or abrasive cleansers that contain the ingredients listed in the section above.

### 1.2.6 Information and instruction duties

The following is available to comply with information and instruction obligation duties and perform maintenance work in accordance with the product liability legislation:

- for dealers: Catalogues, operation and maintenance instructions, installation instructions/information and leaflets for components
- for processors: Catalogues, tool drawings, operation and maintenance instructions, installation instructions/information and leaflets for components
- for owners and end users: Operating and maintenance instructions

To ensure the functional integrity of sliding hardware for the sashes of window and window doors:

- Designers must request all relevant product information from the manufacturer and observe the details provided.
- Specialised dealers are obliged to comply with all relevant product information and, in particular, request installation instructions/information, factory drawings, component leaflets, as well as operating and maintenance instructions from the manufacturer and hand these over to the processors.
- Processors are obliged comply with all relevant product information and, in particular, request operating and maintenance



## Information on product safety and product liability



nance instructions from the manufacturer or specialized dealers and forward these to the end user.

All above mentioned reference material is available for download from the MACO website ([www.maco.eu](http://www.maco.eu)).

### 1.2.7 Application for similar hardware

Hardware for sliding folding doors must be treated analogously with respect to product information for proper use, misuse, product performance, product maintenance, information & instruction obligations as the features apply.

### 1.2.8 Disclaimer

The manufacturer's liability can also be excluded, among other things:

- If the fault is attributed to a regulation or an official ruling, to which product compliance was stipulated.

- Characteristics of the product, which have given rise to the claim (against the manufacturer), could not be identified as a fault according to the conditions of science and technology at the time.
- The claim (against the manufacturer) only involves a basic material or a part product that was manufactured, and the fault is due to the construction of the product that was incorporated into the basic material or the part product, or as a result of instructions issued by the manufacturer of this product.

In connection with Section 1.2 and its subsections, the guideline - Hardware for windows and balcony doors - Guidelines/advice on the product and on liability (VHBH) of the Quality Assurance Association: Locks and Hardware (Gütegemeinschaft Schlösser und Beschläge e.V.) must be observed. Download at [www.beschlagindustrie.de](http://www.beschlagindustrie.de).



### 1.3 Information on transport and handling of window units

Improper handling and improper transport of the windows and/or casement door elements can produce hazardous situations and cause serious accidents or lethal injury. To prevent this, the following instructions must be heeded:

- During loading and unloading, select force application points which exclusively create reaction forces appropriate to the designed layout of the hardware components for the intended installation location.
- During handling and transport, ensure that the hardware is in the locked position to prevent the sash from opening unexpectedly. Use suitable securing equipment to do this.
- Use only transport fastenings designed for the respective clearance.
- Wherever possible, transport the windows in the intended installation position. If transport in the intended installation position is not possible, unhinge the sash, and transport it separately from the frame to which it belongs.
- During transport, loading, and unloading, especially if auxiliaries such as suction cups, transport nets, forklifts, or cranes are used for support, reaction forces may arise which could damage or overload the installed hardware. Therefore, observe the following instructions during all transport, loading, and unloading.
- The type and the force application points when transporting,

loading, and unloading have a significant effect on the reaction forces which arise.

- Always choose the force application points so that the resulting reaction forces are dissipated appropriate to the design of the hardware components for the intended installation location. This applies particularly for the hinge positions.
- During transport, loading, and unloading, especially if auxiliaries such as suction cups, transport nets, forklifts, or cranes are used for support, reaction forces may arise which could damage or overload the installed hardware.
- Always use transport securing measures appropriate to the actual clearance (e.g. spacer blocks), in order to hold the sash in the intended position in the frame during transport, and thus to dissipate the resulting reaction forces directly from the sash via the frame.
- Wherever possible, always transport window elements in the intended installation position, so that the resulting reaction forces are dissipated appropriate to the designed layout of the hardware components for the intended installation location. This applies particularly for the hinge positions. If transport in the intended installation position is not possible, unhinge the sash, and transport it separately from the frame to which it belongs.

### 1.4 Information on storage and transport of hardware components

Improper storage of fittings can affect the surface quality. To prevent this, the following points should be noted:

- Ensure that the room air is permanently dry.
- Large temperature fluctuations, which lead to condensation must be prevented. Condensation on fittings means that the galvanized surfaces are attacked.

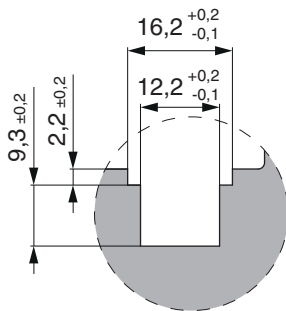
- Aggressive vapors by cleaners or assembly aids such as silicone, and the like must - be avoided - even briefly. Vapors of such substances can cause very rapid corrosion of fittings.
- Salty air or polluted by industrial air causes galvanized surfaces to corrode and can leave deposits.

## 1.5 Profile specifications

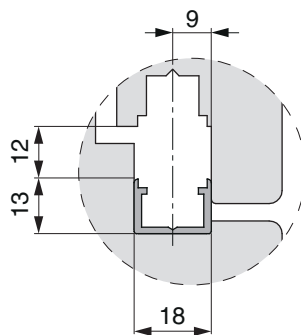
### 1.5.1 Eurogroove

For installation of turn-only and turn&tilt hardware the Eurogroove must be designed according to the following specifications:

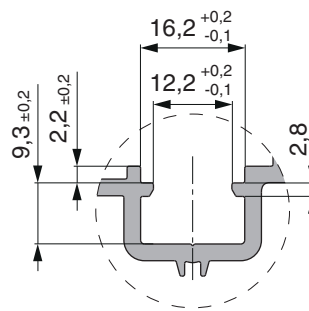
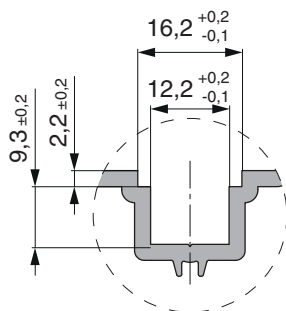
**Timber sash**



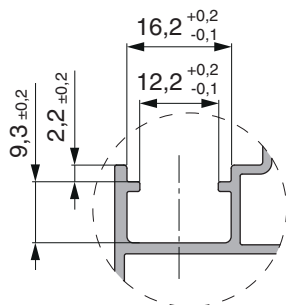
**Timber sash French casement design with Aluminium recess**



**PVC sash**



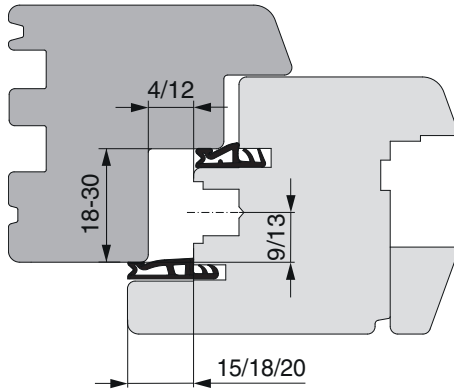
**Aluminium sash**



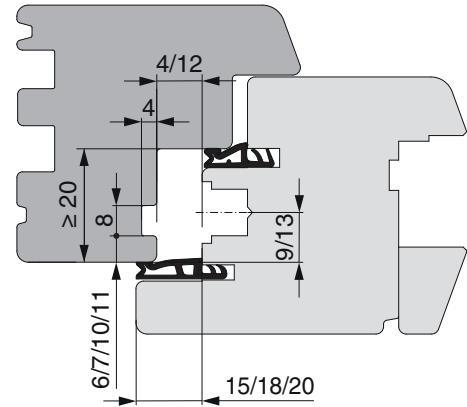
1.5.2 Recommendation for timber profiles

Single-sash

System Euro-rebate

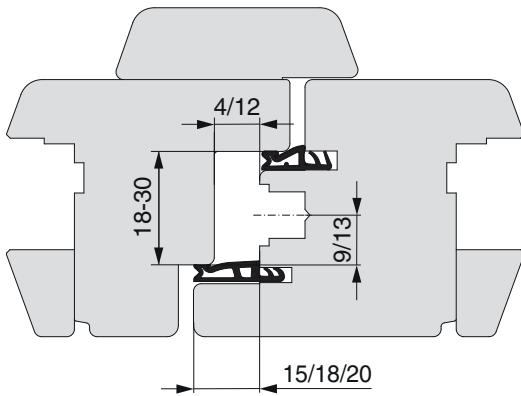


System hardware groove

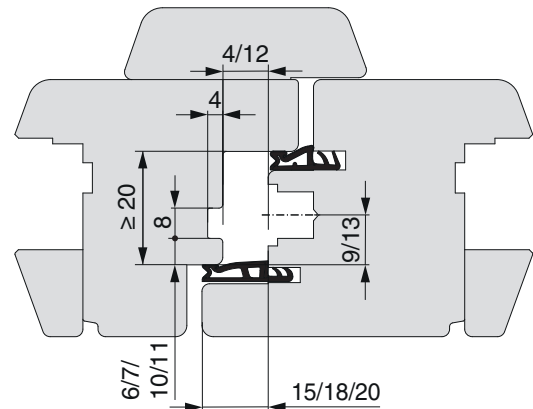


Double-sash (French casement)

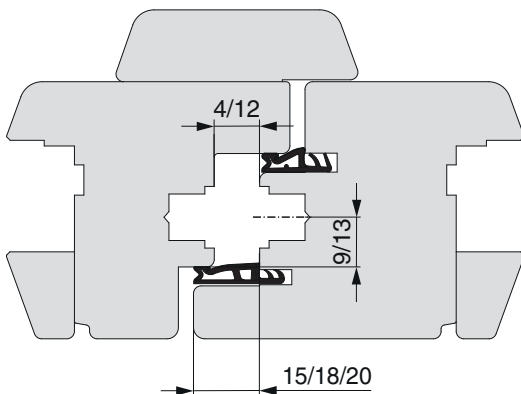
French casement sash with Euro-rebate



French casement sash with hardware groove

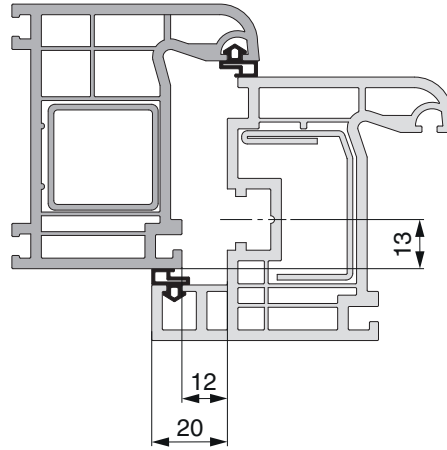


French casement sash with Eurogroove

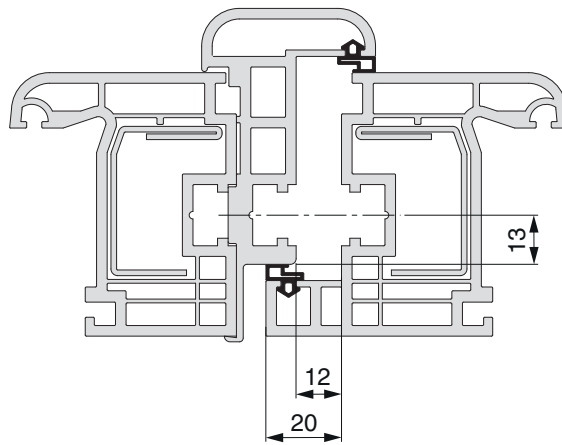


1.5.3 Examples for PVC profiles

Single-sash



Double-sash (French casement)





## 1.6 MACO surface finish

Hardware components in this catalogue are offered in different surface finishes. Components of the central locking system are available in *silver-look* or TRICOAT-PLUS, visible bearing components can be powder coated in RAL classic colors as well. Standard components in this catalogue are readily available, the delivery times for special versions are available on re-

quest from our field service representatives. In our brochure "MACO surfaces" order number 49510 (available to download from our website [www.maco.eu](http://www.maco.eu)) you will find detailed information about all our surface finishes and their areas of application, as well as measures to protect and preserve them.

1.7 Classification code in accordance with EN 13126-8

Consecutive number	Design of sash rebate	Design of sash hardware	Description of hardware specifications on frame side				Sash weight	Classification according to verification as per EN 13126-8			
			Rebated scissor stay support arm	Scissor stay hinge	Corner support	Pivot post		1	2	3	4
								Lasting functionality	Mass (in kg)	Corrosion resistance	Test quantities (in mm)
1.	PVC with positioning pins	MULTI-MATIC RC 2	52486	52480	52478	52483	100 kg	H2	100	5	900/2300
2.	PVC with positioning pins	MULTI-MATIC RC 2	52486	52480	52478	52483	100 kg	H2	100	5	1300/1200
3.	PVC with supporting pins long	MULTI-MATIC Standard *	52486	52481	52479	52484	120 kg	H2	120	5	1300/1200
4.	PVC with supporting pins long	MULTI-MATIC RC 2 *	52486	52481	52479	52484	120 kg	H2	120	5	900/2300
5.	PVC with supporting pins long	MULTI-MATIC RC 2 *	52486	52481	52479	52484	120 kg	H2	120	5	1300/1200
6.	TO	MULTI-MATIC Standard *	52388	52396	52394	52399	130 kg	H2	130	5	1300/1200
7.	TO	MULTI-MATIC RC 2 *	55416	52414	55410	55412	130 kg	H2	130	5	900/2300
8.	TO	MULTI-MATIC RC 2 *	55416	52414	55410	55412	130 kg	H2	130	5	1300/1200
9.	DT130	MULTI-MATIC Standard *	202534	202543	54710	52703	130 kg	H2	130	5	1300/1200
10.	DT130	MULTI-MATIC RC 2 *	202534	202543	54710	52703	130 kg	H2	130	5	900/2300
11.	DT130	MULTI-MATIC RC 2 *	202534	202543	54710	52703	130 kg	H2	130	5	1300/1200
12.	DT160	MULTI-MATIC Standard *	202535	227470	227504	227476	160 kg	H2	160	5	900/2300
13.	DT160	MULTI-MATIC Standard *	202535	227470	227504	227476	130 kg	H2	130	5	1300/1200
14.	INVISIBLE	MULTI-MATIC Standard *	206351	206351	206327	206359	100 kg	H2	100	5	900/2300
15.	MULTI POWER PVC	MULTI-MATIC Standard *	217482	215767	215804	215810	130 kg	H2	130	5	1300/1200
16.	MULTI POWER PVC	MULTI-MATIC Standard *	217482	215767	215804	215810	150 kg	H2	150	5	900/2300
17.	MULTI POWER Timber	MULTI-MATIC Standard *	217474	215767	215804	215810	130 kg	H2	130	5	1300/1200
18.	MULTI MAMMUT PVC	MULTI-MATIC Standard *	223624	210600	227694	211869	180 kg	H2	180	5	1550/1400
19.	MULTI MAMMUT Timber	MULTI-MATIC Standard *	223606	210600	210611	210594	220 kg	H2	220	5	900/2300
20.	MULTI MAMMUT Timber	MULTI-MATIC Standard *	223608	210600	210611	210594	200 kg	H2	200	5	1550/1400

\* optional with MULTI-MATIC tilt lock bolt

Observe all technical documentation of hardware manufacturer, especially corresponding application diagrams!

**A list of all current classification keys is available at the MACO website ([www.maco.eu](http://www.maco.eu)) under tab "Downloads" (ift Certificate of Conformity QM328).**

## 1.8 Security for turn and tilt hardware (mechanical burglary resistance)

### 1.8.1 General Information

Generally, a variety of design variants are possible for a window or French door. Besides the requirements for corrosion resistance, the end user's demands for convenience, colour design and, above all, security are decisive for the selection of the hardware components. The combination and/or design of various hardware components allows a variety of security levels.

With MACO hardware windows and casement doors can be built in burglar-resistant versions in accordance with resistance classes RC 1, RC 2 or RC 3 (EN 1627 - 1630).

Note: These standards dictate a complete examination of the finished window, which includes the following areas:

- a) Glazing
- b) Hardware
- c) Assembly and/or securing the window within the wall

### 1.8.2 MACO security levels (basic security)

Single-sash windows and balcony doors

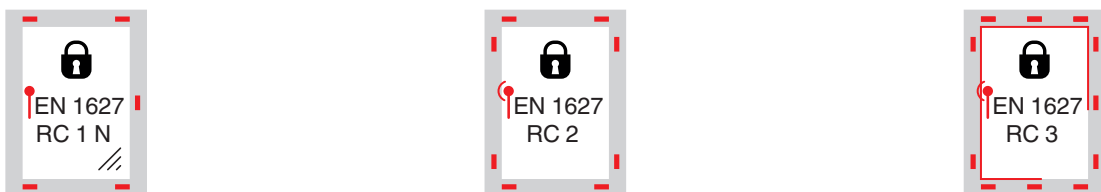


Double-sash windows and balcony doors

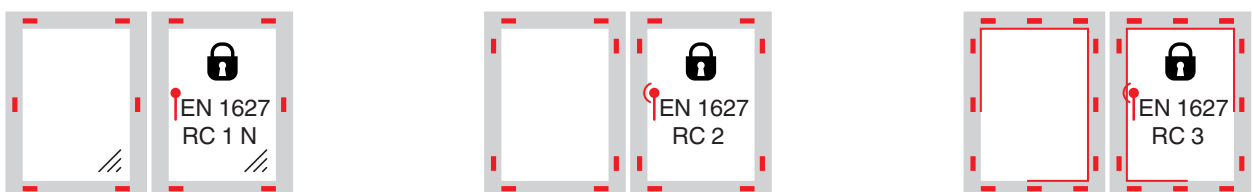


### 1.8.3 Security in accordance with EN 1627 - 1630

Single-sash windows and balcony doors



Double-sash windows and balcony doors



Further and/or supplementary information on the topic of security and the exact design of the hardware is provided in our brochures MACO security, MACO MULTI burglary resistance

in timber and PVC windows and MULTI-MATIC system matrix RC 1 / RC 2 / RC 3. All documents are available for download from the MACO website [www.maco.eu](http://www.maco.eu) in the Downloads area.



### 1.9 Certificates and guarantees

MACO ensures high quality, not only with ongoing continuous internal testing, but also through external auditing by renowned, independent institutes. Copies of all our current independent test certificates, covering our quality, safety and environmental management systems, as well as our product

guarantees are available to download from our website [www.maco.eu](http://www.maco.eu). In addition our safety descriptions relating to dangerous substances (REACH Declaration) are available, covering all MACO products.

### 1.10 General terms and conditions

Our current general terms and conditions are available for download from our website ([www.maco.eu](http://www.maco.eu)).



**MACO  
MULTI-MATIC**



## General terms and conditions



## 2 Fundamental processing information

---

<b>2.1</b>	<b>Manufacturers application advices</b>	<b>24</b>
<b>2.2</b>	<b>Calculation of glass weight (= sash weight)</b>	<b>24</b>
<b>2.3</b>	<b>Application diagram</b>	<b>25</b>
2.3.1	Information inside the application diagram	25
2.3.2	Calculation examples	25
<b>2.4</b>	<b>Hardware overviews</b>	<b>26</b>
2.4.1	Timber (DT130, DT160)	26
2.4.2	PVC (drive gear FHH/VHH)	46
2.4.3	AS (drive gear FHH/VHH)	68
2.4.4	MULTI MAMMUT (drive gear FHH/VHH)	84
2.4.5	MULTI POWER (drive gear FHH/VHH)	98
2.4.6	MULTI INVISIBLE (drive gear FHH/VHH)	116
2.4.7	TV (drive gear FHH/VHH)	124
2.4.8	COMFORT	136
2.4.9	Central locking system for tilt-first window	140
2.4.10	Central locking system for MM-KS (with tilt lock bolt)	144
2.4.11	Central locking system for 4 mm air gap	148
2.4.12	Central locking system for threshold	152
2.4.13	Central locking system for B-TV	156
<b>2.5</b>	<b>Application diagrams for angled windows</b>	<b>160</b>

## 2 Fundamental processing information

### 2.1 Manufacturers application advices

This catalogue applies only for the installation of MACO MULTI-MATIC turn-only and turn&tilt hardware of plumb windows and window doors in building construction. The hardware is designed for the following sash rebate dimensions and sash weights:

#### 1. Maximum sash weights

The following listed maximum sash weights for the individual hardware versions may not be exceeded. The component that has the lowest permissible load-bearing capacity determines the max. sash weight. Application diagrams and component assignment must be observed.

#### 2. Sash sizes

The description of the application diagrams show the relationships between the permissible sash rebate widths and sash rebate heights, depending on various glass weights and/or total glass thickness. The resulting sash rebate dimensions or sash formats (portrait and/or landscape format) - as well as the maximum sash weight - may not be exceeded under any circumstance.

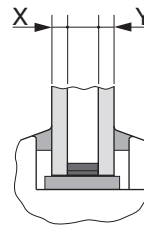
#### 3. Composition of the hardware

The manufacturer's regulations governing the combination of hardware are binding (for example, the application of additional stay arms, the hardware design for burglar-resistant window and casement doors, sashes etc.).

### 2.2 Calculation of glass weight (= sash weight)

Glass thickness (mm)	8	10	12	14	16	18	20	22	24
Weight (kg/m <sup>2</sup> )	20	25	30	35	40	45	50	55	60

1 mm = 2.5 kg/m<sup>2</sup>

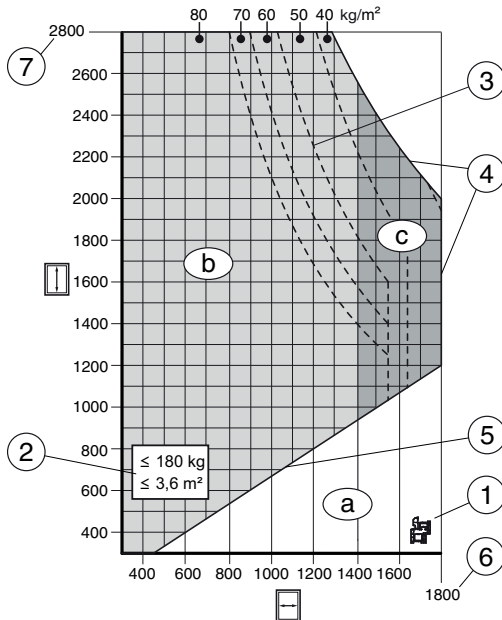


Total glass thickness = x + y

**In order to derive the sash weight from the weight of the glass in a simplified form, it is not necessary to use the glass rebate dimensions but the sash rebate dimensions to calculate the weight!**

## 2.3 Application diagram

### 2.3.1 Information inside the application diagram



- 1) Material mark
  - 2) Maximum weight and format size
  - 3) Glass weight lines (dashed)
  - 4) Maximum format size
  - 5) Ratio SRH : SRW (1 : 1.5)
  - 6) Maximum sash rebate width (SRW)
  - 7) Maximum sash rebate height (SRH)
- a) White area = not allowed  
b) Grey area = allowed  
c) Dark grey area = stabilizing scissor stay necessary



### 2.3.2 Calculation examples

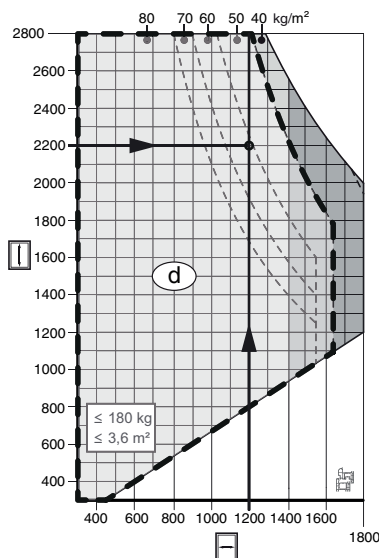
#### Example 1: Sash weight is within the valid range

Sash-rebate dimensions 1,200 x 2,200 mm

Total glass thickness = 20 mm

Glass weight = 20 mm x 2.5 kg/m<sup>2</sup> = 50 kg/m<sup>2</sup>  
(Sash weight = 1.2 x 2.2 x 50 ≈ 132 kg)

**VALID** range of application, because the point of intersection is left of the line 50 kg/m<sup>2</sup>.



d) Valid range

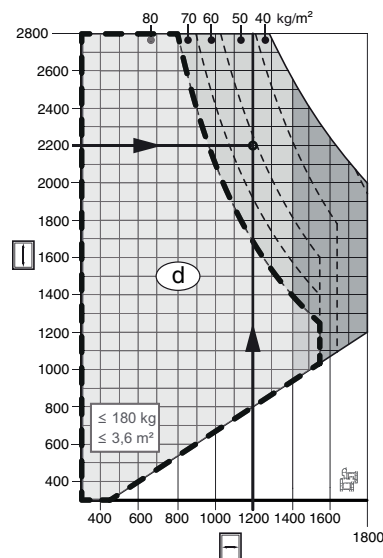
#### Example 2: Sash weight is outside the valid range

Sash-rebate dimensions 1,200 x 2,200 mm

Total glass thickness = 32 mm

Glass weight = 32 mm x 2.5 kg/m<sup>2</sup> = 80 kg/m<sup>2</sup>  
(Sash weight = 1.2 x 2.2 x 80 ≈ 211 kg)

**INVALID** range of application, because the point of intersection is NOT left of the line 80 kg/m<sup>2</sup>.



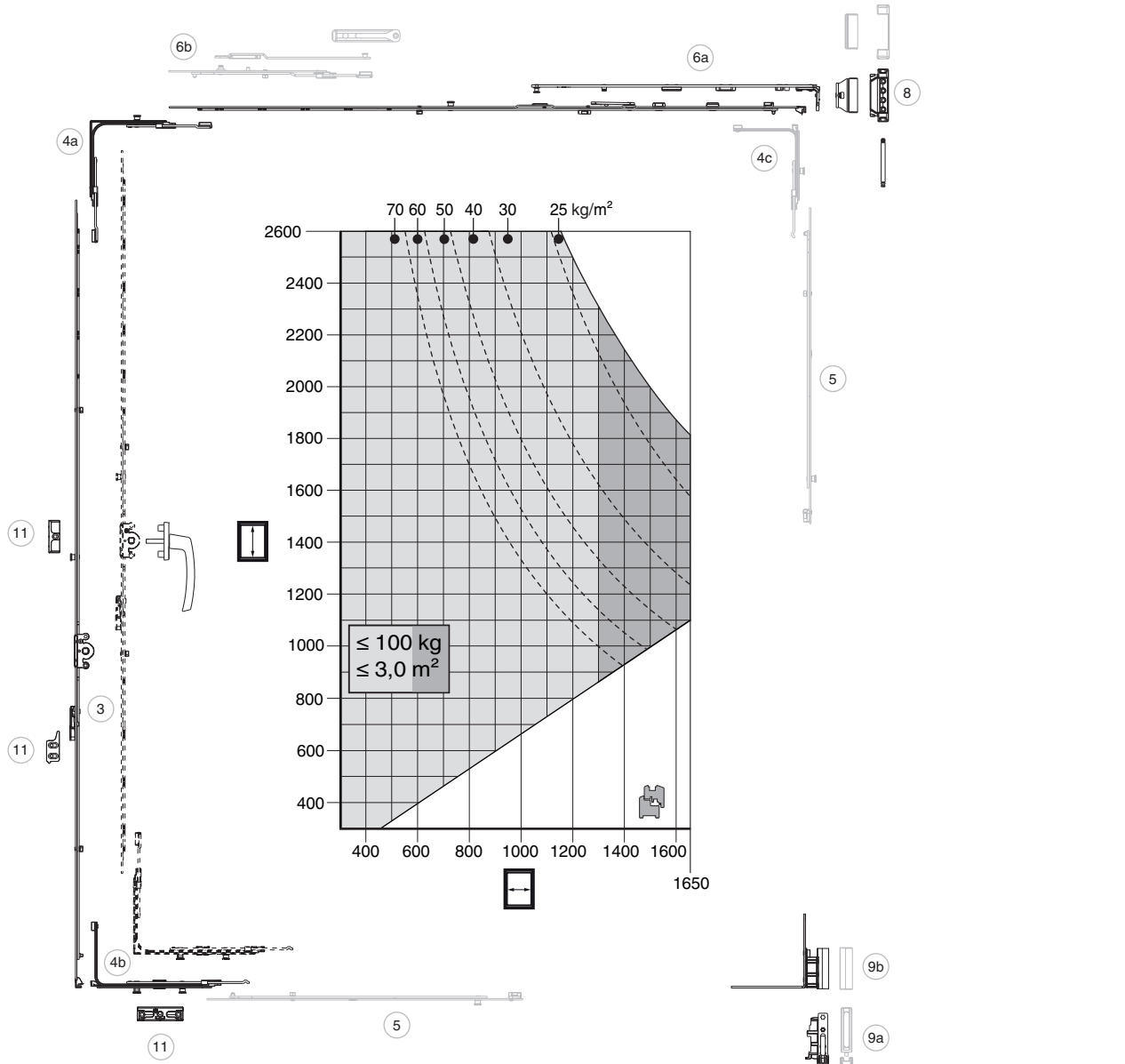
d) Valid range

## 2.4 Hardware overviews

### 2.4.1 Timber (DT130, DT160)

#### 2.4.1.1 DT130

##### 2.4.1.1.1 1-sashed rectangular T&T window with pivot post DT130 and rebated corner support DTuni without rebate-leg screw fixing



≤ 1650 x 2600 mm

≥ 320 mm

≥ 260 mm

≥ 360 mm ( 15 )  
 ≥ 455 mm ( 6,5 )

≥ 470 mm ( 15 )  
 ≥ 530 mm ( 6,5 )

≥ 270 mm ( 15 )  
 ≥ 365 mm ( 6,5 )

≥ 400 mm ( 15 )  
 ≥ 460 mm ( 6,5 )

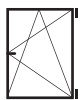
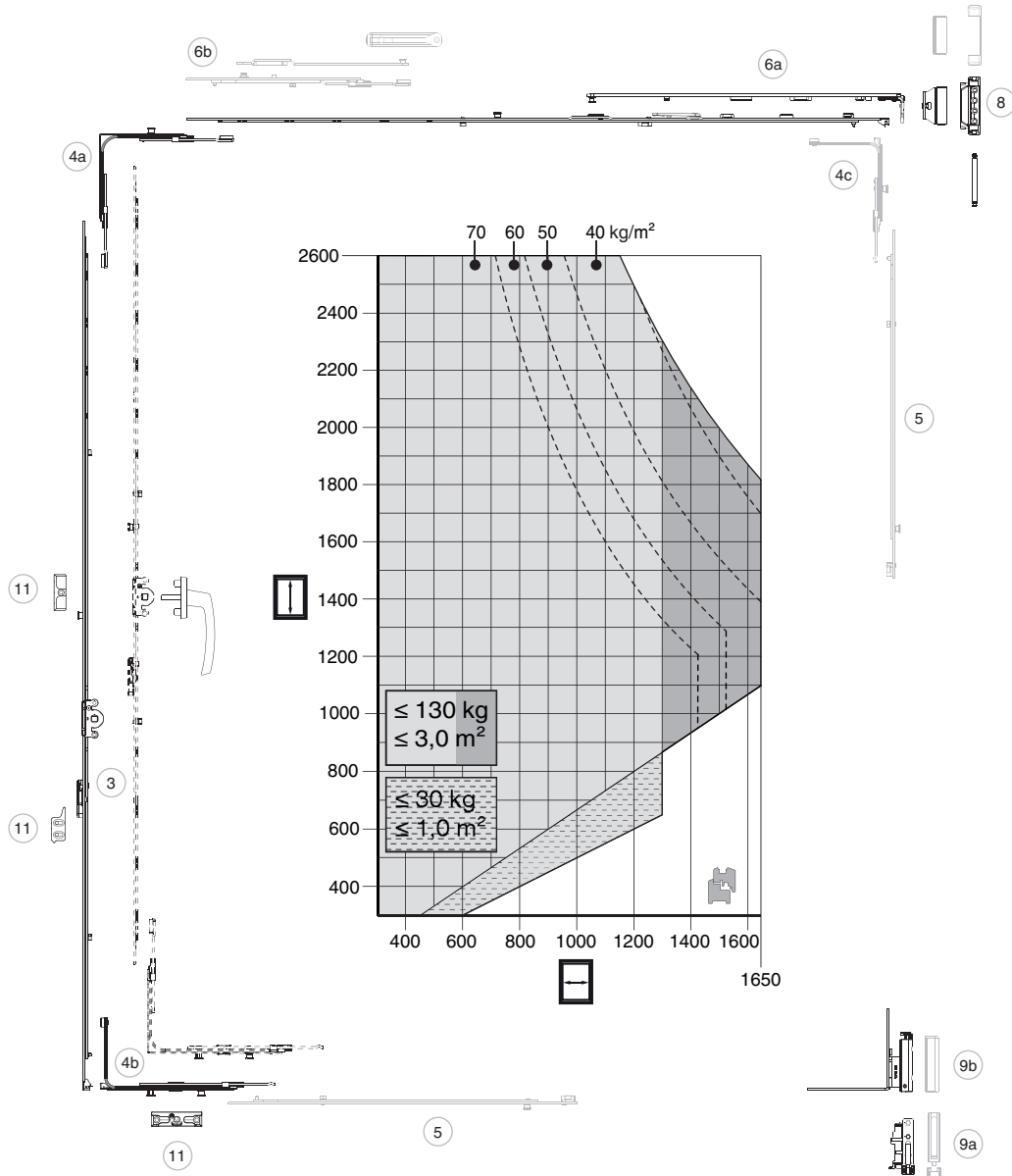
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 6b = Stabilizing scissor stay necessary from 1,301 mm (dark shading in application range diagram).



<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.2 Corner elements horizontal i.S.	→188
4c	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
6a	6.1.4 Scissor stay faceplates i.S.	→203
6b	6.10.1 Stabilizing scissor stays	→216
8	8.5.1 Scissor stay hinges DT130	→240
9a	9.4.1 Pivot posts DT130	→254
9b	9.4.3.3 Rebated corner supports DTuni without rebate-leg screw fixing	→256
11	11 Striker plates	→292



2.4.1.1.2 1-sashed rectangular T&T window with pivot post DT130 and rebated corner support DT130 with rebate-leg screw fixing



≤ 1650 x 2600 mm



≥ 320 mm



≥ 260 mm



≥ 360 mm ( 15 )  
≥ 455 mm ( 6,5 )



≥ 470 mm ( 15 )  
≥ 530 mm ( 6,5 )



≥ 270 mm ( 15 )  
≥ 365 mm ( 6,5 )



≥ 400 mm ( 15 )  
≥ 460 mm ( 6,5 )

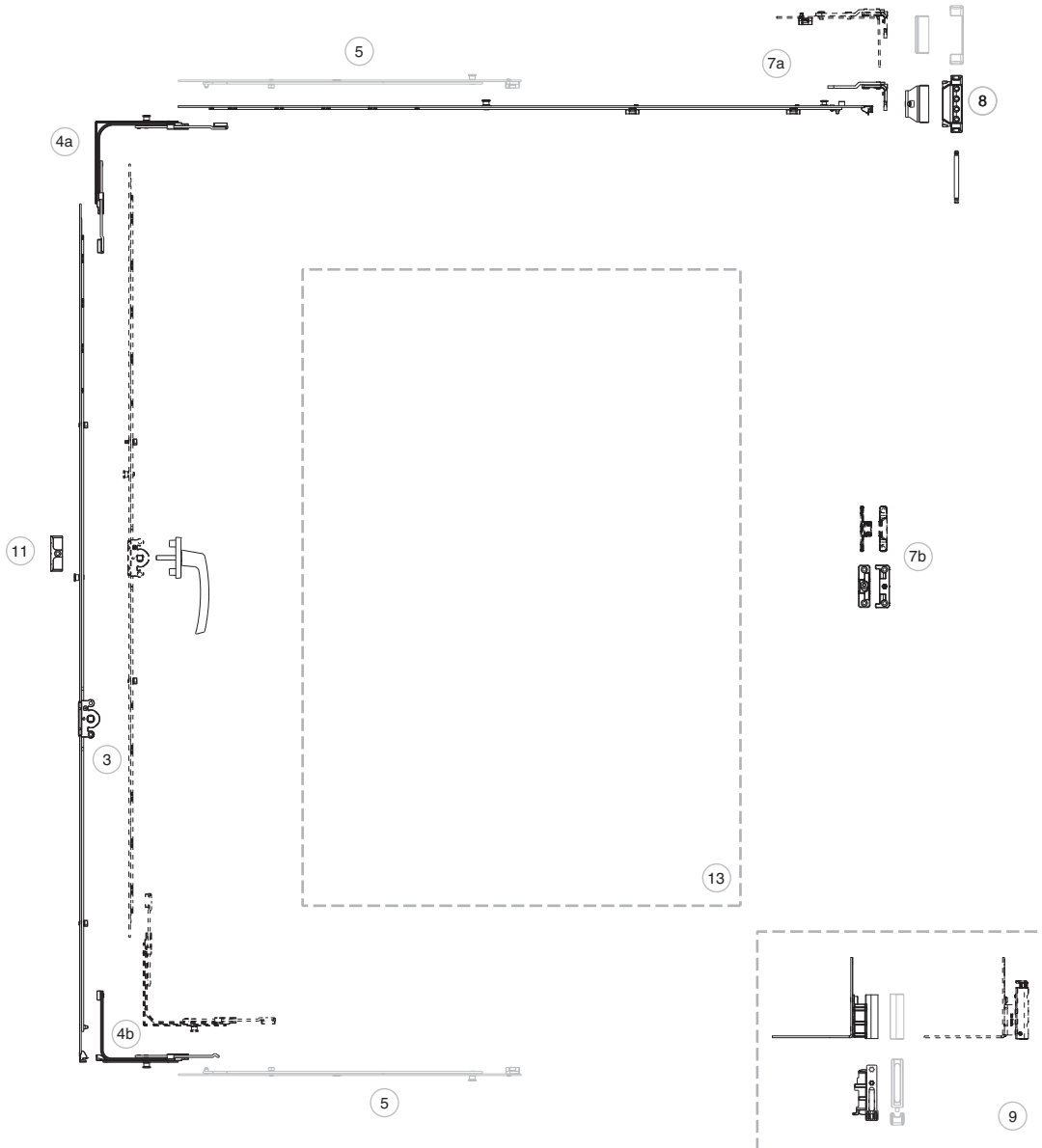
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 6b = Stabilizing scissor stay necessary from 1,301 mm (dark shading in application range diagram).
- 9 = The support screw has to be set from 100 kg sash weight!



<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.2 Corner elements horizontal i.S.	→188
4c	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
6a	6.1 Rebated scissor stays	→202
6b	6.10.1 Stabilizing scissor stays	→216
8	8.5.1 Scissor stay hinges DT130	→240
9a	9.4.1 Pivot posts DT130	→254
9b	9.4.3.1 Rebated corner supports DT130 with rebate-leg screw fixing	→255
11	11 Striker plates	→292



2.4.1.1.3 1-sashed rectangular turn-only window  
with pivot post DT130 and fixed or croppable turn-only hinge



≤ 1650 x 2600 mm



≥ 320 mm



≥ 260 mm



≥ 360 mm ( 15), ≥ 455 mm ( 6,5)



≥ 470 mm ( 15), ≥ 530 mm ( 6,5)

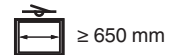
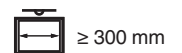
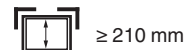
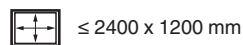
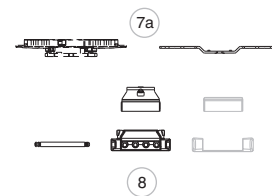
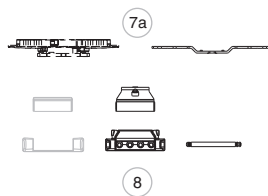
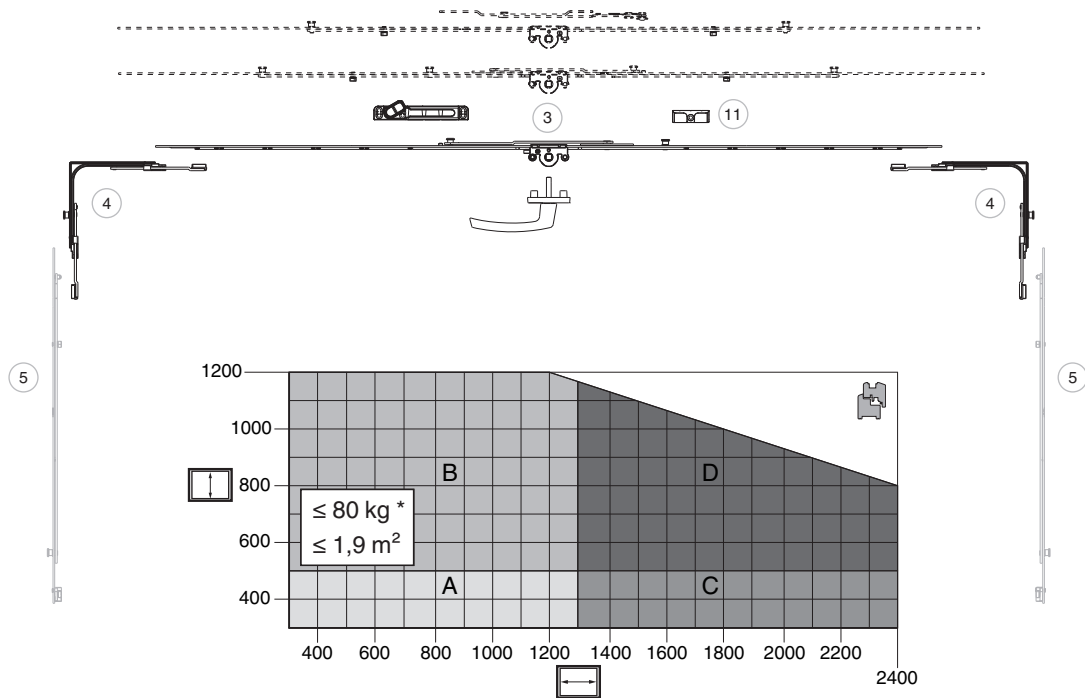
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7a = Turn-only hinge - sash part fixed or croppable.
- 7b = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!
- 9 = For possible pivot post combinations refer to matrix; the support screw has to be set from 100 kg sash weight!
- 13 = For application diagram refer to turn&tilt hardware overview according to corresponding pivot post combination.



<b>Selection guide</b>		<b>Page</b>
3a	3.2.1.1 Turn-only drive gears BS 15 FHH i.S.	→173
3b	3.2.1.6 Turn-only drive gears BS 15 VHH i.S.	→174
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
7a	7.1 Turn-only hinges - sash part / turn-only hinges - frame part / turn-only hinge faceplates AS/DTuni/PVC	→220
7b	7.10 Compression devices	→232
8	8.5.1 Scissor stay hinges DT130	→240
9	9.4.1 Pivot posts DT130	→254
11	11 Striker plates	→292



2.4.1.1.4 1-sashed rectangular tilt-only window  
with scissor stay hinge DT130 and tilt-only hinge DT



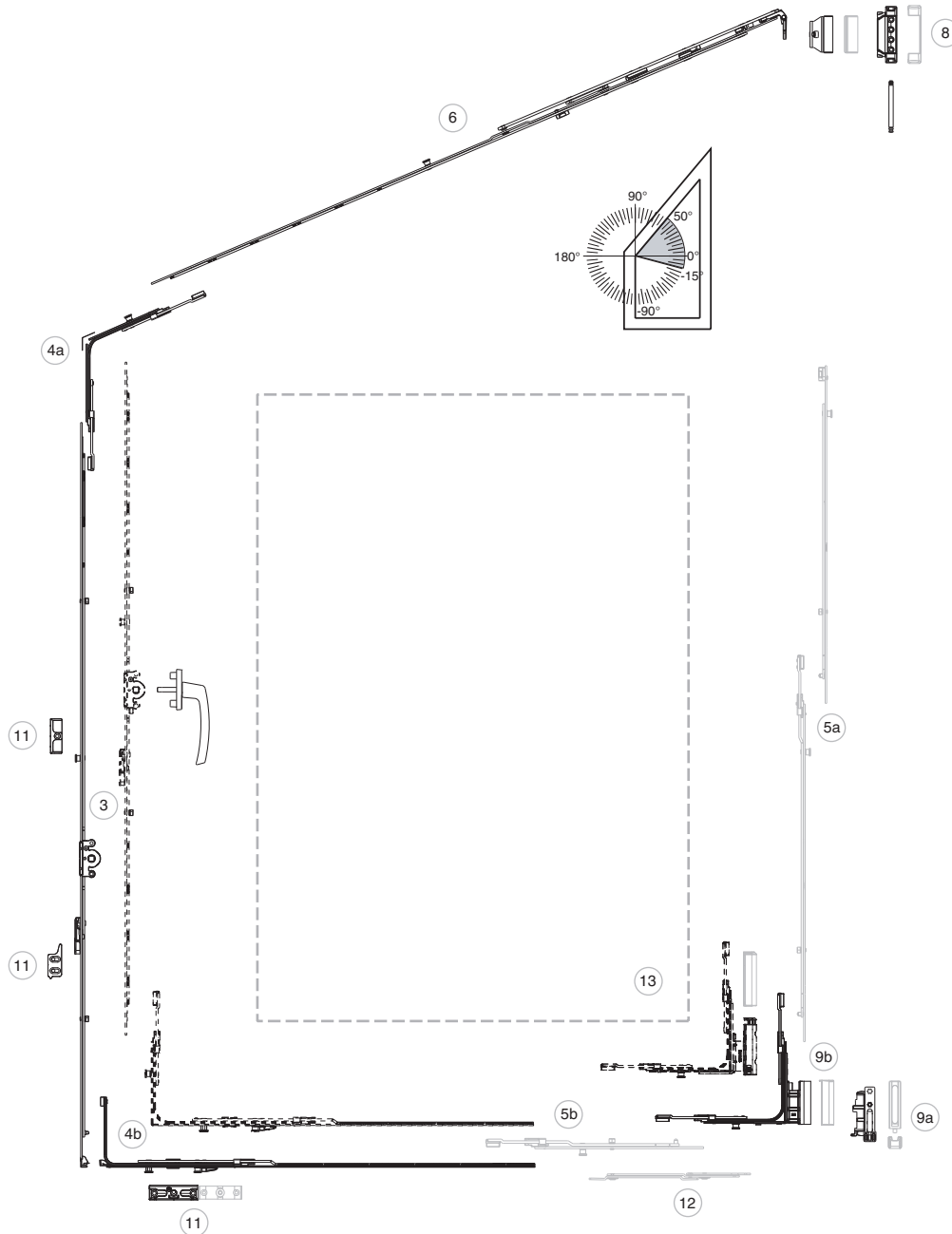
- A = 1 tilt stay + restrictor and cleaning stay size 1.
- B = 1 tilt stay + restrictor and cleaning stay size 2.
- C = 2 tilt stays + restrictor and cleaning stay size 1.
- D = 2 tilt stays + restrictor and cleaning stay size 2.
- \* = Mandatory installation of restrictor and cleaning stay (guideline FPKF at [www.schlossindustrie.de](http://www.schlossindustrie.de))! Observe application diagrams and max. load capacity for restrictor and cleaning stays!
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7b = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!



<b>Selection guide</b>			<b>Page</b>
3	3.4	Espagnolettes	→180
4	4.1.1	Corner elements standard i.S.	→188
5	5.1	Centre locks FHH i.S.	→196
7a	7.2	Tilt and turn hinges - sash part / tilt-only bearings AS/DTuni/PVC	→222
7b	7.10	Compression devices	→232
8	8.5.1	Scissor stay hinges DT130	→240
11	11	Striker plates	→292



2.4.1.1.5 1-sashed angled T&T window with pivot post DT130 and rebated corner support DT with corner element



≤ 1650 x 2600 mm



≥ 465 mm



≥ 370 mm



≥ 360 mm (  $\circ$  15), ≥ 455 mm (  $\circ$  6,5)



≥ 470 mm (  $\circ$  15), ≥ 530 mm (  $\circ$  6,5)

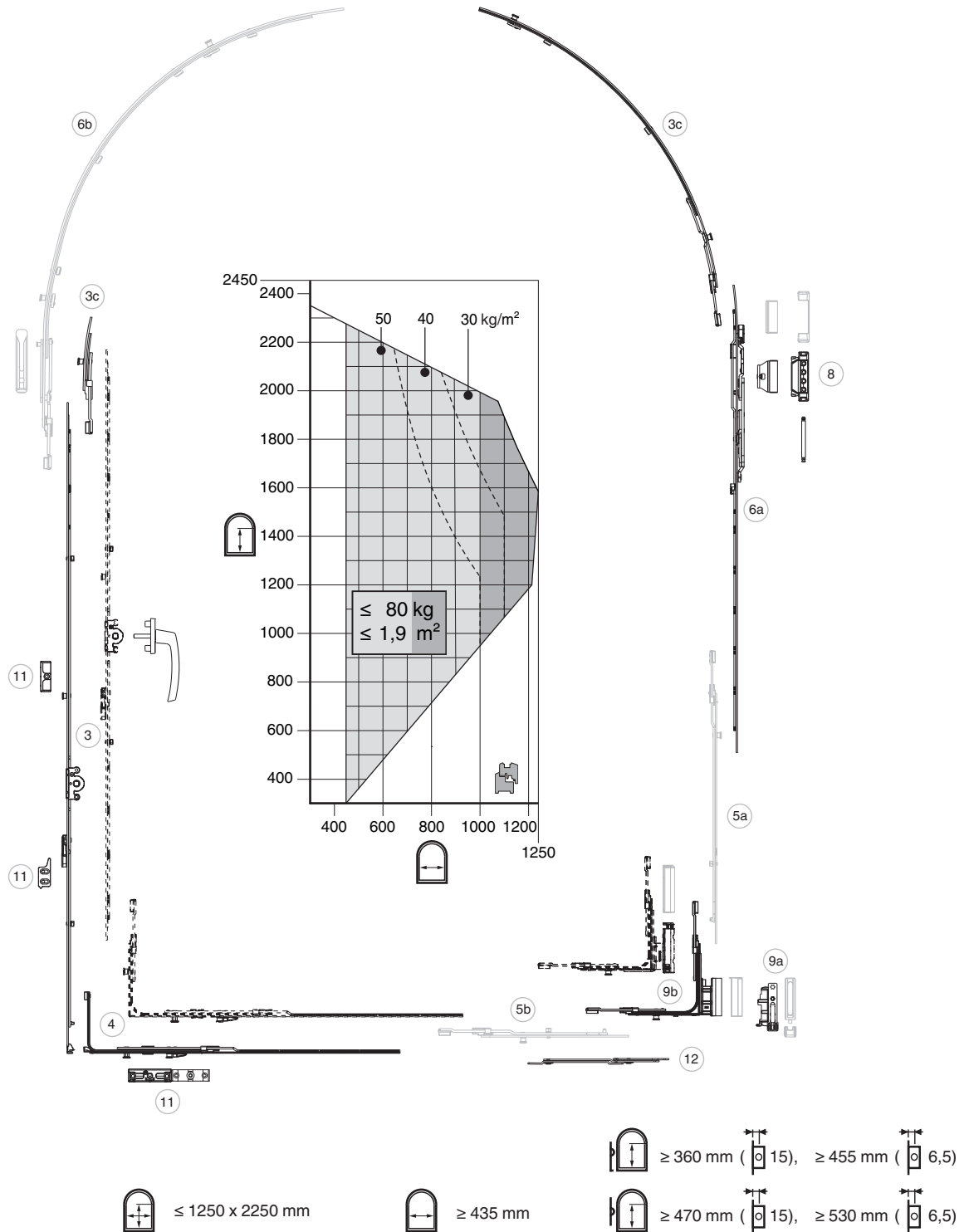
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5a = Above SRH 800 mm; Observe details from profile manufacturer!
- 5b = Required above SRW 670 mm.
- 13 = Refer to application diagrams for angled windows in chapter 2.5.



<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.5 Corner elements i.S. for angled windows	→191
4b	4.6 Corner elements i.S. for half round windows	→192
5a	5.1 Centre locks FHH i.S.	→196
5b	5.10 Faceplate extensions fixed and extendable	→199
6	6.1.11 Rebated scissor stays i.S. for angled windows	→205
8	8.5.1 Scissor stay hinges DT130	→240
9a	9.4.1 Pivot posts DT130	→254
9b	9.4.3.7 Rebated corner supports DTuni with rebate-leg screw fixing EH with corner element	→258
11	11 Striker plates	→292
12	12.12 Turn restrictions	→315



2.4.1.1.6 1-sashed half round T&T window with pivot post DT130 and rebated corner support DT130 with corner element



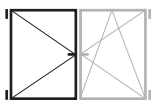
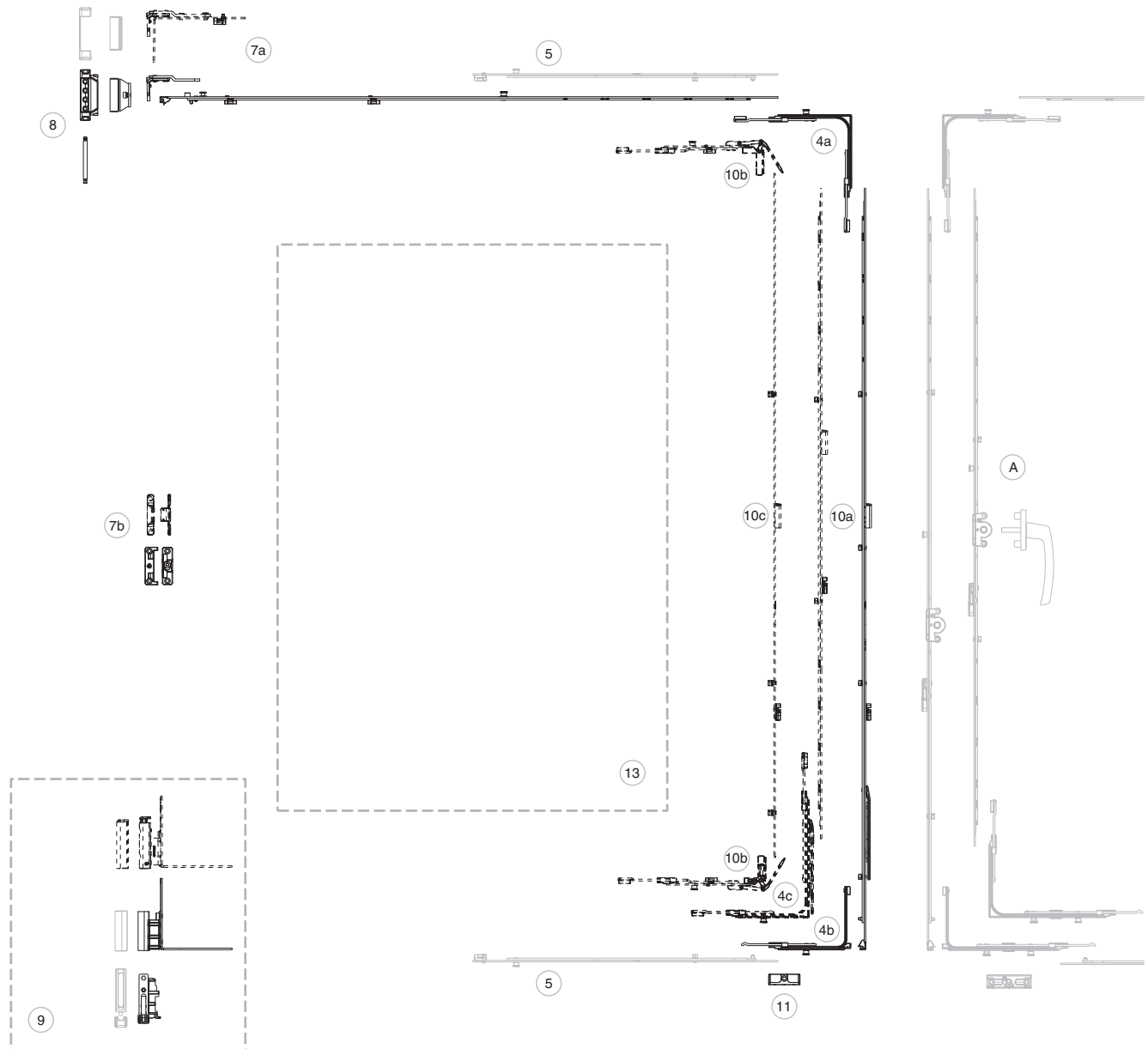
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 3c = Required above SRW 671 mm.
- 5a = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 5b = Required above SRW 670 mm.
- 6b = Stabilizing scissor stay necessary from 1,001 mm (dark shading in application range diagram).
- 9b = Rebated corner support with corner element with or without rebate-leg screw fixing.



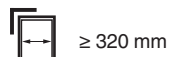
<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
3c	3.5.3 End pieces top for half round windows	→184
4	4.6 Corner elements i.S. for half round windows	→192
5a	5.2 Centre locks extendable i.S.	→196
5b	5.10 Faceplate extensions fixed and extendable	→199
6a	6.1.12 Rebated scissor stays i.S. for half round windows	→206
6b	6.10.4 Stabilizing scissor stays for half round windows	→216
8	8.5.1 Scissor stay hinges DT130	→240
9a	9.4.1 Pivot posts DT130	→254
9b	9.4.3.7 Rebated corner supports DTuni with rebate-leg screw fixing EH with corner element	→258
11	11 Striker plates	→292
12	12.12 Turn restrictions	→315



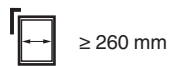
2.4.1.1.7 2-sashed rectangular T&T window  
with pivot post DT130 and rebated corner support DT130



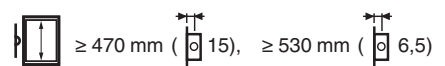
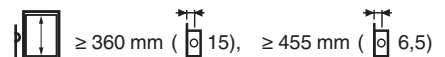
≤ 1650 x 2600 mm



≥ 320 mm



≥ 260 mm



- A = For details refer to 1-sashed turn&tilt window.
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7b = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!
- 9 = For possible pivot post combinations refer to matrix; the support screw has to be set from 100 kg sash weight!
- 10a = French casement drive gear FHH or VHH.
- 13 = For application diagram refer to turn&tilt hardware overview according to corresponding pivot post combination.

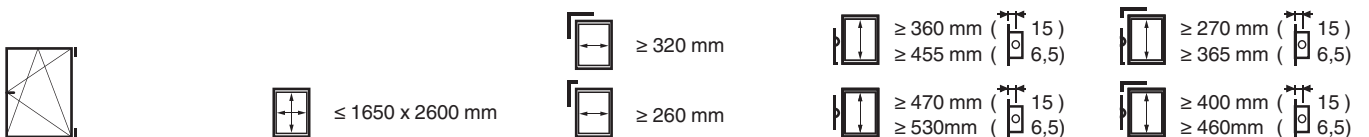
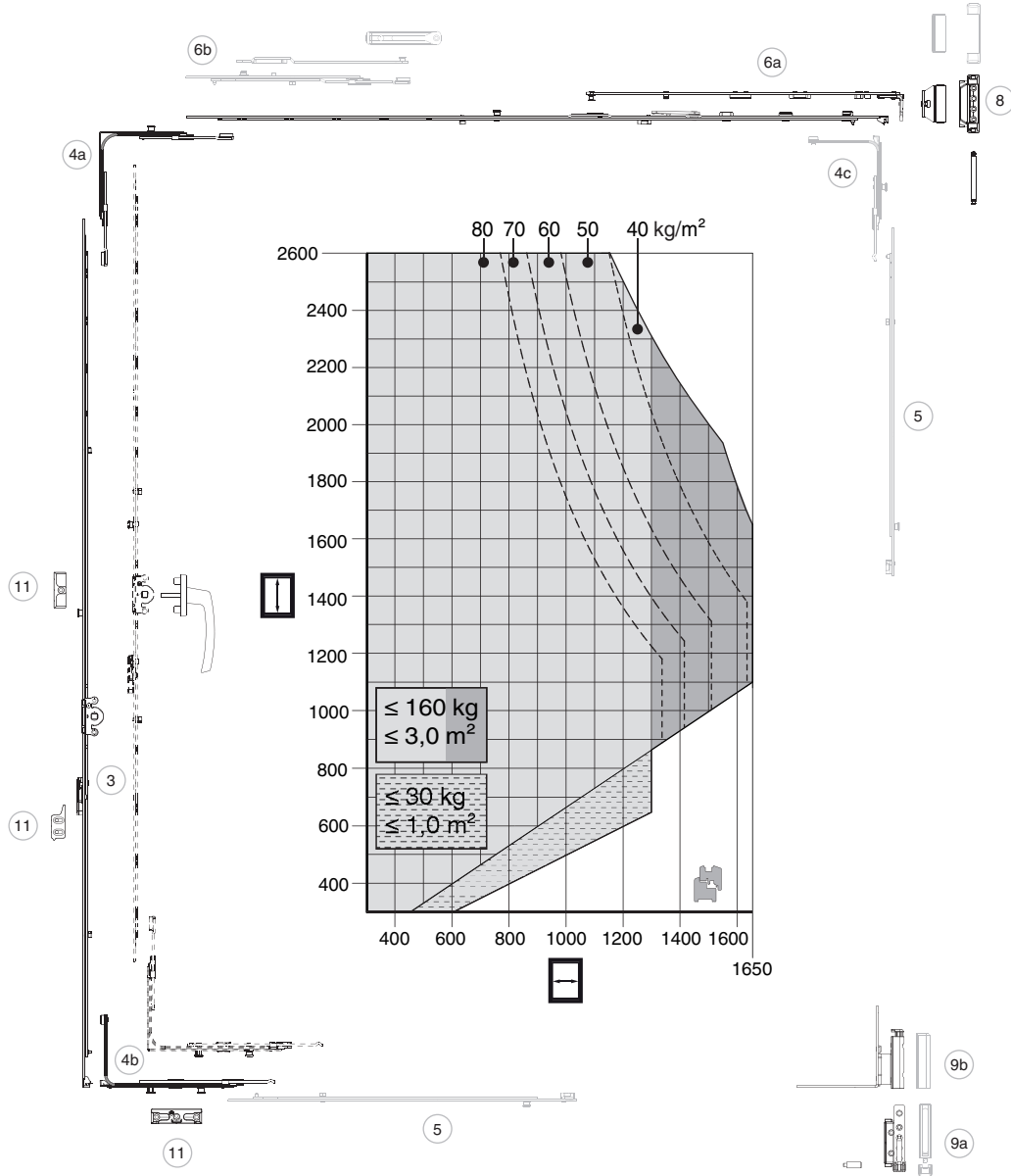


<b>Selection guide</b>		<b>Page</b>
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
4c	4.4 Corner elements i.S. for French casement drive gears	→191
5	5.1 Centre locks FHH i.S.	→196
7a	7.1 Turn-only hinges - sash part / turn-only hinges - frame part / turn-only hinge faceplates AS/DTuni/PVC	→220
7b	7.10 Compression devices	→232
8	8.5.1 Scissor stay hinges DT130	→240
9	9.4.1 Pivot posts DT130	→254
10a	10.2 French casement drive gears	→278
10b	10.3 Horizontal French casement locks	→286
10c	10.4 Single piece door striker	→286
11	11 Striker plates	→292



2.4.1.2 DT160

2.4.1.2.1 1-sashed rectangular T&T window with pivot post DT160 and rebated corner support DT160 with rebate-leg screw fixing



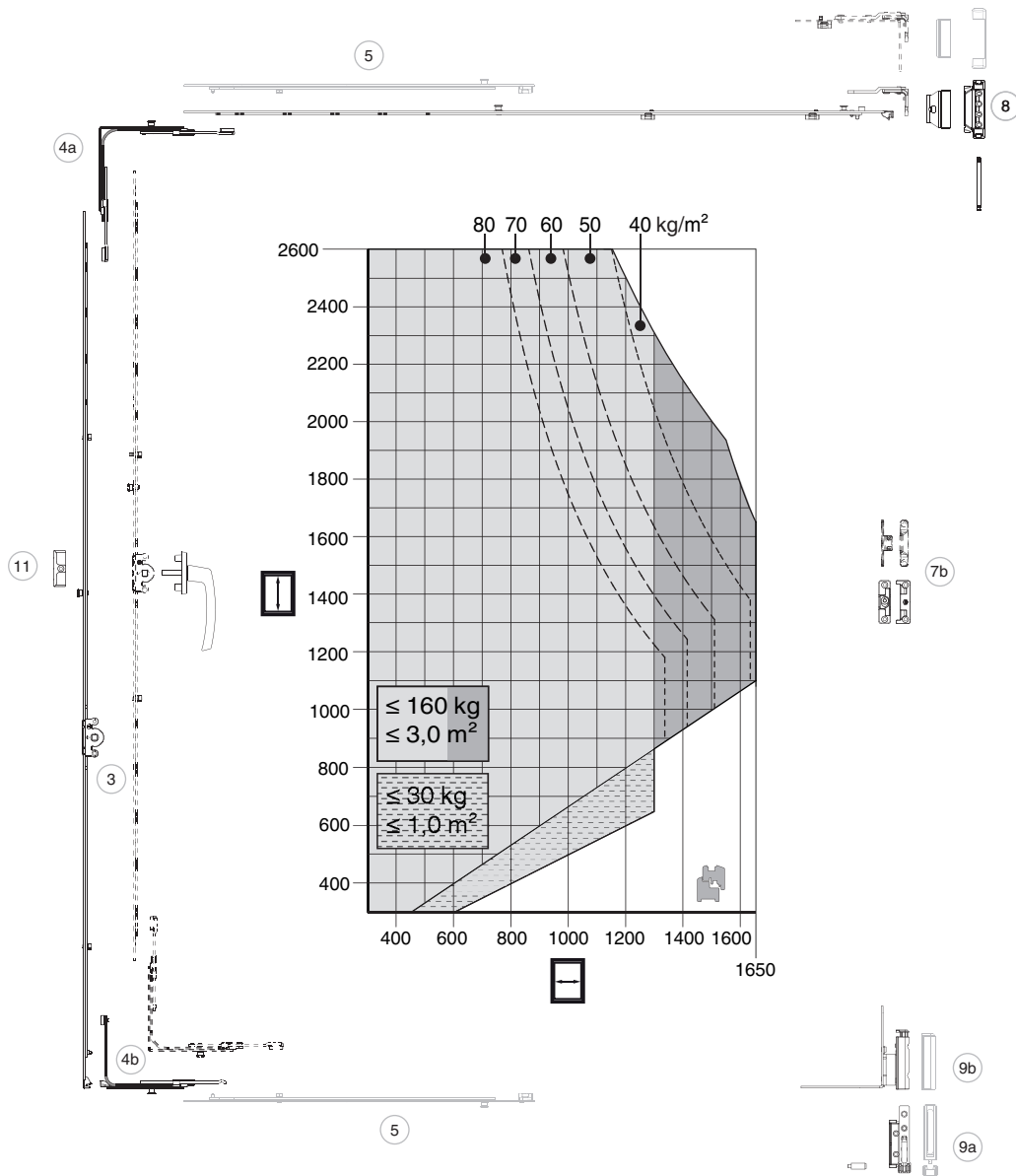
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between 1/3 and 1/2 of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 6b = Stabilizing scissor stay necessary from 1,301 mm (dark shading in application range diagram).
- 9 = The support dowel or support screw has to be set from 100 kg sash weight!



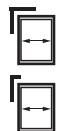
<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.2 Corner elements horizontal i.S.	→188
4c	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
6a	6.1.4 Scissor stay faceplates i.S.	→203
6b	6.10.1 Stabilizing scissor stays	→216
8	8.5.2 Scissor stay hinges DT160	→240
9a	9.4.2 Pivot posts DT160	→254
9b	9.4.3.2 Rebated corner supports DT160 with rebate-leg screw fixing	→256
11	11 Striker plates	→292



2.4.1.2.2 1-sashed rectangular turn-only window with pivot post DT160 and fixed or croppable turn-only hinge



≤ 1650 x 2600 mm



≥ 320 mm



≥ 260 mm



≥ 360 mm ( 15),



≥ 470 mm ( 15),



≥ 455 mm ( 6,5)



≥ 530 mm ( 6,5)

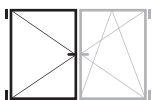
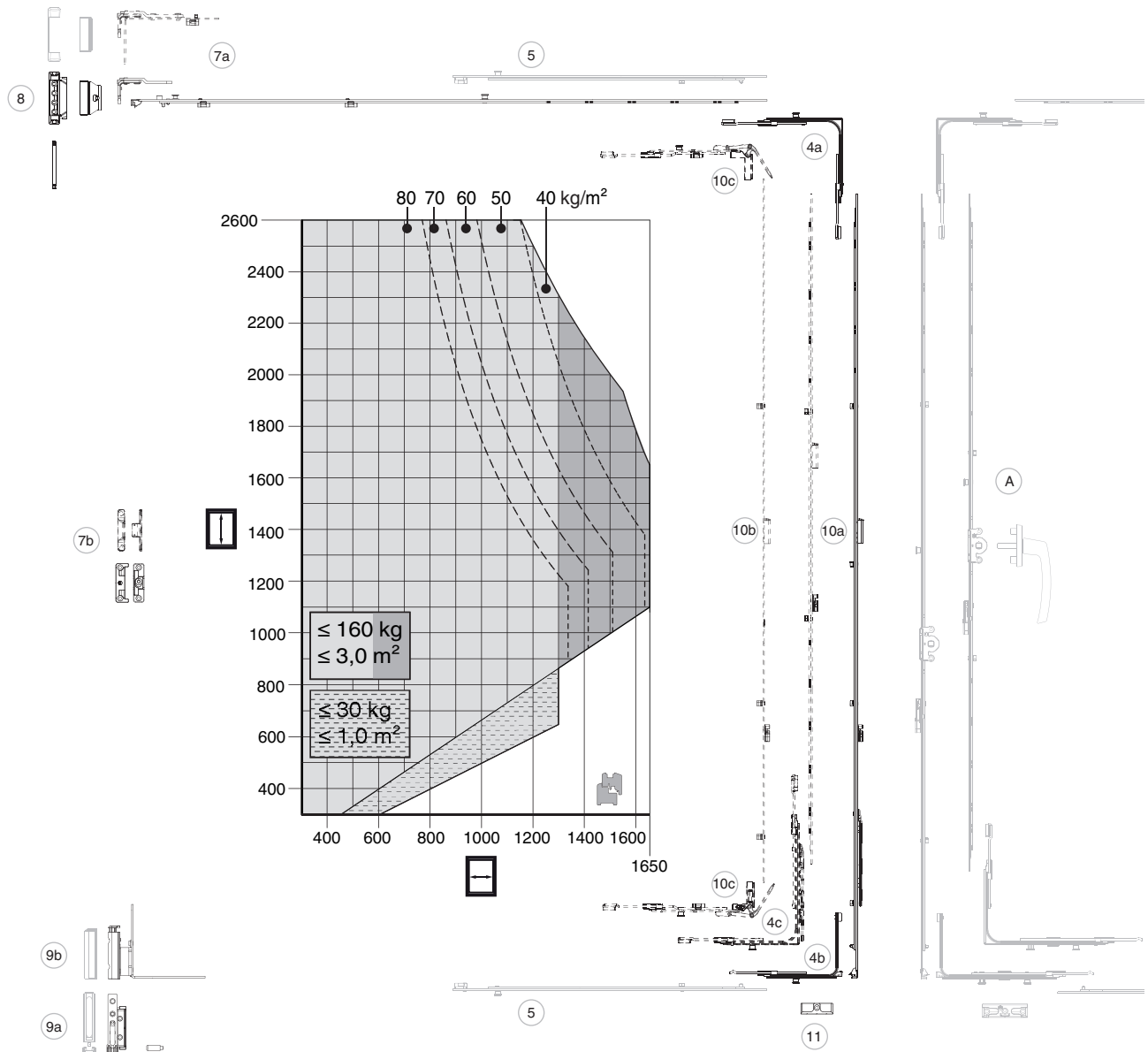
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7a = Turn-only hinge - sash part fixed or croppable.
- 7b = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!
- 9 = For possible pivot post combinations refer to matrix; the support dowel or support screw has to be set from 100 kg sash weight!



<b>Selection guide</b>		<b>Page</b>
3a	3.2.1.1 Turn-only drive gears BS 15 FHH i.S.	→173
3b	3.2.1.6 Turn-only drive gears BS 15 VHH i.S.	→174
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
7a	7.1 Turn-only hinges - sash part / turn-only hinges - frame part / turn-only hinge faceplates AS/DTuni/PVC	→220
7b	7.10 Compression devices	→232
8	8.5.2 Scissor stay hinges DT160	→240
9a	9.4.2 Pivot posts DT160	→254
9b	9.4.3.2 Rebated corner supports DT160 with rebate-leg screw fixing	→256
11	11 Striker plates	→292



2.4.1.2.3 2-sashed rectangular T&T window  
with pivot post DT160 and rebated corner support DT160



≤ 1650 x 2600 mm

≥ 320 mm

≥ 260 mm

≥ 360 mm ( 15), ≥ 455 mm ( 6,5)

≥ 470 mm ( 15), ≥ 530 mm ( 6,5)

- A = For details refer to 1-sashed turn&tilt window.
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7b = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!
- 9 = For possible pivot post combinations refer to matrix; the support dowel or support screw has to be set from 100 kg sash weight!
- 10a = French casement drive gear FHH or VHH.

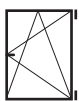
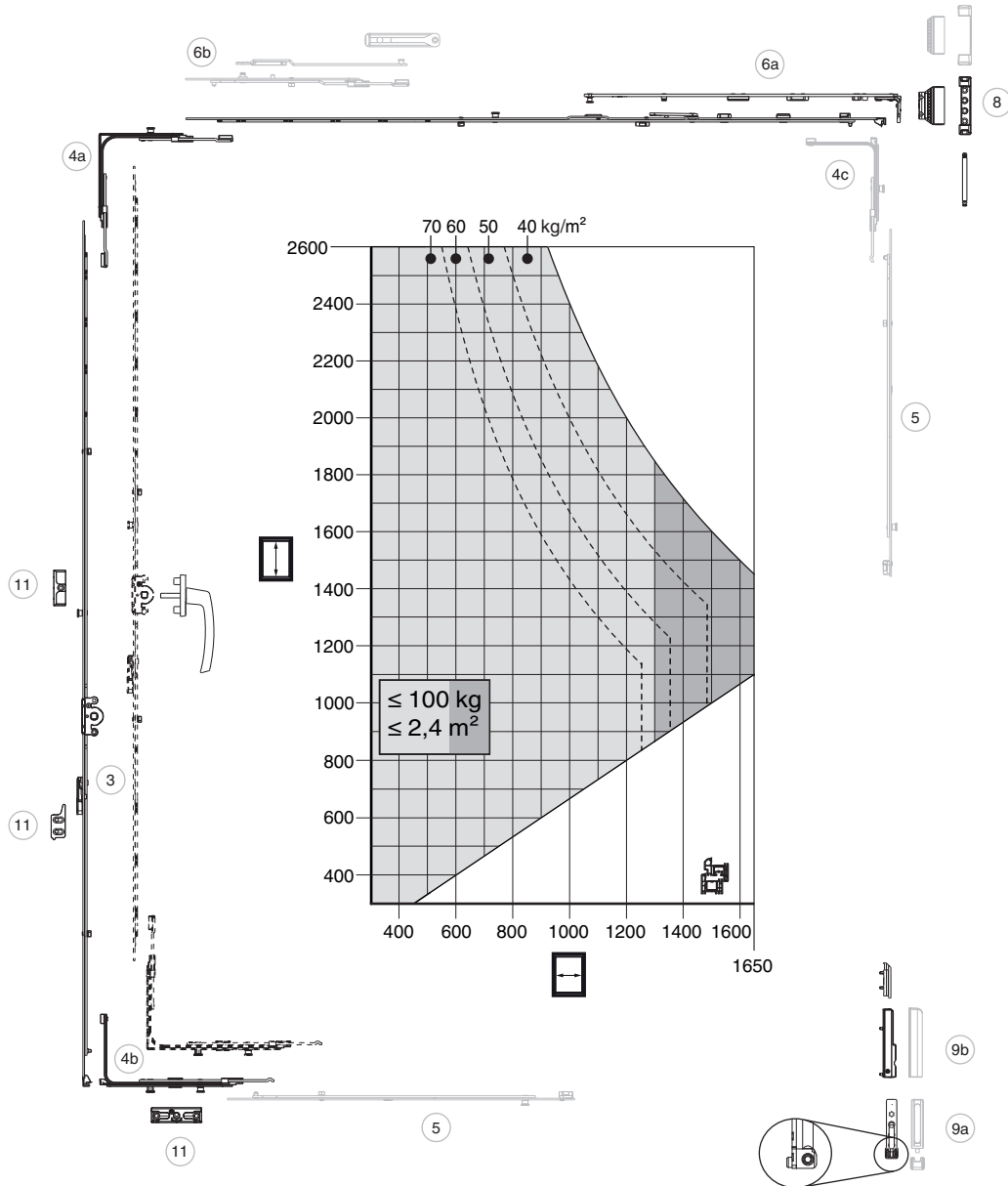


<b>Selection guide</b>		<b>Page</b>
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
4c	4.4 Corner elements i.S. for French casement drive gears	→191
5	5.1 Centre locks FHH i.S.	→196
7a	7.1 Turn-only hinges - sash part / turn-only hinges - frame part / turn-only hinge faceplates AS/DTuni/PVC	→220
7b	7.10 Compression devices	→232
8	8.5.2 Scissor stay hinges DT160	→240
9a	9.4.2 Pivot posts DT160	→254
9b	9.4.3.2 Rebated corner supports DT160 with rebate-leg screw fixing	→256
10a	10.2 French casement drive gears	→278
10b	10.3 Horizontal French casement locks	→286
10c	10.4 Single piece door striker	→286
11	11 Striker plates	→292



2.4.2 PVC (drive gear FHH/VHH)

2.4.2.1 1-sashed rectangular T&T window  
with pivot post PVC with positioning pin or short support pin  
+ corner support PVC with positioning pin



$\leq 1650 \times 2600 \text{ mm}$

$\geq 320 \text{ mm}$   
  $\geq 260 \text{ mm}$

$\geq 360 \text{ mm}$  ( 15 )  
 $\geq 455 \text{ mm}$  ( 6,5 )  
  $\geq 470 \text{ mm}$  ( 15 )  
 $\geq 530 \text{ mm}$  ( 6,5 )

$\geq 270 \text{ mm}$  ( 15 )  
 $\geq 365 \text{ mm}$  ( 6,5 )  
  $\geq 400 \text{ mm}$  ( 15 )  
 $\geq 460 \text{ mm}$  ( 6,5 )

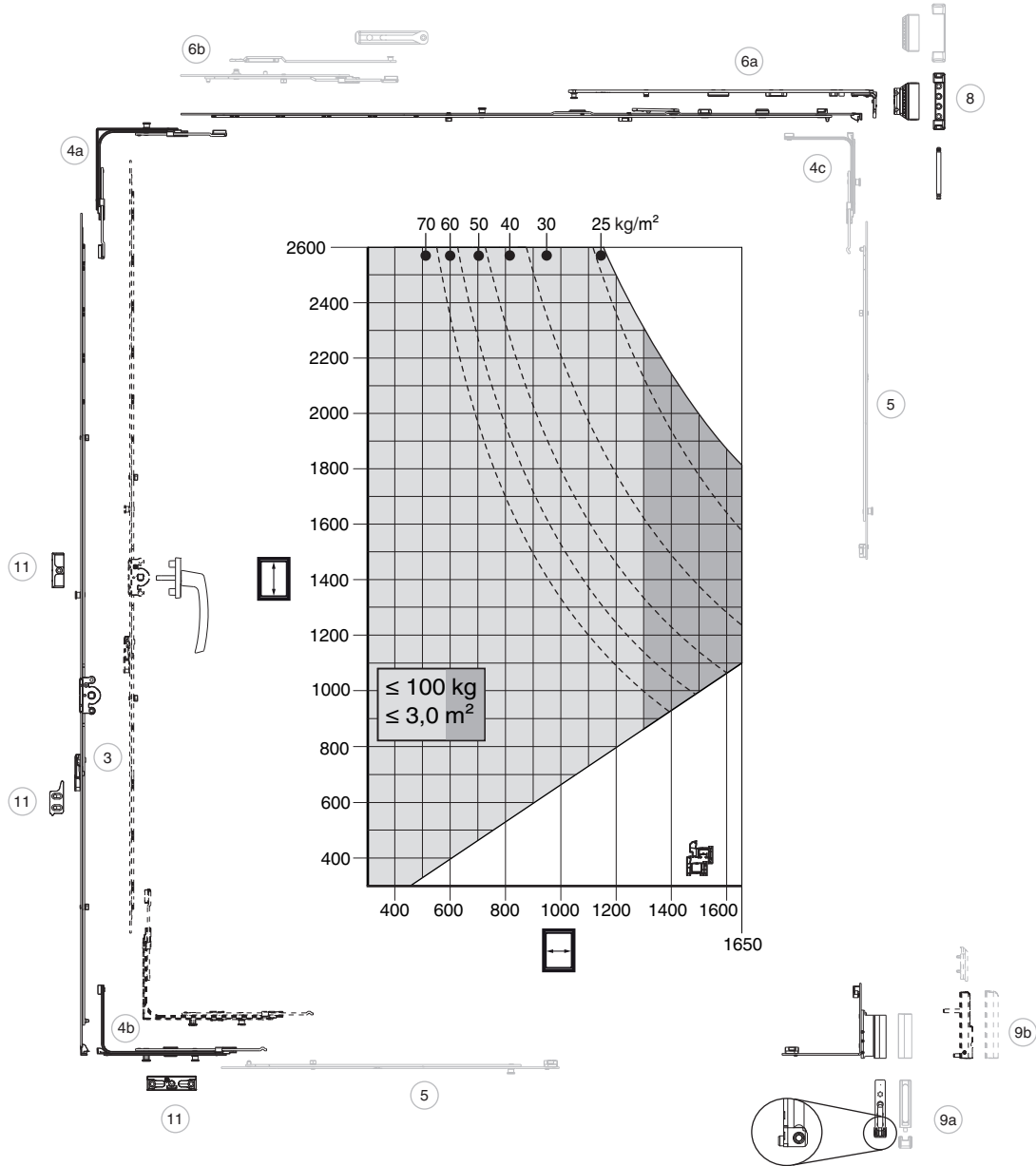
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 6b = Stabilizing scissor stay necessary from 1,301 mm (dark shading in application range diagram).
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.



<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.2 Corner elements horizontal i.S.	→188
4c	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
6a	6.1.4 Scissor stay faceplates i.S.	→203
6b	6.10.1 Stabilizing scissor stays	→216
8	8.1 Scissor stay hinges PVC	→238
9a	9.2.1 Pivot posts PVC	→248
9b	9.2.2 Corner supports PVC	→248



**2.4.2.2 1-sashed rectangular T&T window  
with pivot post PVC with positioning pin or short support pin  
+ corner support PVC with support pin or rebated corner support AS/PVC without rebate-leg screw fixing**



≥ 320 mm



≥ 260 mm



≥ 360 mm ( 15 )  
≥ 455 mm ( 6,5 )



≥ 470 mm ( 15 )  
≥ 530 mm ( 6,5 )



≥ 270 mm ( 15 )  
≥ 365 mm ( 6,5 )



≥ 400 mm ( 15 )  
≥ 460 mm ( 6,5 )

3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).

5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!

6b = Stabilizing scissor stay necessary from 1,301 mm (dark shading in application range diagram).

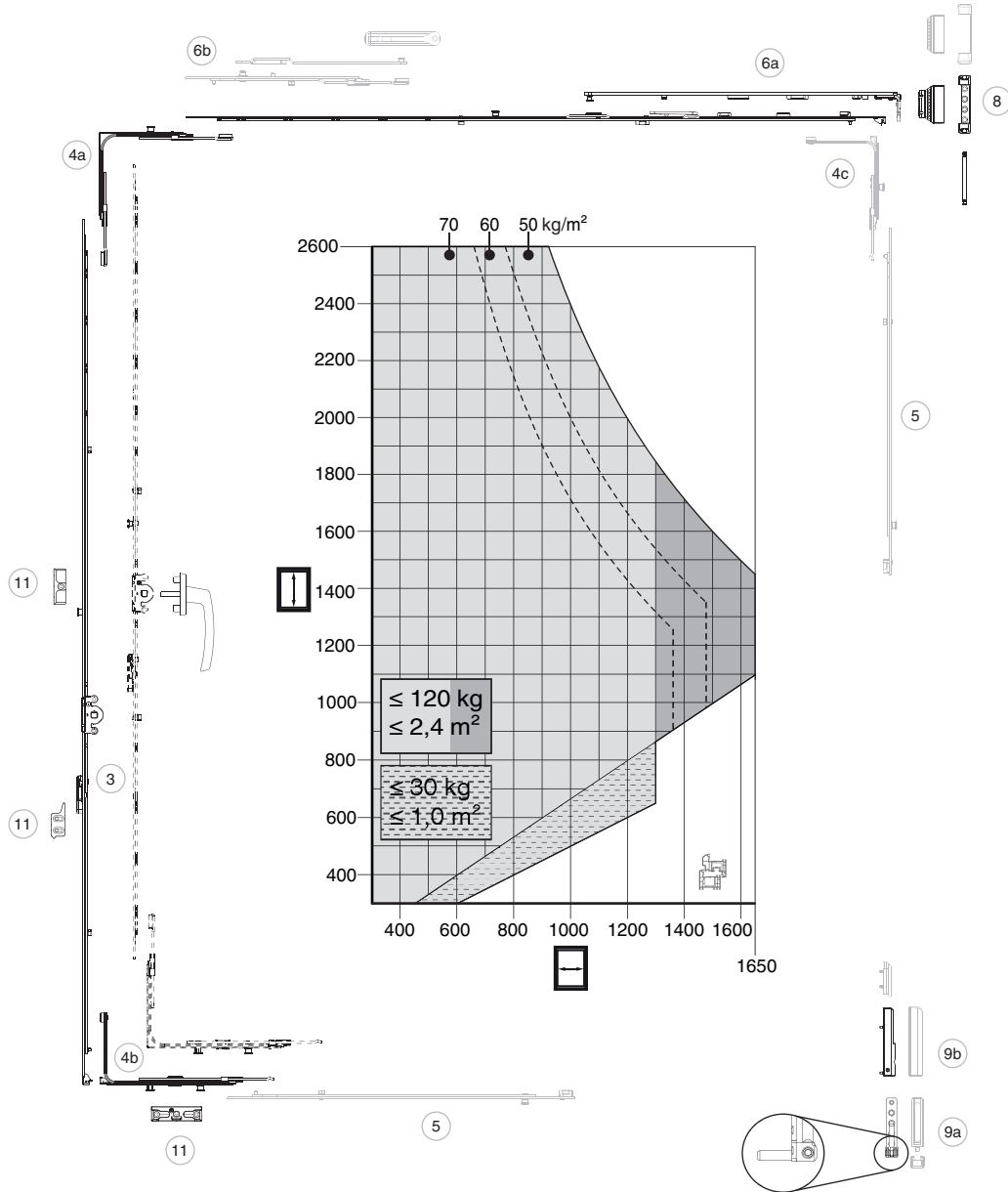
11 = Refer to profile data sheets for striker plates and sash lifters for PVC.



<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.2 Corner elements horizontal i.S.	→188
4c	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
6a	6.1.4 Scissor stay faceplates i.S.	→203
6b	6.10.1 Stabilizing scissor stays	→216
8	8.1 Scissor stay hinges PVC	→238
9a	9.2.1 Pivot posts PVC	→248
9b	9.2.2 Corner supports PVC	→248



**2.4.2.3 1-sashed rectangular T&T window  
with pivot post PVC with long support pin  
+ corner support PVC with positioning pin**



≤ 1650 x 2600 mm



≥ 320 mm



≥ 260 mm



≥ 360 mm ( 15 )  
≥ 455 mm ( 6,5 )



≥ 470 mm ( 15 )  
≥ 530 mm ( 6,5 )



≥ 270 mm ( 15 )  
≥ 365 mm ( 6,5 )



≥ 400 mm ( 15 )  
≥ 460 mm ( 6,5 )

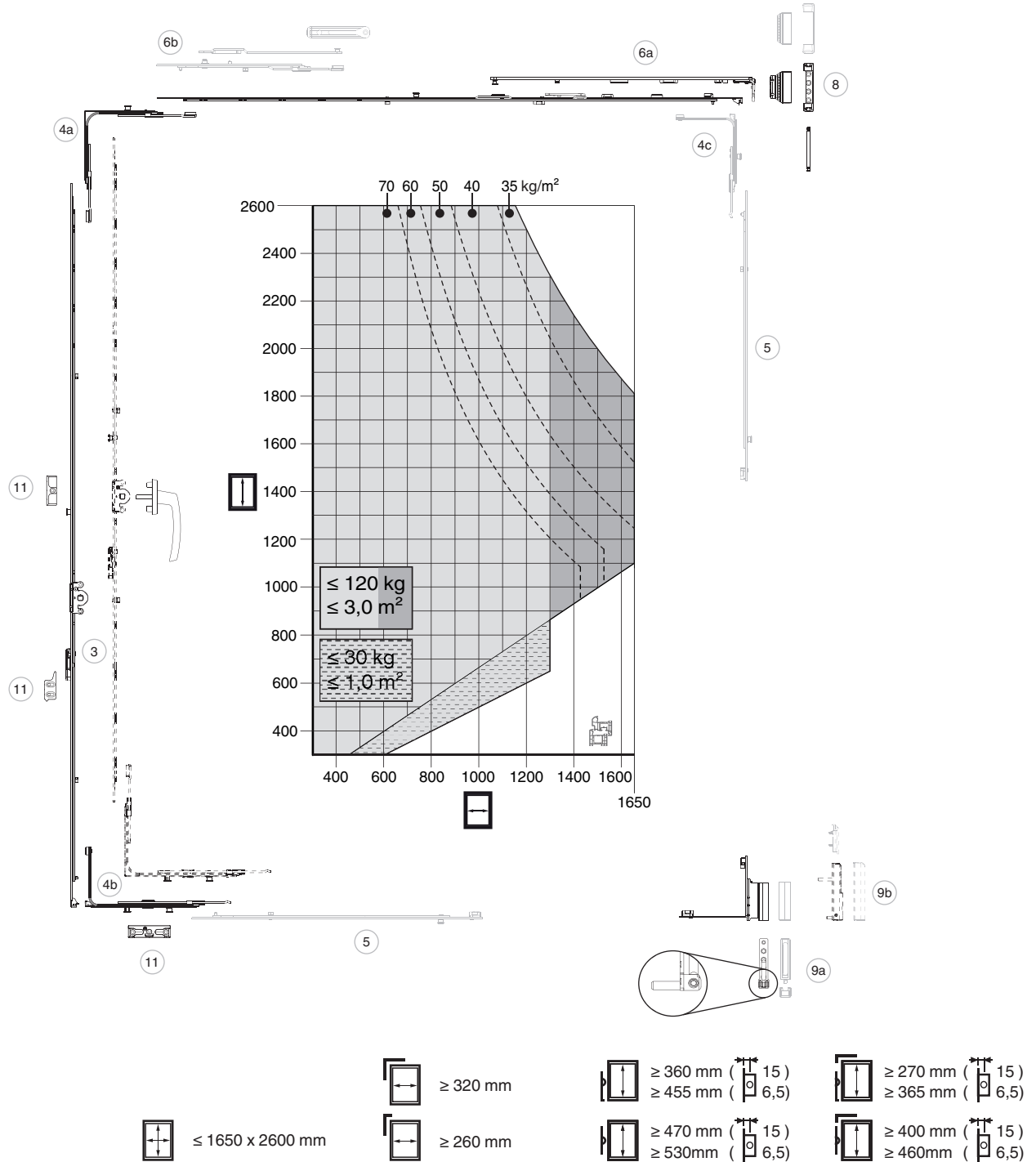
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Mandatory installation of third multi-sash centre frame hinge above SRH 800 mm (PVC) or 1,000 mm (timber)!
- 6b = Stabilizing scissor stay necessary from 1,301 mm (dark shading in application range diagram).
- 9 = Support pin must reach through at least two profile walls!
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.



<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.2 Corner elements horizontal i.S.	→188
4c	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
6a	6.1.4 Scissor stay faceplates i.S.	→203
6b	6.10.1 Stabilizing scissor stays	→216
8	8.1 Scissor stay hinges PVC	→238
9a	9.2.1 Pivot posts PVC	→248
9b	9.2.2 Corner supports PVC	→248



**2.4.2.4 1-sashed rectangular T&T window with pivot post PVC with long support pin + corner support PVC with support pin or rebated corner support AS/PVC without rebate-leg screw fixing**



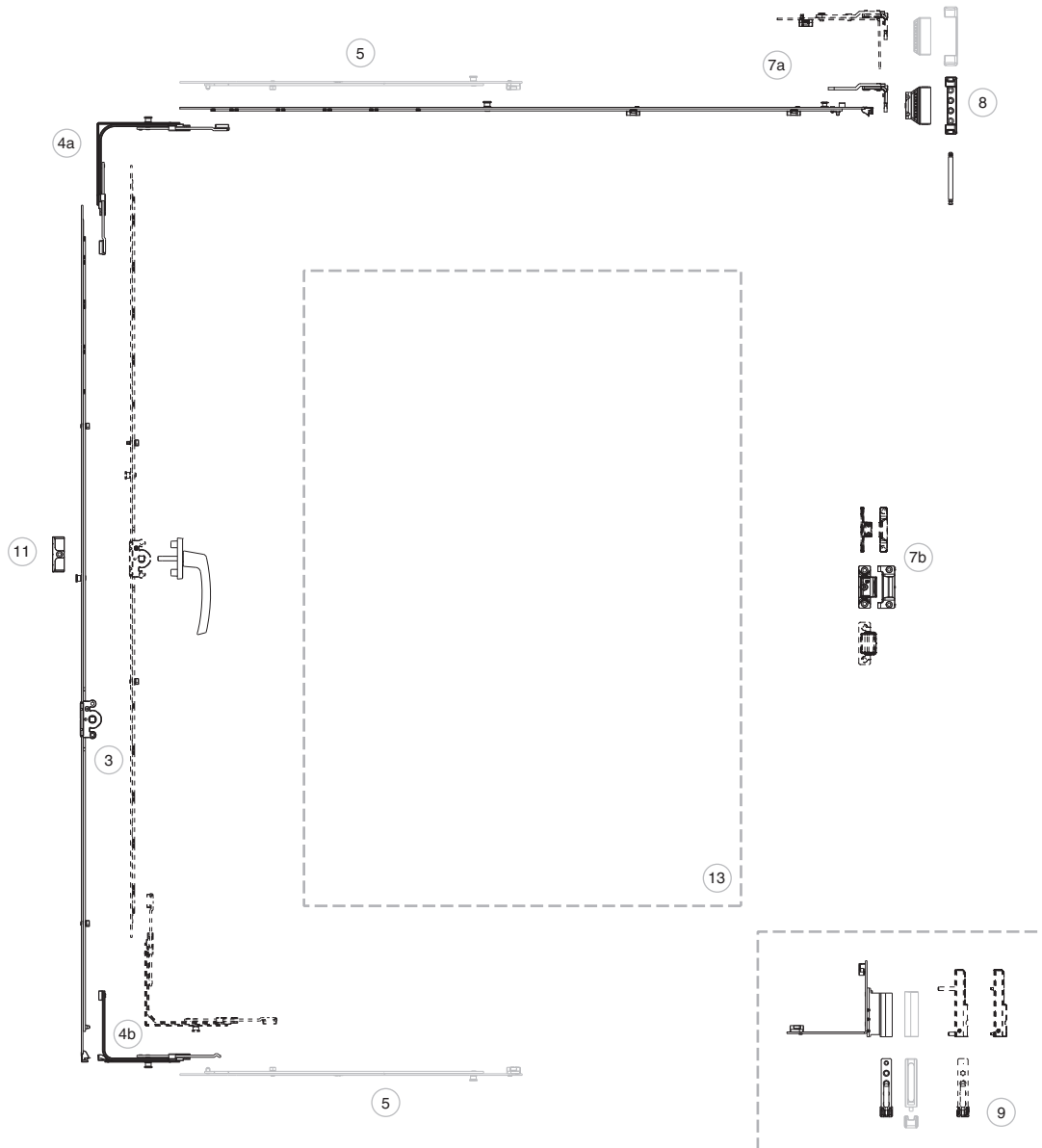
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 6b = Stabilizing scissor stay necessary from 1,301 mm (dark shading in application range diagram).
- 9 = Support pin must reach through at least two profile walls! Observe restrictions for 26 mm rebate depth!
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.



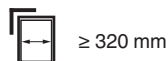
<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.2 Corner elements horizontal i.S.	→188
4c	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
6a	6.1.4 Scissor stay faceplates i.S.	→203
6b	6.10.1 Stabilizing scissor stays	→216
8	8.1 Scissor stay hinges PVC	→238
9a	9.2.1 Pivot posts PVC	→248
9b	9.2.2 Corner supports PVC	→248



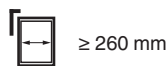
2.4.2.5 1-sashed rectangular turn-only window with pivot post PVC



≤ 1650 x 2600 mm



≥ 320 mm



≥ 260 mm



≥ 360 mm ( 15), ≥ 455 mm ( 6,5)



≥ 470 mm ( 15), ≥ 530 mm ( 6,5)

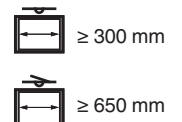
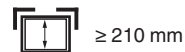
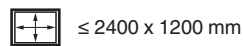
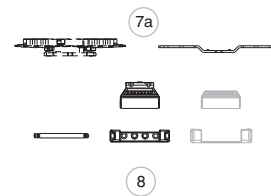
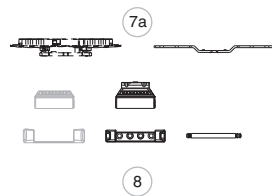
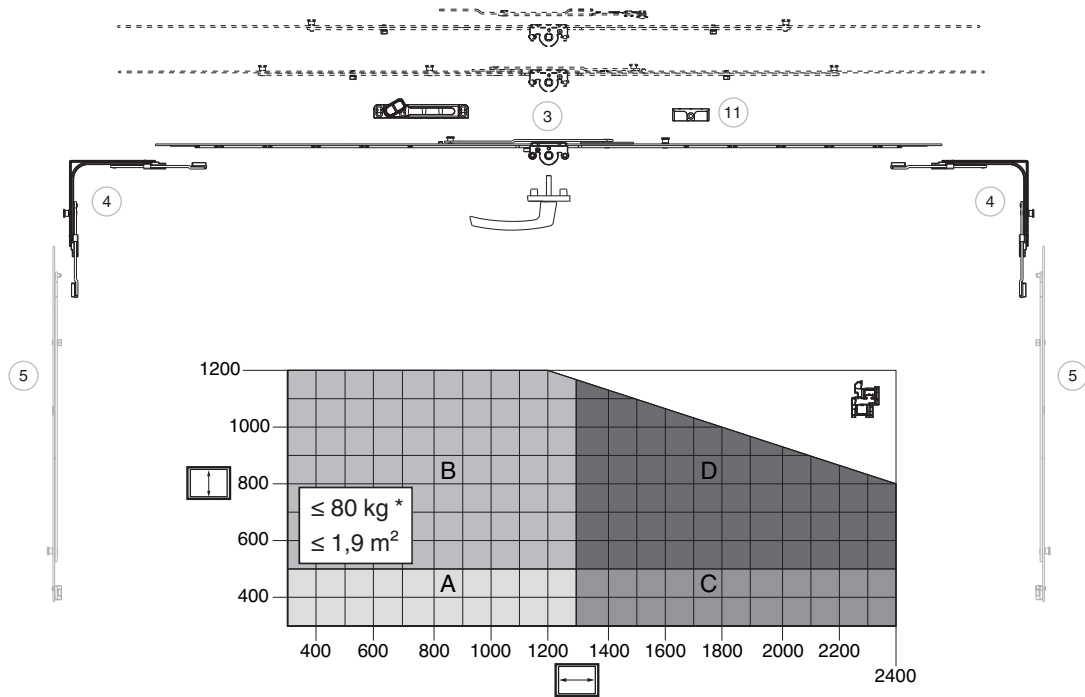
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7a = Turn-only hinge - sash part fixed or croppable.
- 7b = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!
- 9 = For possible pivot post combinations refer to matrix.
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.
- 13 = For application diagram refer to turn&tilt hardware overview according to corresponding pivot post combination.



<b>Selection guide</b>		<b>Page</b>
3a	3.2.1.1 Turn-only drive gears BS 15 FHH i.S.	→173
3b	3.2.1.6 Turn-only drive gears BS 15 VHH i.S.	→174
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
7a	7.1 Turn-only hinges - sash part / turn-only hinges - frame part / turn-only hinge faceplates AS/DTuni/PVC	→220
7b	7.10 Compression devices	→232
8	8.1 Scissor stay hinges PVC	→238
9	9.2 Pivot posts PVC	→248



2.4.2.6 1-sashed rectangular tilt-only window  
with scissor stay hinge PVC and tilt-only hinge AS/PVC



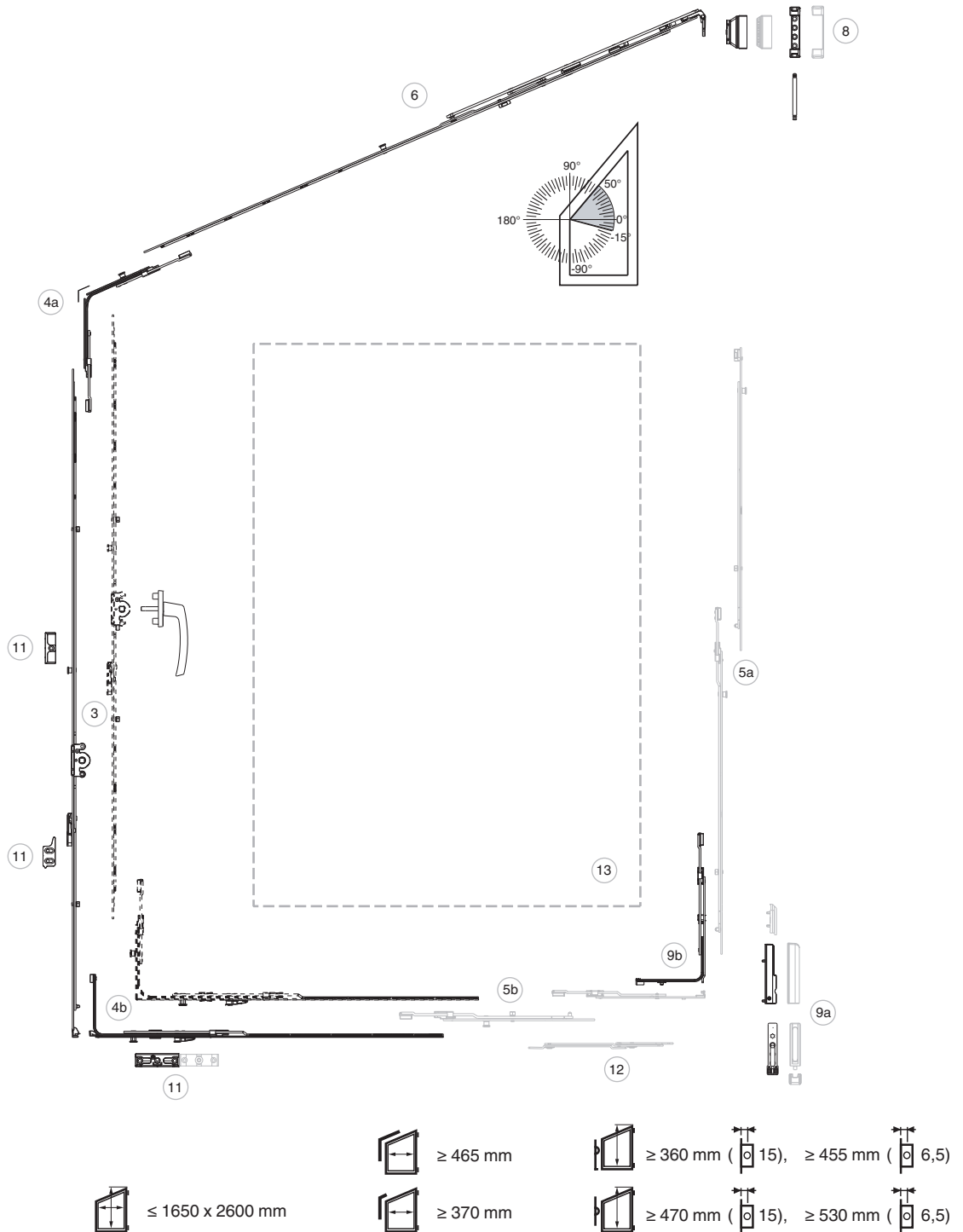
- A = 1 tilt stay + restrictor and cleaning stay size 1.
- B = 1 tilt stay + restrictor and cleaning stay size 2.
- C = 2 tilt stays + restrictor and cleaning stay size 1.
- D = 2 tilt stays + restrictor and cleaning stay size 2.
- \* = Mandatory installation of restrictor and cleaning stay (guideline FPKF at [www.schlossindustrie.de](http://www.schlossindustrie.de))! Observe application diagrams and max. load capacity for restrictor and cleaning stays!
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7b = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.



<b>Selection guide</b>			<b>Page</b>
3	3.4	Espagnolettes	→180
4	4.1.1	Corner elements standard i.S.	→188
5	5.1	Centre locks FHH i.S.	→196
7a	7.2	Tilt and turn hinges - sash part / tilt-only bearings AS/DTuni/PVC	→222
7b	7.10.1	Surface-mounted compression devices	→232
8	8.1	Scissor stay hinges PVC	→238



2.4.2.7 1-sashed angled T&T window  
with pivot post PVC with positioning pin and corner support PVC with positioning pin



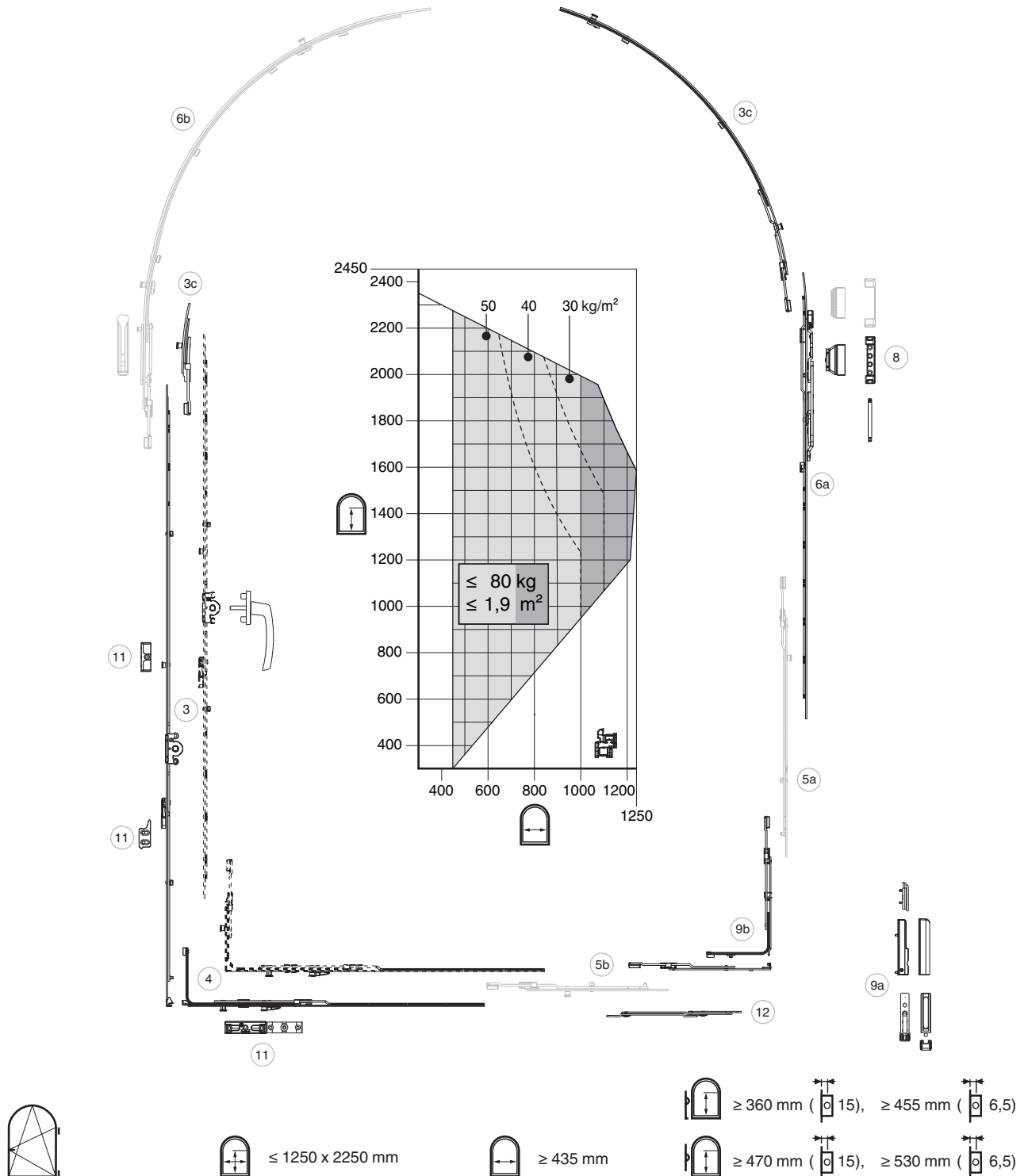
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5a = Above SRH 800 mm; Observe details from profile manufacturer!
- 5b = Required above SRW 670 mm.
- 9b = Rebated corner support with corner element with or without rebate-leg screw fixing.
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.
- 13 = Refer to application diagrams for angled windows in chapter 2.5.



Selection guide		Page
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.5 Corner elements i.S. for angled windows	→191
4b	4.6 Corner elements i.S. for half round windows	→192
5a	5.1 Centre locks FHH i.S.	→196
5b	5.10 Faceplate extensions fixed and extendable	→199
6	6.1.11 Rebated scissor stays i.S. for angled windows	→205
8	8.1 Scissor stay hinges PVC	→238
9a	9.2.1 Pivot posts PVC	→248
9b	9.2.5 Corner element two-part	→250
12	12.12 Turn restrictions	→315



2.4.2.8 1-sashed half round T&T window  
with pivot post PVC with positioning pin and corner support PVC with positioning pin



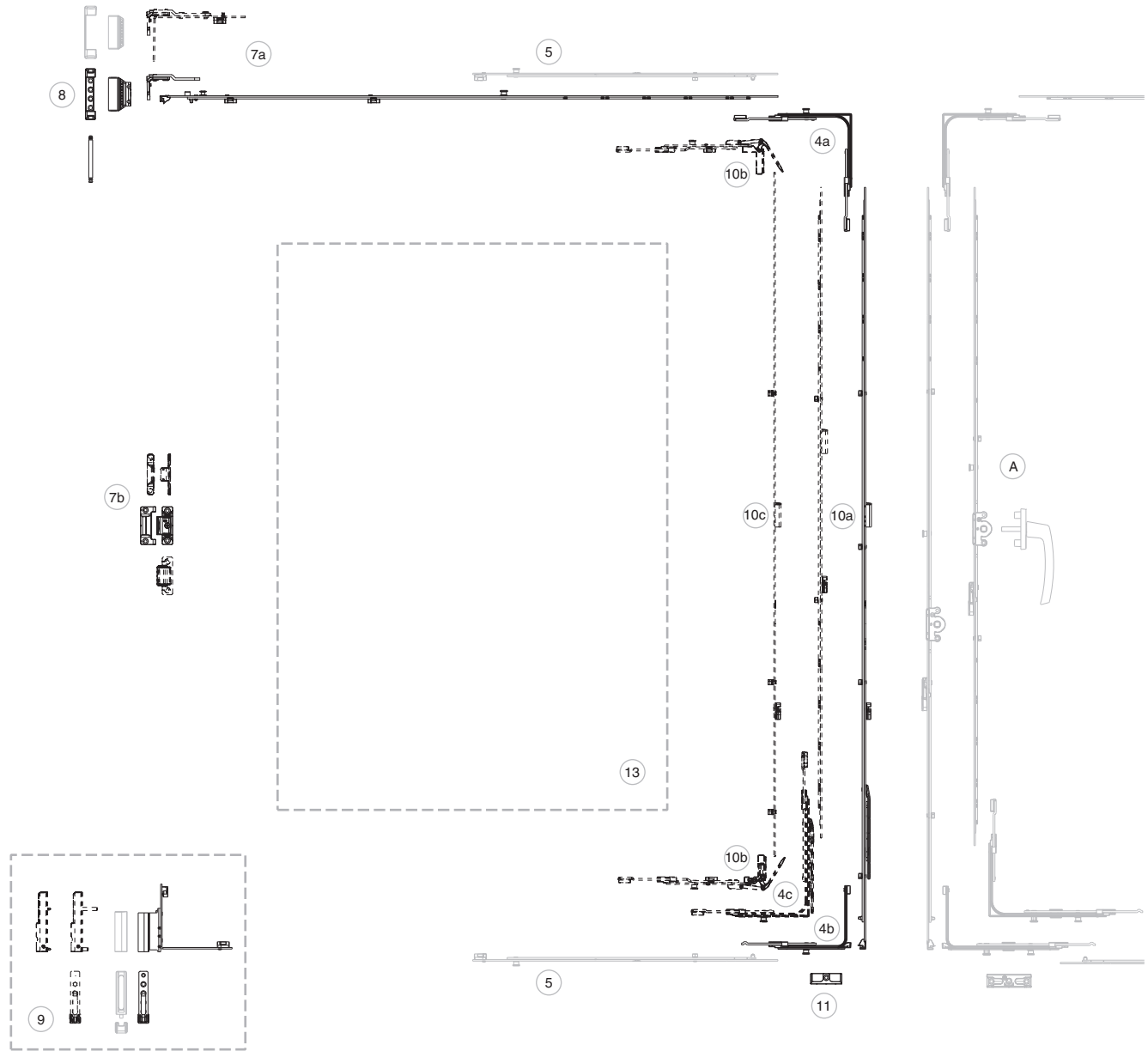
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 3c = Required above SRW 671 mm.
- 5a = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 5b = Required above SRW 670 mm.
- 6b = Stabilizing scissor stay necessary from 1,001 mm (dark shading in application range diagram).
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.



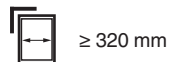
<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
3c	3.5.3 End pieces top for half round windows	→184
4	4.6 Corner elements i.S. for half round windows	→192
5a	5.2 Centre locks extendable i.S.	→196
5b	5.10 Faceplate extensions fixed and extendable	→199
6a	6.1.12 Rebated scissor stays i.S. for half round windows	→206
6b	6.10.4 Stabilizing scissor stays for half round windows	→216
8	8.1 Scissor stay hinges PVC	→238
9a	9.2.1 Pivot posts PVC	→248
9b	9.2.5 Corner element two-part	→250
12	12.12 Turn restrictions	→315



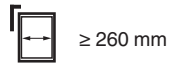
**2.4.2.9 2-sashed rectangular T&T window  
with pivot post PVC and corner support PVC or rebated corner support PVC**



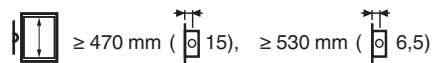
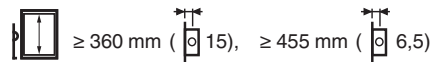
≤ 1650 x 2600 mm



≥ 320 mm



≥ 260 mm



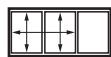
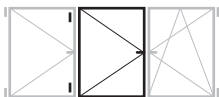
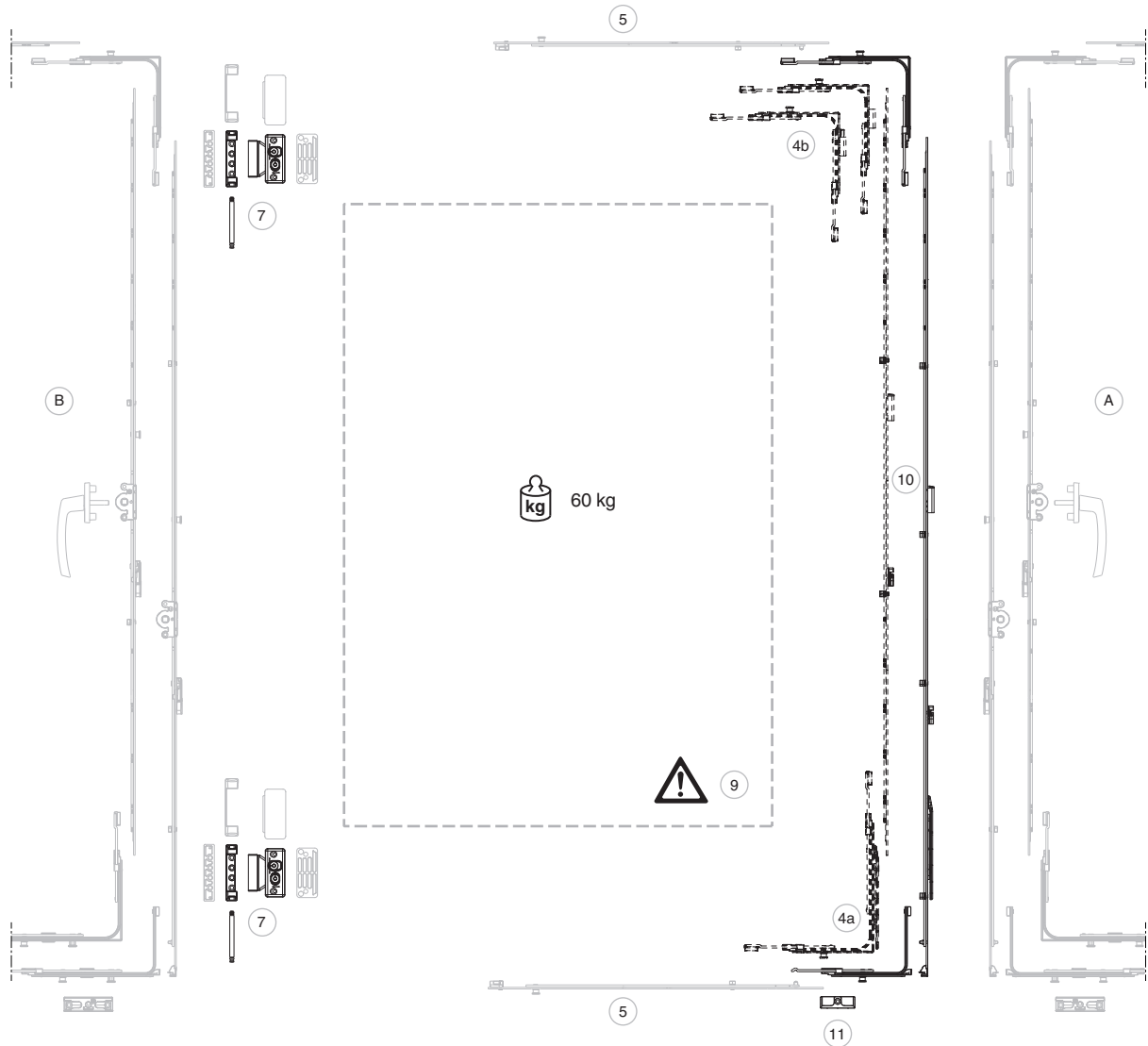
- A = For details refer to 1-sashed turn&tilt window.
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7b = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!
- 9 = For possible pivot post combinations refer to matrix.
- 10a = French casement drive gear FHH or VHH.
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.
- 13 = For application diagram refer to turn&tilt hardware overview according to corresponding pivot post combination.



<b>Selection guide</b>		<b>Page</b>
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
4c	4.4 Corner elements i.S. for French casement drive gears	→191
5	5.1 Centre locks FHH i.S.	→196
7a	7.1 Turn-only hinges - sash part / turn-only hinges - frame part / turn-only hinge faceplates AS/DTuni/PVC	→220
7b	7.10 Compression devices	→232
8	8.1 Scissor stay hinges PVC	→238
9	9.2 Pivot posts PVC	→248
10a	10.2 French casement drive gears	→278
10b	10.3 Horizontal French casement locks	→286
10c	10.4 Single piece door striker	→286



2.4.2.10 3-sashed rectangular turn-only window  
with multi-sash centre frame hinge



≤ 1650 x 2600 mm \*



≥ 465 mm

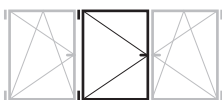
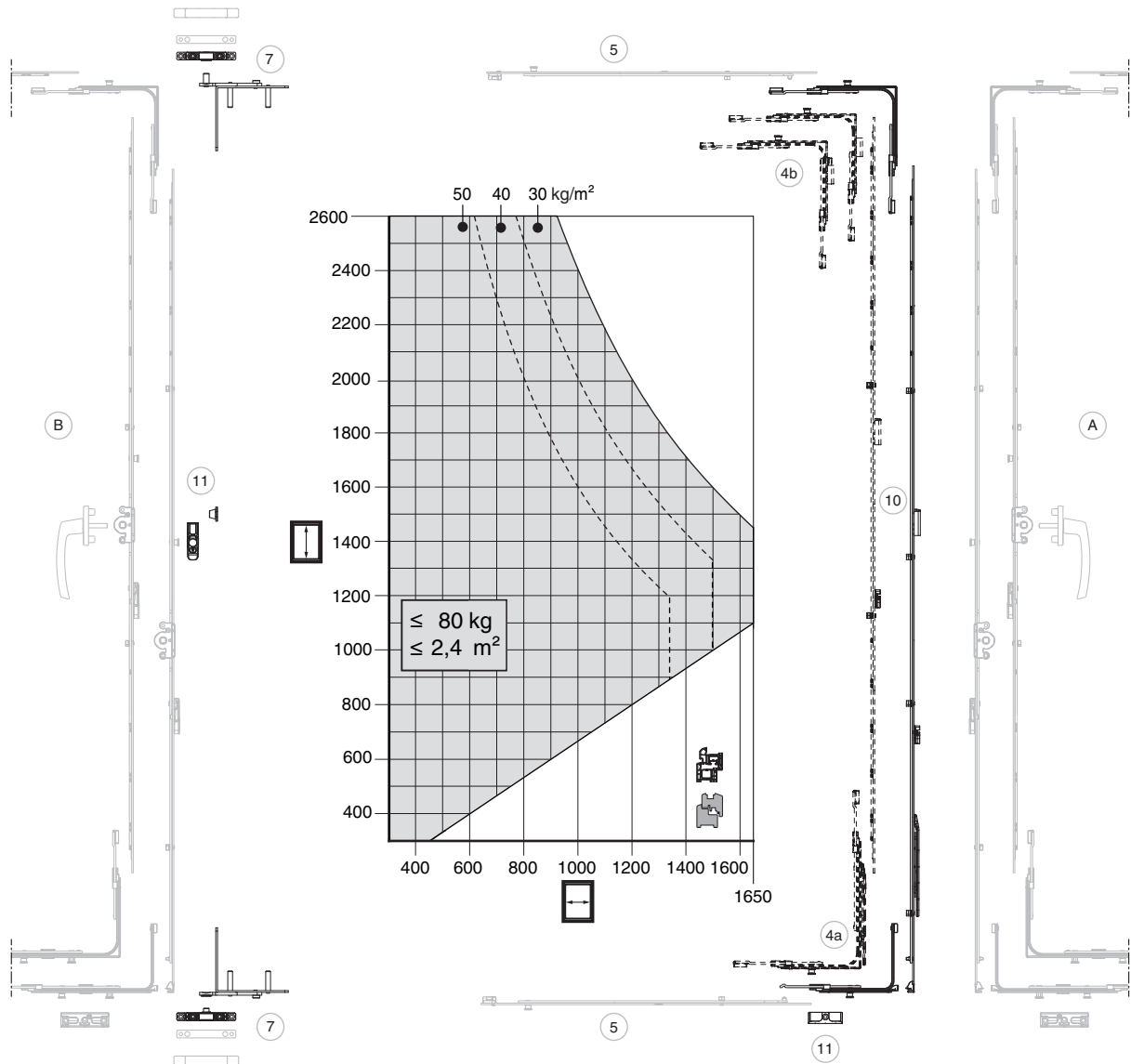
- A = For details refer to 1-sashed turn&tilt window.
- B = For details refer to 1-sashed turn-only window.
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7 = Mandatory installation of third multi-sash centre frame hinge above SRH 800 mm (PVC) or 1,000 mm (timber)!
- 9 = Maximum sash weight of the middle sash is 60 kg! The total weight of the two combined sashes must not exceed the maximum weight of the used hinge side!
- 10 = French casement drive gear FHH or VHH.
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.



Selection guide		Page
4a	4.1.3 Corner elements vertical i.S.	→189
4b	4.4 Corner elements i.S. for French casement drive gears	→191
5	5.1 Centre locks FHH i.S.	→196
7	7.9 Multi-sash centre frame hinges	→230
10	10.2 French casement drive gears	→278



2.4.2.11 3-sashed rectangular turn-only window with 3-sashed turn-only hinge (frame part)



≤ 1650 x 2600 mm



≥ 465 mm

- A = For details refer to 1-sashed turn-only or turn&tilt window.
- B = For details refer to 1-sashed turn-only or turn&tilt window.
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 10 = French casement drive gear FHH or VHH.
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.

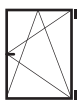
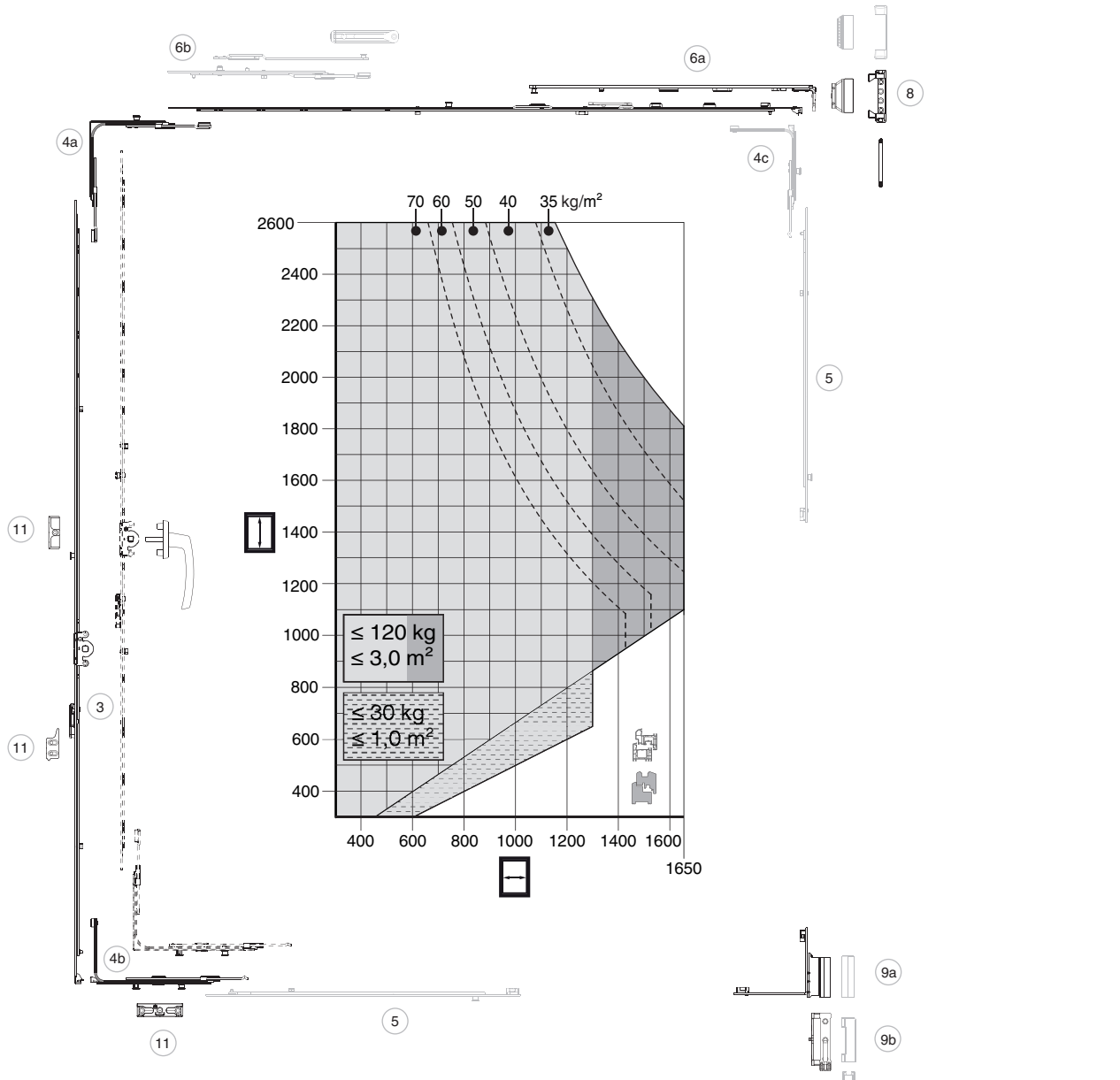


Selection guide			Page
4a	4.1.3	Corner elements vertical i.S.	→189
4b	4.4	Corner elements i.S. for French casement drive gears	→191
5	5.1	Centre locks FHH i.S.	→196
7	7.8	Turn-only hinges - frame part for 3-sashed windows	→229
10	10.2	French casement drive gears	→278
11	11	Striker plates	→292

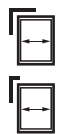


2.4.3 AS (drive gear FHH/VHH)

2.4.3.1 1-sashed rectangular T&T window  
with pivot post AS (for rebated corner support AS/PVC)  
+ rebated corner support AS/PVC without rebate-leg screw fixing



≤ 1650 x 2600 mm



≥ 320 mm



≥ 260 mm



≥ 360 mm ( 15 )  
≥ 455 mm ( 6,5 )



≥ 470 mm ( 15 )  
≥ 530mm ( 6,5 )



≥ 270 mm ( 15 )  
≥ 365 mm ( 6,5 )



≥ 400 mm ( 15 )  
≥ 460mm ( 6,5 )

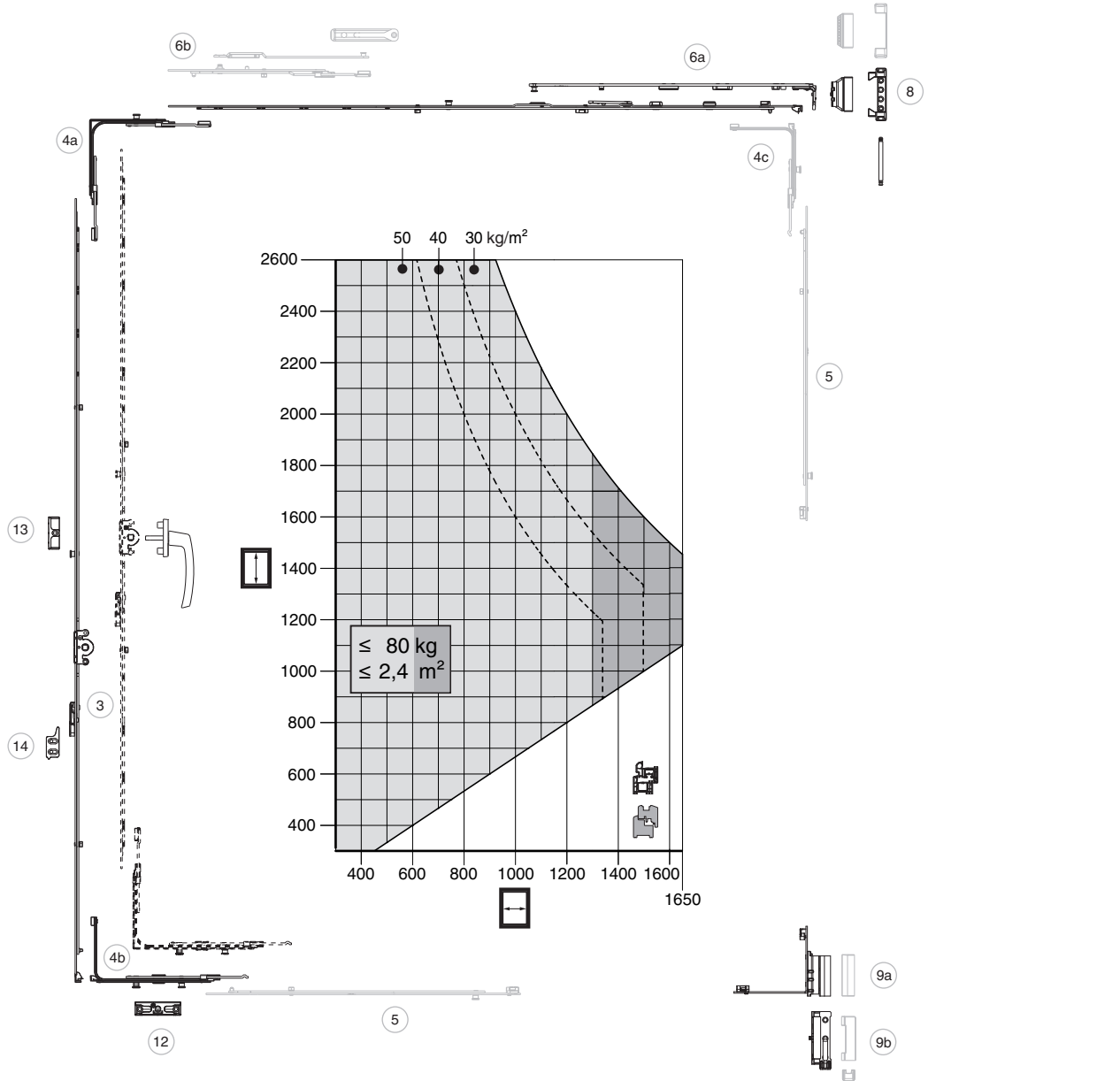
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 6b = Stabilizing scissor stay necessary from 1,301 mm (dark shading in application range diagram).
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.



<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.2 Corner elements horizontal i.S.	→188
4c	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
6a	6.1.4 Scissor stay faceplates i.S.	→203
6b	6.10.1 Stabilizing scissor stays	→216
8	8.2 Surface-mounted scissor stay hinges	→238
9a	9.2.3 Rebated corner supports AS/PVC without rebate-leg screw fixing	→249
9b	9.3.1 Surface-mounted pivot posts for rebated corner supports AS/PVC without rebate-leg screw fixing	→252
11	11 Striker plates	→292



**2.4.3.2 1-sashed rectangular T&T window  
with pivot post AS (for rebated corner support AS/PVC)  
+ rebated corner support AS/PVC without rebate-leg screw fixing / 26 mm offset**



≤ 1650 x 2600 mm



≥ 320 mm



≥ 260 mm



≥ 360 mm (15)  
≥ 455 mm (6,5)



≥ 470 mm (15)  
≥ 530mm (6,5)



≥ 270 mm (15)  
≥ 365 mm (6,5)



≥ 400 mm (15)  
≥ 460mm (6,5)

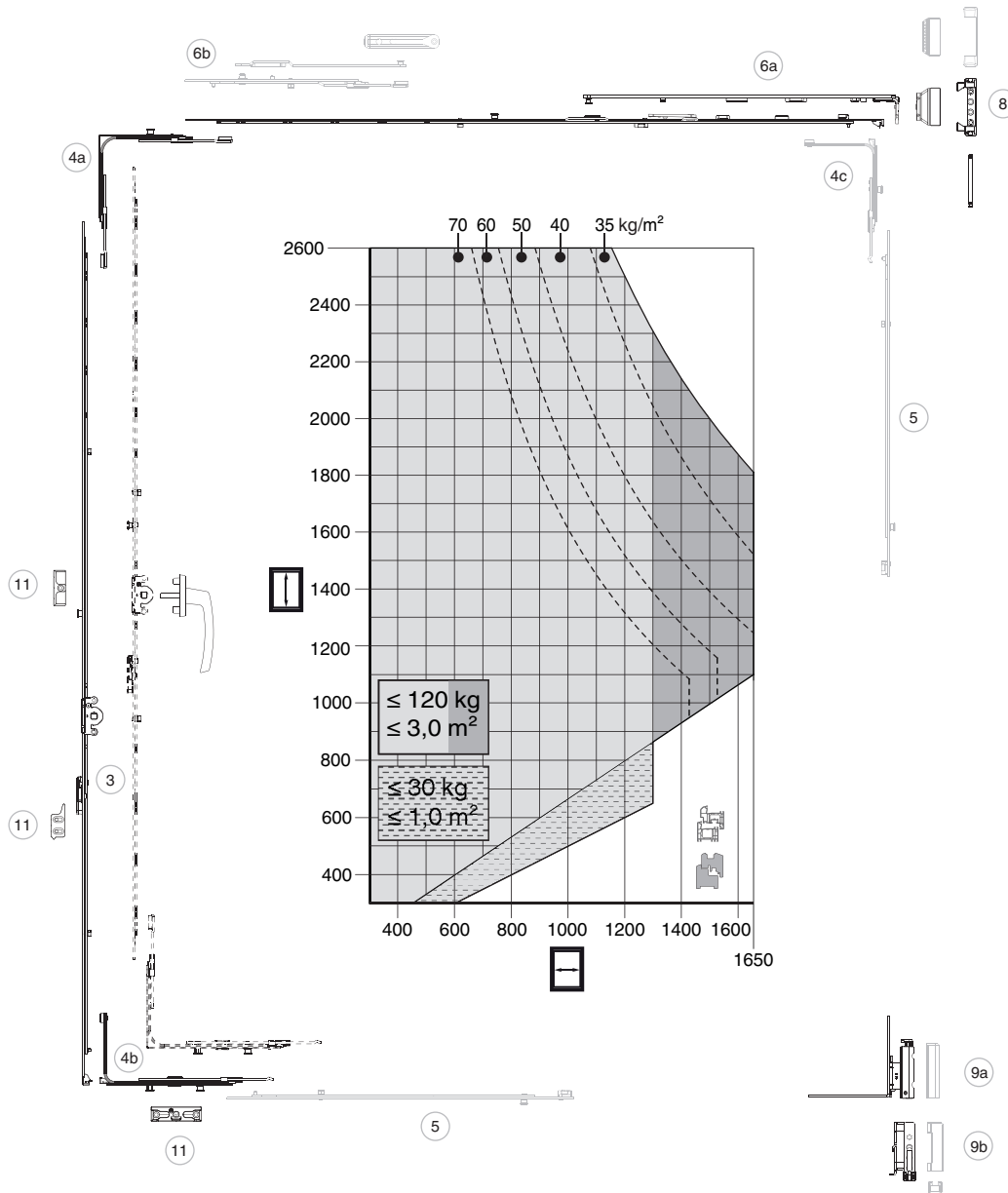
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 6b = Stabilizing scissor stay necessary from 1,301 mm (dark shading in application range diagram).
- 9b = Observe restrictions for 26 mm rebate depth!
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.



<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.2 Corner elements horizontal i.S.	→188
4c	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
6a	6.1.4 Scissor stay faceplates i.S.	→203
6b	6.10.1 Stabilizing scissor stays	→216
8	8.2 Surface-mounted scissor stay hinges	→238
9a	9.2.3 Rebated corner supports AS/PVC without rebate-leg screw fixing	→249
9b	9.3.1 Surface-mounted pivot posts for rebated corner supports AS/PVC without rebate-leg screw fixing	→252
11	11 Striker plates	→292



**2.4.3.3 1-sashed rectangular T&T window with pivot post AS and rebated corner support AS with rebate-leg screw fixing**



≤ 1650 x 2600 mm



≥ 320 mm



≥ 260 mm



≥ 360 mm ( 15 )  
≥ 455 mm ( 6,5 )



≥ 470 mm ( 15 )  
≥ 530mm ( 6,5 )



≥ 270 mm ( 15 )  
≥ 365 mm ( 6,5 )



≥ 400 mm ( 15 )  
≥ 460mm ( 6,5 )

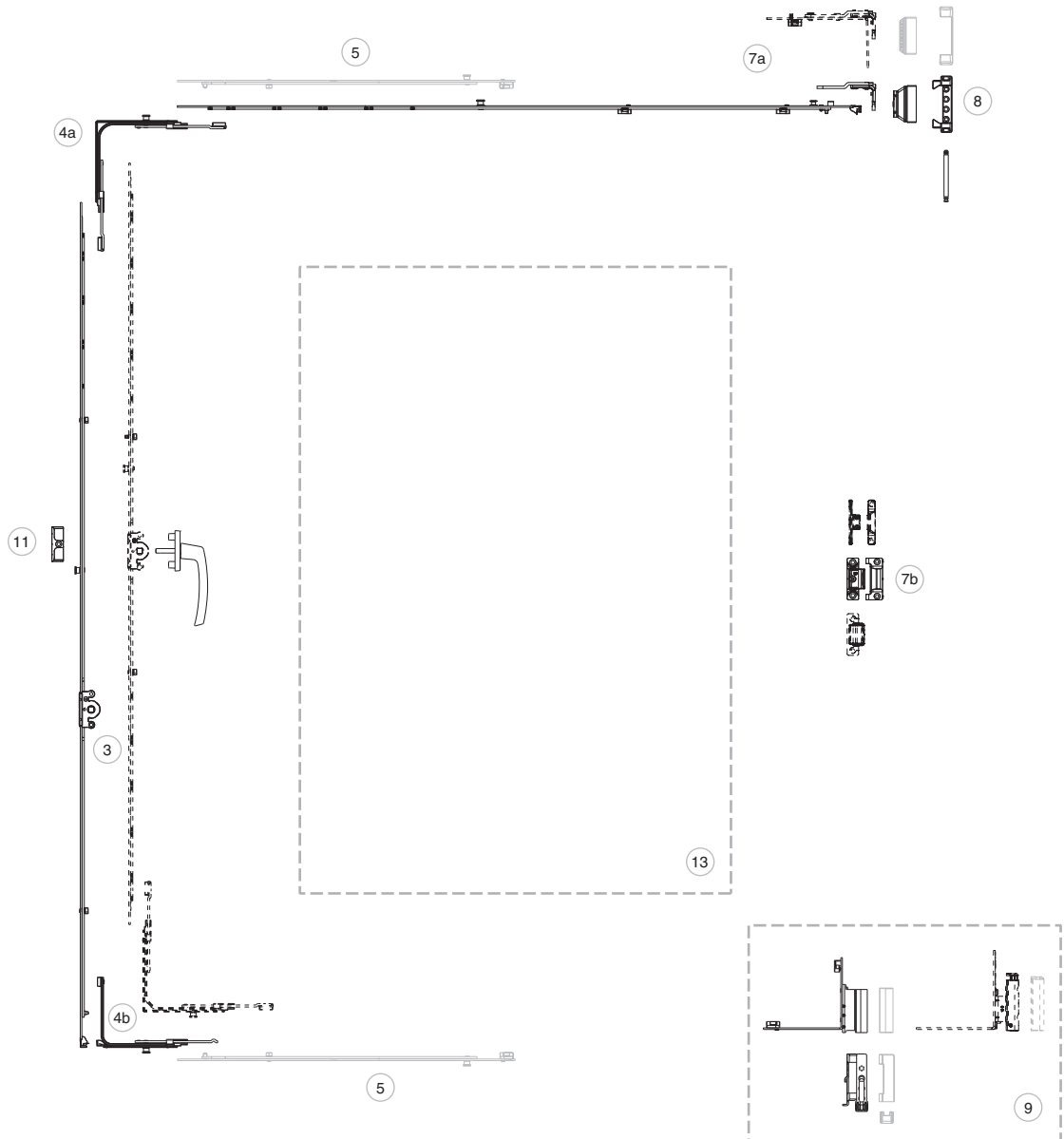
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 6b = Stabilizing scissor stay necessary from 1,301 mm (dark shading in application range diagram).
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.



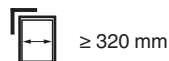
<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.2 Corner elements horizontal i.S.	→188
4c	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
6a	6.1.4 Scissor stay faceplates i.S.	→203
6b	6.10.1 Stabilizing scissor stays	→216
8	8.2 Surface-mounted scissor stay hinges	→238
9a	9.3.2 Surface-mounted rebated corner supports with rebate-leg screw fixing	→252
9b	9.3.4 Surface-mounted pivot posts for surface-mounted rebated corner supports with rebate-leg screw fixing	→253
11	11 Striker plates	→292



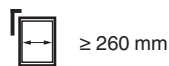
2.4.3.4 1-sashed rectangular turn-only window  
with pivot post AS and fixed or croppable turn-only hinge



≤ 1650 x 2600 mm



≥ 320 mm



≥ 260 mm



≥ 360 mm ( 15), ≥ 455 mm ( 6,5)



≥ 470 mm ( 15), ≥ 530 mm ( 6,5)

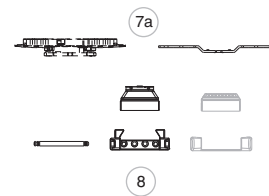
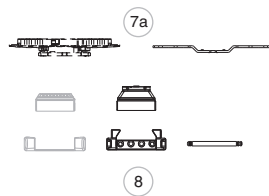
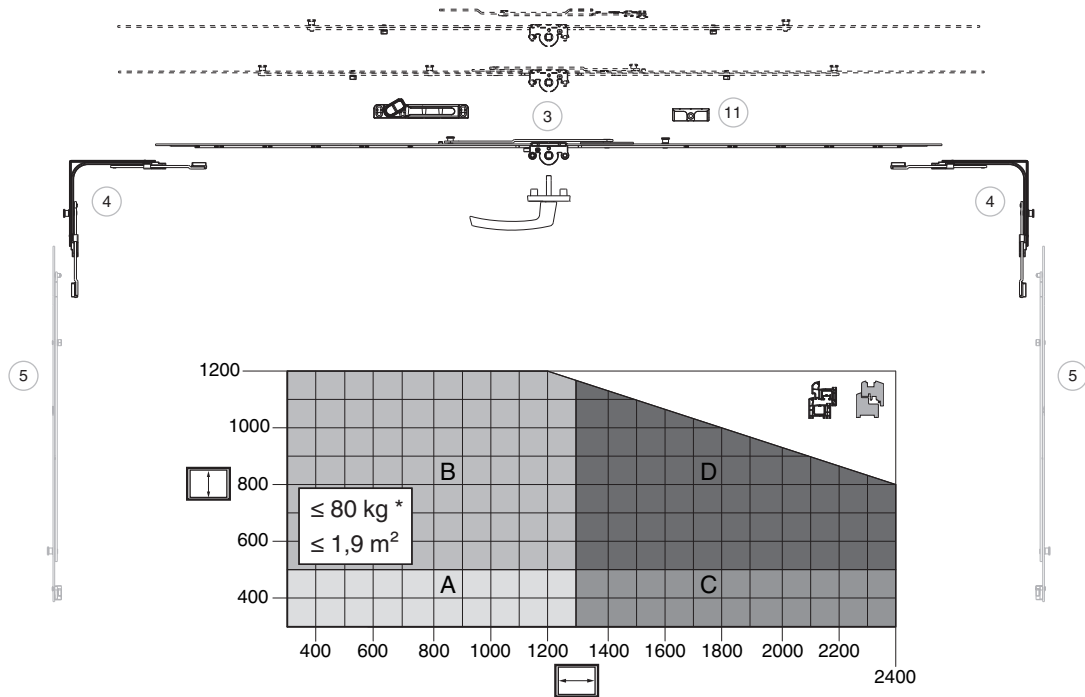
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7a = Turn-only hinge - sash part fixed or croppable.
- 7b = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!
- 9 = For possible pivot post combinations refer to matrix; the support screw has to be set from 100 kg sash weight!
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.
- 13 = For application diagram refer to turn&tilt hardware overview according to corresponding pivot post combination.



<b>Selection guide</b>		<b>Page</b>
3a	3.2.1.1 Turn-only drive gears BS 15 FHH i.S.	→173
3b	3.2.1.6 Turn-only drive gears BS 15 VHH i.S.	→174
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
7a	7.1 Turn-only hinges - sash part / turn-only hinges - frame part / turn-only hinge faceplates AS/DTuni/PVC	→220
7b	7.10.1 Surface-mounted compression devices	→232
8	8.2 Surface-mounted scissor stay hinges	→238
9	9.3 Pivot posts AS (surface-mounted)	→252
11	11 Striker plates	→292



2.4.3.5 1-sashed rectangular tilt-only window  
with scissor stay hinge AS and tilt-only hinge AS/PVC



$\leq 2400 \times 1200$  mm

$\geq 210$  mm

$\geq 300$  mm  
  $\geq 650$  mm

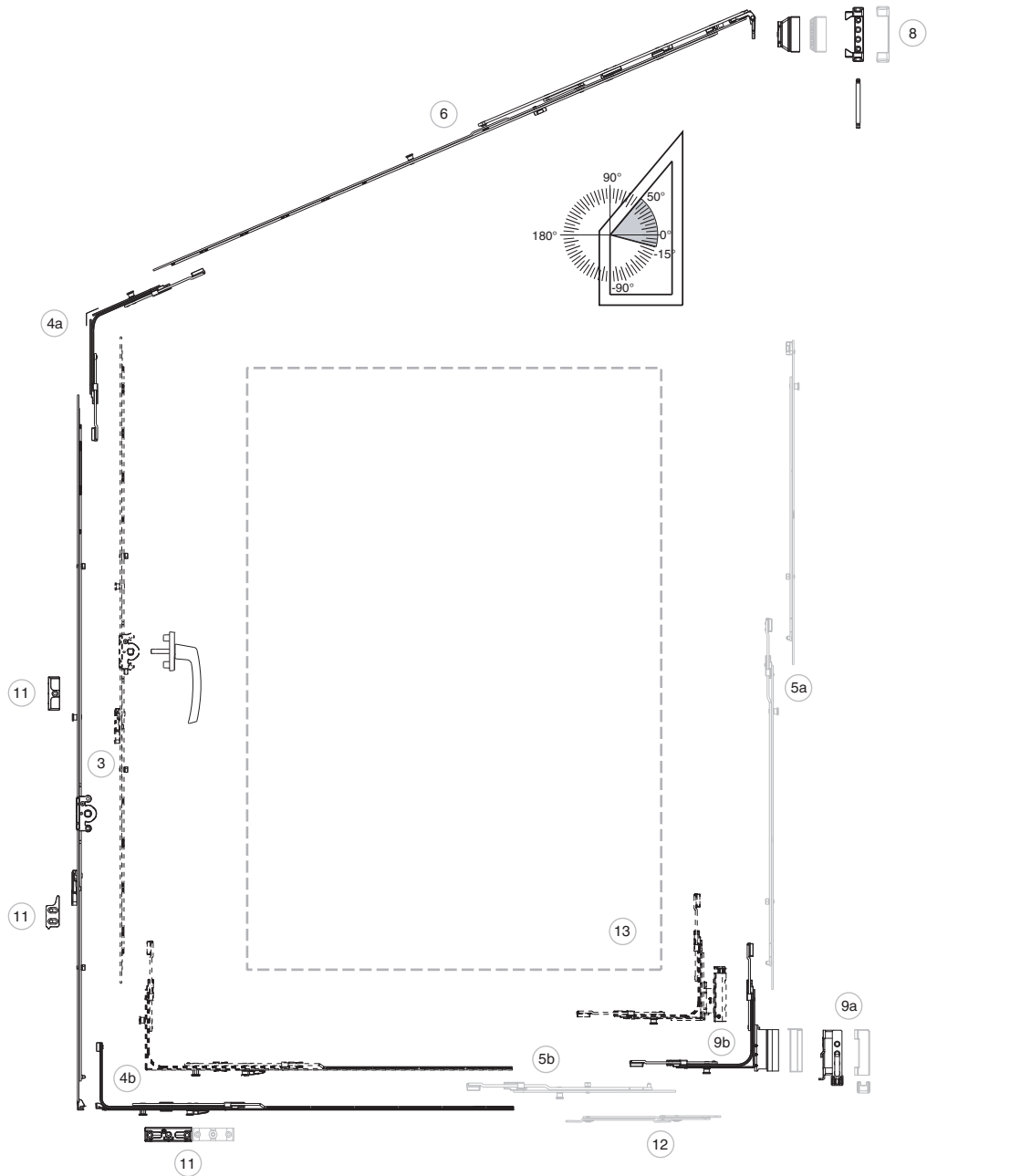
- A = 1 tilt stay + restrictor and cleaning stay size 1.
- B = 1 tilt stay + restrictor and cleaning stay size 2.
- C = 2 tilt stays + restrictor and cleaning stay size 1.
- D = 2 tilt stays + restrictor and cleaning stay size 2.
- \* = Mandatory installation of restrictor and cleaning stay (guideline FPKF at [www.schlossindustrie.de](http://www.schlossindustrie.de))! Observe application diagrams and max. load capacity for restrictor and cleaning stays!
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7b = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.



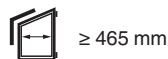
<b>Selection guide</b>			<b>Page</b>
3	3.4	Espagnolettes	→180
4	4.1.1	Corner elements standard i.S.	→188
5	5.1	Centre locks FHH i.S.	→196
7a	7.2	Tilt and turn hinges - sash part / tilt-only bearings AS/DTuni/PVC	→222
7b	7.10.1	Surface-mounted compression devices	→232
8	8.2	Surface-mounted scissor stay hinges	→238
11	11	Striker plates	→292



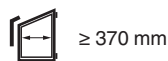
**2.4.3.6 1-sashed angled T&T window with pivot post AS and rebated corner support AS EH with corner element**



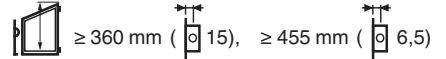
≤ 1650 x 2600 mm



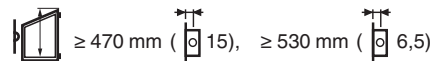
≥ 465 mm



≥ 370 mm



≥ 360 mm (  $\varnothing$  15), ≥ 455 mm (  $\varnothing$  6,5)



≥ 470 mm (  $\varnothing$  15), ≥ 530 mm (  $\varnothing$  6,5)

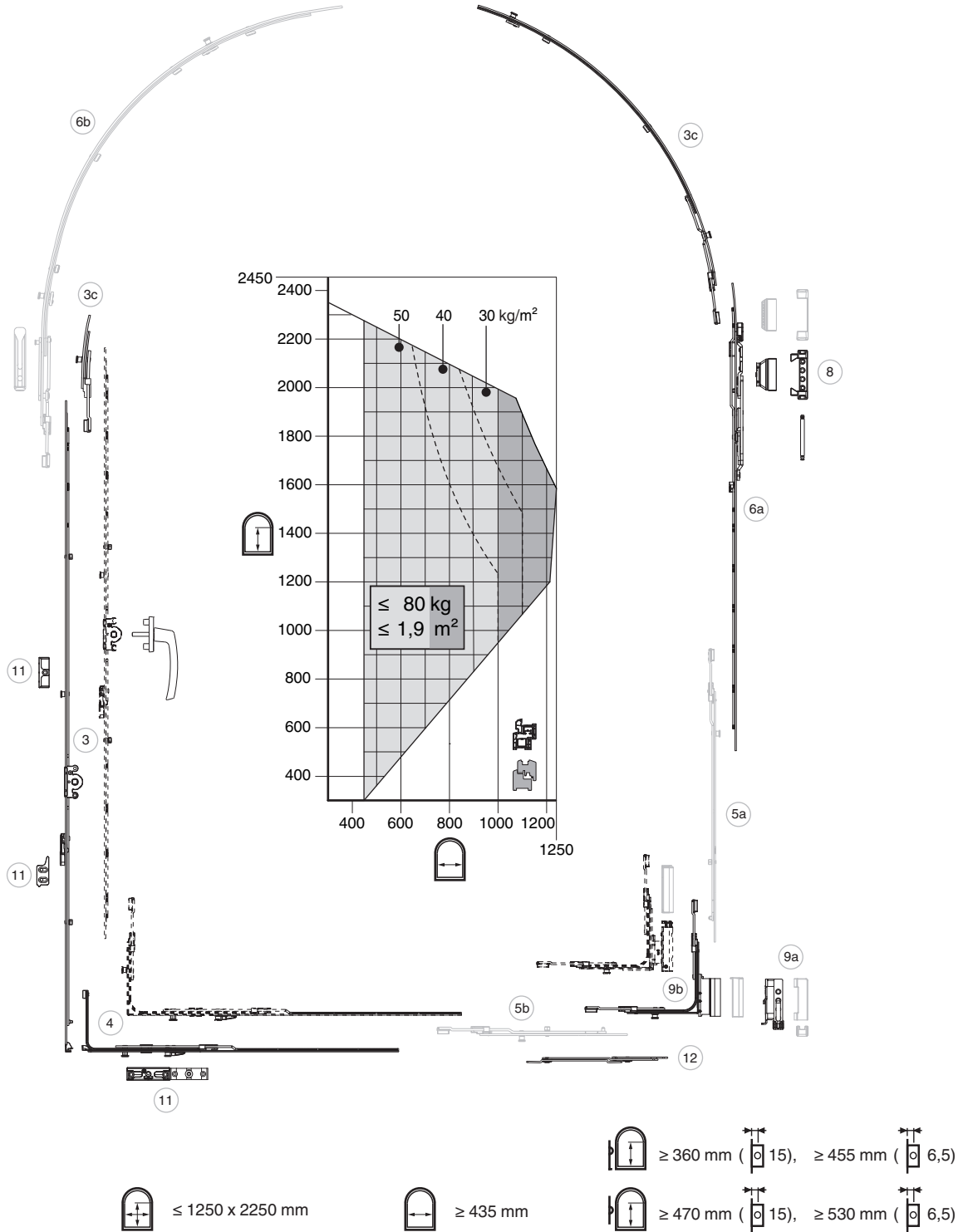
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5a = Above SRH 800 mm; Observe details from profile manufacturer!
- 5b = Required above SRW 670 mm.
- 9b = Rebated corner support with corner element with or without rebate-leg screw fixing.
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.
- 13 = Refer to application diagrams for angled windows in chapter 2.5.



<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.5 Corner elements i.S. for angled windows	→191
4b	4.6 Corner elements i.S. for half round windows	→192
5a	5.1 Centre locks FHH i.S.	→196
5b	5.10 Faceplate extensions fixed and extendable	→199
6	6.1.11 Rebated scissor stays i.S. for angled windows	→205
8	8.2 Surface-mounted scissor stay hinges	→238
9a	9.3.1 Surface-mounted pivot posts for rebated corner supports AS/PVC without rebate-leg screw fixing	→252
9b	9.3.3 Surface-mounted rebated corner supports with rebate-leg screw fixing EH with corner element	→253
11	11 Striker plates	→292
12	12.12 Turn restrictions	→315



**2.4.3.7 1-sashed half round T&T window  
with pivot post AS (for rebated corner support AS/PVC)  
+ rebated corner support AS EH with corner element**



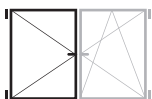
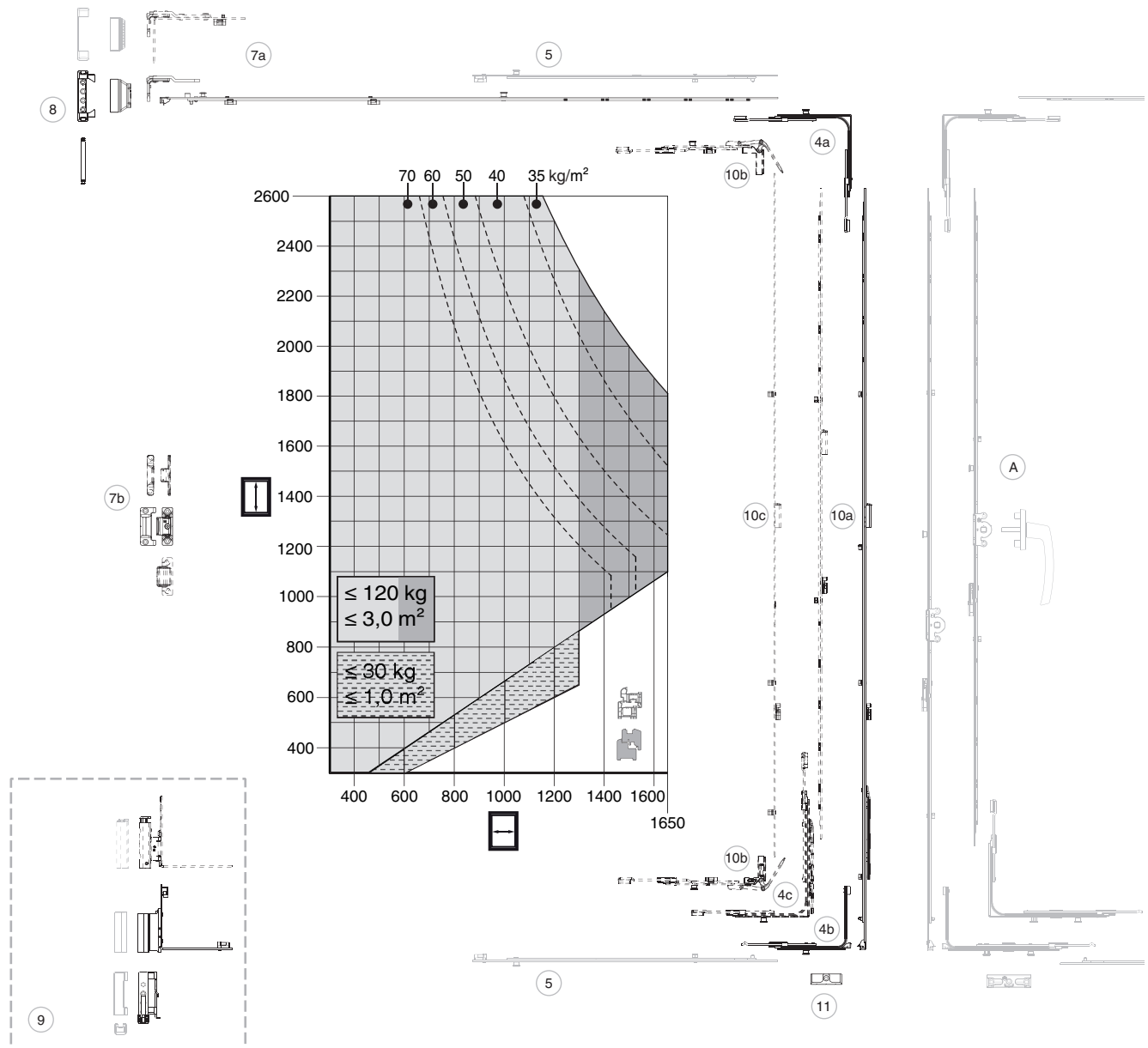
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 3c = Required above SRW 671 mm.
- 5a = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 5b = Required above SRW 670 mm.
- 6b = Stabilizing scissor stay necessary from 1,001 mm (dark shading in application range diagram).
- 9b = Rebated corner support with corner element with or without rebate-leg screw fixing.
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.



<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
3c	3.5.3 End pieces top for half round windows	→184
4	4.6 Corner elements i.S. for half round windows	→192
5a	5.2 Centre locks extendable i.S.	→196
5b	5.10 Faceplate extensions fixed and extendable	→199
6a	6.1.12 Rebated scissor stays i.S. for half round windows	→206
6b	6.10.4 Stabilizing scissor stays for half round windows	→216
8	8.2 Surface-mounted scissor stay hinges	→238
9a	9.3.1 Surface-mounted pivot posts for rebated corner supports AS/PVC without rebate-leg screw fixing	→252
9b	9.3.3 Surface-mounted rebated corner supports with rebate-leg screw fixing EH with corner element	→253
11	11 Striker plates	→292
12	12.12 Turn restrictions	→315



2.4.3.8 2-sashed rectangular T&T window with pivot post AS



≤ 1650 x 2600 mm



≥ 320 mm



≥ 260 mm



≥ 360 mm ( 15), ≥ 455 mm ( 6,5)



≥ 470 mm ( 15), ≥ 530 mm ( 6,5)

- A = For details refer to 1-sashed turn&tilt window.
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7b = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!
- 9 = For possible pivot post combinations refer to matrix; the support screw has to be set from 100 kg sash weight!
- 10a = French casement drive gear FHH or VHH.

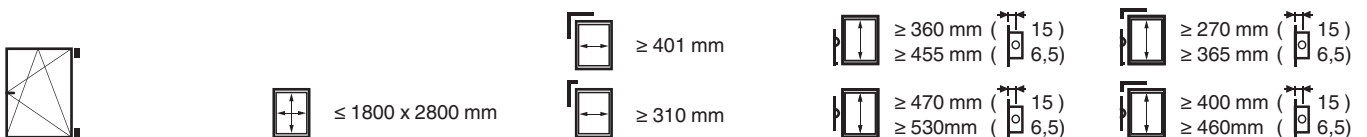
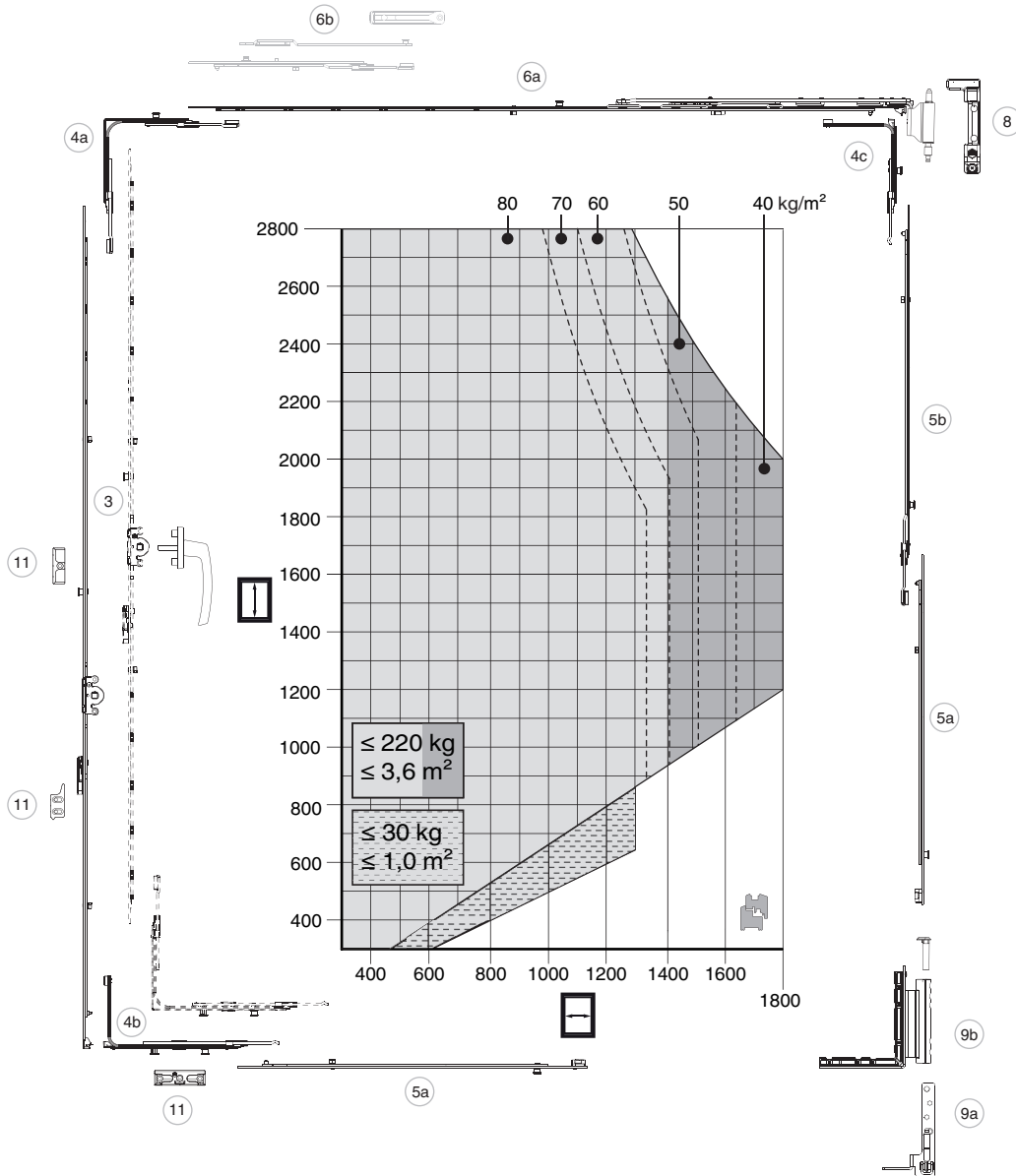


<b>Selection guide</b>		<b>Page</b>
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
4c	4.4 Corner elements i.S. for French casement drive gears	→191
5	5.1 Centre locks FHH i.S.	→196
7a	7.1 Turn-only hinges - sash part / turn-only hinges - frame part / turn-only hinge faceplates AS/DTuni/PVC	→220
7b	7.10 Compression devices	→232
8	8.2 Surface-mounted scissor stay hinges	→238
9	9.3 Pivot posts AS (surface-mounted)	→252
10a	10.2 French casement drive gears	→278
10b	10.3 Horizontal French casement locks	→286
10c	10.4 Single piece door striker	→286
11	11 Striker plates	→292



2.4.4 MULTI MAMMUT (drive gear FHH/VHH)

2.4.4.1 1-sashed rectangular T&T window with pivot post timber MULTI MAMMUT and corner support MULTI MAMMUT



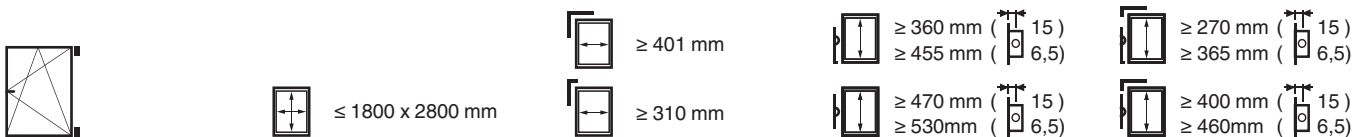
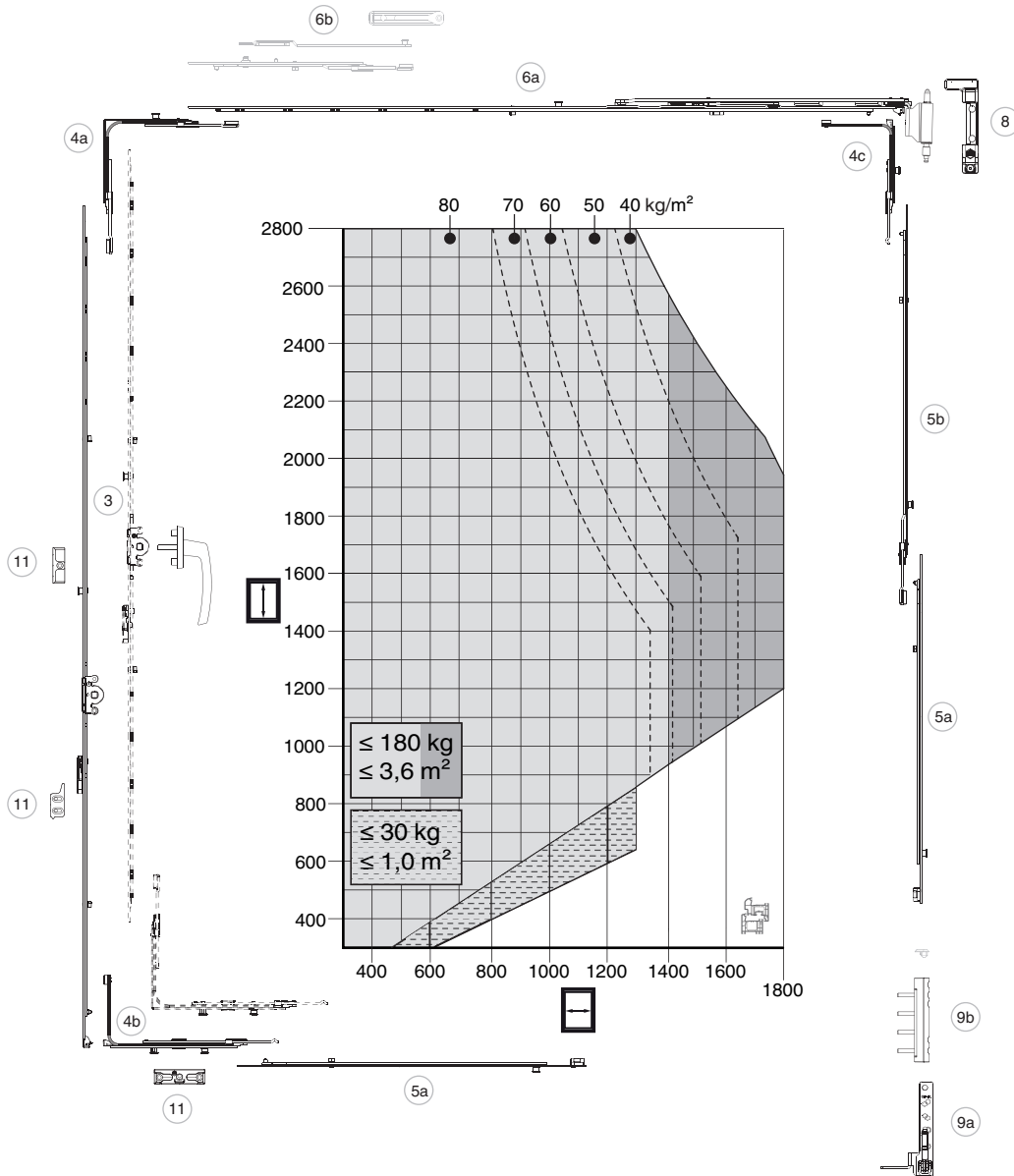
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 5b = Use additional centre locks from 1,280 mm!
- 6b = Stabilizing scissor stay necessary from 1,401 mm (dark shading in application range diagram).



<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.2 Corner elements horizontal i.S.	→188
4c	4.1.3 Corner elements vertical i.S.	→189
5a	5.1 Centre locks FHH i.S.	→196
5b	5.2 Centre locks extendable i.S.	→196
6a	6.2 Rebated scissor stays MULTI MAMMUT	→207
6b	6.10.1 Stabilizing scissor stays	→216
8	8.6 Scissor stay hinges MULTI MAMMUT	→241
9a	9.5.1 Pivot posts for timber MULTI MAMMUT	→259
9b	9.5.4 Rebated corner supports MULTI MAMMUT	→260
11	11 Striker plates	→292



2.4.4.2 1-sashed rectangular T&T window  
with pivot post PVC MULTI MAMMUT and corner support MULTI MAMMUT



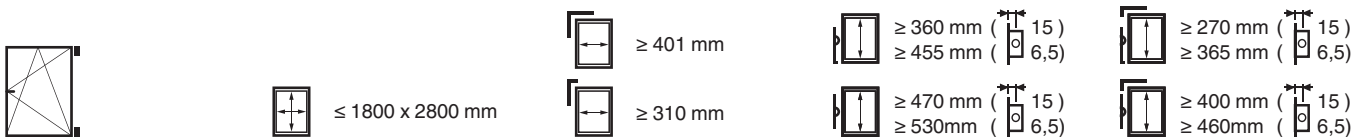
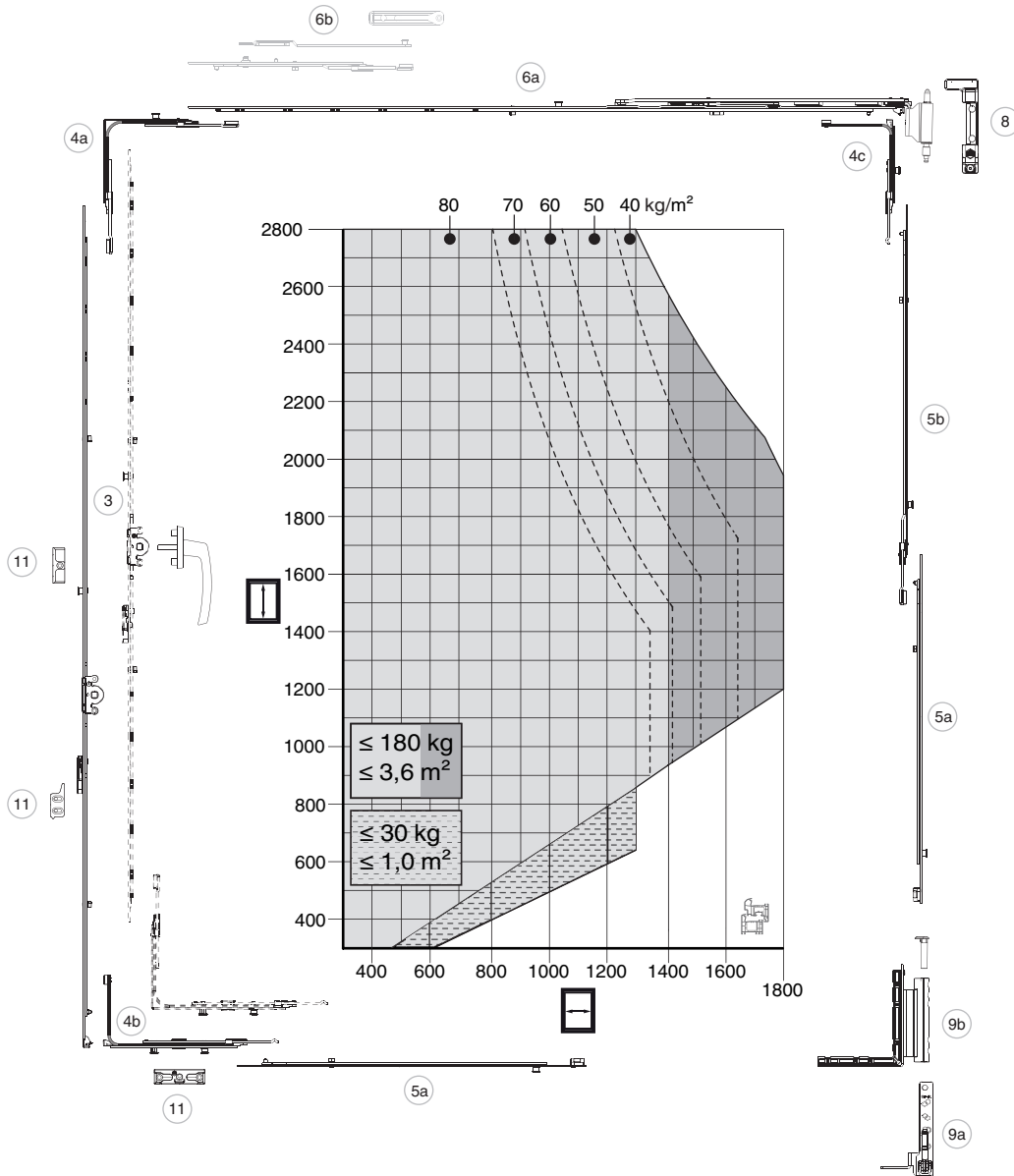
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 5b = Use additional centre locks from 1,280 mm!
- 6b = Stabilizing scissor stay necessary from 1,401 mm (dark shading in application range diagram).
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.



<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.2 Corner elements horizontal i.S.	→188
4c	4.1.3 Corner elements vertical i.S.	→189
5a	5.1 Centre locks FHH i.S.	→196
5b	5.2 Centre locks extendable i.S.	→196
6a	6.2 Rebated scissor stays MULTI MAMMUT	→207
6b	6.10.1 Stabilizing scissor stays	→216
8	8.6 Scissor stay hinges MULTI MAMMUT	→241
9a	9.5.2 Pivot posts for PVC MULTI MAMMUT	→259
9b	9.5.3 Corner supports PVC MULTI MAMMUT	→259



2.4.4.3 1-sashed rectangular T&T window with pivot post PVC MULTI MAMMUT and rebated corner support MULTI MAMMUT



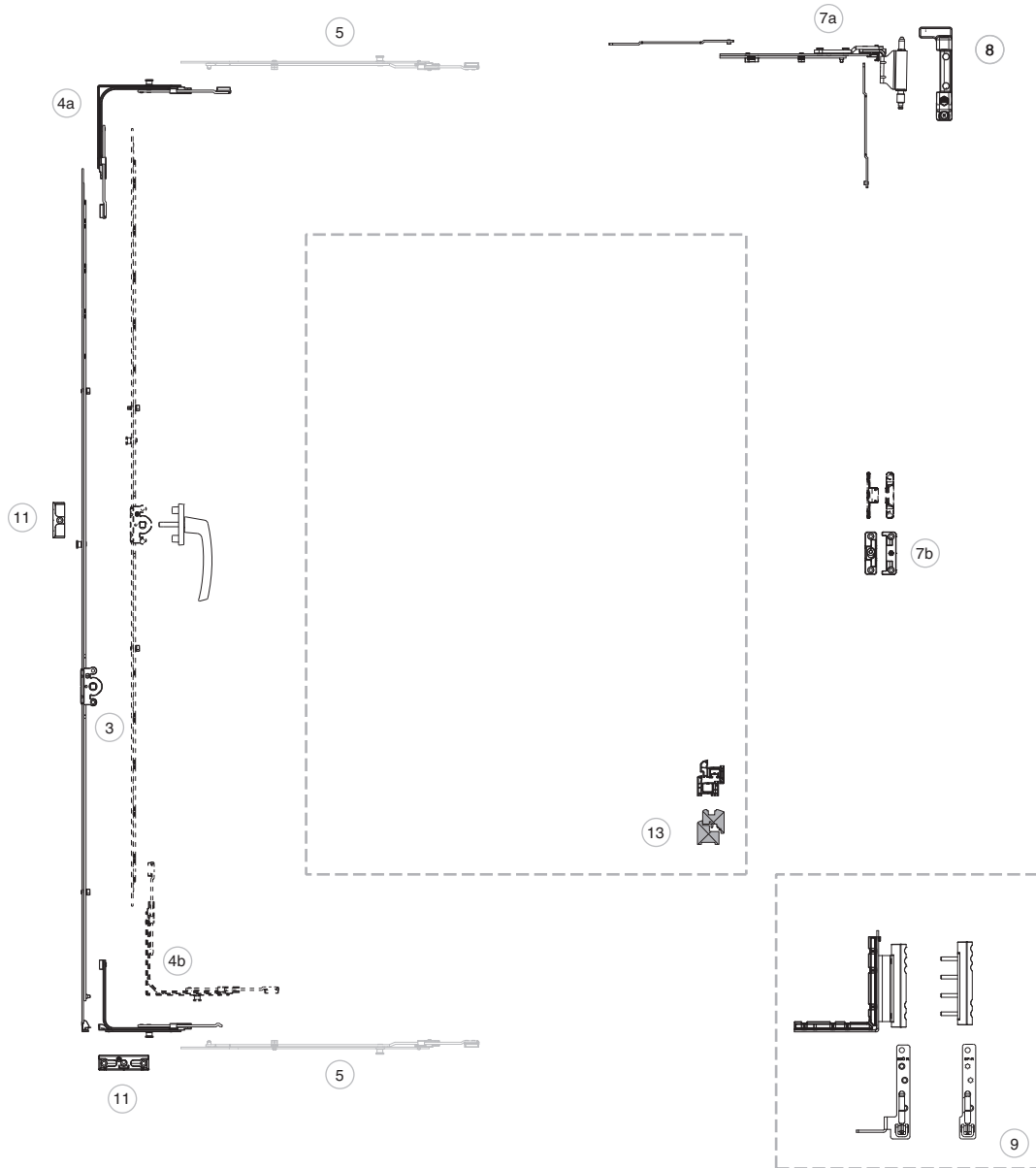
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 5b = Use additional centre locks from 1,280 mm!
- 6b = Stabilizing scissor stay necessary from 1,401 mm (dark shading in application range diagram).
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.



<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.2 Corner elements horizontal i.S.	→188
4c	4.1.3 Corner elements vertical i.S.	→189
5a	5.1 Centre locks FHH i.S.	→196
5b	5.2 Centre locks extendable i.S.	→196
6a	6.2 Rebated scissor stays MULTI MAMMUT	→207
6b	6.10.1 Stabilizing scissor stays	→216
8	8.6 Scissor stay hinges MULTI MAMMUT	→241
9a	9.5.2 Pivot posts for PVC MULTI MAMMUT	→259
9b	9.5.4 Rebated corner supports MULTI MAMMUT	→260



**2.4.4.4 1-sashed rectangular turn-only window  
with pivot post MULTI MAMMUT and corner support MULTI MAMMUT  
with fixed turn-only hinge**



≤ 1800 x 2800 mm

≥ 385/400 mm  
 ≥ 325/340 mm

≥ 360 mm ( 15), ≥ 455 mm ( 6,5)  
 ≥ 470 mm ( 15), ≥ 530 mm ( 6,5)

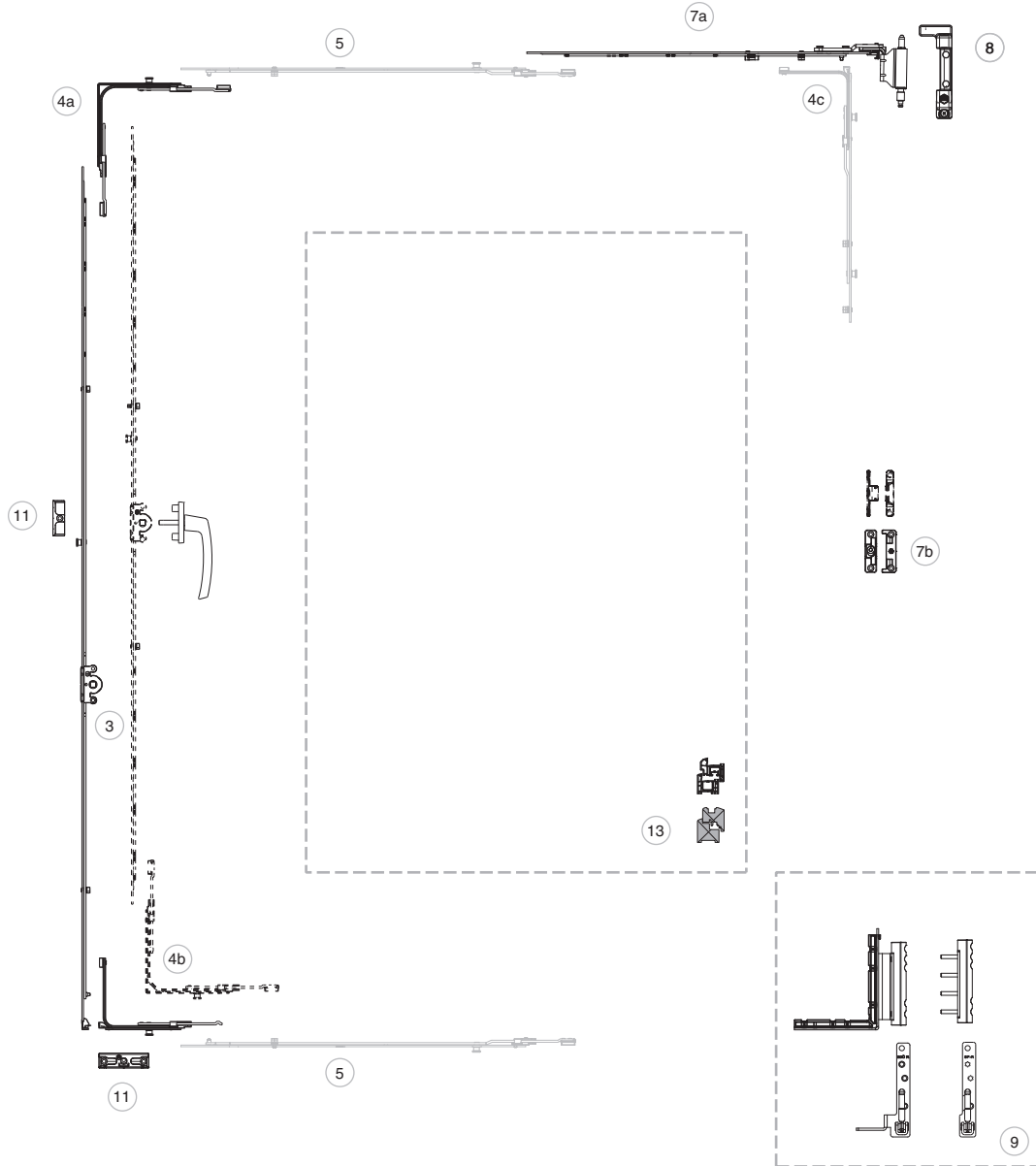
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7a = Faceplate extensions, when used as turn-only hinge (sash part) FHH (application range 385-1800 mm).
- 7b = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Top compression device must be installed close to turn-only hinge for gasket compression adjustment; Observe details from profile manufacturer!
- 9 = For possible pivot post combinations refer to matrix.
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.
- 13 = For application diagram refer to turn&tilt hardware overview according to corresponding pivot post combination.



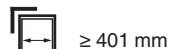
<b>Selection guide</b>		<b>Page</b>
3a	3.2.1.1 Turn-only drive gears BS 15 FHH i.S.	→173
3b	3.2.1.6 Turn-only drive gears BS 15 VHH i.S.	→174
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.2 Corner elements horizontal i.S.	→188
5	5.1 Centre locks FHH i.S.	→196
7a	7.4 Turn-only hinges - sash part MULTI MAMMUT	→224
7b	7.10 Compression devices	→232
8	8.6 Scissor stay hinges MULTI MAMMUT	→241
9	9.5 Pivot posts MULTI MAMMUT	→259
11	11 Striker plates	→292



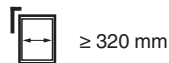
**2.4.4.5 1-sashed rectangular turn-only window  
with pivot post MULTI MAMMUT and corner support MULTI MAMMUT  
with croppable turn-only hinge**



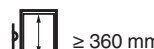
≤ 1800 x 2800 mm



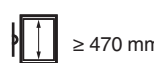
≥ 401 mm



≥ 320 mm



≥ 360 mm ( 15), ≥ 455 mm ( 6,5)



≥ 470 mm ( 15), ≥ 530 mm ( 6,5)

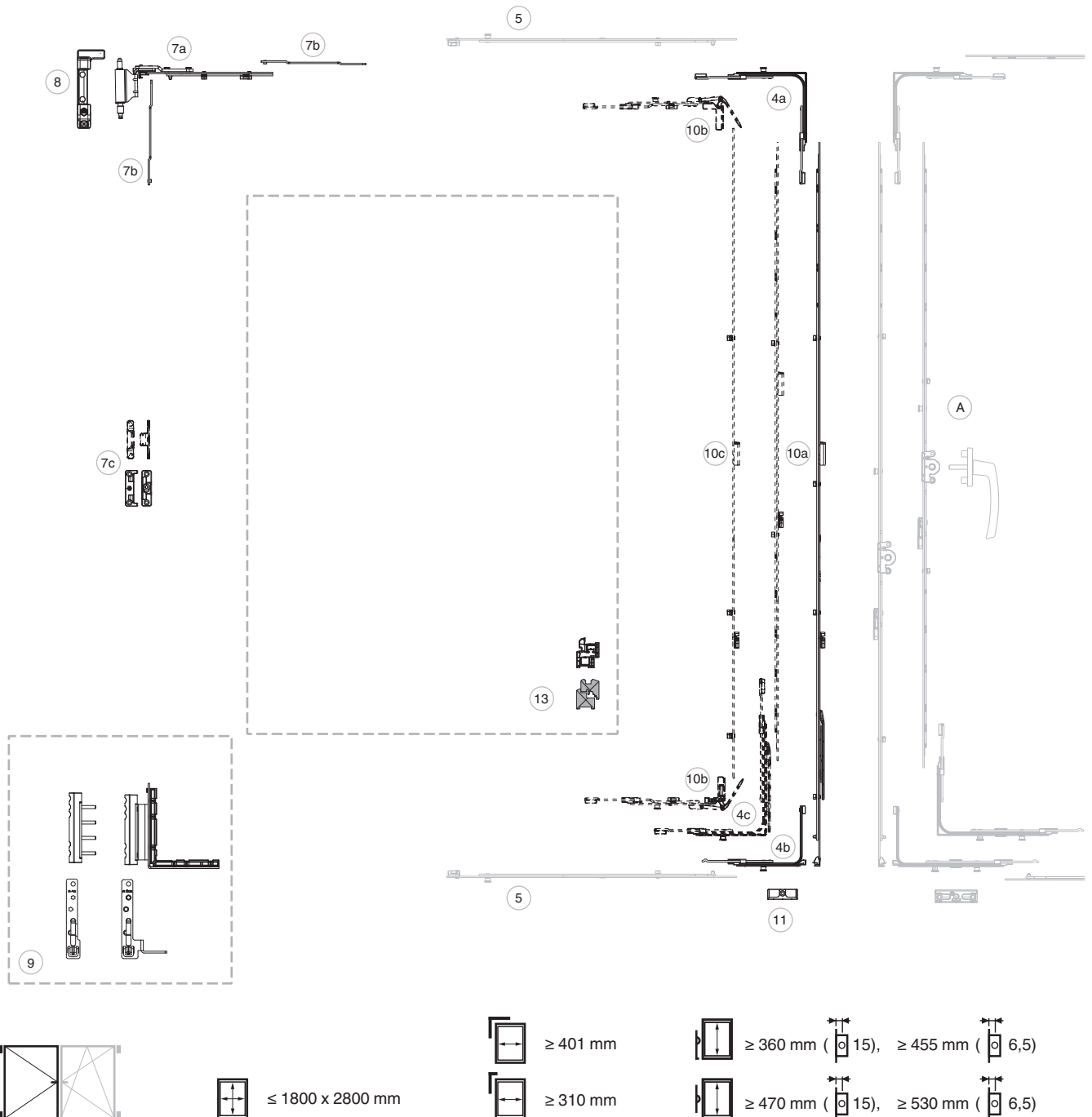
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7a = Use as croppable turn-only hinge (sash part) (application range 400 - 635 mm).
- 7b = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!
- 9 = For possible pivot post combinations refer to matrix.
- 13 = For application diagram refer to turn&tilt hardware overview according to corresponding pivot post combination.



<b>Selection guide</b>		<b>Page</b>
3a	3.2.1.1 Turn-only drive gears BS 15 FHH i.S.	→173
3b	3.2.1.6 Turn-only drive gears BS 15 VHH i.S.	→174
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.2 Corner elements horizontal i.S.	→188
4c	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
7a	7.4 Turn-only hinges - sash part MULTI MAMMUT	→224
7b	7.10 Compression devices	→232
8	8.6 Scissor stay hinges MULTI MAMMUT	→241
9	9.5 Pivot posts MULTI MAMMUT	→259
11	11 Striker plates	→292



2.4.4.6 2-sashed rectangular T&T window  
with pivot post MULTI MAMMUT and fixed turn-only hinge



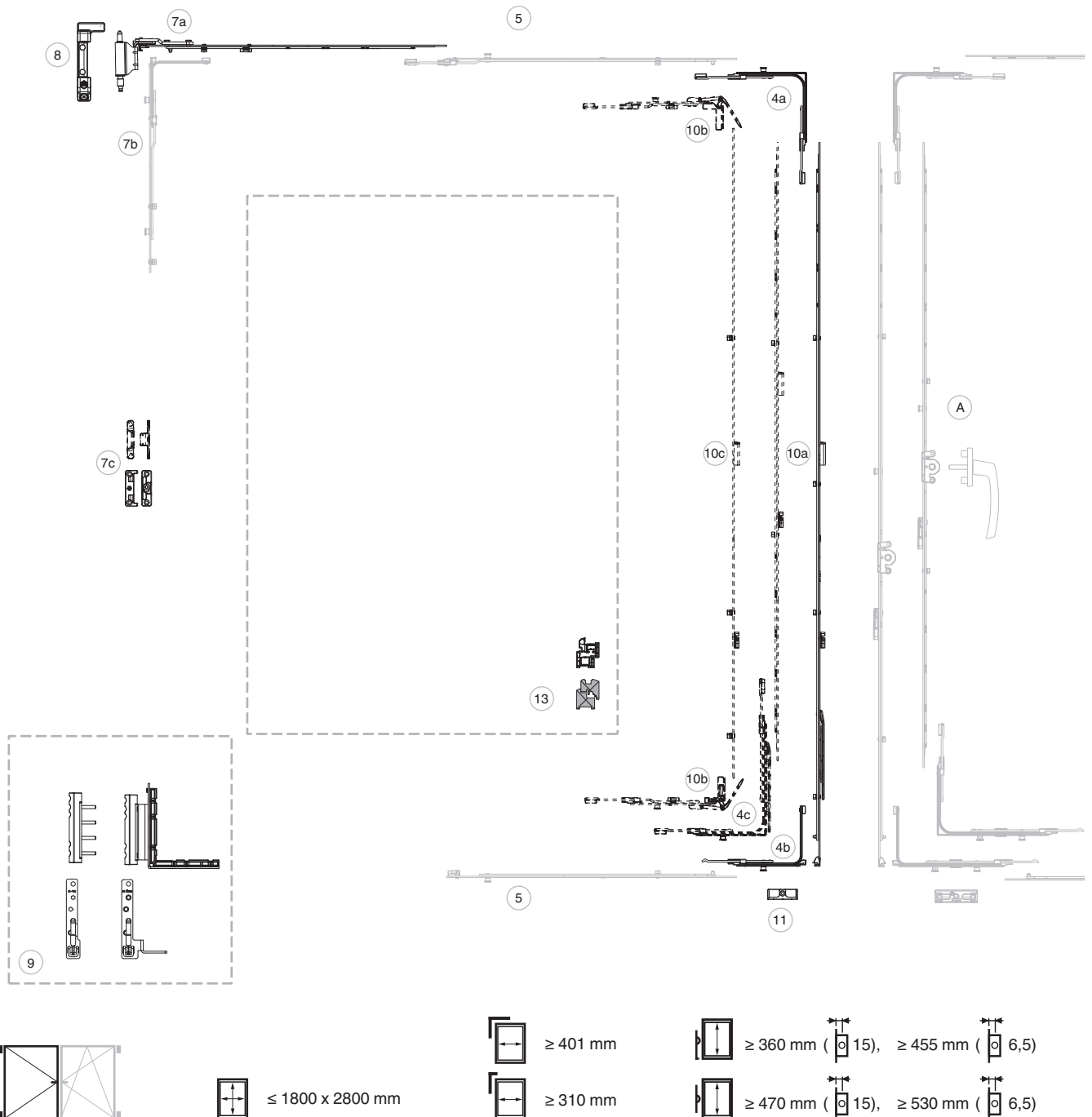
- A = For details refer to 1-sashed turn&tilt window.
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7c = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!
- 9 = For possible pivot post combinations refer to matrix; the support screw has to be set from 100 kg sash weight!
- 10a = French casement drive gear FHH or VHH.
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.
- 13 = For application diagram refer to turn&tilt hardware overview according to corresponding pivot post combination.



<b>Selection guide</b>		<b>Page</b>
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
4c	4.4 Corner elements i.S. for French casement drive gears	→191
5	5.1 Centre locks FHH i.S.	→196
7a	7.4.1 Turn-only hinges - sash part croppable MULTI MAMMUT	→224
7b	7.4.2 Faceplate extension for turn-only hinge - sash part MULTI MAMMUT	→224
7c	7.10 Compression devices	→232
8	8.6 Scissor stay hinges MULTI MAMMUT	→241
9	9.5 Pivot posts MULTI MAMMUT	→259
10a	10.2 French casement drive gears	→278
10b	10.3 Horizontal French casement locks	→286
10c	10.4 Single piece door striker	→286
11	11 Striker plates	→292



2.4.4.7 2-sashed rectangular T&T window  
with pivot post MULTI MAMMUT and croppable turn-only hinge



- A = For details refer to 1-sashed turn&tilt window.
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7c = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!
- 9 = For possible pivot post combinations refer to matrix; the support screw has to be set from 100 kg sash weight!
- 10a = French casement drive gear FHH or VHH.
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.
- 13 = For application diagram refer to turn&tilt hardware overview according to corresponding pivot post combination.

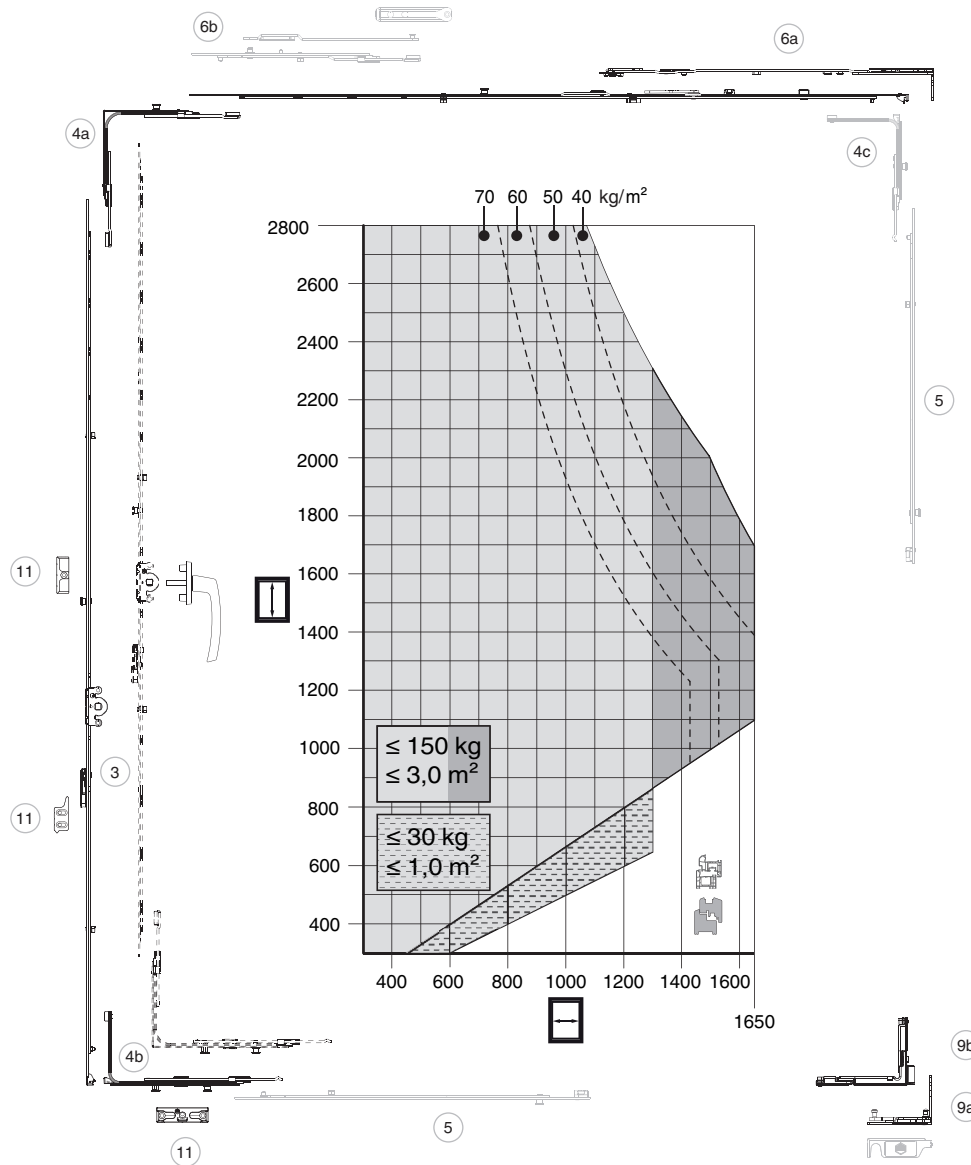


<b>Selection guide</b>		<b>Page</b>
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
4c	4.4 Corner elements i.S. for French casement drive gears	→191
5	5.1 Centre locks FHH i.S.	→196
7a	7.4.1 Turn-only hinges - sash part croppable MULTI MAMMUT	→224
7b	7.4.2 Faceplate extension for turn-only hinge - sash part MULTI MAMMUT	→224
7c	7.10 Compression devices	→232
8	8.6 Scissor stay hinges MULTI MAMMUT	→241
9	9.5 Pivot posts MULTI MAMMUT	→259
10a	10.2 French casement drive gears	→278
10b	10.3 Horizontal French casement locks	→286
10c	10.4 Single piece door striker	→286
11	11 Striker plates	→292



2.4.5 MULTI POWER (drive gear FHH/VHH)

2.4.5.1 1-sashed rectangular T&T window with pivot post MULTI POWER and corner support MULTI POWER



≤ 1650 x 2800 mm

≥ 465 mm

≥ 370 mm

≥ 360 mm ( 15 )  
≥ 455 mm ( 6,5 )

≥ 470 mm ( 15 )  
≥ 530 mm ( 6,5 )

≥ 270 mm ( 15 )  
≥ 365 mm ( 6,5 )

≥ 400 mm ( 15 )  
≥ 460 mm ( 6,5 )

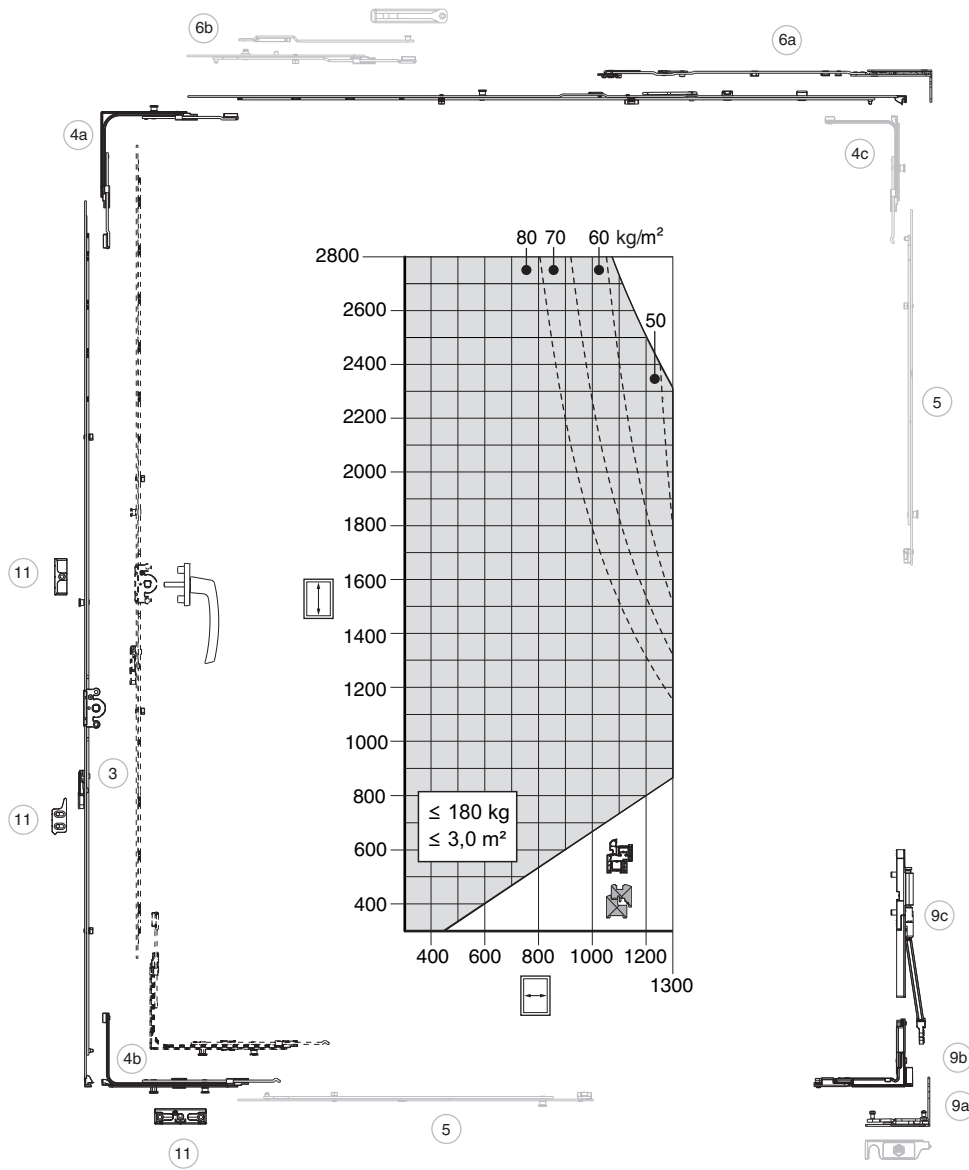
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 6b = Stabilizing scissor stay necessary from 1,301 mm (dark shading in application range diagram).
- 9 = Timber or PVC variant.
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.



<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.2 Corner elements horizontal i.S.	→188
4c	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
6a	6.5 Scissor stays MULTI POWER	→211
6b	6.10.1 Stabilizing scissor stays	→216
9a	9.8.1 Pivot posts for timber MULTI POWER	→263
9b	9.8.6 Rebated corner supports MULTI POWER	→264
11	11 Striker plates	→292



**2.4.5.2 1-sashed rectangular T&T window with pivot post MULTI POWER and corner support MULTI POWER and load transfer**



≤ 1300 x 2800 mm



≥ 465 mm



≥ 370 mm



≥ 360 mm ( 15 )  
≥ 455 mm ( 6,5 )



≥ 470 mm ( 15 )  
≥ 530mm ( 6,5 )



≥ 270 mm ( 15 )  
≥ 365 mm ( 6,5 )



≥ 400 mm ( 15 )  
≥ 460mm ( 6,5 )

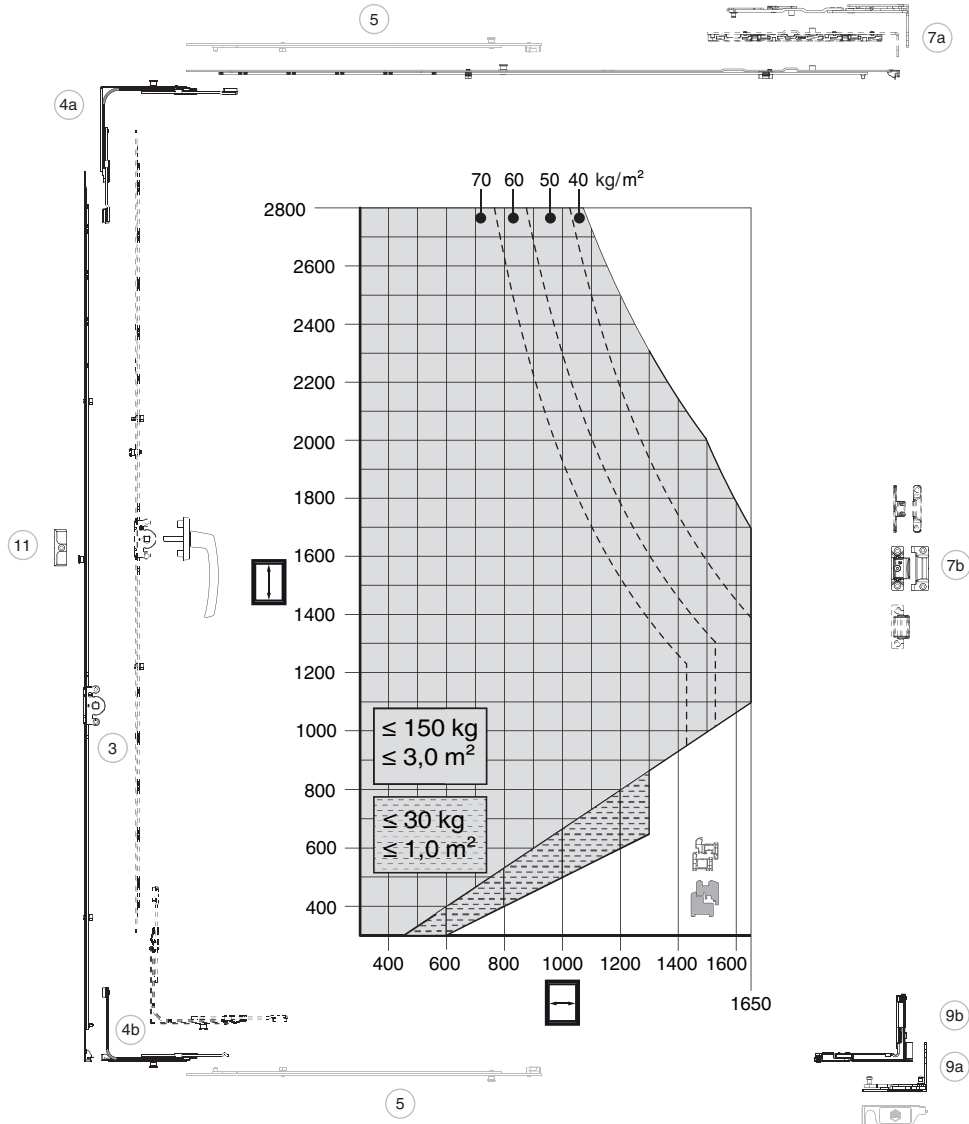
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 6b = Stabilizing scissor stay necessary from 1,301 mm (dark shading in application range diagram).
- 9 = Timber or PVC variant.
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.



<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.2 Corner elements horizontal i.S.	→188
4c	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
6a	6.5 Scissor stays MULTI POWER	→211
6b	6.10.1 Stabilizing scissor stays	→216
9a	9.8.1 Pivot posts for timber MULTI POWER	→263
9b	9.8.6 Rebated corner supports MULTI POWER	→264
9c	9.8.7 Load transfer MULTI POWER	→264
11	11 Striker plates	→292



**2.4.5.3 1-sashed rectangular turn-only window with fixed or croppable turn-only hinge faceplate and pivot post MULTI POWER and corner support MULTI POWER**



≤ 1650 x 2800 mm



≥ 465 mm

≥ 370 mm



≥ 360 mm ( 15),

≥ 470 mm ( 15),



≥ 455 mm ( 6,5)

≥ 530 mm ( 6,5)

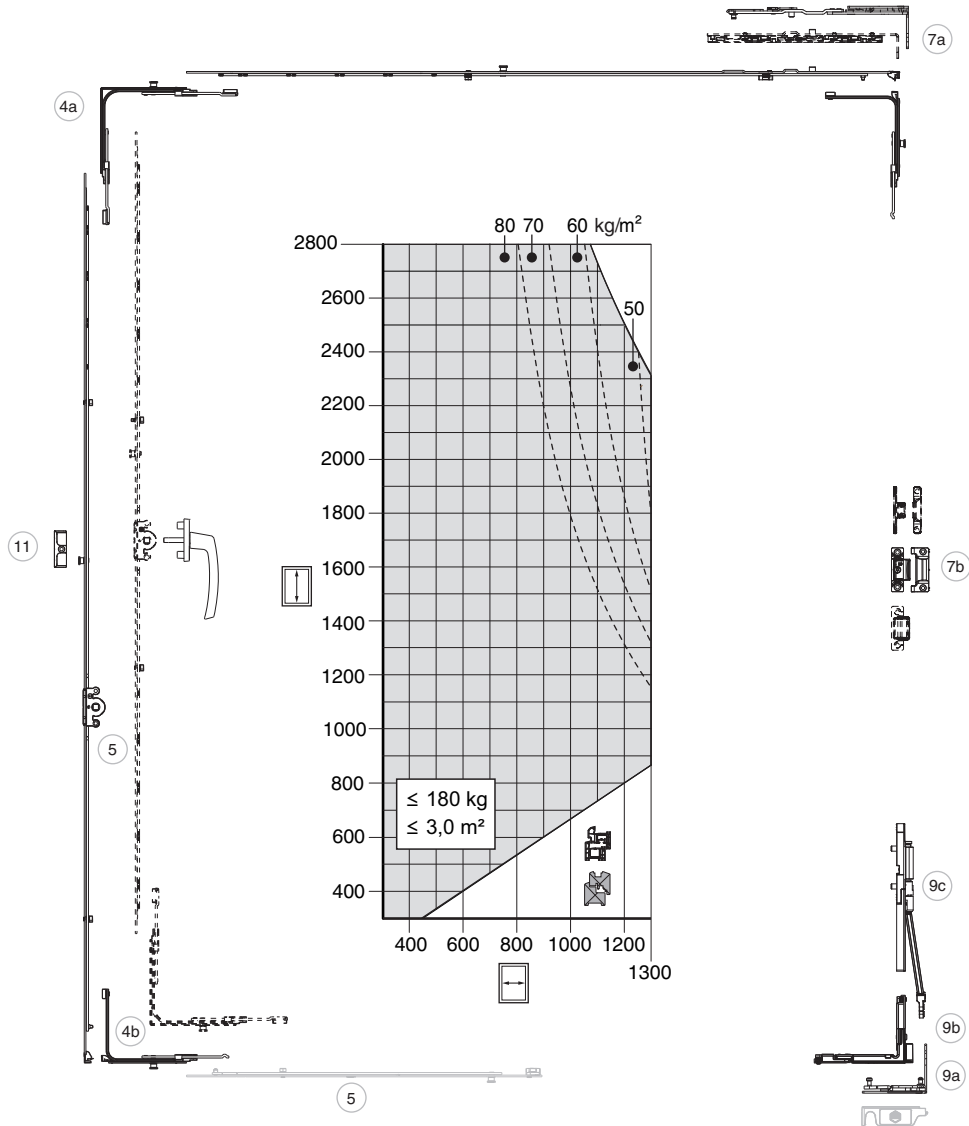
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7a = Turn-only hinge faceplate fixed or croppable.
- 7b = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!
- 9 = Timber or PVC variant.
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.



<b>Selection guide</b>		<b>Page</b>
3a	3.2.1.1 Turn-only drive gears BS 15 FHH i.S.	→173
3b	3.2.1.6 Turn-only drive gears BS 15 VHH i.S.	→174
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
7a	7.7.1 Turn-only and tilt-only hinge faceplates / turn-only and tilt-only hinge arms with hinge MULTI POWER	→227
7b	7.10 Compression devices	→232
9a	9.8.1 Pivot posts for timber MULTI POWER	→263
9b	9.8.6 Rebated corner supports MULTI POWER	→264
11	11 Striker plates	→292



**2.4.5.4 1-sashed rectangular turn-only window with fixed or croppable turn-only hinge faceplate and pivot post MULTI POWER and corner support MULTI POWER and load transfer**



≤ 1300 x 2800 mm



≥ 465 mm



≥ 370 mm



≥ 360 mm ( 15), ≥ 455 mm ( 6,5)



≥ 470 mm ( 15), ≥ 530 mm ( 6,5)

- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7a = Turn-only hinge faceplate fixed or croppable.
- 7b = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!
- 9 = Timber or PVC variant.
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.

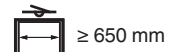
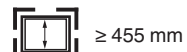
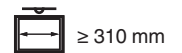
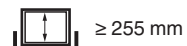
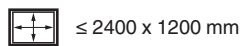
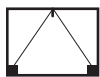
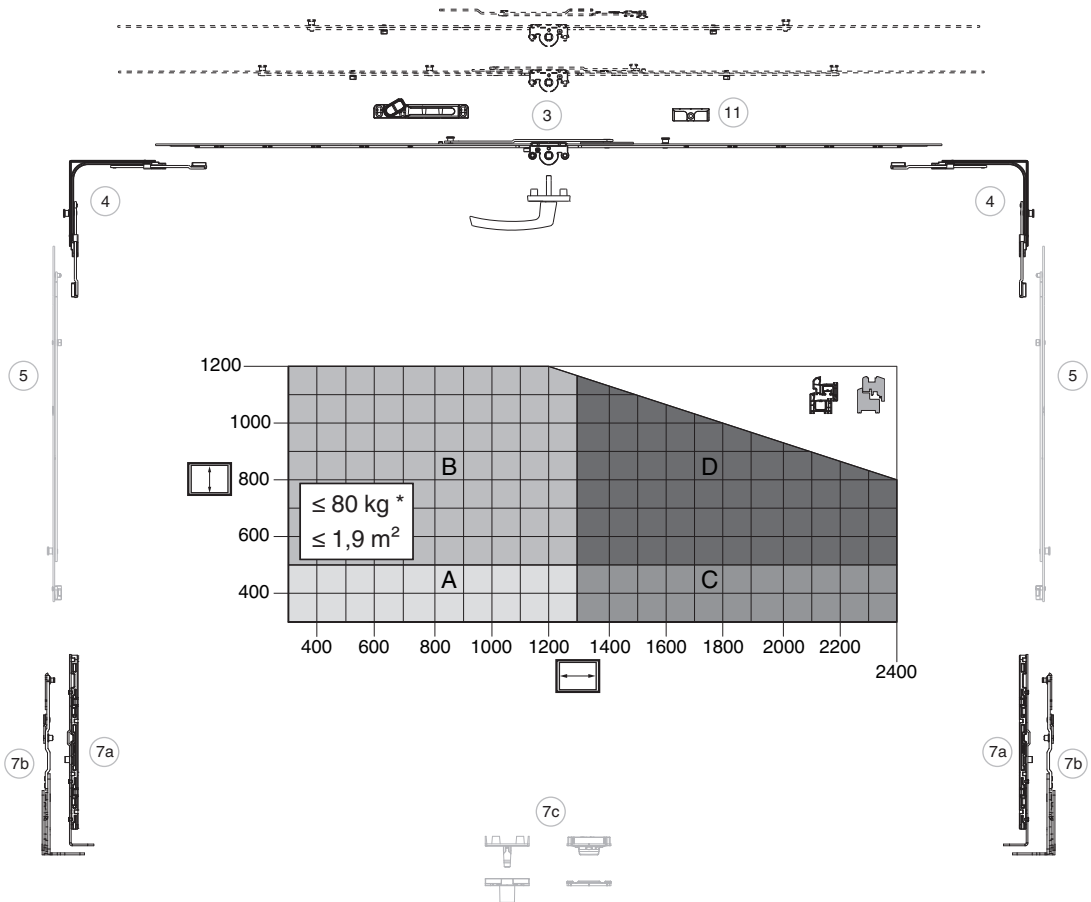


<b>Selection guide</b>		<b>Page</b>
3a	3.2.1.1 Turn-only drive gears BS 15 FHH i.S.	→173
3b	3.2.1.6 Turn-only drive gears BS 15 VHH i.S.	→174
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
7a	7.7.1 Turn-only and tilt-only hinge faceplates / turn-only and tilt-only hinge arms with hinge MULTI POWER	→227
7b	7.10 Compression devices	→232
9a	9.8.1 Pivot posts for timber MULTI POWER	→263
9b	9.8.6 Rebated corner supports MULTI POWER	→264
9c	9.8.7 Load transfer MULTI POWER	→264
11	11 Striker plates	→292



2.4.5.5 1-sashed rectangular tilt-only window

with tilt-only hinge arm MULTI POWER and fixed tilt-only hinge faceplate MULTI POWER



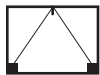
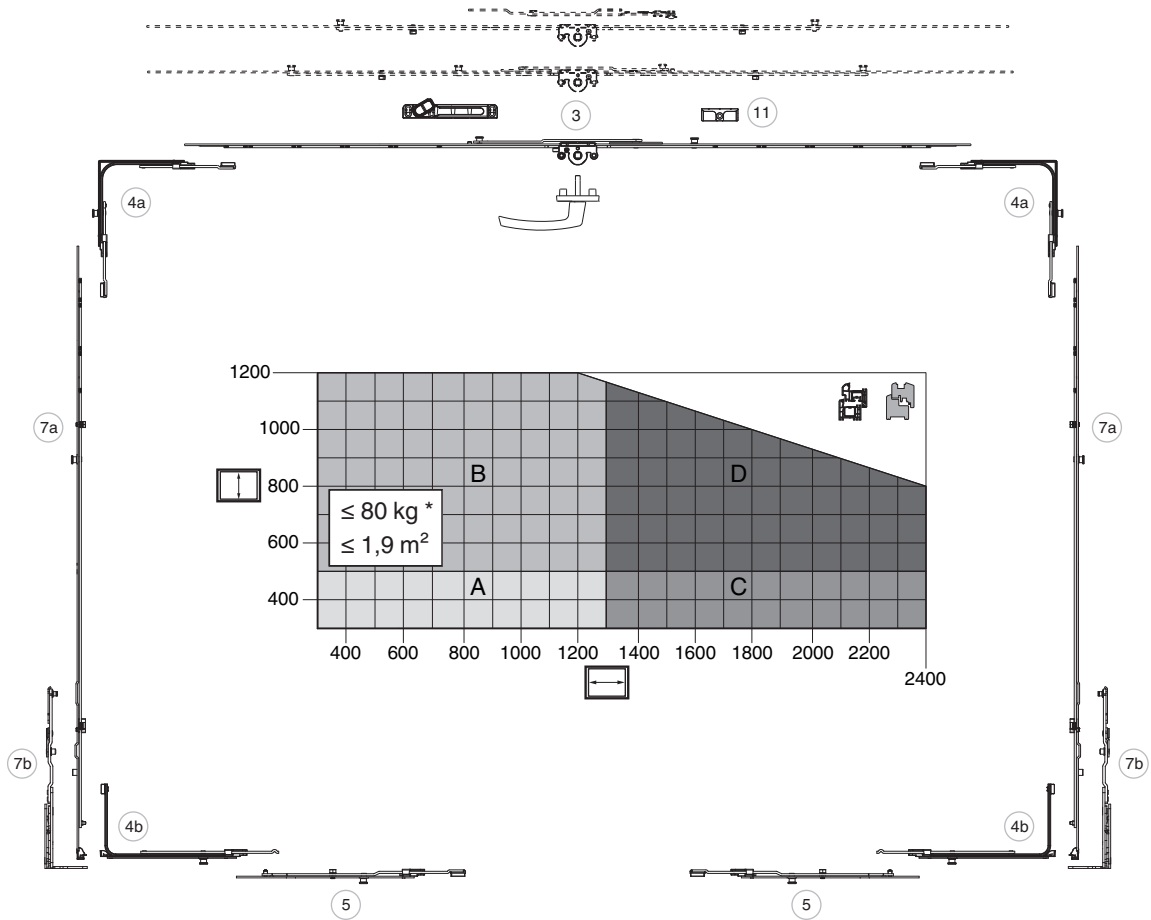
- A = 1 tilt stay + restrictor and cleaning stay size 1.
- B = 1 tilt stay + restrictor and cleaning stay size 2.
- C = 2 tilt stays + restrictor and cleaning stay size 1.
- D = 2 tilt stays + restrictor and cleaning stay size 2.
- \* = Mandatory installation of restrictor and cleaning stay (guideline FPKF at [www.schlossindustrie.de](http://www.schlossindustrie.de))! Observe application diagrams and max. load capacity for restrictor and cleaning stays!
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7c = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.



Selection guide			Page
3	3.4	Espagnolettes	→180
4	4.1.1	Corner elements standard i.S.	→188
5	5.1	Centre locks FHH i.S.	→196
7a	7.7.1.1	Turn-only and tilt-only hinge faceplate fixed MULTI POWER	→227
7b	7.7.1.5	Tilt-only hinge arms with hinge timber MULTI POWER	→227
7c	7.10	Compression devices	→232
11	11	Striker plates	→292



**2.4.5.6 1-sashed rectangular tilt-only window  
with tilt-only hinge arm MULTI POWER and croppable tilt-only hinge faceplate MULTI POWER**



≤ 2400 x 1200 mm



≥ 401 mm



≥ 310 mm



≥ 650 mm

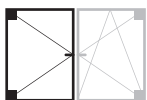
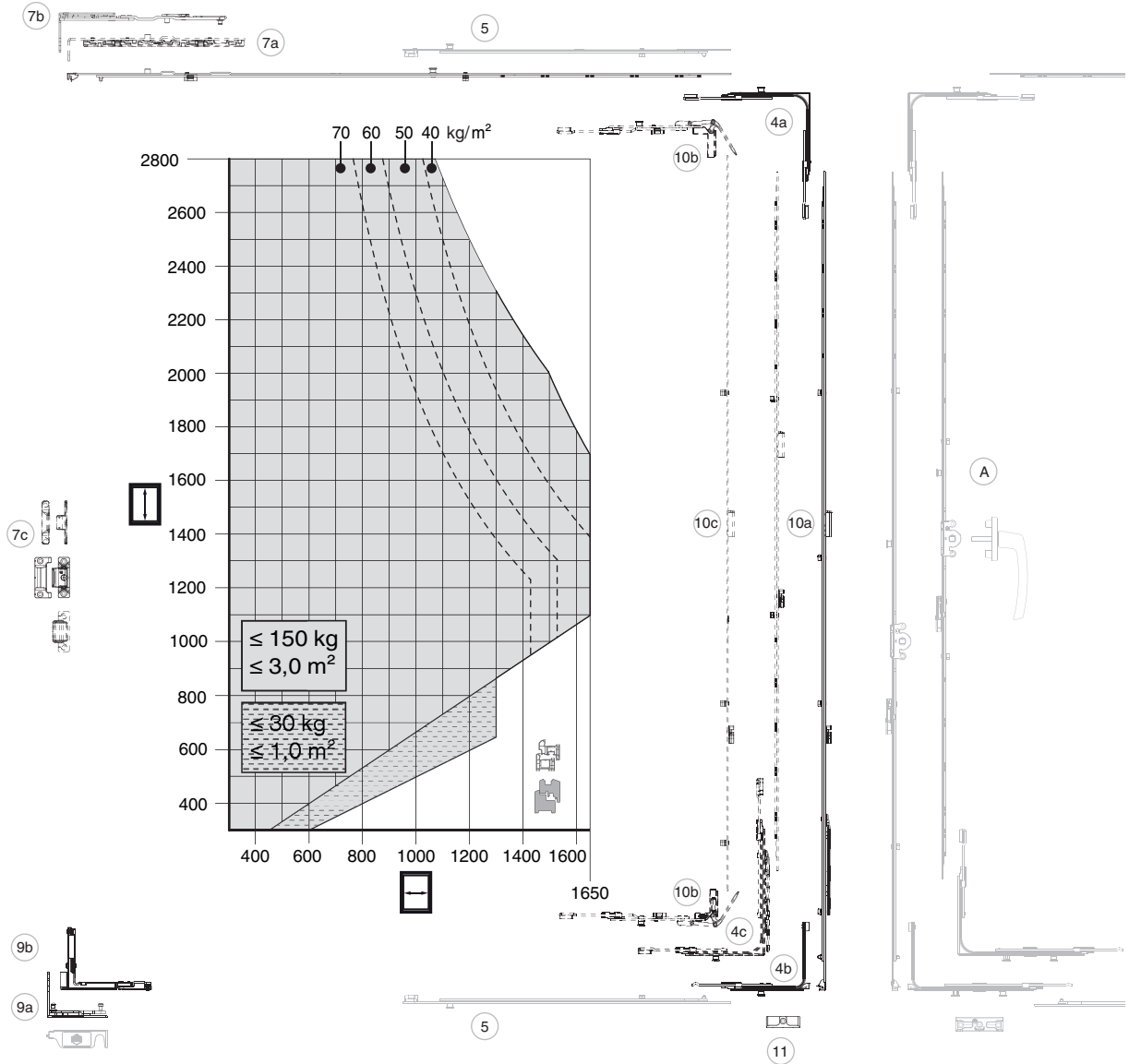
- A = 1 tilt stay + restrictor and cleaning stay size 1.
- B = 1 tilt stay + restrictor and cleaning stay size 2.
- C = 2 tilt stays + restrictor and cleaning stay size 1.
- D = 2 tilt stays + restrictor and cleaning stay size 2.
- \* = Mandatory installation of restrictor and cleaning stay (guideline FPKF at [www.schlossindustrie.de](http://www.schlossindustrie.de))! Observe application diagrams and max. load capacity for restrictor and cleaning stays!
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.



<b>Selection guide</b>			<b>Page</b>
3	3.4	Espagnolettes	→180
4a	4.1.1	Corner elements standard i.S.	→188
4b	4.1.3	Corner elements vertical i.S.	→189
5	5.10	Faceplate extensions fixed and extendable	→199
7a	7.7.1.2	Turn-only hinge faceplates croppable MULTI POWER	→227
7b	7.7.1.5	Tilt-only hinge arms with hinge timber MULTI POWER	→227
11	11	Striker plates	→292



**2.4.5.7 2-sashed rectangular T&T window with fixed or croppable turn-only hinge faceplate and pivot post MULTI POWER and corner support MULTI POWER**



≤ 1650 x 2800 mm



≥ 465 mm



≥ 370 mm



≥ 360 mm ( 15), ≥ 455 mm ( 6,5)



≥ 470 mm ( 15), ≥ 530 mm ( 6,5)

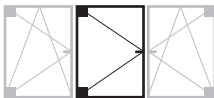
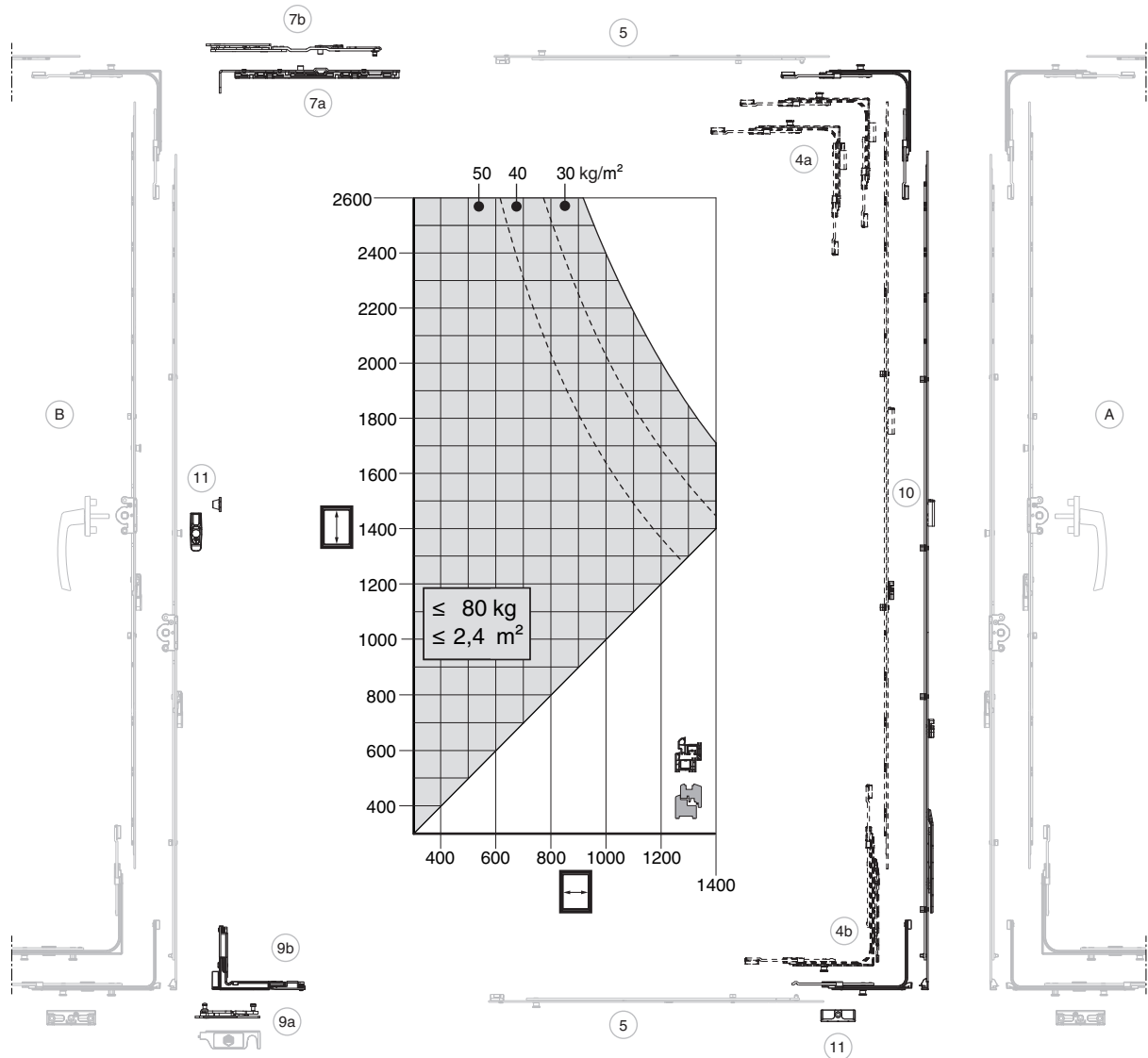
- A = For details refer to 1-sashed turn&tilt window.
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7a = Turn-only hinge faceplate fixed or croppable.
- 7c = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!
- 9 = Timber or PVC variant.
- 10a = French casement drive gear FHH or VHH.
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.



<b>Selection guide</b>		<b>Page</b>
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
4c	4.4 Corner elements i.S. for French casement drive gears	→191
5	5.1 Centre locks FHH i.S.	→196
7a	7.7.1.1 Turn-only and tilt-only hinge faceplate fixed MULTI POWER	→227
7b	7.7.1.3 Turn-only hinge arms with hinge timber MULTI POWER	→227
7c	7.10 Compression devices	→232
9a	9.8.1 Pivot posts for timber MULTI POWER	→263
9b	9.8.6 Rebated corner supports MULTI POWER	→264
10a	10.2 French casement drive gears	→278
10b	10.3 Horizontal French casement locks	→286
10c	10.4 Single piece door striker	→286
11	11 Striker plates	→292



2.4.5.8 3-sashed rectangular turn-only window  
with pivot post MULTI POWER and corner support MULTI POWER



$\leq 1400 \times 2600\text{ mm}$

$\geq 465\text{ mm}$

$\geq 360\text{ mm}$  ( $\varnothing 15$ ),  $\geq 455\text{ mm}$  ( $\varnothing 6,5$ )  
 $\geq 470\text{ mm}$  ( $\varnothing 15$ ),  $\geq 530\text{ mm}$  ( $\varnothing 6,5$ )

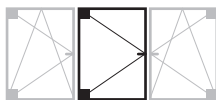
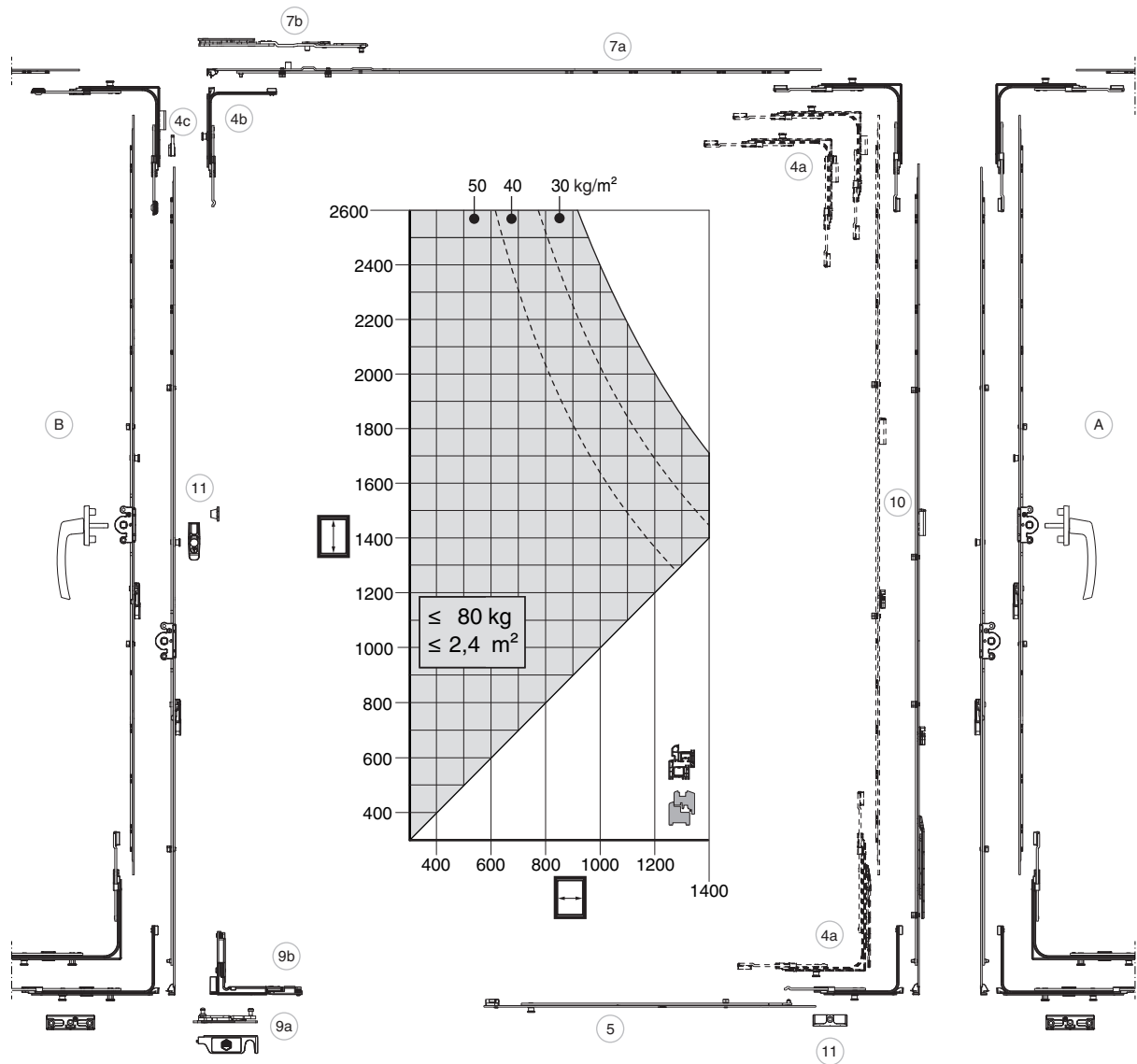
- A = For details refer to 1-sashed turn-only or turn&tilt window.
- B = For details refer to 1-sashed turn-only or turn&tilt window. Drive gear with tilt lock bolt not possible!
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7b = Timber or PVC variant.
- 9 = Timber or PVC variant.
- 10 = French casement drive gear FHH or VHH.
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.



<b>Selection guide</b>		<b>Page</b>
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
7a	7.7.1.1 Turn-only and tilt-only hinge faceplate fixed MULTI POWER	→227
7b	7.7.2 Turn-only hinge arms with hinge for 3-sashed windows MULTI POWER	→228
9a	9.8.4 Pivot posts for 3-sashed windows for timber MULTI POWER	→263
9b	9.8.6 Rebated corner supports MULTI POWER	→264
10	10.2 French casement drive gears	→278
11	11 Striker plates	→292



2.4.5.9 3-sashed rectangular turn-only window with operation lock with pivot post MULTI POWER and corner support MULTI POWER



≤ 1400 x 2600 mm

≥ 465 mm

≥ 360 mm (∅ 15), ≥ 455 mm (∅ 6,5)  
 ≥ 470 mm (∅ 15), ≥ 530 mm (∅ 6,5)

- A = For details refer to 1-sashed turn-only or turn&tilt window.
- B = For details refer to 1-sashed turn-only or turn&tilt window.
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7b = Timber or PVC variant.
- 9 = Timber or PVC variant.
- 10 = French casement drive gear FHH or VHH.
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.

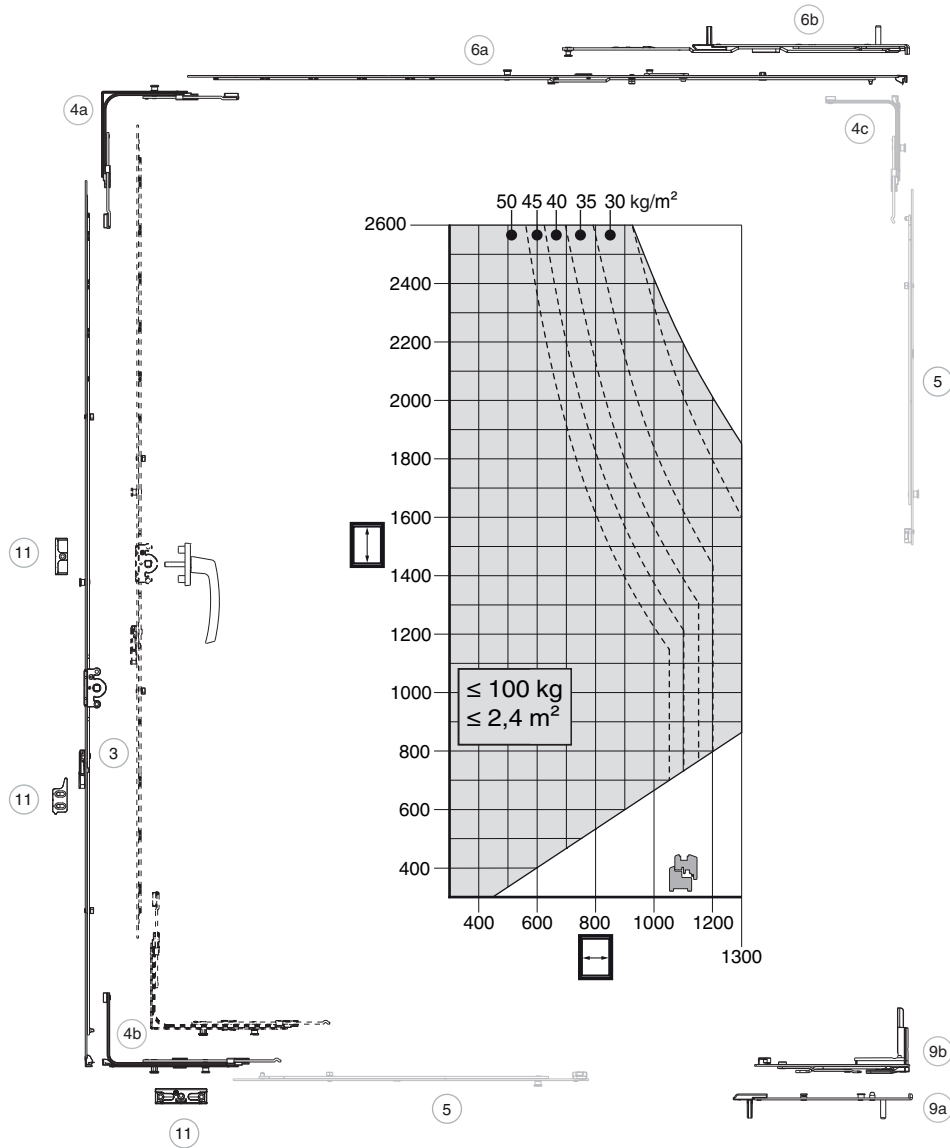


<b>Selection guide</b>		<b>Page</b>
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
4c	4.9.8 Insert as operation lock for corner element MM for 3-sashed elements	→194
5	5.1 Centre locks FHH i.S.	→196
7a	7.7.1.2 Turn-only hinge faceplates croppable MULTI POWER	→227
7b	7.7.2 Turn-only hinge arms with hinge for 3-sashed windows MULTI POWER	→228
9a	9.8.4 Pivot posts for 3-sashed windows for timber MULTI POWER	→263
9b	9.8.6 Rebated corner supports MULTI POWER	→264
10	10.2 French casement drive gears	→278
11	11 Striker plates	→292



2.4.6 MULTI INVISIBLE (drive gear FHH/VHH)

2.4.6.1 1-sashed rectangular T&T window with pivot post INVISIBLE and corner support INVISIBLE



≤ 1300 x 2600 mm



≥ 490 mm



≥ 385 mm



≥ 360 mm (15)  
≥ 455 mm (6,5)



≥ 470 mm (15)  
≥ 530mm (6,5)



≥ 270 mm (15)  
≥ 365 mm (6,5)



≥ 400 mm (15)  
≥ 460mm (6,5)

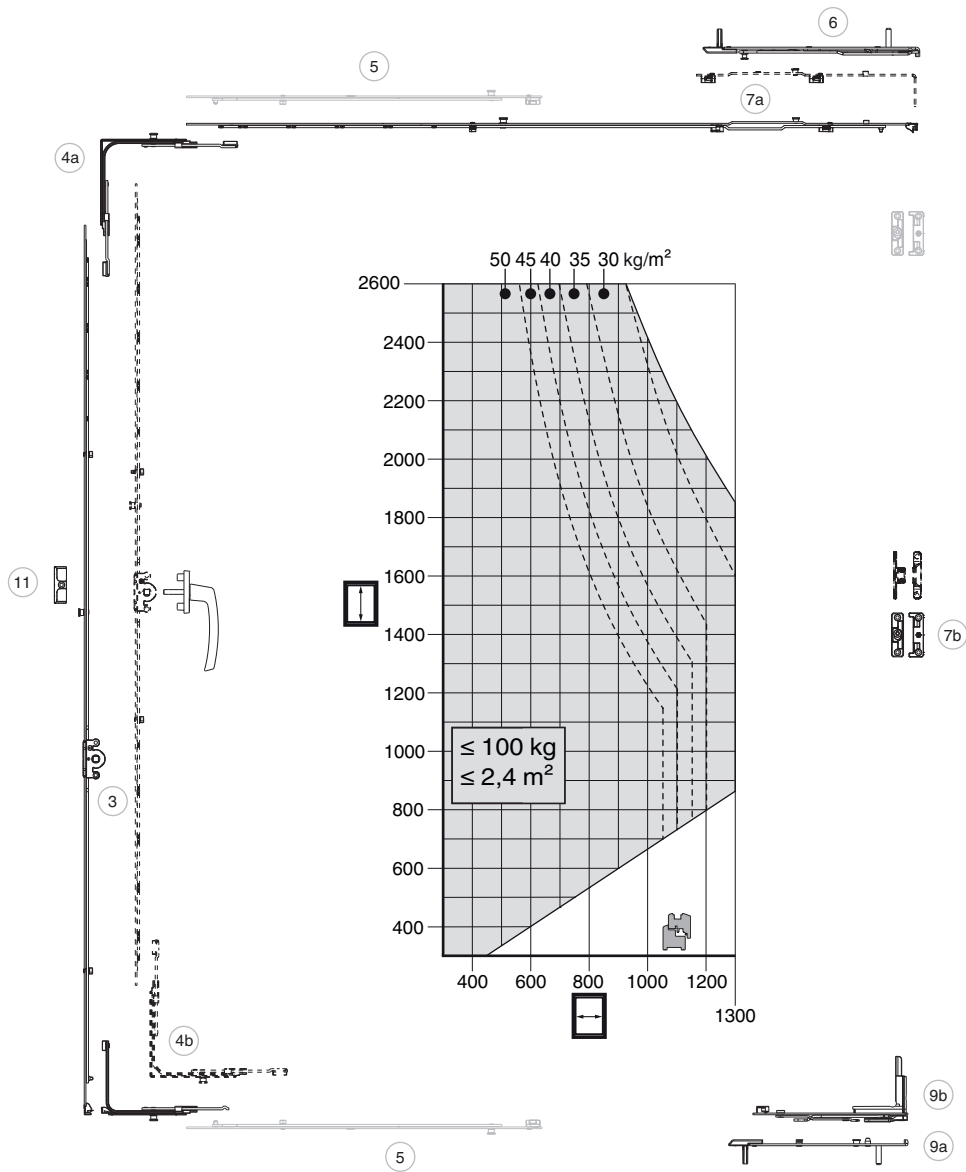
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!



<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.2 Corner elements horizontal i.S.	→188
4c	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
6a	6.4.1 T&T/tilt-first scissor stay faceplates INVISIBLE	→210
6b	6.4.2 T&T scissor stay arms with hinge INVISIBLE	→210
9a	9.7.1 Pivot posts INVISIBLE	→262
9b	9.7.2 Rebated corner supports INVISIBLE	→262
11	11 Striker plates	→292



2.4.6.2 1-sashed rectangular turn-only window  
with pivot post INVISIBLE and corner support INVISIBLE



≤ 1300 x 2600 mm



≥ 490 mm



≥ 385 mm



≥ 360 mm (15), ≥ 455 mm (6,5)



≥ 470 mm (15), ≥ 530 mm (6,5)

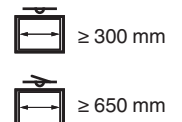
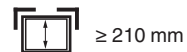
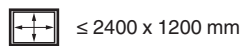
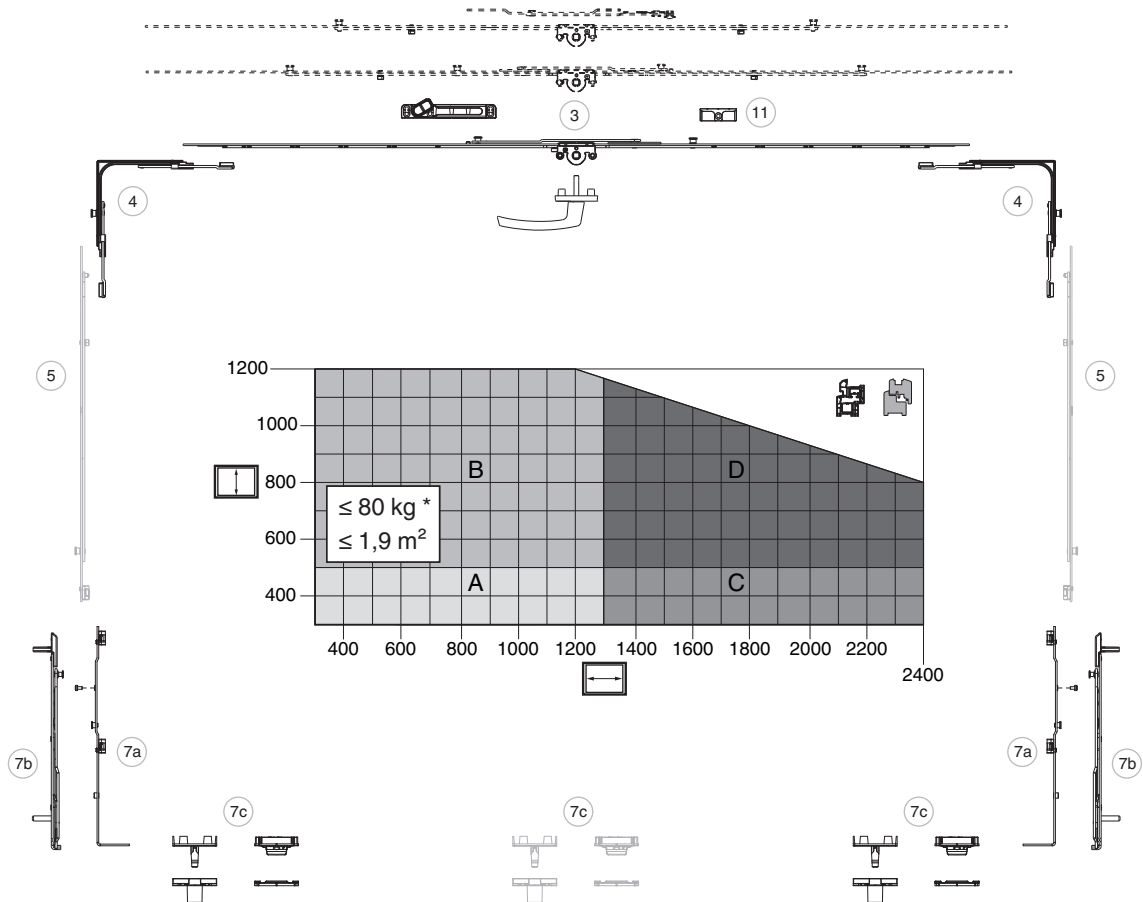
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7b = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer; Mandatory installation of additional compression device at top bearing area (max. 150 mm)!



<b>Selection guide</b>		<b>Page</b>
3a	3.2.1.1 Turn-only drive gears BS 15 FHH i.S.	→173
3b	3.2.1.6 Turn-only drive gears BS 15 VHH i.S.	→174
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
6	6.4.2 T&T scissor stay arms with hinge INVISIBLE	→210
7a	7.6 Tilt-only and turn-only hinges - sash part INVISIBLE	→226
7b	7.10 Compression devices	→232
9a	9.7.1 Pivot posts INVISIBLE	→262
9b	9.7.2 Rebated corner supports INVISIBLE	→262
11	11 Striker plates	→292



2.4.6.3 1-sashed rectangular tilt-only window  
with pivot post INVISIBLE and corner support INVISIBLE



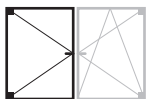
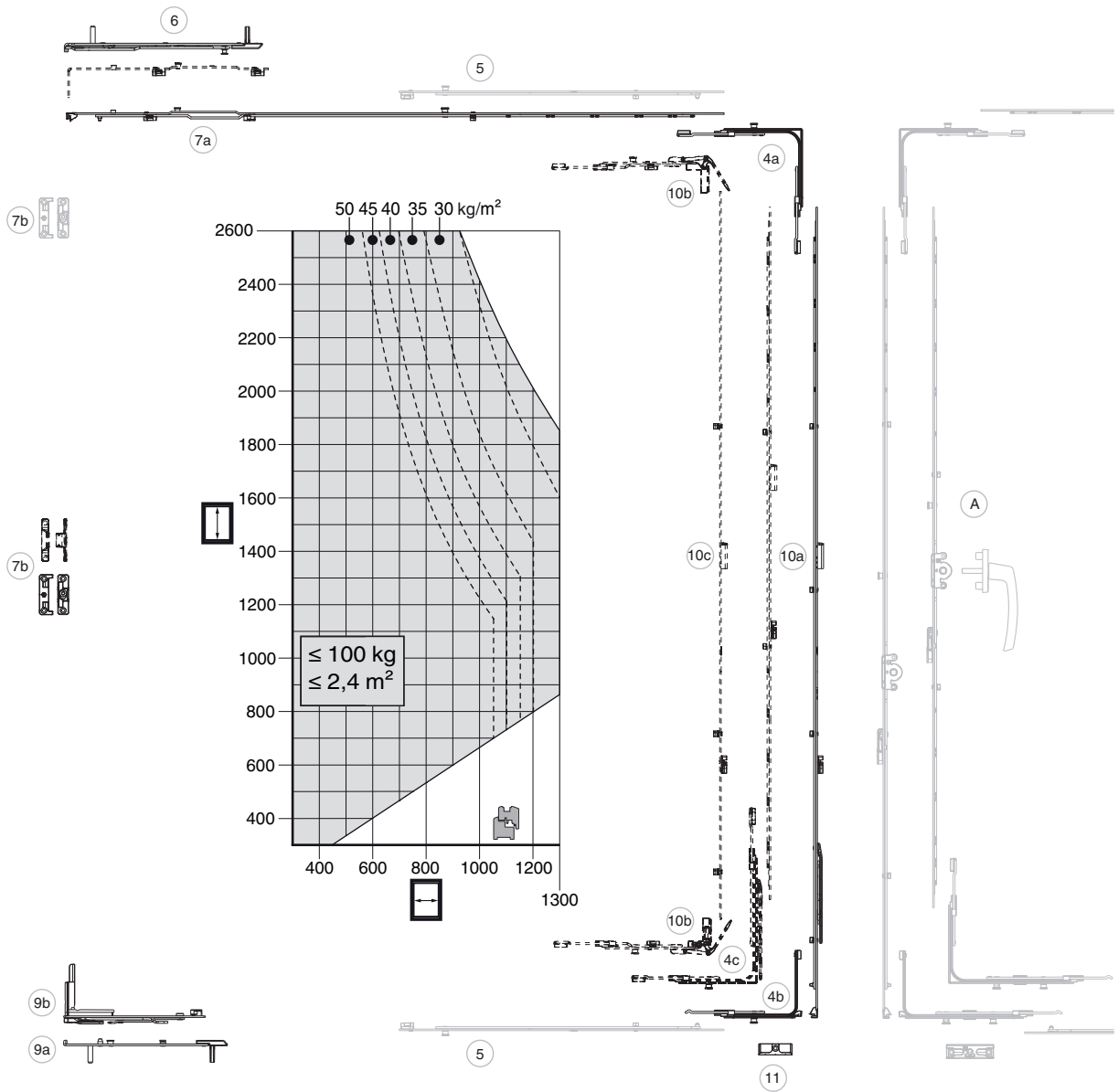
- A = 1 tilt stay + restrictor and cleaning stay size 1.
- B = 1 tilt stay + restrictor and cleaning stay size 2.
- C = 2 tilt stays + restrictor and cleaning stay size 1.
- D = 2 tilt stays + restrictor and cleaning stay size 2.
- \* = Mandatory installation of restrictor and cleaning stay (guideline FPKF at [www.schlossindustrie.de](http://www.schlossindustrie.de))! Observe application diagrams and max. load capacity for restrictor and cleaning stays!
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7c = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.



Selection guide			Page
3	3.4	Espagnolettes	→180
4	4.1.1	Corner elements standard i.S.	→188
5	5.1	Centre locks FHH i.S.	→196
7a	7.6.1	Turn-only and tilt-only hinge faceplate INVISIBLE	→226
7b	7.6.2	Basic pack tilt-only INVISIBLE	→226
7c	7.10.3	Concealed compression devices adjustable with depth adjustment	→233
11	11	Striker plates	→292



2.4.6.4 2-sashed rectangular T&T window  
with pivot post INVISIBLE and corner support INVISIBLE



≤ 1300 x 2600 mm

≥ 490 mm

≥ 385 mm

≥ 360 mm ( 15), ≥ 455 mm ( 6,5)

≥ 470 mm ( 15), ≥ 530 mm ( 6,5)

- A = For details refer to 1-sashed turn&tilt window.
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7b = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!
- 10a = French casement drive gear FHH or VHH.

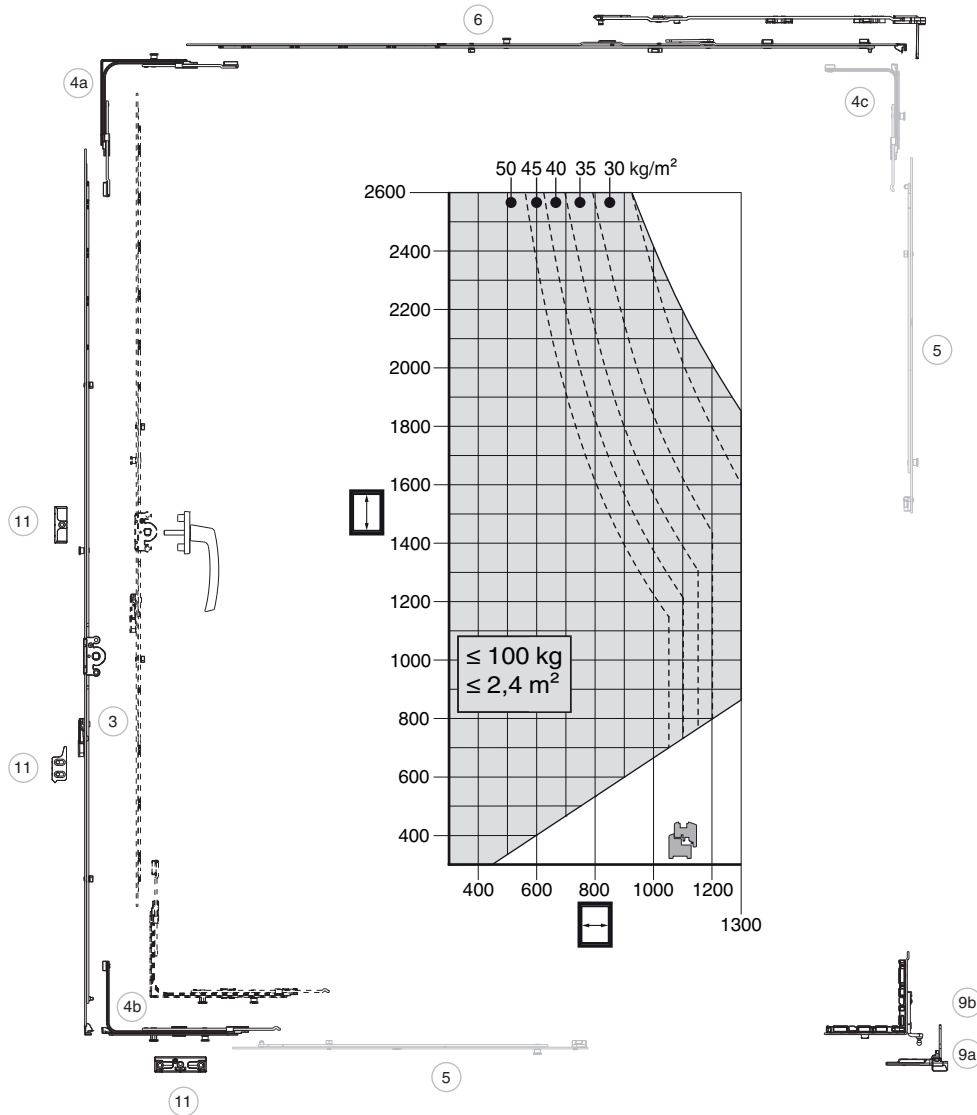


<b>Selection guide</b>		<b>Page</b>
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
4c	4.4 Corner elements i.S. for French casement drive gears	→191
5	5.1 Centre locks FHH i.S.	→196
6	6.4.2 T&T scissor stay arms with hinge INVISIBLE	→210
7a	7.6 Tilt-only and turn-only hinges - sash part INVISIBLE	→226
7b	7.10.3 Concealed compression devices adjustable with depth adjustment	→233
9a	9.7.1 Pivot posts INVISIBLE	→262
9b	9.7.2 Rebated corner supports INVISIBLE	→262
10a	10.2 French casement drive gears	→278
10b	10.3 Horizontal French casement locks	→286
10c	10.4 Single piece door striker	→286
11	11 Striker plates	→292



2.4.7 TV (drive gear FHH/VHH)

2.4.7.1 1-sashed rectangular T&T window with pivot post TV and corner support TV



≤ 1300 x 2600 mm



≥ 401 mm



≥ 290 mm



≥ 360 mm ( 15 )  
≥ 455 mm ( 6,5 )



≥ 470 mm ( 15 )  
≥ 530 mm ( 6,5 )



≥ 270 mm ( 15 )  
≥ 365 mm ( 6,5 )



≥ 400 mm ( 15 )  
≥ 460 mm ( 6,5 )

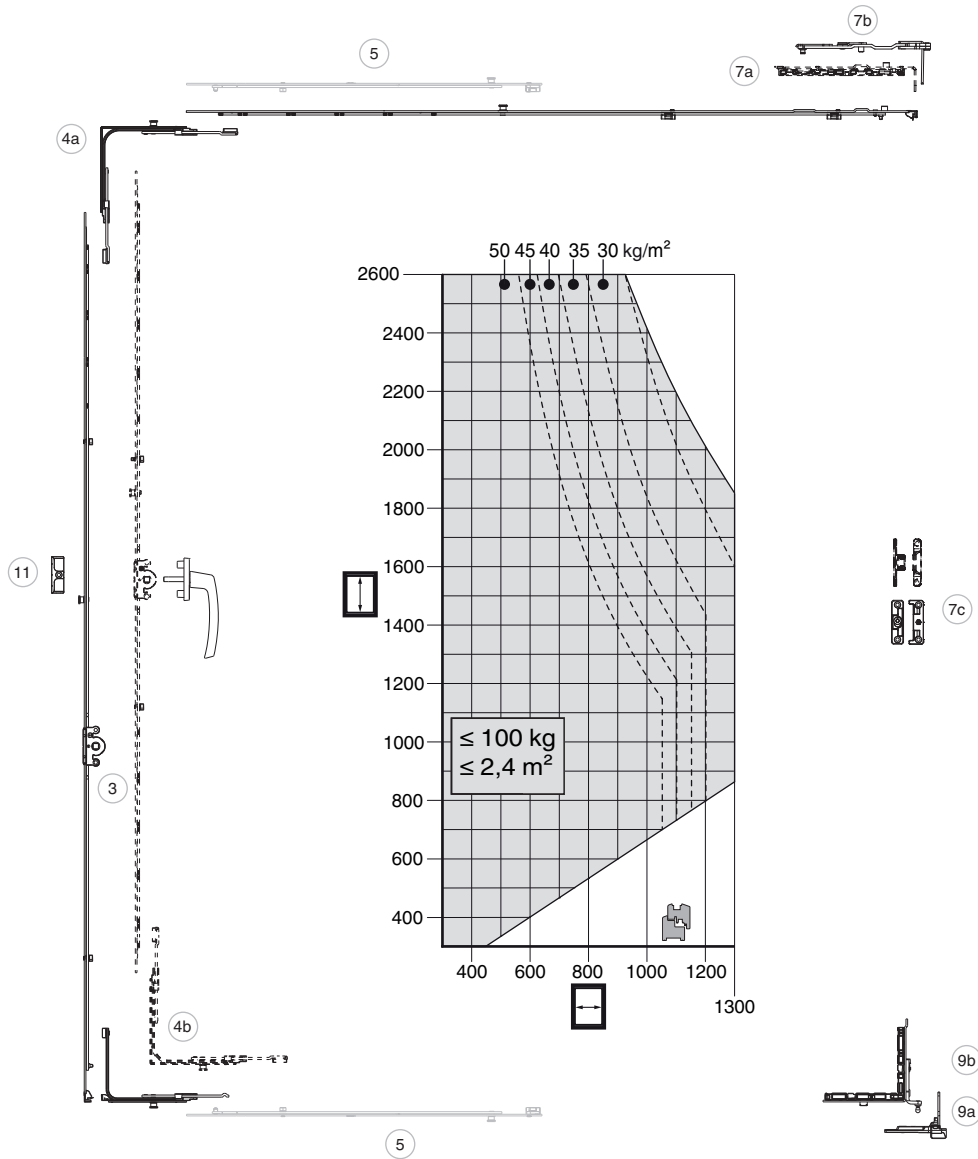
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!



<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.2 Corner elements horizontal i.S.	→188
4c	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
6	6.3 Scissor stays TV	→209
9a	9.6.1 Pivot posts TV timber	→261
9b	9.6.2 Rebated corner supports TV	→261
11	11 Striker plates	→292



2.4.7.2 1-sashed rectangular turn-only window with pivot post TV and corner support TV



≤ 1300 x 2600 mm



≥ 401 mm



≥ 290 mm



≥ 360 mm ( 15), ≥ 455 mm ( 6,5)



≥ 470 mm ( 15), ≥ 530 mm ( 6,5)

3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).

5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!

7a = Turn-only hinge faceplate fixed or croppable.

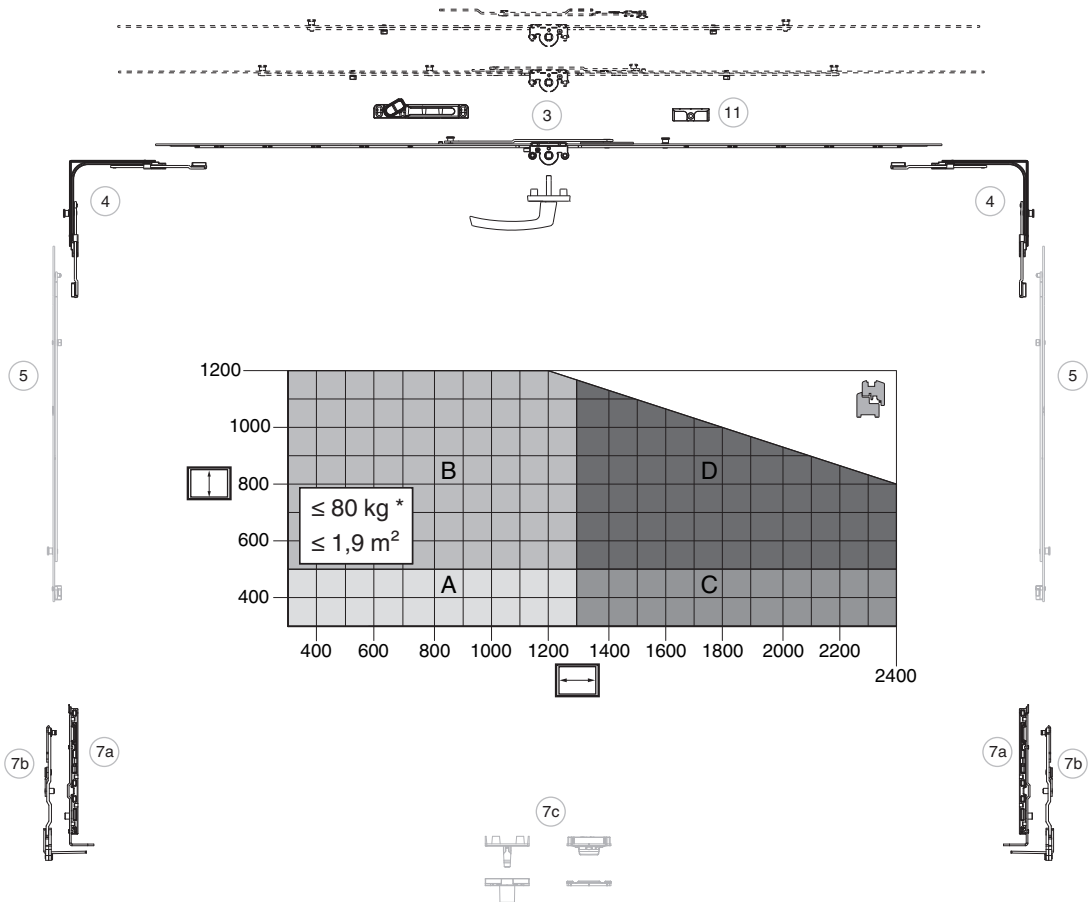
7c = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!



<b>Selection guide</b>		<b>Page</b>
3a	3.2.1.1 Turn-only drive gears BS 15 FHH i.S.	→173
3b	3.2.1.6 Turn-only drive gears BS 15 VHH i.S.	→174
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
7a	7.5.1 Turn-only hinge faceplate TV with packer	→225
7b	7.5.3 Turn-only hinge arms for turn-only hinge faceplate TV timber	→225
7c	7.10 Compression devices	→232
9a	9.6.1 Pivot posts TV timber	→261
9b	9.6.2 Rebated corner supports TV	→261
11	11 Striker plates	→292



2.4.7.3 1-sashed rectangular tilt-only window  
with pivot post TV and corner support TV



≤ 2400 x 1200 mm



≥ 210 mm



≥ 300 mm



≥ 650 mm

A = 1 tilt stay + restrictor and cleaning stay size 1.

B = 1 tilt stay + restrictor and cleaning stay size 2.

C = 2 tilt stays + restrictor and cleaning stay size 1.

D = 2 tilt stays + restrictor and cleaning stay size 2.

\* = Mandatory installation of restrictor and cleaning stay (guideline FPKF at [www.schlossindustrie.de](http://www.schlossindustrie.de))! Observe application diagrams and max. load capacity for restrictor and cleaning stays!

5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!

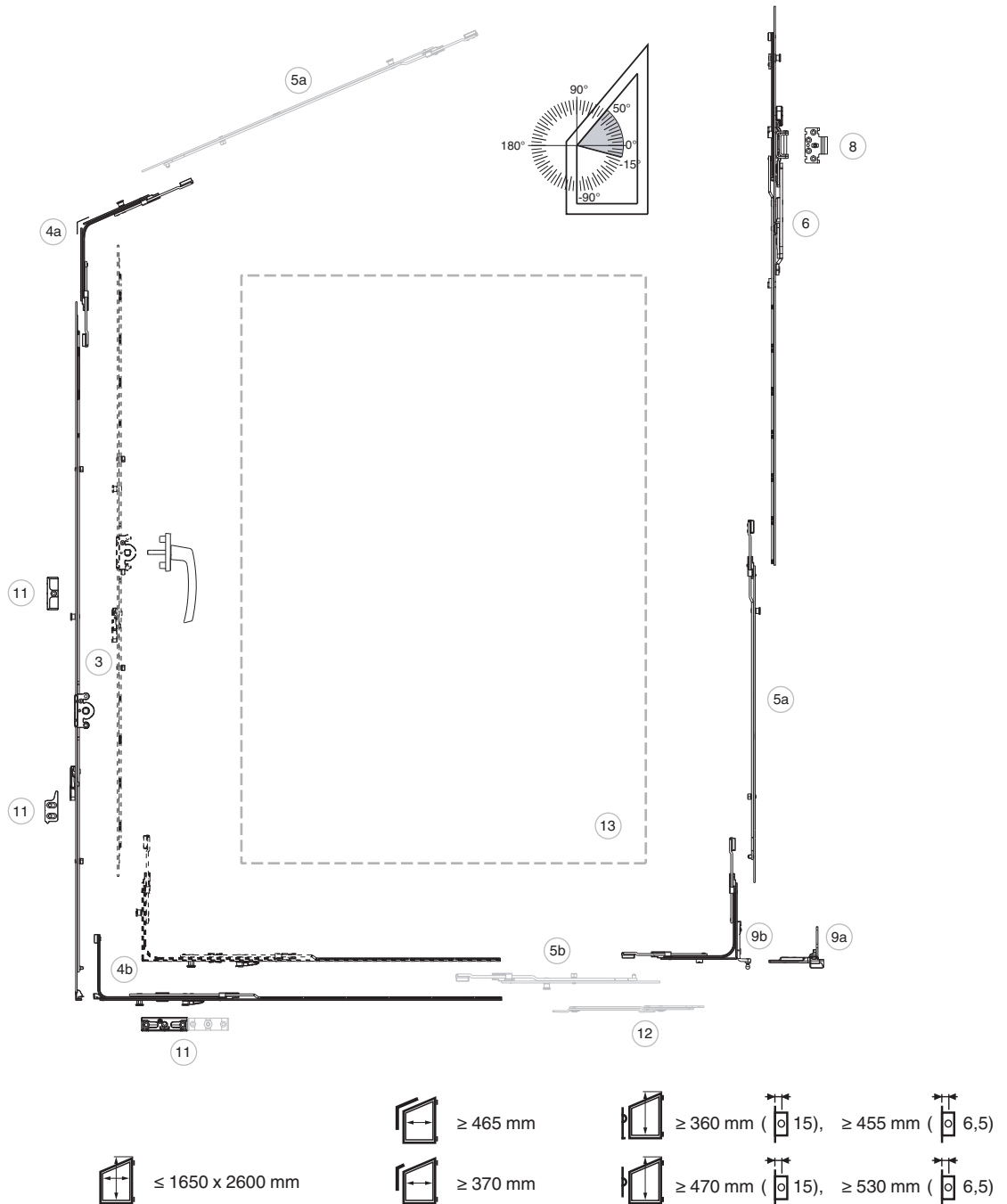
7c = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!



<b>Selection guide</b>			<b>Page</b>
3	3.4	Espagnolettes	→180
4	4.1.1	Corner elements standard i.S.	→188
5	5.1	Centre locks FHH i.S.	→196
7a	7.5.1	Turn-only hinge faceplate TV with packer	→225
7b	7.5.3	Turn-only hinge arms for turn-only hinge faceplate TV timber	→225
7c	7.10	Compression devices	→232
11	11	Striker plates	→292



2.4.7.4 1-sashed angled T&T window  
with pivot post TV and rebated corner support TV



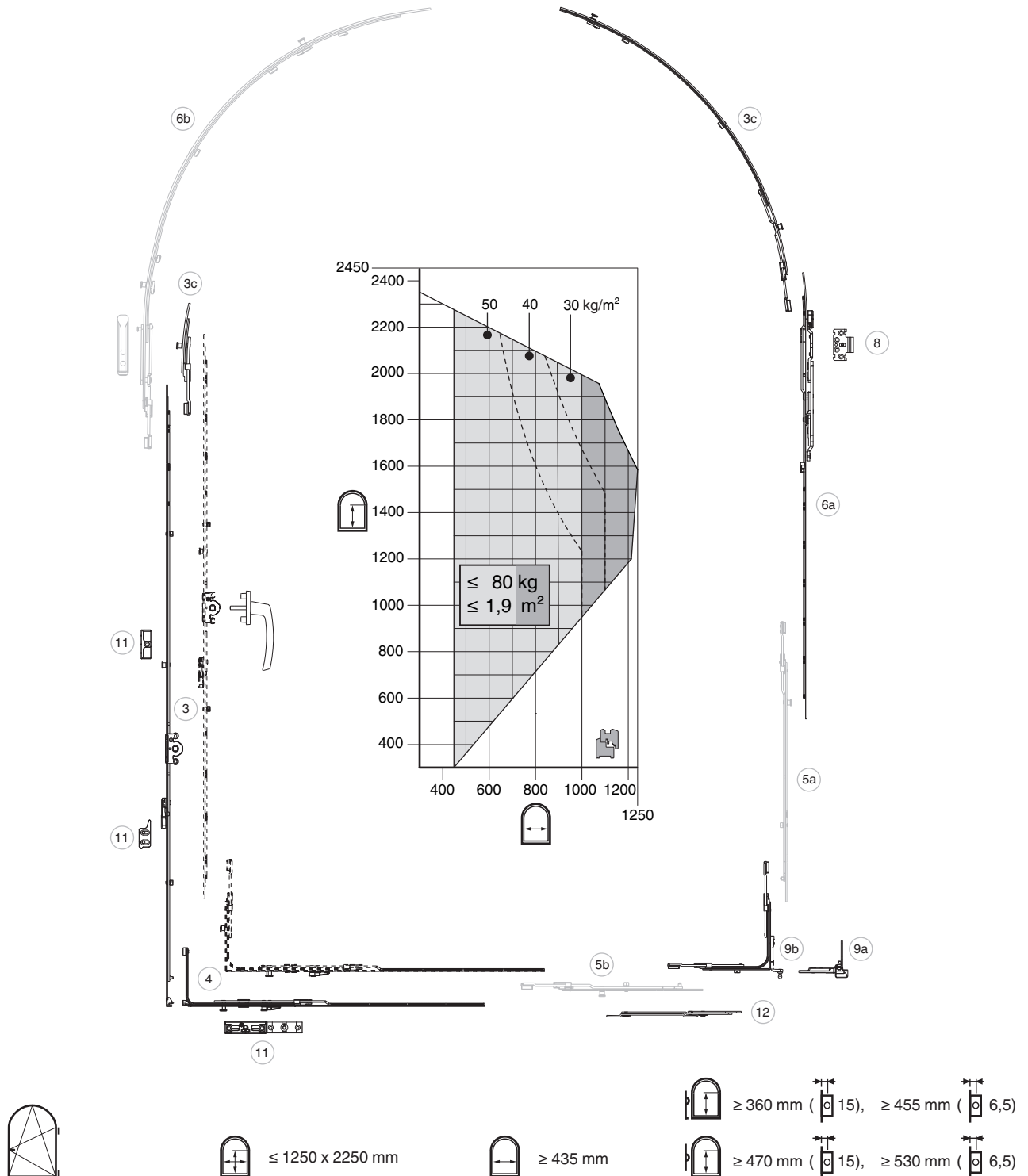
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 5a = Above SRH 800 mm; Observe details from profile manufacturer!
- 5b = Required above SRW 670 mm.
- 13 = Refer to application diagrams for angled windows in chapter 2.5.



<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.5 Corner elements i.S. for angled windows	→191
4b	4.6 Corner elements i.S. for half round windows	→192
5a	5.2 Centre locks extendable i.S.	→196
5b	5.10 Faceplate extensions fixed and extendable	→199
6	6.1.11 Rebated scissor stays i.S. for angled windows	→205
8	8 Scissor stay hinges	→238
9a	9.6.1 Pivot posts TV timber	→261
9b	9.6.3 Rebated corner supports TV with corner element	→261
11	11 Striker plates	→292
12	12.12 Turn restrictions	→315



2.4.7.5 1-sashed half round T&T window  
with pivot post TV and rebated corner support TV



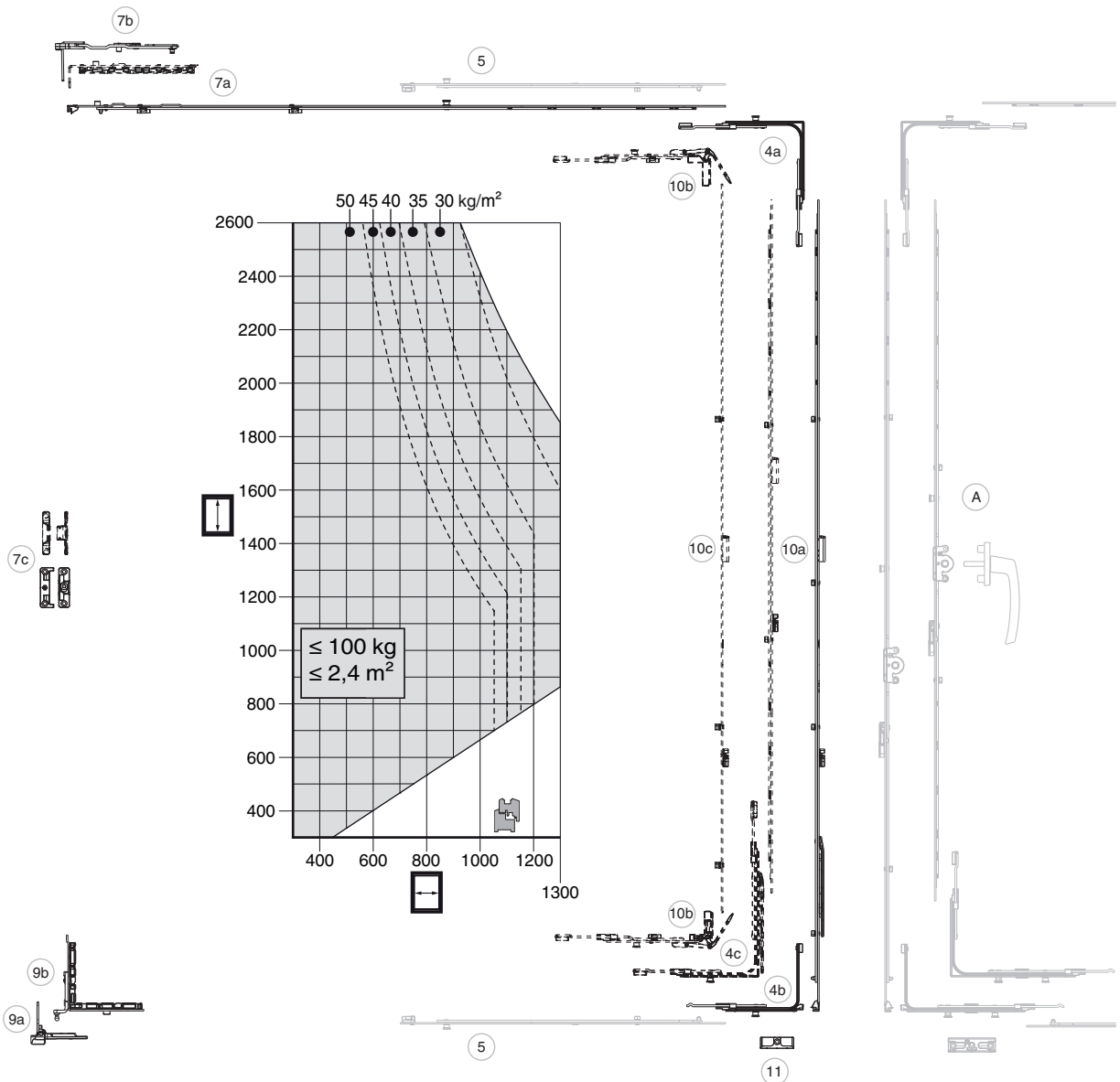
- 3 = Drive gear FHH or VHH (Backset 15 or 6.5). Recommendation: Handle height should be between  $\frac{1}{3}$  and  $\frac{1}{2}$  of sash rebate height (SRH).
- 3c = Required above SRW 671 mm.
- 5a = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 5b = Required above SRW 670 mm.
- 6b = Stabilizing scissor stay necessary from 1,001 mm (dark shading in application range diagram).



<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
3b	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
3c	3.5.3 End pieces top for half round windows	→184
4	4.6 Corner elements i.S. for half round windows	→192
5a	5.2 Centre locks extendable i.S.	→196
5b	5.10 Faceplate extensions fixed and extendable	→199
6a	6.3.3 Rebated scissor stays TV i.S. for half round windows	→209
6b	6.10.4 Stabilizing scissor stays for half round windows	→216
8	8.7 Scissor stay hinges TV for half round windows	→241
9a	9.6.1 Pivot posts TV timber	→261
9b	9.6.3 Rebated corner supports TV with corner element	→261
11	11 Striker plates	→292
12	12.12 Turn restrictions	→315



2.4.7.6 2-sashed rectangular T&T window  
with pivot post TV and corner support TV



≤ 1300 x 2600 mm



≥ 401 mm



≥ 290 mm



≥ 360 mm ( 15), ≥ 455 mm ( 6,5)



≥ 470 mm ( 15), ≥ 530 mm ( 6,5)

- A = For details refer to 1-sashed turn&tilt window.
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7c = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!
- 10a = French casement drive gear FHH or VHH.

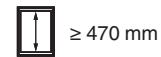
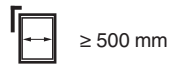
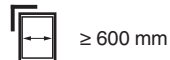
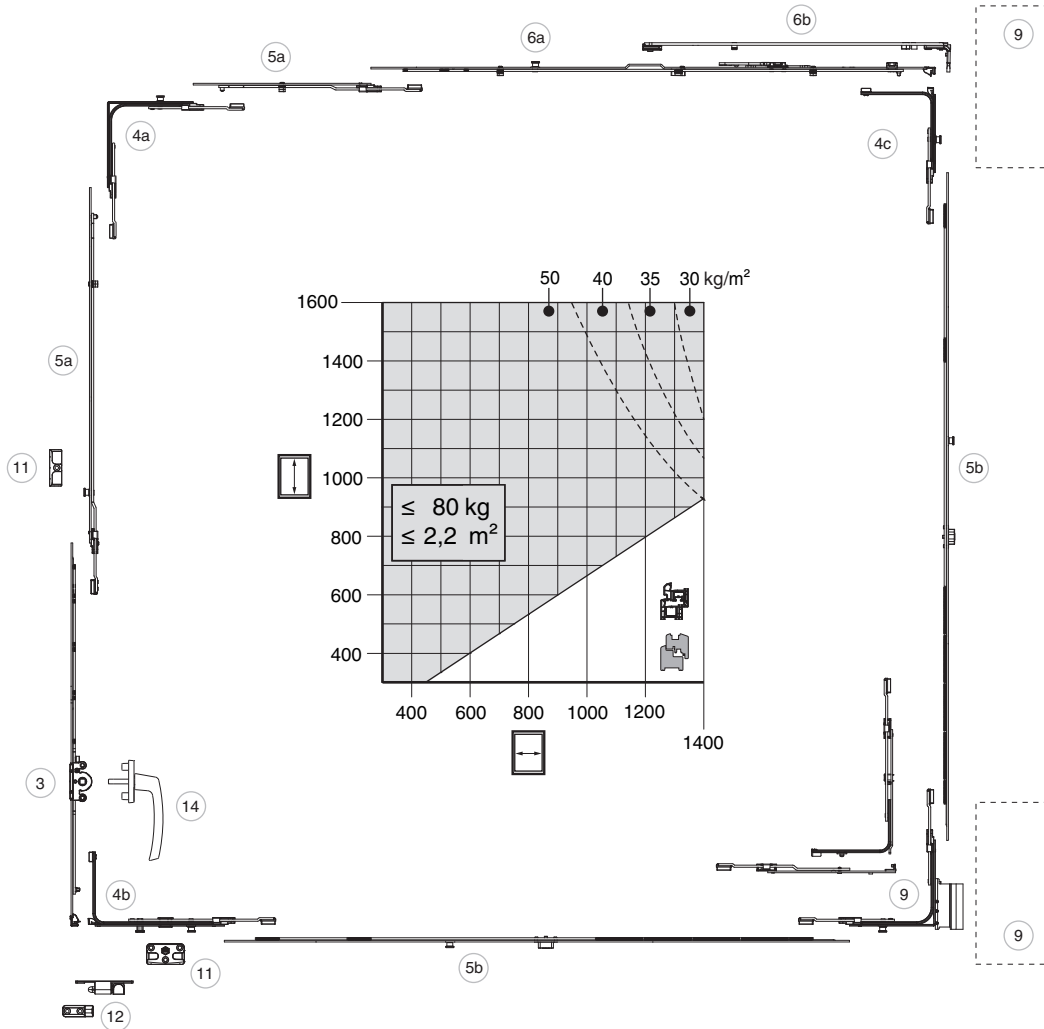


<b>Selection guide</b>		<b>Page</b>
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
4c	4.4 Corner elements i.S. for French casement drive gears	→191
5	5.1 Centre locks FHH i.S.	→196
7a	7.5.1 Turn-only hinge faceplate TV with packer	→225
7b	7.5.3 Turn-only hinge arms for turn-only hinge faceplate TV timber	→225
7c	7.10 Compression devices	→232
9a	9.6.1 Pivot posts TV timber	→261
9b	9.6.2 Rebated corner supports TV	→261
10a	10.2 French casement drive gears	→278
10b	10.3 Horizontal French casement locks	→286
10c	10.4 Single piece door striker	→286
11	11 Striker plates	→292



2.4.8 COMFORT

2.4.8.1 1-sashed rectangular T&T window with comfort scissor stay, vertical handle position



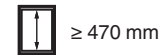
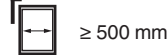
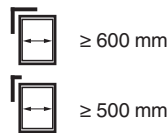
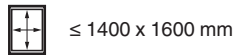
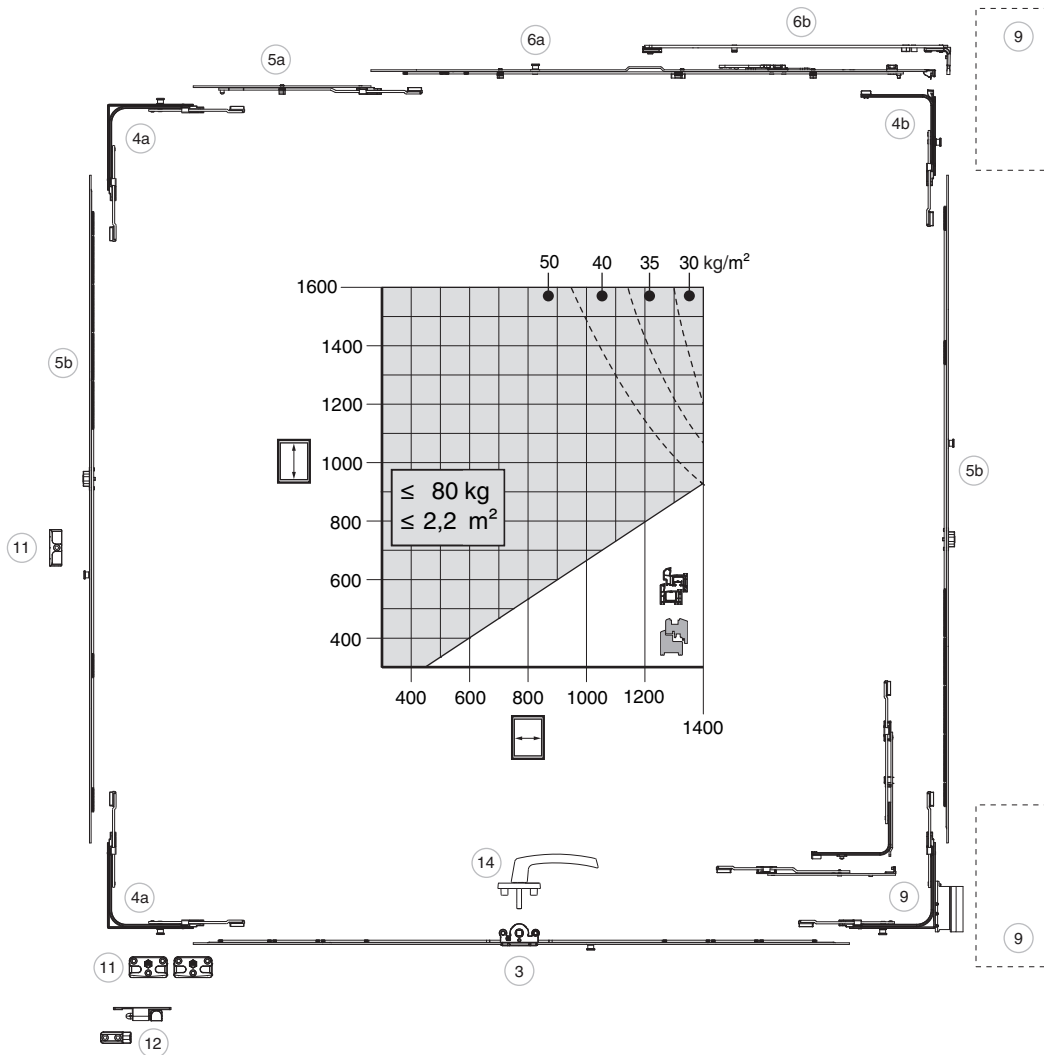
- 9 = Refer to matrix pivot posts PVC and timber for possible bearing types.
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.
- 12 = Mandatory installation of turn lock.
- 14 = SKB handle (refer to EMOTION catalogue).



<b>Selection guide</b>		<b>Page</b>
3	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.2 Corner elements horizontal i.S.	→188
4c	4.1.3 Corner elements vertical i.S.	→189
5a	5.2 Centre locks extendable i.S.	→196
5b	5.19 Width connectors SKB-S/SE	→200
6a	6.6.1 Scissor stay faceplates for comfort scissor stay	→214
6b	6.6.2 Rebated scissor stay arms for comfort scissor stay	→214
9	9.1 Matrix for pivot posts and corner supports	→246
11	11 Striker plates	→292
12	12.3 Self-catching turn locks	→312



2.4.8.2 1-sashed rectangular T&T window  
with comfort scissor stay, horizontal handle position



- 9 = Refer to matrix pivot posts PVC and timber for possible bearing types.
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.
- 12 = Mandatory installation of turn lock.
- 14 = SKB handle (refer to EMOTION catalogue).

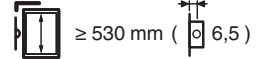
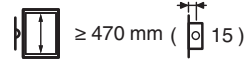
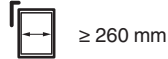
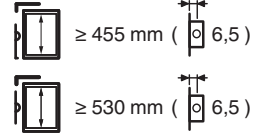
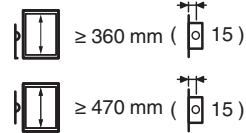
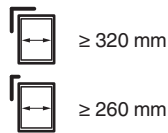
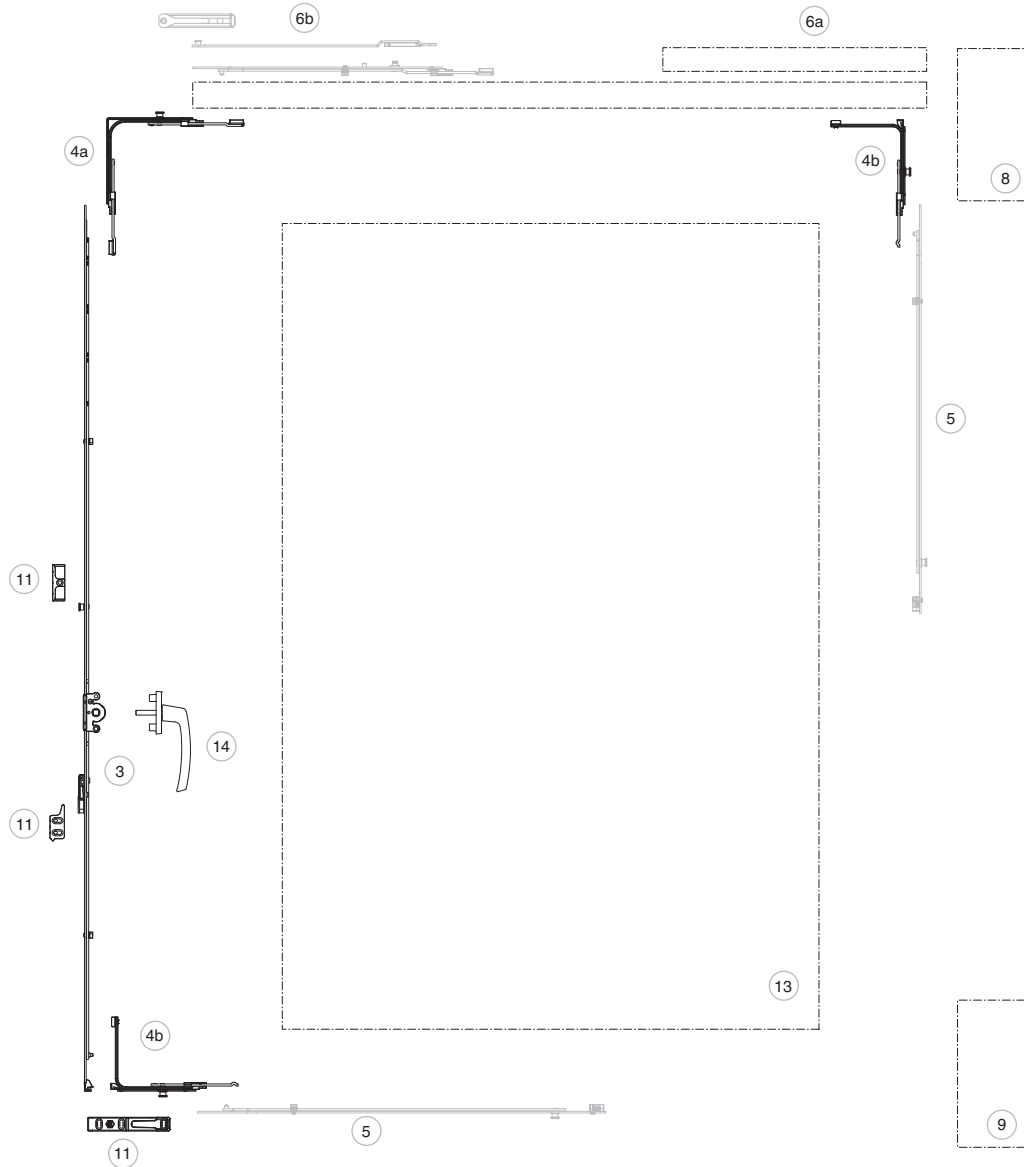


<b>Selection guide</b>		<b>Page</b>
3	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
5a	5.2 Centre locks extendable i.S.	→196
5b	5.19 Width connectors SKB-S/SE	→200
6a	6.6.1 Scissor stay faceplates for comfort scissor stay	→214
6b	6.6.2 Rebated scissor stay arms for comfort scissor stay	→214
9	9.1 Matrix for pivot posts and corner supports	→246
11	11 Striker plates	→292
12	12.3 Self-catching turn locks	→312



2.4.9 Central locking system for tilt-first window

2.4.9.1 1-sashed rectangular tilt-first window with drive-gear FHH



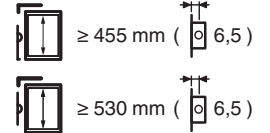
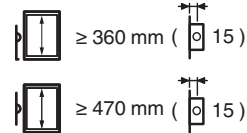
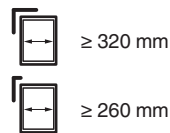
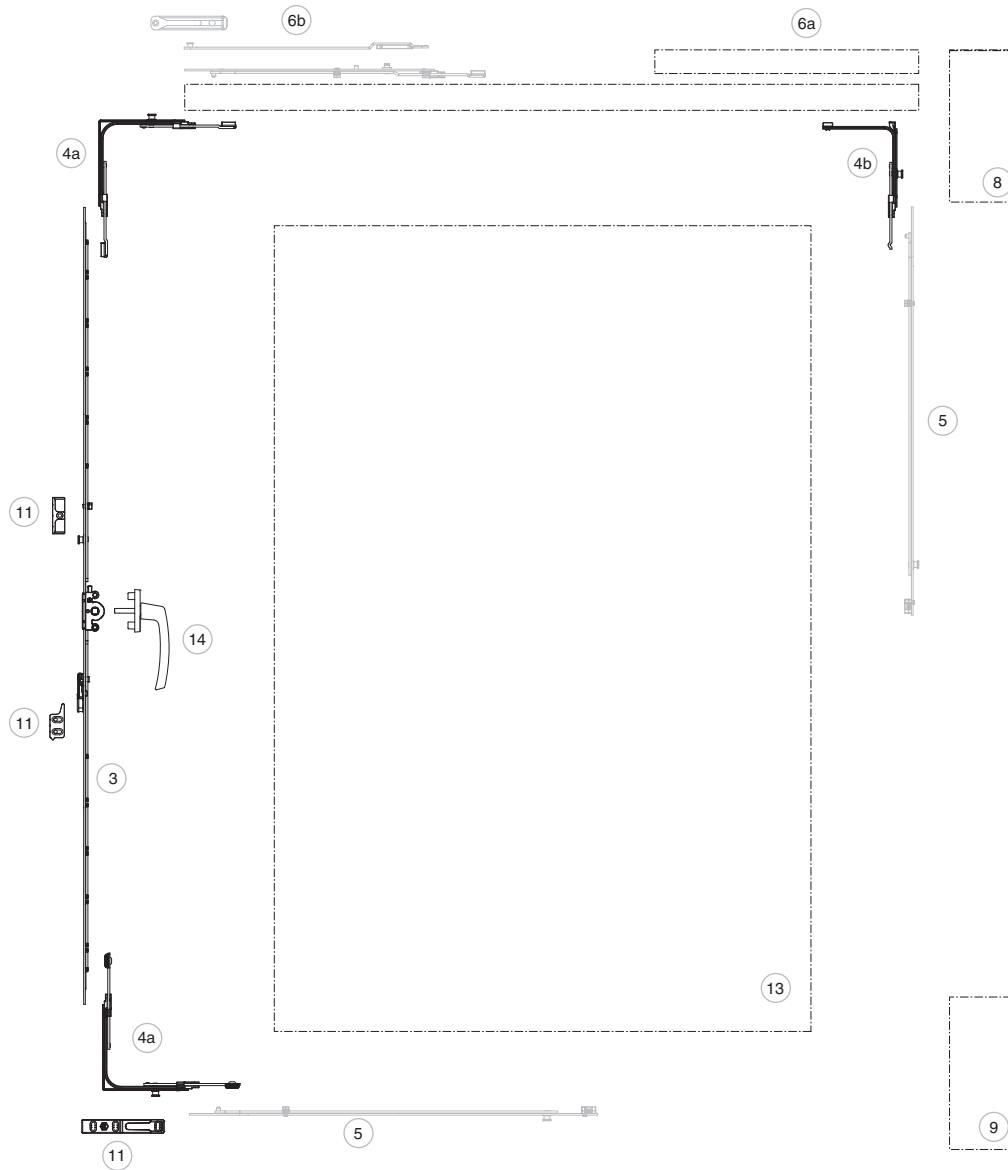
- 3 = Drive gears BS 15 or 6.5. Recommendation: Handle height should be between 1/3 and 1/2 of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 6a = Rebated scissor stay or scissor stay faceplate and scissor stay arm according to used hinge side. For hinge sides MULTI MAMMUT not possible!
- 6b = For stabilizing scissor stay refer to turn&tilt hardware overview according to corresponding hinge side.
- 8 = Scissor stay hinge according to used hinge side.
- 9 = For possible pivot post combinations refer to matrix. For hinge sides MULTI MAMMUT not possible!
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.
- 13 = Application diagram according to used hinge side.
- 14 = Tilt before turn handle (refer to EMOTION catalogue).



Selection guide		Page
3	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
6a	6.1 Rebated scissor stays	→202
6b	6.10.3 Stabilizing scissor stays for tilt-first windows	→216
8	8 Scissor stay hinges	→238
9	9 Pivot posts	→246
11	11 Striker plates	→292



2.4.9.2 1-sashed rectangular tilt-first window with drive-gear VHH



- 3 = Drive gears BS 15 or 6.5. Recommendation: Handle height should be between 1/3 and 1/2 of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 6a = Rebated scissor stay or scissor stay faceplate and scissor stay arm according to used hinge side. For hinge sides MULTI MAMMUT not possible!
- 6b = For stabilizing scissor stay refer to turn&tilt hardware overview according to corresponding hinge side.
- 8 = Scissor stay hinge according to used hinge side.
- 9 = For possible pivot post combinations refer to matrix. For hinge sides MULTI MAMMUT not possible!
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.
- 13 = Application diagram according to used hinge side.
- 14 = Tilt before turn handle (refer to EMOTION catalogue).

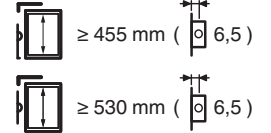
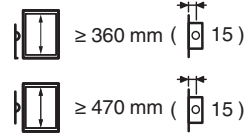
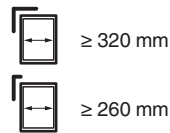
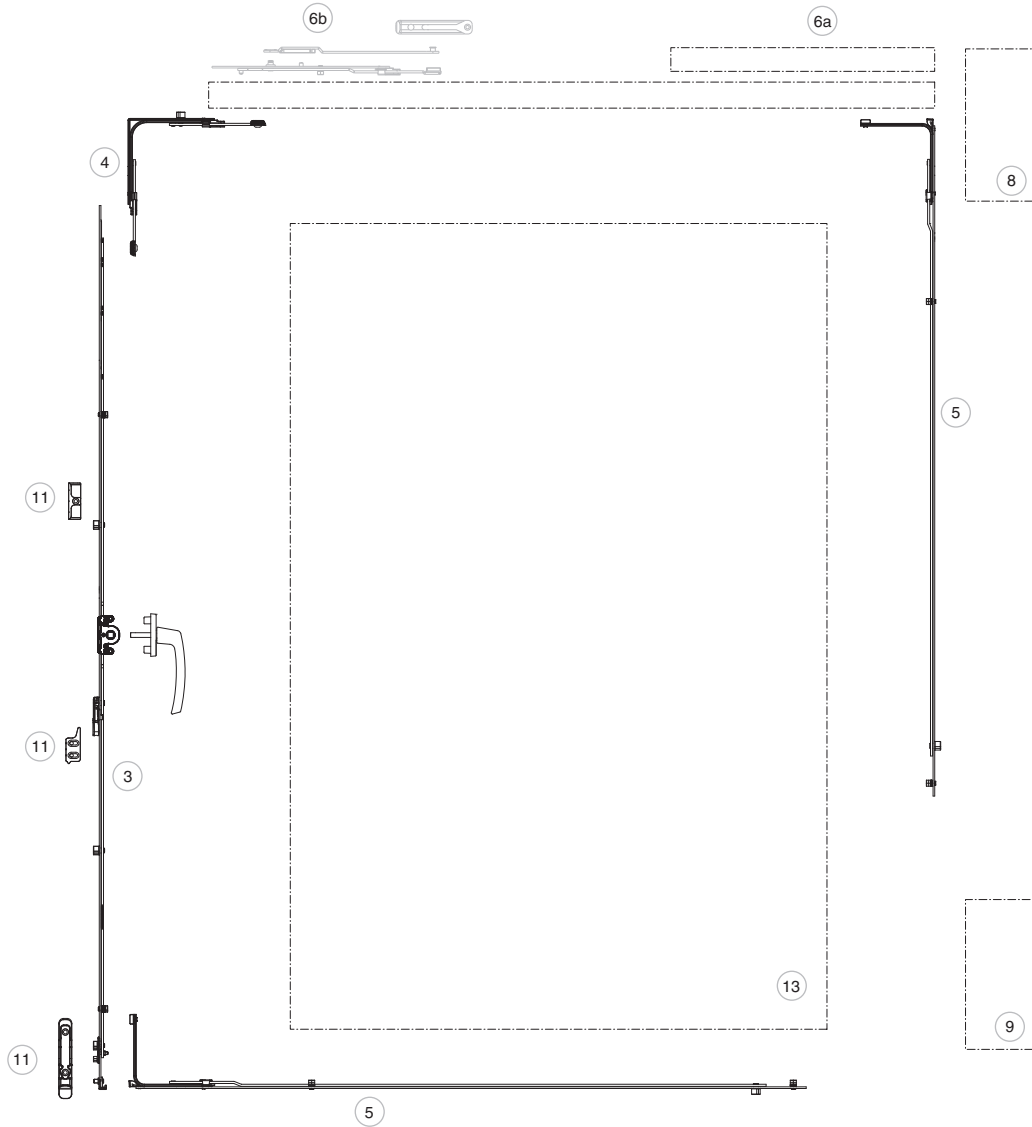


Selection guide		Page
3	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
6a	6.1 Rebated scissor stays	→202
6b	6.10.3 Stabilizing scissor stays for tilt-first windows	→216
8	8 Scissor stay hinges	→238
9	9 Pivot posts	→246
11	11 Striker plates	→292



2.4.10 Central locking system for MM-KS (with tilt lock bolt)

2.4.10.1 1-sashed rectangular T&T window with drive-gear FHH



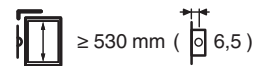
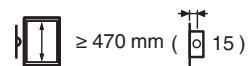
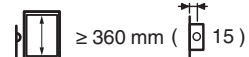
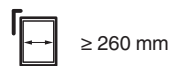
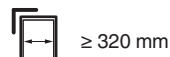
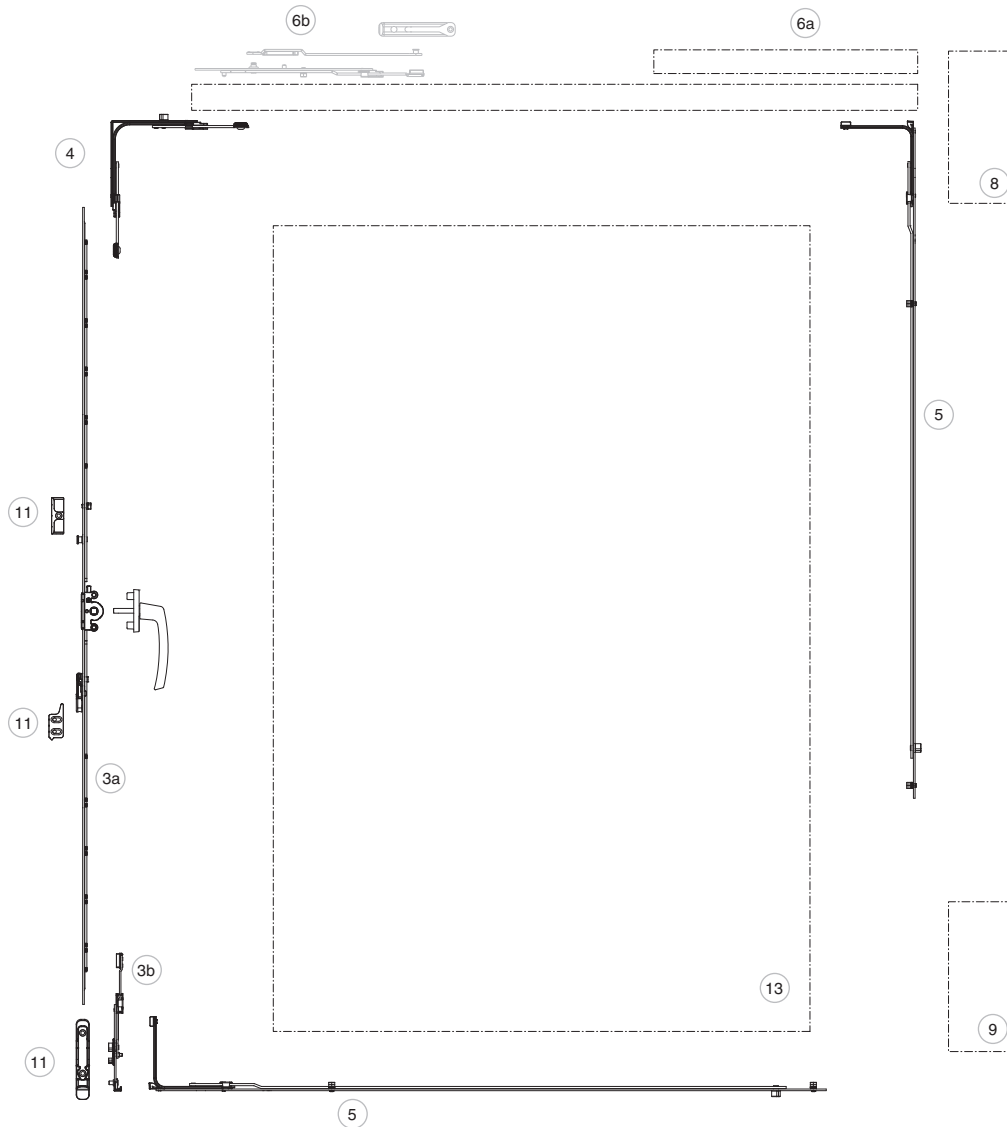
- 3 = Drive gears BS 15 or 6.5. Recommendation: Handle height should be between 1/3 and 1/2 of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 6b = Stabilizing scissor stay necessary from 1,301 mm (dark shading in application range diagram).
- 8 = Scissor stay hinge according to used hinge side.
- 9 = For possible pivot post combinations refer to matrix.
- 11 = Refer to profile data sheets for striker plates, sash lifters and tilt striker plates for PVC.
- 13 = Application diagram according to used hinge side.



Selection guide		Page
3	3.1.1.3 T&T drive gears BS 15 FHH VZ with tilt lock bolt	→163
4	4.2 Corner elements VZ	→189
5	5.6 Centre locks single piece VZ	→197
6a	6.1.8 Rebated scissor stays VZ	→204
6b	6.10.1 Stabilizing scissor stays	→216
8	8 Scissor stay hinges	→238
9	9 Pivot posts	→246
11	11 Striker plates	→292



2.4.10.2 1-sashed rectangular T&T window with drive-gear VHH



- 3a = Drive gears BS 15 or 6.5. Recommendation: Handle height should be between 1/3 and 1/2 of sash rebate height (SRH).
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 6b = Stabilizing scissor stay necessary from 1,301 mm (dark shading in application range diagram).
- 8 = Scissor stay hinge according to used hinge side.
- 9 = For possible pivot post combinations refer to matrix.
- 11 = Refer to profile data sheets for striker plates, sash lifters and tilt striker plates for PVC.
- 13 = Application diagram according to used hinge side.

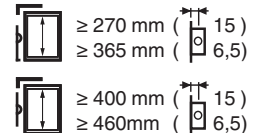
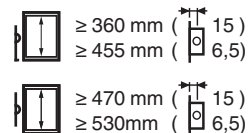
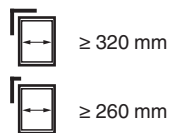
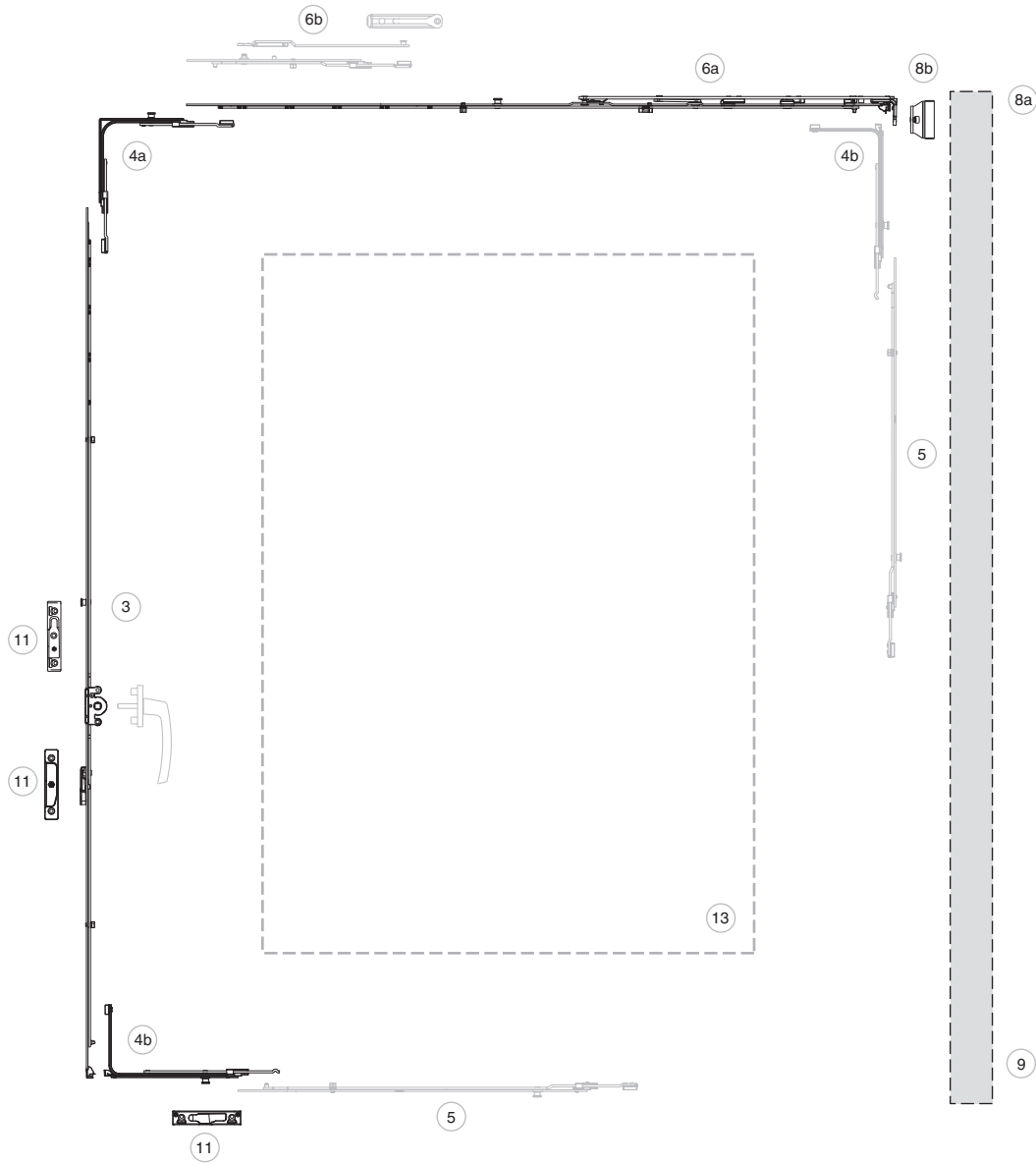


Selection guide		Page
3a	3.1.1.10T&T drive gears BS 15 VHH VZ	→164
3b	3.5.4 Tilt locks for drive gears	→184
4	4.2 Corner elements VZ	→189
5	5.6 Centre locks single piece VZ	→197
6a	6.1.8 Rebated scissor stays VZ	→204
6b	6.10.1 Stabilizing scissor stays	→216
8	8 Scissor stay hinges	→238
9	9 Pivot posts	→246
11	11 Striker plates	→292



2.4.11 Central locking system for 4 mm air gap

2.4.11.1 1-sashed rectangular T&T window with drive-gear FHH



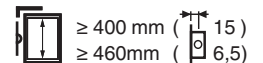
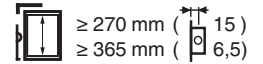
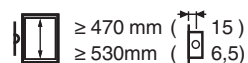
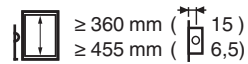
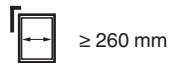
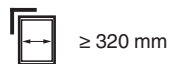
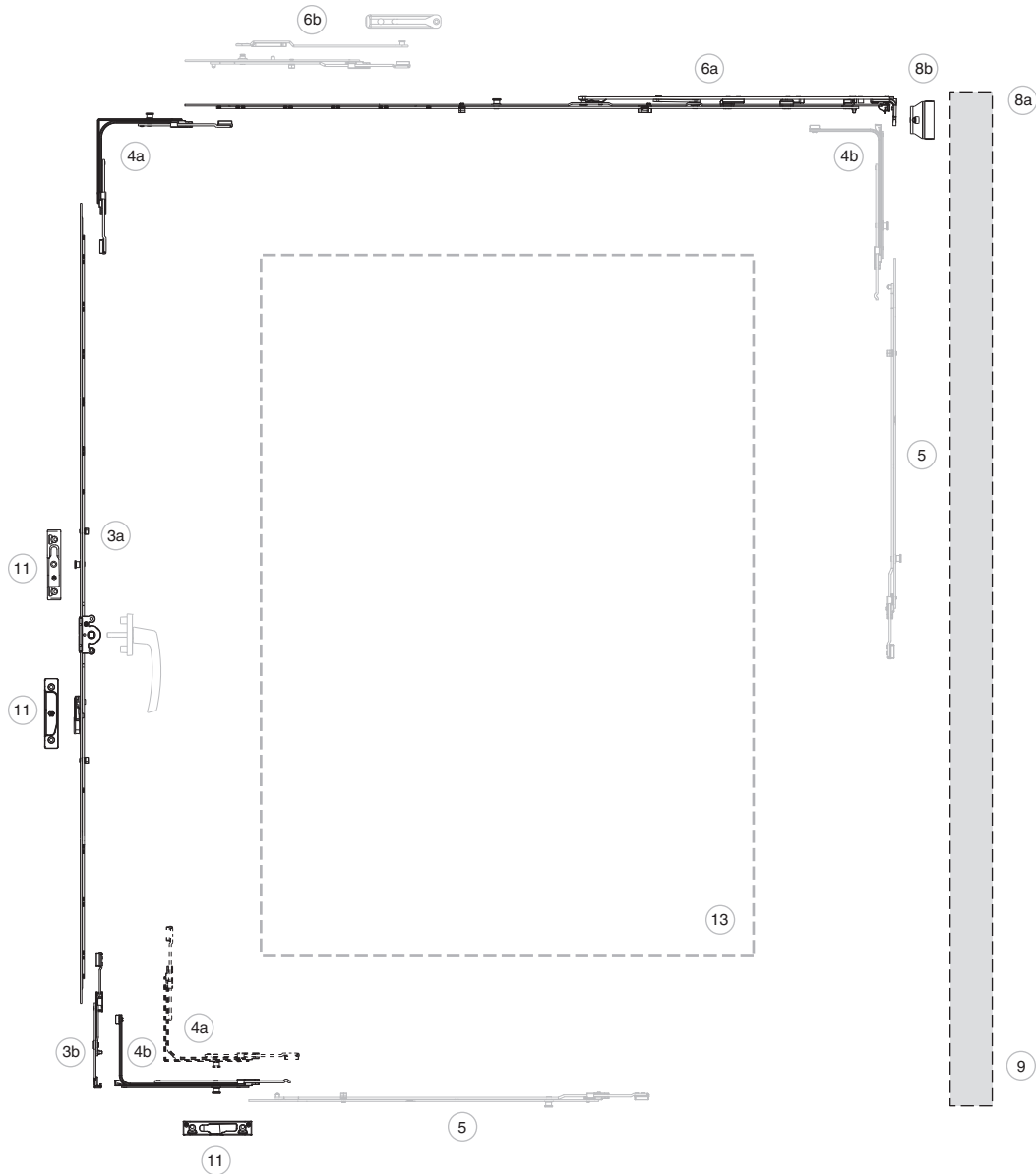
- 3 = Drive gear backset 15, backset 6.5 or special backset. Recommendation: Handle height should be between 1/3 and 1/2 of sash rebate height (SRH).
- 4b = Item no. 222208 can be used also for installation position scissor stay hinge, except for scissor stay hinge DT and routed scissor stay hinge.
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 6a = Rebated scissor stay with or without night-vent (for hinge sides PVC, AS, DT130, DT160) respectively scissor stay MULTI MAMMUT or MULTI POWER.
- 6b = Stabilizing scissor stay according to hinge side (dark shaded area in the diagram).
- 8 = For scissor stay hinge and rebated scissor stay support arm refer to hinge side.
- 9 = For pivot post refer to hinge side.
- 13 = Application diagram according to used hinge side.



<b>Selection guide</b>		<b>Page</b>
3	3.1.1.1 T&T drive gears BS 15 FHH i.S.	→162
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
6a	6.1 Rebated scissor stays	→202
6b	6.10.1 Stabilizing scissor stays	→216
8a	8.5.1 Scissor stay hinges DT130	→240
8b	8.5.3 Rebated scissor stay support arms DTuni	→241
9	9.4 Pivot posts DT	→254
11	11.1.1 Striker plates 4 mm air gap	→292



2.4.11.2 1-sashed rectangular T&T window with drive-gear VHH



- 3 = Drive gear backset 15, backset 6.5 or special backset. Recommendation: Handle height should be between 1/3 and 1/2 of sash rebate height (SRH).
- 4b = Item no. 222208 can be used also for installation position scissor stay hinge, except for scissor stay hinge DT and routed scissor stay hinge.
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 6a = Rebated scissor stay with or without night-vent (for hinge sides PVC, AS, DT130, DT160) respectively scissor stay MULTI MAMMUT or MULTI POWER.
- 6b = Stabilizing scissor stay according to hinge side (dark shaded area in the diagram).
- 8 = For scissor stay hinge and rebated scissor stay support arm refer to hinge side.
- 9 = For pivot post refer to hinge side.
- 13 = Application diagram according to used hinge side.

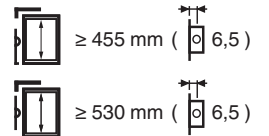
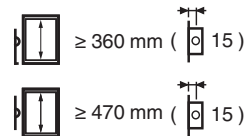
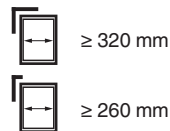
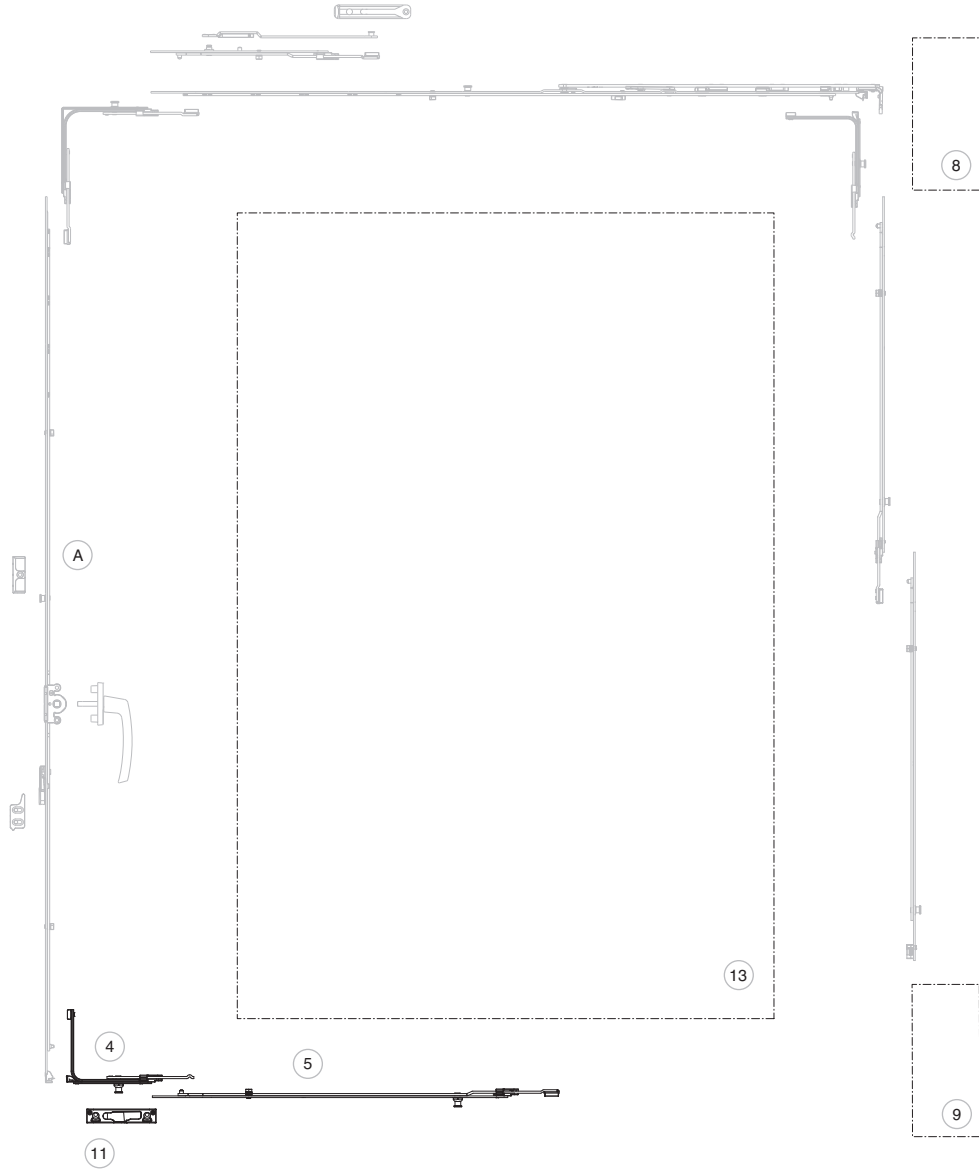


<b>Selection guide</b>		<b>Page</b>
3a	3.1.1.9 T&T drive gears BS 15 VHH i.S.	→164
3b	3.5.4 Tilt locks for drive gears	→184
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
5	5.1 Centre locks FHH i.S.	→196
6a	6.1 Rebated scissor stays	→202
6b	6.10.1 Stabilizing scissor stays	→216
8a	8.5.1 Scissor stay hinges DT130	→240
8b	8.5.3 Rebated scissor stay support arms DTuni	→241
9	9.4 Pivot posts DT	→254
11	11.1.1 Striker plates 4 mm air gap	→292



2.4.12 Central locking system for threshold

2.4.12.1 1-sashed rectangular T&T casement door with drive-gear FHH



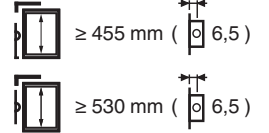
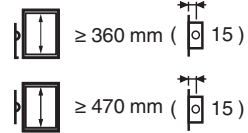
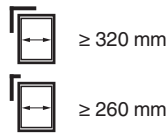
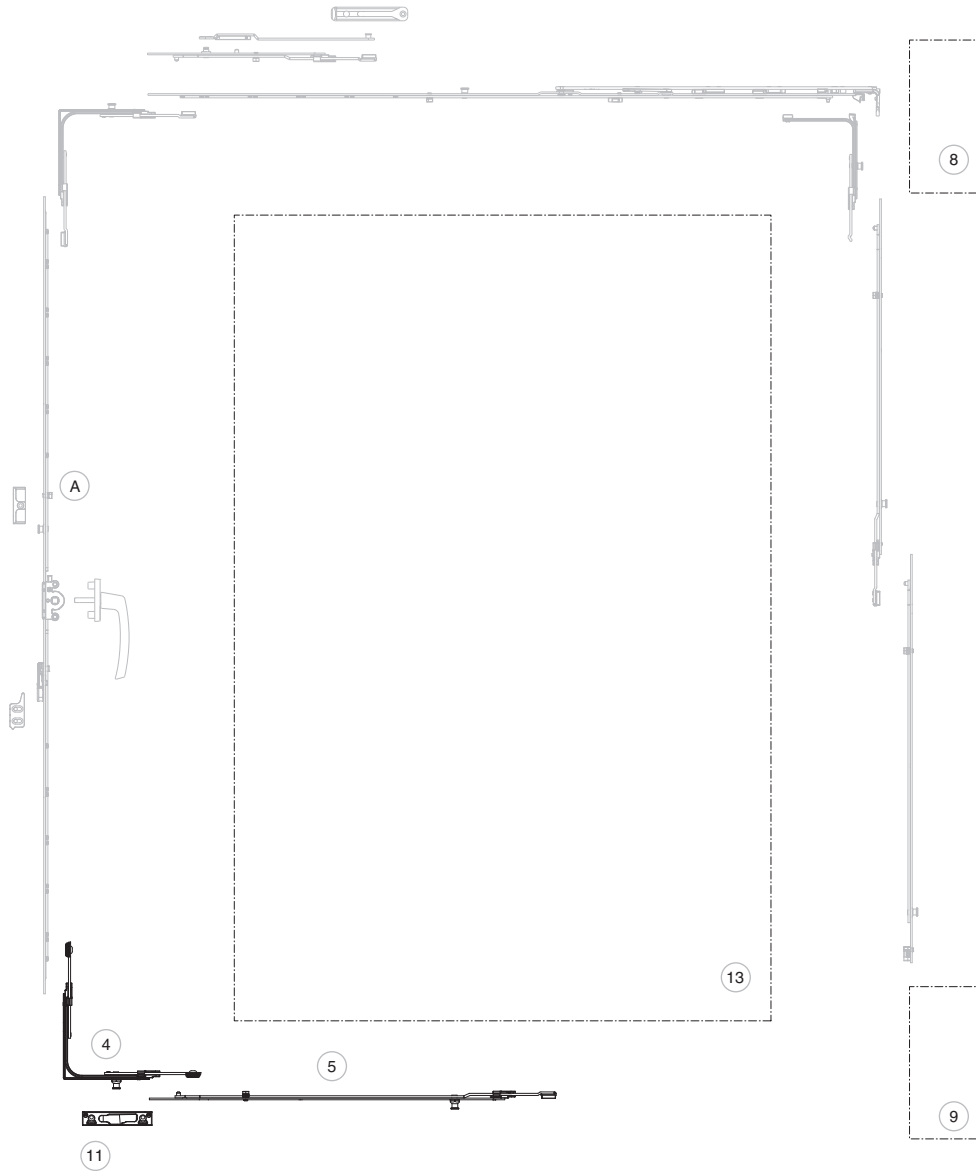
- A = Central locking system.
- 8 = Scissor stay hinge according to used hinge side.
- 9 = For possible pivot post combinations refer to matrix.
- 11 = Refer to profile data sheets for tilt striker plate.
- 13 = Application diagram according to used hinge side.



Selection guide			Page
4	4.7	Corner element for threshold 14 mm air gap	→192
5	5.14	Centre locks for threshold 14 mm air gap	→200
8	8	Scissor stay hinges	→238
9	9	Pivot posts	→246



2.4.12.2 1-sashed rectangular T&T casement door  
with drive-gear VHH



- A = Central locking system.
- 8 = Scissor stay hinge according to used hinge side.
- 9 = For possible pivot post combinations refer to matrix.
- 11 = Refer to profile data sheets for tilt striker plate.
- 13 = Application diagram according to used hinge side.

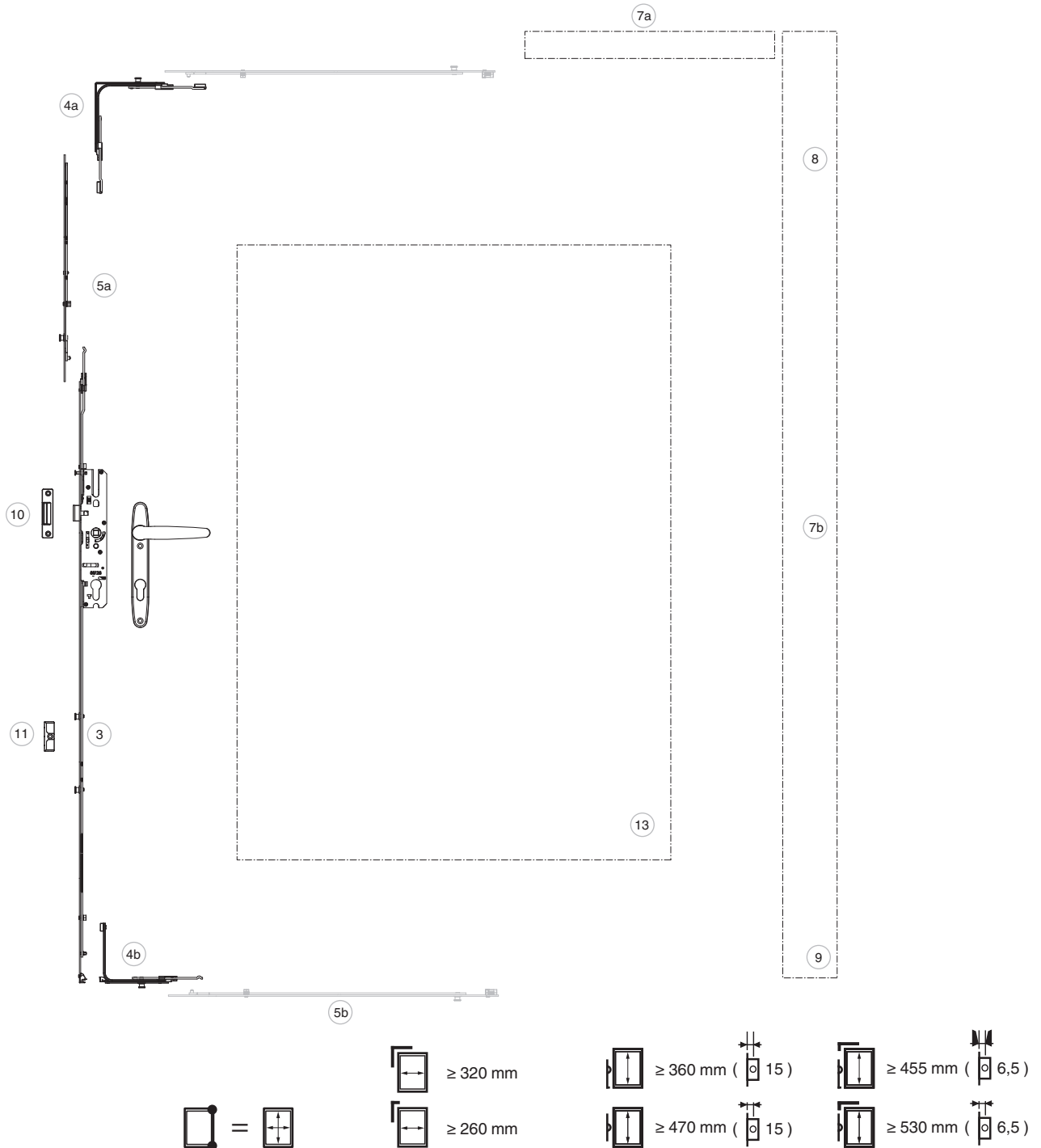


Selection guide			Page
4	4.7	Corner element for threshold 14 mm air gap	→192
5	5.14	Centre locks for threshold 14 mm air gap	→200
8	8	Scissor stay hinges	→238
9	9	Pivot posts	→246



2.4.13 Central locking system for B-TV

2.4.13.1 1-sashed rectangular turn-only casement door



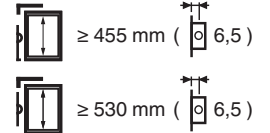
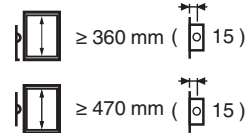
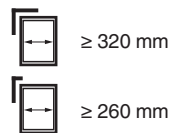
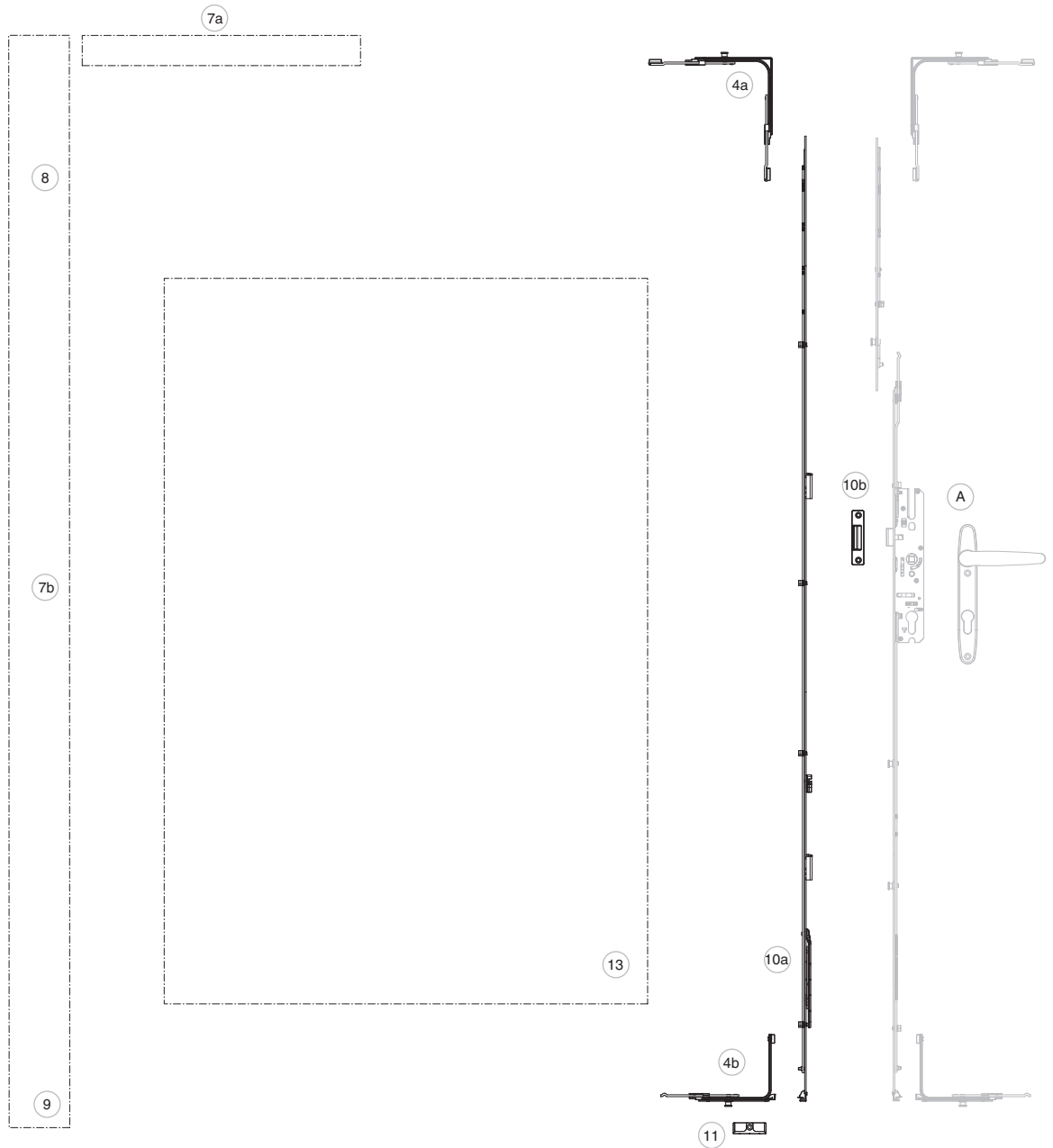
- 3 = Balcony door lock B-TV E85 with PC, E92 with PC or E94 with RC.
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7a = Refer to turn hardware overview for turn-only hinge - sash part fixed or croppable.
- 7b = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!
- 8 = Scissor stay hinge according to used hinge side.
- 9 = For possible pivot post combinations refer to matrix.
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.
- 13 = Application diagram according to used hinge side.



Selection guide			Page
3	3.6	Balcony door locks B-TV	→186
4a	4.1.1	Corner elements standard i.S.	→188
4b	4.1.3	Corner elements vertical i.S.	→189
5a	5.1	Centre locks FHH i.S.	→196
5b	5.12	Faceplate extensions croppable MM B-TV	→199
7a	7.1	Turn-only hinges - sash part / turn-only hinges - frame part / turn-only hinge faceplates AS/DTuni/PVC	→220
7b	7.10	Compression devices	→232
8	8	Scissor stay hinges	→238
9	9	Pivot posts	→246
10	10.7.4	Latch striker plates for balcony door locks B-TV	→290
11	11	Striker plates	→292



2.4.13.2 2-sashed rectangular turn-only casement door  
with French casement drive gear



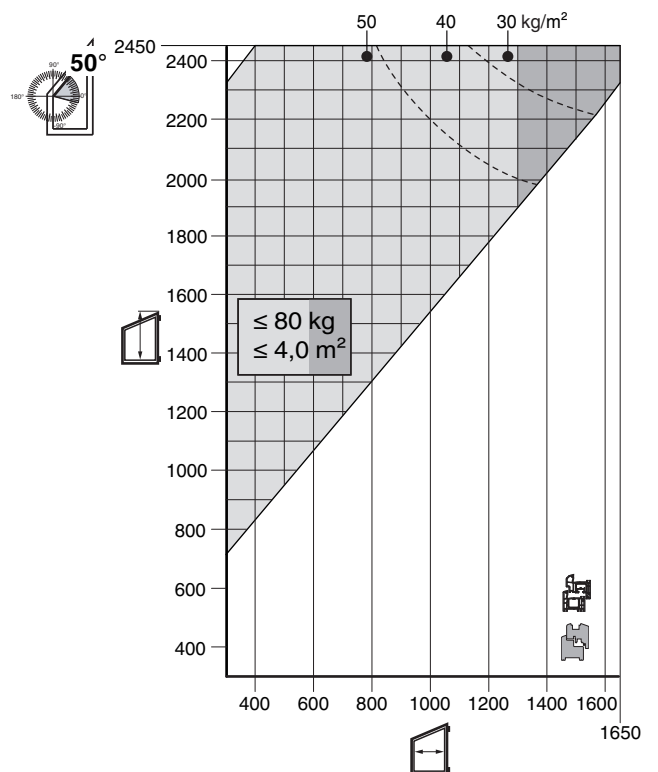
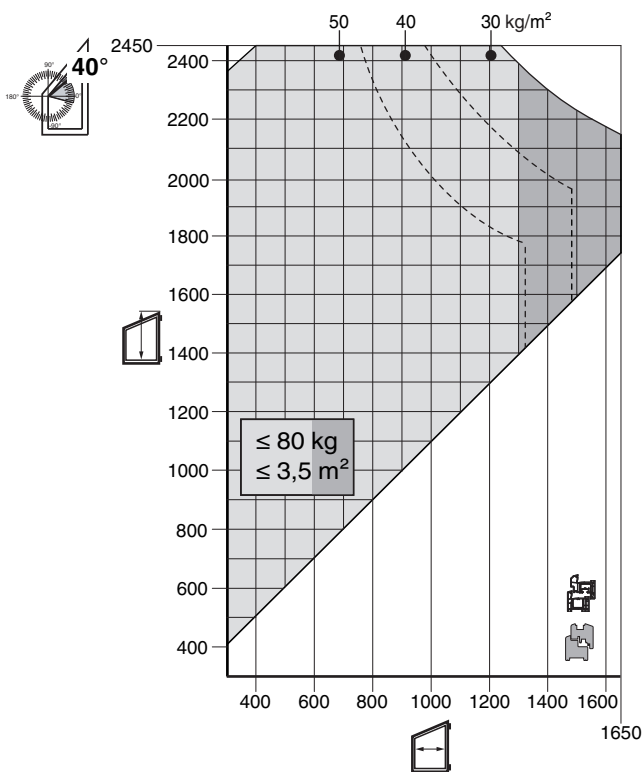
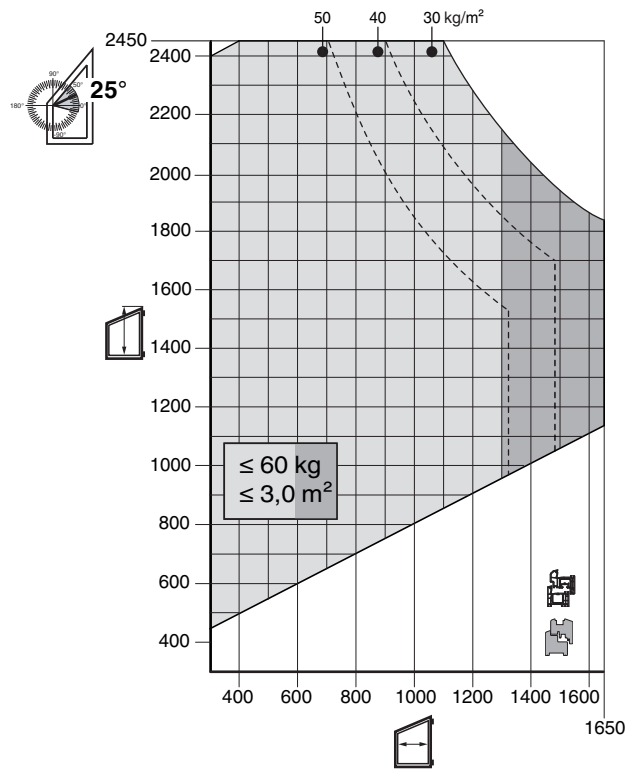
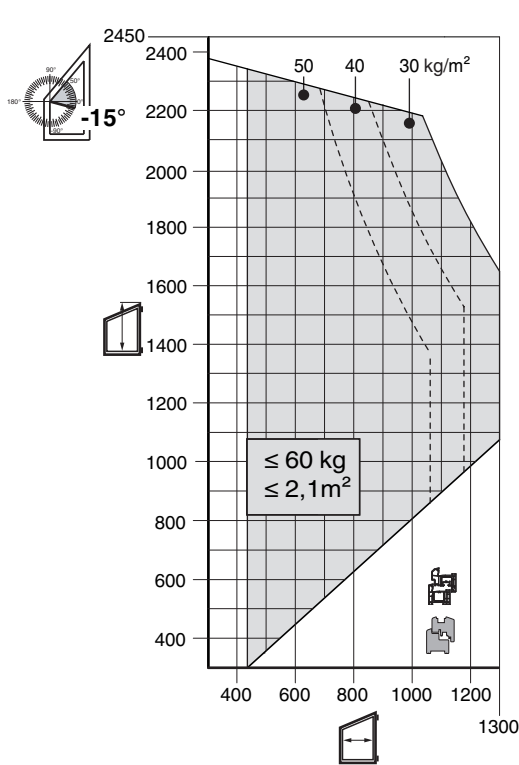
- A = For details refer to 1-sashed turn-only balcony door B-TV.
- 5 = Above 800 mm (PVC) or 1,000 mm (timber); Observe details from profile manufacturer!
- 7a = Refer to turn hardware overview for turn-only hinge - sash part fixed or croppable.
- 7b = 1 piece 800 - 1,600 mm, 2 pieces 1,601 - 2,400 mm, 3 pieces 2,401 - 2,650 mm; Observe details from profile manufacturer!
- 8 = Scissor stay hinge according to used hinge side.
- 9 = For possible pivot post combinations refer to matrix.
- 11 = Refer to profile data sheets for striker plates and sash lifters for PVC.
- 13 = Application diagram according to used hinge side.



<b>Selection guide</b>		<b>Page</b>
4a	4.1.1 Corner elements standard i.S.	→188
4b	4.1.3 Corner elements vertical i.S.	→189
7a	7.1 Turn-only hinges - sash part / turn-only hinges - frame part / turn-only hinge faceplates AS/DTuni/PVC	→220
7b	7.10 Compression devices	→232
8	8 Scissor stay hinges	→238
9	9 Pivot posts	→246
10a	10.2.1.1 French casement drive gears for Eurogroove FHH	→278
10b	10.7.4 Latch striker plates for balcony door locks B-TV	→290
11	11 Striker plates	→292



2.5 Application diagrams for angled windows





### **3 Drive gears**

---

<b>3.1</b>	<b>T&amp;T drive gears</b>	<b>162</b>
3.1.1	T&T drive gears BS 15	162
3.1.2	T&T drive gears BS 6.5	166
3.1.3	T&T drive gears BS -6	169
3.1.4	T&T drive gears special-BS i.S.	170
3.1.5	T&T drive gears lockable special-BS i.S.	171
<b>3.2</b>	<b>Turn-only drive gears</b>	<b>173</b>
3.2.1	Turn-only drive gears BS 15	173
3.2.2	Turn-only drive gears BS 6.5	175
3.2.3	Turn-only drive gears special BS i.S.	176
3.2.4	Turn-only drive gears special-BS VHH VZ	176
3.2.5	Turn-only drive gears for round windows i.S.	177
<b>3.3</b>	<b>Accessories for drive gears</b>	<b>178</b>
3.3.1	Door catch MM	178
3.3.2	Packer for door catch	178
3.3.3	Sash lifters and mishandling devices	178
3.3.4	Anti-drill plates for drive gears	178
3.3.5	Faceplate extension MM/MM-KS for corner screw-mounting on Alu windows	178
3.3.6	Faceplate restrainer for short drive gears MM	178
3.3.7	Clip-on parts for drive gears	178
3.3.8	Extension for bottom sash lifter run-up	179
3.3.9	Accessories for drive gears BS -6	179
<b>3.4</b>	<b>Espagnolettes</b>	<b>180</b>
3.4.1	Espagnolettes BS 15	180
3.4.2	Espagnolettes BS 6.5	182
3.4.3	Espagnolettes with mounted tilt stay	183
<b>3.5</b>	<b>End pieces</b>	<b>184</b>
3.5.1	End pieces with 90° restriction (turn-only)	184
3.5.2	End pieces for 180° (T&T, French casement drive gears)	184
3.5.3	End pieces top for half round windows	184
3.5.4	Tilt locks for drive gears	184
3.5.5	End piece bottom for drive gears VHH	184
3.5.6	End piece EH for drive gears	184
3.5.7	End piece bottom MM with reverse action for turn-only windows with shootbolt	185
3.5.8	End pieces top for reverse action espagnolette	185
<b>3.6</b>	<b>Balcony door locks B-TV</b>	<b>186</b>
3.6.1	Balcony door locks B-TV E85 with PC	186
3.6.2	Balcony door locks B-TV E92 with PC	186
3.6.3	Balcony door locks B-TV E94 with RC	186







### 3 Drive gears

#### 3.1 T&T drive gears

##### 3.1.1 T&T drive gears BS 15

201734









3.1.1.1 T&T drive gears BS 15 FHH i.S.								No	No Tricoat	
silver	430	15	0	125	360 - 430	-	20	201730 <sup>1</sup>	207448 <sup>1*</sup>	
	660	15	0	190	431 - 660	1	20	201732 <sup>1</sup>	207449 <sup>1*</sup>	
	840	15	1	300	661 - 840	1	20	201733	207450*	
	1090	15	1	400	841 - 1.090	1	20	201734	207451*	
	1340	15	1	500	1.091 - 1.340	1	10	201735	207452*	
	1590	15	2	600	1.341 - 1.590	1	10	201739	207453*	
	1700	15	2	700	1.591 - 1.700	1	10	207301	207454*	
	1950	15	3	1.050	1.701 - 1.950	1	10	201740	207455*	
	2200	15	3	1.050	1.951 - 2.200	1	10	201741	207456*	
	2450	15	4	1.050	2.201 - 2.450	1	10	201742	207457*	
	with door catch	1950	15	3	1.050	1.701 - 1.950	1	10	201842	
		2200	15	3	1.050	1.951 - 2.200	1	10	201843	219075
		2450	15	4	1.050	2.201 - 2.450	1	10	201844	

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.

209373



3.1.1.2 T&T drive gears BS 15 FHH i.S. with tilt lock bolt								No	No Tricoat	
silver	430	15	0	125	360 - 430	-	20	209370 <sup>1</sup>	222657 <sup>1*</sup>	
	660	15	0	190	431 - 660	-	20	209371 <sup>1</sup>	222658 <sup>1*</sup>	
	840	15	1	300	661 - 840	1	20	209372	222659*	
	1090	15	1	400	841 - 1.090	1	20	209373	222660*	
	1340	15	1	500	1.091 - 1.340	1	20	209375	222662*	
	1590	15	2	600	1.341 - 1.590	1	20	209377	222664*	
	1700	15	2	700	1.591 - 1.700	1	10	209379	222666*	
	1950	15	3	1.050	1.701 - 1.950	1	10	209383	222670*	
	2200	15	3	1.050	1.951 - 2.200	1	10	209385	222672*	
	2450	15	4	1.050	2.201 - 2.450	1	10	209387	222674*	
	with door catch	1950	15	3	1.050	1.701 - 1.950	1	10	209382	
		2200	15	3	1.050	1.951 - 2.200	1	10	209384	222671
		2450	15	4	1.050	2.201 - 2.450	1	10	209386	222673

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.



212120



<b>3.1.1.3 T&amp;T drive gears BS 15 FHH VZ with tilt lock bolt</b>								<b>No</b>	<b>No</b> Tricoat
silver	430	15	0	125	360 - 430	-	20	<b>209370<sup>1</sup></b>	<b>222657<sup>1*</sup></b>
	660	15	0	190	431 - 660	-	20	<b>209371<sup>1</sup></b>	<b>222658<sup>1*</sup></b>
	840	15	1	300	661 - 840	1	20	<b>212118</b>	
	1090	15	1	400	841 - 1.090	1	20	<b>212120</b>	
	1340	15	1	500	1.091 - 1.340	1	20	<b>212122</b>	
	1590	15	2	600	1.341 - 1.590	1	20	<b>212124</b>	
	1700	15	2	700	1.591 - 1.700	1	10	<b>212126</b>	
	1950	15	3	1.050	1.701 - 1.950	1	10	<b>212128</b>	
	2200	15	3	1.050	1.951 - 2.200	1	10	<b>212131</b>	
	2450	15	4	1.050	2.201 - 2.450	1	10	<b>212134</b>	
	with door catch	1950	15	3	1.050	1.701 - 1.950	1	10	<b>212129</b>
2200		15	3	1.050	1.951 - 2.200	1	10	<b>212132</b>	
2450		15	4	1.050	2.201 - 2.450	1	10	<b>212135</b>	

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.

201737



<b>3.1.1.4 T&amp;T drive gears EH BS 15 FHH i.S.</b>								<b>No</b>	<b>No</b> Tricoat
silver	660	15	1	190	431 - 660	-	10	<b>206986<sup>1,2</sup></b>	<b>207458<sup>1,2</sup></b>
			2	190	510 - 660	-	10	<b>214441<sup>1,2</sup></b>	
	840	15	2	300	661 - 840	1	20	<b>201736<sup>2</sup></b>	<b>207460<sup>2*</sup></b>
	1090	15	2	400	841 - 1.090	1	20	<b>201737<sup>2</sup></b>	<b>207461<sup>2*</sup></b>
	1340	15	2	500	1.091 - 1.340	1	10	<b>201738<sup>2</sup></b>	<b>207462<sup>2*</sup></b>
	1590	15	3	600	1.341 - 1.590	1	10	<b>206847<sup>2</sup></b>	<b>207463<sup>2*</sup></b>
	1700	15	3	700	1.591 - 1.700	1	10	<b>207303<sup>2,3</sup></b>	<b>207467<sup>2,3*</sup></b>

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.

<sup>2</sup> For burglar-resistant windows according to standard EN 1627.

<sup>3</sup> Above SRH 1700 mm use T&T drive gear BS 15 FHH i.S. and crop at 170 mm notch. Then extend with bottom end piece EH item no. 205644.

227863









227865









<b>3.1.1.5 T&amp;T drive gears ESH BS 15 FHH i.S.</b>								<b>No</b>	<b>No</b> Tricoat	
silver	660	15	1	190	431 - 660	-	10	<b>227863<sup>1</sup></b>		
			2	190	510 - 660	-	10	<b>227864<sup>1</sup></b>		
	840	15	2	300	661 - 840	1	20	<b>227865</b>		
				400	841 - 1.090	1	20	<b>227866</b>		
	1340	15	2	400	1.091 - 1.340	1	10	<b>227868</b>		
				500	1.091 - 1.340	1	10	<b>227869</b>		
	1590	15	2	500	1.341 - 1.590	1	10	<b>227870</b>		
				600	1.341 - 1.590	1	10	<b>227871</b>		
	1700	15	3	600	1.591 - 1.700	1	10	<b>227872</b>		
				700	1.591 - 1.700	1	10	<b>227873</b>		
	1950	15	3	700	1.701 - 1.950	1	10	<b>227874</b>		
	with door catch	1950	15	3	1.050	1.701 - 1.950	1	10	<b>228320</b>	
		2200	15	3	1.050	1.951 - 2.200	1	10	<b>227876</b>	
		2450	15	4	1.050	2.201 - 2.450	1	10	<b>227877</b>	

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.









3.1.1.6 T&T drive gears BS 15 FHH i.S. with offset handle position								No	No Tricoat
silver	1090	15	1	300	841 - 1.090	1	20	217867	
				500	841 - 1.090	1	20	209770	214310
	1340	15	1	400	1.091 - 1.340	1	10	217868	
	1590	15	2	500	1.341 - 1.590	1	10	201745	210072*
	1700	15	2	500	1.591 - 1.700	1	10	209261	223253*



3.1.1.7 T&T drive gears BS 15 FHH i.S. with offset handle position and tilt lock bolt								No	No Tricoat
silver	1090	15	1	300	841 - 1.090	1	20	209374	222661
				500	841 - 1.090	1	20	216142	
	1340	15	1	400	1.091 - 1.340	1	10	209376	222663
	1590	15	1	500	1.341 - 1.590	1	10	209378	222665*
	1700	15	1	500	1.591 - 1.700	1	10	209381	222668*









3.1.1.8 T&T drive gears EH BS 15 FHH with offset handle position								No	No Tricoat
silver	1090	15	2	300	841 - 1.090	1	20	201743 <sup>1,2</sup>	
	1340	15	2	400	1.091 - 1.340	1	10	201744 <sup>1</sup>	
	1590	15	2	500	1.341 - 1.590	1	10	208804 <sup>1</sup>	
	1700	15	3	600	1.591 - 1.700	1	10	208777 <sup>1</sup>	
	1950	15	3	700	1.701 - 1.950	1	10	208786 <sup>1</sup>	218769 <sup>1</sup>

<sup>1</sup> For burglar-resistant windows according to standard EN 1627.







<sup>2</sup> No FCD possible.



3.1.1.9 T&T drive gears BS 15 VHH i.S.		L							No	No Tricoat
silver	800	640	15	0	470 - 800	200	-	20	201746 <sup>1</sup>	207468 <sup>1*</sup>
				1	590 - 800	159	1	20	227936 <sup>1</sup>	
	1250	1.040	15	1	801 - 1.250	260	1	20	201747	207469*
	1750	1.540	15	2	1.251 - 1.750	260	1	10	201748	208318*
	2250	2.040	15	3	1.751 - 2.250	260	1	10	202739	208319*
	with door catch	2250	2.040	15	3	1.751 - 2.250	260	1	10	201749

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.



3.1.1.10 T&T drive gears BS 15 VHH VZ		L							No	No Tricoat
silver	800	640	15	0	470 - 800	200	-	20	201746 <sup>1</sup>	207468 <sup>1*</sup>
	1250	1.040	15	1	801 - 1.250	260	1	20	212156	
	1350	1.140	15	1	901 - 1.350	260	1	20	225098	
	1750	1.540	15	2	1.251 - 1.750	260	1	10	212158	
	2250	2.040	15	3	1.751 - 2.250	260	1	10	212160	

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.



228128



<b>3.1.1.11 T&amp;T drive gears ESH BS 15 VHH i.S.</b>		<b>L</b>							<b>No</b>	<b>No</b> Tricoat
silver		800	640	15	0	470 - 800	200	-	20	<b>229389</b> <sup>1</sup>
		1250	1.040	15	1	801 - 1.250	260	1	20	<b>228128</b>
		1750	1.540	15	2	1.251 - 1.750	260	1	10	<b>229390</b>
	with door catch	2250	2.040	15	3	1.751 - 2.250	260	1	10	<b>229391</b>







<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.



### 3.1.2 T&T drive gears BS 6.5

202208









3.1.2.1 T&T drive gears BS 6.5 FHH i.S.								No	No Tricoat	
silver	660	6,5	0	190	455 - 660	-	20	202206 <sup>1</sup>	207470 <sup>1</sup>	
	840	6,5	1	300	661 - 840	1	20	202207	207471	
	1090	6,5	1	400	841 - 1.090	1	20	202208	207472	
	1340	6,5	1	500	1.091 - 1.340	1	10	202209	207473	
	1590	6,5	2	600	1.341 - 1.590	1	10	202216	207474	
	1700	6,5	2	700	1.591 - 1.700	1	10	207305	207475	
	1950	6,5	3	1.050	1.701 - 1.950	1	10	202737	207476	
	2200	6,5	3	1.050	1.951 - 2.200	1	10	202738	207477	
	with door catch	1950	6,5	3	1.050	1.701 - 1.950	1	10	202217	
		2200	6,5	3	1.050	1.951 - 2.200	1	10	202218	

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.

212031









3.1.2.2 T&T drive gears BS 6.5 FHH i.S. with tilt lock bolt								No	No Tricoat
silver	660	6,5	0	190	455 - 660	-	20	212028 <sup>1</sup>	
	840	6,5	1	300	661 - 840	1	20	212029	222834
	1090	6,5	1	400	841 - 1.090	1	20	212031	222836
	1340	6,5	1	500	1.091 - 1.340	1	10	212033	222838
	1590	6,5	2	600	1.341 - 1.590	1	10	212035	222840
	1700	6,5	2	700	1.591 - 1.700	1	10	212037	
	1950	6,5	3	1.050	1.701 - 1.950	1	10	212038	
	2200	6,5	3	1.050	1.951 - 2.200	1	10	212040	222845

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.







212049



3.1.2.3 T&T drive gears BS 6.5 FHH VZ with tilt lock bolt								No	No Tricoat
silver	660	6,5	0	190	455 - 660	-	20	212028 <sup>1</sup>	
	840	6,5	1	300	661 - 840	1	20	212048	
	1090	6,5	1	400	841 - 1.090	1	20	212049	
	1340	6,5	1	500	1.091 - 1.340	1	10	212050	
	1590	6,5	2	600	1.341 - 1.590	1	10	212052	
	1700	6,5	2	700	1.591 - 1.700	1	10	212054	
	1950	6,5	3	1.050	1.701 - 1.950	1	10	212055	
	2200	6,5	3	1.050	1.951 - 2.200	1	10	212057	

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.

202214 







<b>3.1.2.4 T&amp;T drive gears EH BS 6.5 FHH i.S.</b>								<b>No</b>	<b>No</b> Tricoat
silver	660	6,5	1	190	455 - 660	-	20	<b>209609</b> <sup>1,2</sup>	
	840	6,5	2	300	661 - 840	1	20	<b>202213</b> <sup>2</sup>	
	1090	6,5	2	400	841 - 1.090	1	20	<b>202214</b> <sup>2</sup>	<b>207479</b> <sup>2</sup>
	1340	6,5	2	500	1.091 - 1.340	1	10	<b>202215</b> <sup>2</sup>	<b>207480</b> <sup>2</sup>
	1590	6,5	3	600	1.341 - 1.590	1	10	<b>208779</b> <sup>2</sup>	
	1700	6,5	3	700	1.591 - 1.700	1	10	<b>208780</b> <sup>2,3</sup>	

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.







<sup>2</sup> For burglar-resistant windows according to standard EN 1627.

<sup>3</sup> Above SRH 1700 mm use T&T drive gear BS 6.5 FHH i.S. and crop at 170 mm notch. Then extend with bottom end piece EH item no. 205644.







212030 

<b>3.1.2.5 T&amp;T drive gears BS 6.5 FHH i.S. with offset handle position and tilt lock bolt</b>								<b>No</b>	<b>No</b> Tricoat
silver	1090	6,5	1	300	841 - 1.090	1	20	<b>212030</b>	
	1340	6,5	1	400	1.091 - 1.340	1	10	<b>212032</b>	
	1590	6,5	1	500	1.341 - 1.590	1	10	<b>212034</b>	
	1700	6,5	1	500	1.591 - 1.700	1	10	<b>212066</b>	
			2	600	1.591 - 1.700	1	10	<b>212036</b>	

212051 







<b>3.1.2.6 T&amp;T drive gears BS 6.5 FHH VZ with offset handle position and tilt lock bolt</b>								<b>No</b>	<b>No</b> Tricoat
silver	1590	6,5	1	500	1.341 - 1.590	1	10	<b>212051</b>	
	1700	6,5	1	500	1.591 - 1.700	1	10	<b>212053</b>	

208781 

<b>3.1.2.7 T&amp;T drive gears EH BS 6.5 FHH with offset handle position</b>								<b>No</b>	<b>No</b> Tricoat
silver	1090	6,5	2	300	841 - 1.090	1	10	<b>208781</b> <sup>1</sup>	
	1340	6,5	2	400	1.091 - 1.340	1	10	<b>208782</b> <sup>1</sup>	
	1590	6,5	2	500	1.341 - 1.590	1	10	<b>208783</b> <sup>1</sup>	
	1700	6,5	3	600	1.591 - 1.700	1	10	<b>208784</b> <sup>1</sup>	
	1950	6,5	3	700	1.701 - 1.950	1	10	<b>208785</b> <sup>1</sup>	

<sup>1</sup> For burglar-resistant windows according to standard EN 1627.

202492 






<b>3.1.2.8 T&amp;T drive gears BS 6.5 VHH i.S.</b>		<b>L</b>							<b>No</b>	<b>No</b> Tricoat
silver	800	640	6,5	0	530 - 800	200	-	20	<b>202491</b> <sup>1</sup>	<b>207481</b> <sup>1</sup>
	1250	1.040	6,5	1	801 - 1.250	260	1	20	<b>202492</b>	<b>207482</b>
	1750	1.540	6,5	2	1.251 - 1.750	260	1	10	<b>202494</b>	<b>207483</b>
	2250	2.040	6,5	3	1.751 - 2.250	260	1	10	<b>202205</b>	<b>207484</b>

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.



202491




	3.1.2.9 T&T drive gears BS 6.5 VHH VZ	L			530 - 800				No	No Tricoat
silver	800	640	6,5	530 - 800	200	-	20		202491 <sup>1</sup>	207481 <sup>1</sup>

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.

### 3.1.3 T&T drive gears BS -6

218242 


3.1.3.1 T&T drive gears BS -6 FHH i.S.								No	No Tricoat
	660	-6	0	190	455 - 660	-	20		
silver	660	-6	0	190	455 - 660	-	20	<b>218240</b> <sup>1,2,3</sup>	
	840	-6	1	300	661 - 840	1	20	<b>218241</b> <sup>1,2</sup>	<b>226434</b> <sup>1,2</sup>
	1090	-6	1	400	841 - 1.090	1	20	<b>218242</b> <sup>1,2</sup>	
	1340	-6	1	500	1.091 - 1.340	1	10	<b>218243</b> <sup>1,2</sup>	<b>226436</b> <sup>1,2</sup>
	1590	-6	2	600	1.341 - 1.590	1	10	<b>218244</b> <sup>1,2</sup>	
	1700	-6	2	700	1.591 - 1.700	1	10	<b>218245</b> <sup>1,2</sup>	
	1950	-6	3	1.050	1.701 - 1.950	1	10	<b>218246</b> <sup>1,2</sup>	<b>226439</b> <sup>1,2</sup>
	2200	-6	3	1.050	1.951 - 2.200	1	10	<b>218247</b> <sup>1,2</sup>	

<sup>1</sup> Accessories for drive gears BS -6 (adaper item no. 366719, spacer such as item no. 366006 ...) must be used!

<sup>2</sup> Do not exceed max. torque of 22 Nm when breaking the centre die anchorage! Otherwise install drive gear BS 6.5 with frontal intermediate drive gear.

<sup>3</sup> To fasten faceplate use faceplate restrainer item no. 213287.

218249 

3.1.3.2 T&T drive gears BS -6 VHH i.S.								No	No Tricoat
	800	-6	0	530 - 800	-	20			
silver	800	-6	0	530 - 800	-	20	<b>218248</b> <sup>1,2,3</sup>		
	1250	-6	1	801 - 1.250	1	10	<b>218249</b> <sup>1,2</sup>		
	1750	-6	2	1.251 - 1.750	1	10	<b>218250</b> <sup>1,2</sup>		
	2250	-6	3	1.751 - 2.250	1	10	<b>218251</b> <sup>1,2</sup>		

<sup>1</sup> Accessories for drive gears BS -6 (adaper item no. 366719, spacer such as item no. 366006 ...) must be used!

<sup>2</sup> Do not exceed max. torque of 22 Nm when breaking the centre die anchorage! Otherwise install drive gear BS 6.5 with frontal intermediate drive gear.

<sup>3</sup> To fasten faceplate use faceplate restrainer item no. 213287.



3.1.4 T&T drive gears special-BS i.S.

205465



3.1.4.1 T&T drive gears special-BS FHH i.S.									No	No Tricoat
silver	1090	30	1	400	841 - 1.090	1	20		212184	
	1340	30	1	500	1.091 - 1.340	1	10		212185	212199
	1950	25	3	1.050	1.701 - 1.950	1	10		205465	207485
		30	3	1.050	1.701 - 1.950	1	10		205473	207488
		35	3	1.050	1.701 - 1.950	1	10		205487	207491
		40	3	1.050	1.701 - 1.950	1	10		206402	
		45	3	1.050	1.701 - 1.950	1	10		206403	207497
		50	3	1.050	1.701 - 1.950	1	10		205491	
	2200	25	3	1.050	1.951 - 2.200	1	10		205464	
		30	3	1.050	1.951 - 2.200	1	10		205472	207489
		35	3	1.050	1.951 - 2.200	1	10		205480	207492
		40	3	1.050	1.951 - 2.200	1	10		205489	207495
		45	3	1.050	1.951 - 2.200	1	10		205490	207498
		50	3	1.050	1.951 - 2.200	1	10		205492	207501
	2450	25	4	1.050	2.201 - 2.450	1	10		206399	207487
		30	4	1.050	2.201 - 2.450	1	10		205479	207490
		35	4	1.050	2.201 - 2.450	1	10		205488	207493
		40	4	1.050	2.201 - 2.450	1	10		206400	207496
		45	4	1.050	2.201 - 2.450	1	10		206401	
		50	4	1.050	2.201 - 2.450	1	10		205493	

205514



3.1.4.2 T&T drive gears special-BS VHH i.S.		L								No	No Tricoat
silver	800	640	25	0	470 - 800	200	-	10		205513 <sup>1</sup>	207503 <sup>1</sup>
			30	0	470 - 800	200	-	10		205517 <sup>1</sup>	
			35	0	470 - 800	200	-	10		205525 <sup>1</sup>	
			40	0	470 - 800	200	-	10		205529 <sup>1</sup>	207515 <sup>1</sup>
			45	0	470 - 800	200	-	10		205539 <sup>1</sup>	
			50	0	470 - 800	200	-	10		205540 <sup>1</sup>	207523 <sup>1</sup>
	1250	1.040	25	1	801 - 1.250	260	1	10		205514	207504
			30	1	801 - 1.250	260	1	10		205518	207508
			35	1	801 - 1.250	260	1	10		205534	207512
			40	1	801 - 1.250	260	1	10		205530	207516
			45	1	801 - 1.250	260	1	10		206308	207520
			50	1	801 - 1.250	260	1	10		213071	
	1750	1.540	25	2	1.251 - 1.750	260	1	10		205532	207505
			30	2	1.251 - 1.750	260	1	10		205520	207509
			35	2	1.251 - 1.750	260	1	10		205535	
			40	2	1.251 - 1.750	260	1	10		205537	207517
			45	2	1.251 - 1.750	260	1	10		206309	207521
			50	2	1.251 - 1.750	260	1	10		213072	
	2250	2.040	25	3	1.751 - 2.250	260	1	10		205533	207506
			30	3	1.751 - 2.250	260	1	10		205531	207510
			35	3	1.751 - 2.250	260	1	10		205536	207514
			40	3	1.751 - 2.250	260	1	10		205538	207518
			45	3	1.751 - 2.250	260	1	10		206310	207522
			50	3	1.751 - 2.250	260	1	10		213073	218909

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.

3.1.5 T&T drive gears lockable special-BS i.S.

205602



3.1.5.1 T&T drive gears lockable special BS for PC FHH i.S.								No	No Tricoat
silver	1950	25	3	1.050	1.701 - 1.950	1	10	205602 <sup>1</sup>	207524 <sup>1</sup>
		30	3	1.050	1.701 - 1.950	1	10	205627 <sup>1</sup>	207527 <sup>1</sup>
		35	3	1.050	1.701 - 1.950	1	10	206153 <sup>1</sup>	207530 <sup>1</sup>
		40	3	1.050	1.701 - 1.950	1	10	206984 <sup>1</sup>	207533 <sup>1</sup>
		45	3	1.050	1.701 - 1.950	1	10	206155 <sup>1</sup>	207536 <sup>1</sup>
		50	3	1.050	1.701 - 1.950	1	10	206985 <sup>1</sup>	
	2200	25	3	1.050	1.951 - 2.200	1	10	205571 <sup>1</sup>	207525 <sup>1</sup>
		30	3	1.050	1.951 - 2.200	1	10	205624 <sup>1</sup>	207528 <sup>1</sup>
		35	3	1.050	1.951 - 2.200	1	10	205629 <sup>1</sup>	207531 <sup>1</sup>
		40	3	1.050	1.951 - 2.200	1	10	205631 <sup>1</sup>	207534 <sup>1</sup>
		45	3	1.050	1.951 - 2.200	1	10	205633 <sup>1</sup>	207537 <sup>1</sup>
		50	3	1.050	1.951 - 2.200	1	10	205635 <sup>1</sup>	207540 <sup>1</sup>
	2450	25	4	1.050	2.201 - 2.450	1	10	205623 <sup>1</sup>	
		30	4	1.050	2.201 - 2.450	1	10	205628 <sup>1</sup>	207529 <sup>1</sup>
		35	4	1.050	2.201 - 2.450	1	10	205630 <sup>1</sup>	207532 <sup>1</sup>
		40	4	1.050	2.201 - 2.450	1	10	205632 <sup>1</sup>	
		45	4	1.050	2.201 - 2.450	1	10	205634 <sup>1</sup>	207538 <sup>1</sup>
		50	4	1.050	2.201 - 2.450	1	10	205636 <sup>1</sup>	207541 <sup>1</sup>

<sup>1</sup> Cropping for end piece 115 mm and 170 mm possible. Notch only at 170 mm.

212256



3.1.5.2 T&T drive gears lockable special BS for PC FHH i.S. with tilt lock bolt								No	No Tricoat
silver	1950	25	3	1.050	1.701 - 1.950	1	10	212256	
		35	3	1.050	1.701 - 1.950	1	10	212258	

205670



3.1.5.3 T&T drive gears lockable special BS for PC VHH i.S.		L							No	No Tricoat
silver	1750	1.540	25	2	1.251 - 1.750	260	1	10	205670	207542
			30	2	1.251 - 1.750	260	1	10	205671	207543
			35	2	1.251 - 1.750	260	1	10	205672	207545
			40	2	1.251 - 1.750	260	1	10	205673	207547
			45	2	1.251 - 1.750	260	1	10	207316	207549
			50	2	1.251 - 1.750	260	1	10	213074	
	2250	2.040	25	3	1.751 - 2.250	260	1	10	210347	214727
			30	3	1.751 - 2.250	260	1	10	205674	207544
			35	3	1.751 - 2.250	260	1	10	205675	207546
			40	3	1.751 - 2.250	260	1	10	207317	207548
			45	3	1.751 - 2.250	260	1	10	207318	207550
			50	3	1.751 - 2.250	260	1	10	213075	



224293

<b>3.1.5.4 T&amp;T drive gears lockable special BS for RC FHH i.S.</b>										<b>No</b>	<b>No</b> Tricoat
silver	1950	40	3	1.050	1.701 - 1.950	1	10			<b>224293</b>	
		45	3	1.050	1.701 - 1.950	1	10			<b>224294</b>	
		50	3	1.050	1.701 - 1.950	1	10			<b>224295</b>	
	2200	40	3	1.050	1.951 - 2.200	1	10			<b>205696</b>	
		45	3	1.050	1.951 - 2.200	1	10			<b>205698</b>	
		50	3	1.050	1.951 - 2.200	1	10			<b>205700</b>	



217871

<b>3.1.5.5 T&amp;T drive gears lockable special BS for RC VHH i.S.</b>		<b>L</b>								<b>No</b>	<b>No</b> Tricoat
silver	1750	1.540	40	2	1.251 - 1.750	260	1	10		<b>217871</b>	
			45	2	1.251 - 1.750	260	1	10		<b>217872</b>	

## 3.2 Turn-only drive gears

### 3.2.1 Turn-only drive gears BS 15



3.2.1.1 Turn-only drive gears BS 15 FHH i.S.							No	No Tricoat
silver	430	15	0	125	360 - 430	20	201730 <sup>1</sup>	207448 <sup>1*</sup>
	660	15	0	190	431 - 660	20	201731 <sup>1</sup>	210343 <sup>1*</sup>
	840	15	1	300	661 - 840	20	201833	215752
	1090	15	1	400	841 - 1.090	20	201834	211244
	1340	15	1	500	1.091 - 1.340	10	201835	210073
	1590	15	2	600	1.341 - 1.590	10	201836	
	1700	15	2	700	1.591 - 1.700	10	207302	
	1950	15	3	1.050	1.701 - 1.950	10	201837	211247
	2200	15	3	1.050	1.951 - 2.200	10	201838	210074
	2450	15	4	1.050	2.201 - 2.450	10	201839	210075

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.



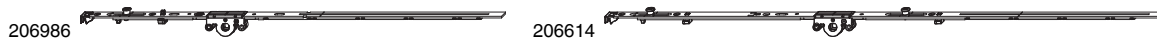
3.2.1.2 Turn-only drive gears BS 15 FHH i.S. with tilt lock bolt							No	No Tricoat
silver	430	15	0	125	360 - 430	20	209370 <sup>1</sup>	222657 <sup>1*</sup>
	660	15	0	190	431 - 660	20	209371 <sup>1</sup>	222658 <sup>1*</sup>
	840	15	1	300	661 - 840	20	209590	

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.



3.2.1.3 Turn-only drive gears BS 15 FHH VZ with tilt lock bolt							No	No Tricoat
silver	430	15	0	125	360 - 430	20	209370 <sup>1</sup>	222657 <sup>1*</sup>
	660	15	0	190	431 - 660	20	209371 <sup>1</sup>	222658 <sup>1*</sup>
	840	15	1	300	661 - 840	20	212119	
	1090	15	1	400	841 - 1.090	20	212121	
	1340	15	1	500	1.091 - 1.340	20	212123	
	1590	15	2	600	1.341 - 1.590	20	212125	
	1700	15	2	700	1.591 - 1.700	10	212127	
	1950	15	3	1.050	1.701 - 1.950	10	212130	
	2200	15	3	1.050	1.951 - 2.200	10	212133	
	2450	15	4	1.050	2.201 - 2.450	10	212136	

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.



3.2.1.4 Turn-only drive gears EH BS 15 FHH i.S.							No	No Tricoat
silver	660	15	1	190	431 - 660	10	206986 <sup>1,2</sup>	207458 <sup>1,2</sup>
			2	190	510 - 660	10	214441 <sup>1,2</sup>	
	840	15	2	300	661 - 840	20	206614 <sup>2</sup>	

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.

<sup>2</sup> For burglar-resistant windows according to standard EN 1627.



205547



<b>3.2.1.5 Turn-only drive gears BS 15 FHH without cam</b>						<b>No</b>	<b>No</b> Tricoat
silver	840	15	300	661 - 840	20	<b>205546</b>	
	1090	15	400	841 - 1.090	20	<b>205547</b>	
	1340	15	500	1.091 - 1.340	10	<b>205548</b>	
	1590	15	600	1.341 - 1.590	10	<b>205549</b>	
	1700	15	700	1.591 - 1.700	10	<b>207304</b>	
	1950	15	1.050	1.701 - 1.950	10	<b>205545</b>	
	2200	15	1.050	1.951 - 2.200	10	<b>205550</b>	
	2450	15	1.050	2.201 - 2.450	10	<b>205551</b>	

202170



<b>3.2.1.6 Turn-only drive gears BS 15 VHH i.S.</b>		<b>L</b>						<b>No</b>	<b>No</b> Tricoat
silver	800	640	15	0	470 - 800	200	20	<b>201746<sup>1</sup></b>	<b>207468<sup>1*</sup></b>
	1250	1.040	15	1	801 - 1.250	260	20	<b>202170</b>	
	1350	1.140	15	1	901 - 1.350	260	20	<b>215408</b>	
	1750	1.540	15	2	1.251 - 1.750	260	10	<b>202171</b>	
	2250	2.040	15	3	1.751 - 2.250	260	10	<b>202172</b>	

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.

212157



<b>3.2.1.7 Turn-only drive gears BS 15 VHH VZ</b>		<b>L</b>						<b>No</b>	<b>No</b> Tricoat
silver	800	640	15	0	470 - 800	200	20	<b>201746<sup>1</sup></b>	<b>207468<sup>1*</sup></b>
	1250	1.040	15	1	801 - 1.250	260	20	<b>212157</b>	
	1750	1.540	15	2	1.251 - 1.750	260	10	<b>212159</b>	
	2250	2.040	15	3	1.751 - 2.250	260	10	<b>212161</b>	

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.

205542



<b>3.2.1.8 Turn-only drive gears BS 15 VHH without cam</b>		<b>L</b>					<b>No</b>	<b>No</b> Tricoat
silver	1250	1.040	15	801 - 1.250	260	10	<b>205542</b>	<b>211338</b>
	1750	1.540	15	1.251 - 1.750	260	10	<b>205543</b>	<b>211339</b>
	2250	2.040	15	1.751 - 2.250	260	10	<b>205544</b>	<b>211340</b>

### 3.2.2 Turn-only drive gears BS 6.5



3.2.2.1 Turn-only drive gears BS 6.5 FHH i.S.							No	No Tricoat
silver	660	6,5	0	190	455 - 660	20	202206 <sup>1</sup>	207470 <sup>1</sup>
	840	6,5	1	300	661 - 840	20	202210	
	1090	6,5	1	400	841 - 1.090	20	202211	
	1340	6,5	1	500	1.091 - 1.340	10	202212	
	1590	6,5	2	600	1.341 - 1.590	10	202219	
	1700	6,5	2	700	1.591 - 1.700	10	207306	
	1950	6,5	3	1.050	1.701 - 1.950	10	202220	
	2200	6,5	3	1.050	1.951 - 2.200	10	202221	

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.



3.2.2.2 Turn-only drive gears BS 6.5 FHH i.S. with tilt lock bolt							No	No Tricoat
silver	840	6,5	1	300	661 - 840	20	212042	
	1090	6,5	1	400	841 - 1.090	20	212044	
	1340	6,5	1	500	1.091 - 1.340	10	212045	
	1590	6,5	2	600	1.341 - 1.590	10	212046	



3.2.2.3 Turn-only drive gears BS 6.5 FHH VZ with tilt lock bolt							No	No Tricoat
silver	840	6,5	1	300	661 - 840	20	212059	
	1090	6,5	1	400	841 - 1.090	20	212060	
	1340	6,5	1	500	1.091 - 1.340	10	212061	
	1590	6,5	2	600	1.341 - 1.590	10	212062	
	1700	6,5	2	700	1.591 - 1.700	10	212063	
	1950	6,5	3	1.050	1.701 - 1.950	10	212064	
	2200	6,5	3	1.050	1.951 - 2.200	10	212065	



3.2.2.4 Turn-only drive gears BS 6.5 VHH i.S.		L						No	No Tricoat
silver	800	640	6,5	0	530 - 800	200	20	202491 <sup>1</sup>	207481 <sup>1</sup>
	1250	1.040	6,5	1	801 - 1.250	260	20	202493	
	1750	1.540	6,5	2	1.251 - 1.750	260	10	202495	
	2250	2.040	6,5	3	1.751 - 2.250	260	10	202497	

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.



3.2.3 Turn-only drive gears special BS i.S.

209968



3.2.3.1 Turn-only drive gears special-BS FHH with welded striker							No	No Tricoat
silver	660	30	190	431 - 660	10		224139 <sup>1</sup>	
		50	190	431 - 660	10		218426 <sup>1</sup>	
	840	30	300	661 - 840	10		224140	
		50	300	661 - 840	10		218427	
	1090	30	400	841 - 1.090	10		224141	
		40	400	841 - 1.090	10		210941	
		50	400	841 - 1.090	10		218428	
	1340	30	500	1.091 - 1.340	10		224142	
		40	500	1.091 - 1.340	10		210942	
		50	500	1.091 - 1.340	10		218429	
	1590	30	600	1.341 - 1.590	10		224143	
		40	600	1.341 - 1.590	10		211659	
		50	600	1.341 - 1.590	10		218430	
	1700	30	700	1.591 - 1.700	10		224144	
		40	700	1.591 - 1.700	10		211660	
		50	700	1.591 - 1.700	10		218431	
	1950	30	1.050	1.701 - 1.950	10		209968	
		40	1.050	1.701 - 1.950	10		207014	
		50	1.050	1.701 - 1.950	10		218432	
	2200	30	1.050	1.951 - 2.200	10		224145	
		40	1.050	1.951 - 2.200	10		210943	
		50	1.050	1.951 - 2.200	10		218433	
	2450	30	1.050	2.201 - 2.450	10		224146	
		40	1.050	2.201 - 2.450	10		210944	

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.

218225



3.2.3.2 Turn-only drive gears special-BS VHH with welded striker		L					No	No Tricoat
silver	1250	1.040	50	801 - 1.250	260	10	218225	
	1750	1.540	50	1.251 - 1.750	260	10	218226	
	2250	2.040	50	1.751 - 2.250	260	10	218227	

205515



3.2.3.3 Turn-only drive gears special-BS VHH i.S.		L					No	No Tricoat
silver	1750	1.540	25	2	1.251 - 1.750	260	10	205515
			30	2	1.251 - 1.750	260	10	205541
	2250	2.040	25	3	1.751 - 2.250	260	10	205516
			30	3	1.751 - 2.250	260	10	205523

214904



3.2.4 Turn-only drive gears special-BS VHH VZ		L					No	No Tricoat
silver	800	640	30	0	470 - 800	200	10	205517 <sup>1</sup>
	1250	1.040	30	1	801 - 1.250	260	10	214904

<sup>1</sup> To fasten faceplate use faceplate restrainer item no. 213287.



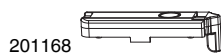
208747



3.2.5 Turn-only drive gears for round windows i.S.					No	No Tricoat
silver	925	15	3	425 - 925	10	<b>208747</b>
	1425	15	4	926 - 1.425	10	<b>208748</b>



### 3.3 Accessories for drive gears



201168

#### 3.3.1 Door catch MM



No

No  
Tricoat

silver

50

201168

207674\*



44349

#### 3.3.2 Packer for door catch



No

No  
Tricoat

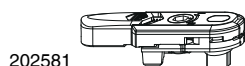
pearl light grey RAL 9022

for bullet catch case

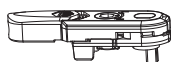
3

100

44349



202581



370922

#### 3.3.3 Sash lifters and mishandling devices



No

No  
Tricoat

silver

sash lifter and mishandling device retrofittable MM

50

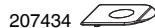
202581

215239

sash lifter and mishandling device retrofittable MM for comfort adjuster

10

370922



207434



207435

#### 3.3.4 Anti-drill plates for drive gears



No

No  
Tricoat

silver

BS 15 hardened

50

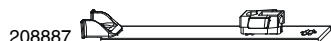
207434<sup>1</sup>

BS 6.5 hardened

50

207435<sup>1</sup>

<sup>1</sup> For burglar-resistant windows according to standard EN 1627.



208887

#### 3.3.5 Faceplate extension MM/MM-KS for corner screw-mounting on Alu windows



No

No  
Tricoat

silver

20

208887



213287

#### 3.3.6 Faceplate restrainer for short drive gears MM



No

No  
Tricoat

silver

100

213287



363192



45038



#### 3.3.7 Clip-on parts for drive gears



No

No  
Tricoat

clip-on component for gearbox cases CE

100

363192<sup>1</sup>

clip-on component for gearbox cases MACO

100

45038<sup>1</sup>



<sup>1</sup> Attachments for the drive gear are also available with logo.



366284 

<b>3.3.8 Extension for bottom sash lifter run-up</b>			<b>No</b>	<b>No</b> Tricoat
silver		100	<b>366284</b>	

366719  366008 

<b>3.3.9 Accessories for drive gears BS -6</b>		 	<b>No</b>	<b>No</b> Tricoat
silver	adapter for drive gear DM-6	50	<b>366719</b>	
pearl light grey RAL 9022	spacer	1,5 50	<b>366006</b>	
		5 50	<b>367850</b>	
		8,5 50	<b>366007</b>	
		9,5 50	<b>366008</b>	








### 3.4 Espagnolettes

#### 3.4.1 Espagnolettes BS 15






208346



3.4.1.1 Espagnolettes BS 15 FHH i.S.							No	No Tricoat
silver	430	15	1	125	270 - 430	20	<b>208343</b>	
	660	15	2	190	431 - 660	20	<b>208344</b>	
	840	15	2	300	661 - 840	20	<b>208345</b>	
	1090	15	2	400	841 - 1.090	20	<b>208346</b>	
	1340	15	3	500	1.091 - 1.340	10	<b>208347</b>	
	1590	15	3	600	1.341 - 1.590	10	<b>208348</b>	
	1700	15	3	700	1.591 - 1.700	10	<b>208349</b>	
	1950	15	3	1.050	1.701 - 1.950	10	<b>208350</b>	
	2200	15	4	1.050	1.951 - 2.200	10	<b>208351</b>	
	2450	15	4	1.050	2.201 - 2.450	10	<b>208352</b>	

211964








3.4.1.2 Espagnolettes BS 15 FHH VZ							No	No Tricoat
silver	430	15	1	125	270 - 430	20	<b>211961</b>	<b>222793</b>
	660	15	2	190	431 - 660	20	<b>211962</b>	<b>222794</b>
	840	15	2	300	661 - 840	20	<b>211963</b>	<b>222795</b>
	1090	15	2	400	841 - 1.090	20	<b>211964</b>	<b>222625</b>
	1340	15	3	500	1.091 - 1.340	10	<b>211965</b>	<b>222626</b>
	1590	15	3	600	1.341 - 1.590	10	<b>211966</b>	
	1700	15	3	700	1.591 - 1.700	10	<b>211967</b>	
	1950	15	3	1.050	1.701 - 1.950	10	<b>211968</b>	<b>222627</b>
	2200	15	4	1.050	1.951 - 2.200	10	<b>211969</b>	<b>222628</b>
	2450	15	4	1.050	2.201 - 2.450	10	<b>211970</b>	<b>222629</b>
2600	15	3	1.050	1.801 - 2.600	10	<b>212970<sup>1</sup></b>		
		4	1.050	2.451 - 2.600	10	<b>212637</b>		

<sup>1</sup> extendable





211971



3.4.1.3 Espagnolettes BS 15 FHH VZ with offset handle position							No	No Tricoat
silver	1090	15	2	300	841 - 1.090	20	<b>211971</b>	
	1340	15	3	190	1.091 - 1.340	10	<b>218088</b>	
				400	1.091 - 1.340	10	<b>211972</b>	
	1590	15	3	500	1.341 - 1.590	10	<b>211973</b>	
	1700	15	3	500	1.591 - 1.700	10	<b>212634</b>	
	1950	15	3	500	1.701 - 1.950	10	<b>218508</b>	
2200	15	4	500	1.951 - 2.200	10	<b>212635</b>		

208328



3.4.1.4 Espagnolettes BS 15 centered i.S.						No	No Tricoat
silver	500	15	2	300 - 500	20	<b>208328</b>	<b>216836</b>
	700	15	2	501 - 700	20	<b>208329</b>	<b>210287</b>
	1.000	15	2	701 - 1.000	20	<b>208330</b>	<b>210288</b>
	1.400	15	3	1.001 - 1.400	10	<b>208331</b>	<b>214297</b>
	1.800	15	3	1.401 - 1.800	10	<b>208332</b>	<b>217158</b>
	2.400	15	4	1.801 - 2.400	10	<b>208436</b>	<b>217159</b>

211989



<b>3.4.1.5 Espagnolettes BS 15 centered VZ</b>							
silver	500	15	2	300 - 500	20	<b>211989</b>	<b>222631</b>
	700	15	2	501 - 700	20	<b>211990</b>	<b>222632</b>
	1.000	15	2	701 - 1.000	20	<b>211991</b>	<b>222811</b>
	1.400	15	3	1.001 - 1.400	20	<b>211992</b>	<b>222812</b>
			4	1.001 - 1.400	10	<b>212694</b>	
	1.800	15	3	1.401 - 1.800	10	<b>211993</b>	<b>222813</b>
	2.400	15	4	1.801 - 2.400	10	<b>211994</b>	<b>222814</b>

212001



212007



<b>3.4.1.6 Espagnolettes BS 15 reverse action VZ</b>								
silver	660	15	0	190	430 - 660	10	<b>208395</b>	<b>222656</b>
	840	15	1	300	661 - 840	10	<b>212000</b>	<b>222820</b>
			0	300	661 - 840	10	<b>212769</b>	
	1090	15	1	400	841 - 1.090	10	<b>212001</b>	<b>222633</b>
	1340	15	1	190	1.091 - 1.340	10	<b>218079</b>	
				500	1.091 - 1.340	10	<b>212002</b>	<b>222634</b>
	1590	15	1	600	1.341 - 1.590	10	<b>212003</b>	<b>222821</b>
	1700	15	1	700	1.591 - 1.700	10	<b>212004</b>	
	1950	15	2	1.050	1.701 - 1.950	10	<b>212005</b>	<b>222635</b>
	2200	15	2	1.050	1.951 - 2.200	10	<b>212006</b>	<b>222636</b>
	2450	15	3	1.050	2.201 - 2.450	10	<b>212007</b>	<b>222637</b>
	2600	15	3	1.050	2.450 - 2.600	10	<b>212728</b>	<b>223008</b>






212008









<b>3.4.1.7 Espagnolettes BS 15 reverse action VZ with offset handle position</b>								
silver	840	15	1	190	661 - 840	10	<b>216982</b>	
	1090	15	1	190	841 - 1.090	10	<b>216983</b>	
				300	841 - 1.090	10	<b>212008</b>	
	1340	15	1	190	1.091 - 1.340	10	<b>218079</b>	
				400	1.091 - 1.340	10	<b>212009</b>	
	1590	15	1	400	1.341 - 1.590	10	<b>218503</b>	
				500	1.341 - 1.590	10	<b>212010</b>	<b>222638</b>
	1700	15	1	500	1.591 - 1.700	10	<b>212724</b>	<b>223004</b>
	1950	15	2	400	1.701 - 1.950	10	<b>218504</b>	
				500	1.701 - 1.950	10	<b>218505</b>	
	2200	15	2	400	1.951 - 2.200	10	<b>212727</b>	
				500	1.951 - 2.200	10	<b>212726</b>	<b>223006</b>

### 3.4.2 Espagnolettes BS 6.5








3.4.2.1 Espagnolettes BS 6.5 FHH VZ							No	No Tricoat
silver	660	6,5	2	190	431 - 660	20	<b>211981</b>	
	840	6,5	2	300	661 - 840	20	<b>211982</b>	
	1090	6,5	2	400	841 - 1.090	20	<b>211983</b>	
	1340	6,5	3	500	1.091 - 1.340	10	<b>211984</b>	
	1590	6,5	3	600	1.341 - 1.590	10	<b>211985</b>	
	1700	6,5	3	700	1.591 - 1.700	10	<b>211986</b>	
	1950	6,5	3	1.050	1.701 - 1.950	10	<b>211987</b>	
	2200	6,5	4	1.050	1.951 - 2.200	10	<b>211988</b>	







3.4.2.2 Espagnolettes BS 6.5 FHH VZ with offset handle position								No	No Tricoat
silver	840	6,5	2	0	190	661 - 840	20	<b>218115</b>	
	1090	6,5	0	2	190	841 - 1.090	20	<b>218116</b>	
	1340	6,5	0	3	190	1.091 - 1.340	10	<b>218117</b>	








3.4.2.3 Espagnolettes BS 6.5 with gearbox reverse action VZ with offset handle position							No	No Tricoat
silver	840	6,5	1	190	661 - 840	10	<b>216353</b>	
	1090	6,5	1	190	841 - 1.090	10	<b>216354</b>	
	1340	6,5	1	190	1.091 - 1.340	10	<b>213522</b>	
				400	1.091 - 1.340	10	<b>213524</b>	
	1590	6,5	1	500	1.341 - 1.590	10	<b>213526</b>	
	1700	6,5	2	500	1.591 - 1.700	10	<b>213529</b>	
				600	1.591 - 1.700	10	<b>213528</b>	
	2200	6,5	2	600	1.951 - 2.200	10	<b>213533</b>	



3.4.2.4 Espagnolettes BS 6.5 centered i.S.						No	No Tricoat
silver	500	6,5	2	390 - 500	20	<b>208323</b>	
	700	6,5	2	501 - 700	20	<b>208324</b>	
	1.000	6,5	2	701 - 1.000	20	<b>208325</b>	
	1.400	6,5	3	1.001 - 1.400	10	<b>208326</b>	
	1.800	6,5	3	1.401 - 1.800	10	<b>208327</b>	



3.4.2.5 Espagnolettes BS 6.5 with gearbox reverse action VZ							No	No Tricoat
silver	660	6,5	0	190	431 - 660	10	<b>213516</b>	
	840	6,5	1	300	661 - 840	10	<b>213520</b>	
	1090	6,5	1	400	841 - 1.090	10	<b>213521</b>	
	1340	6,5	1	500	1.091 - 1.340	10	<b>213523</b>	
	1590	6,5	1	600	1.341 - 1.590	10	<b>213525</b>	
	1700	6,5	2	700	1.591 - 1.700	10	<b>213527</b>	
	1950	6,5	2	1.050	1.701 - 1.950	10	<b>213530</b>	
	2200	6,5	2	1.050	1.951 - 2.200	10	<b>213531</b>	
	2450	6,5	2	1.050	2.201 - 2.450	10	<b>213534</b>	

### 3.4.3 Espagnolettes with mounted tilt stay



206268	3.4.3.1 Espagnolettes centered i.S. with mounted tilt stay					No	No Tricoat
silver	1.000	15	2	650 - 1.000	20	206268 <sup>1,2</sup>	207551 <sup>1,2</sup>
	1.300	15	3	1.001 - 1.300	10	206269 <sup>1,2</sup>	207552 <sup>1,2</sup>
	1.700	15	3	1.301 - 1.700	10	206270 <sup>2,3</sup>	207553 <sup>2,3</sup>

<sup>1</sup> One mounted tilt stay.

<sup>2</sup> The MACO product liability stipulates the additional use of a commercially available restrictor and cleaning stay. Note the max. sash weight for the restrictor and cleaning stay.

<sup>3</sup> Two mounted tilt stays.



212702	3.4.3.2 Espagnolettes centered VZ with mounted tilt stay					No	No Tricoat
silver	1.000	15	2	650 - 1.000	20	212702 <sup>1,2</sup>	
	1.300	15	3	1.001 - 1.300	10	212703 <sup>1,2</sup>	
	1.700	15	3	1.301 - 1.700	10	212704 <sup>2,3</sup>	

<sup>1</sup> One mounted tilt stay.

<sup>2</sup> The MACO product liability stipulates the additional use of a commercially available restrictor and cleaning stay. Note the max. sash weight for the restrictor and cleaning stay.

<sup>3</sup> Two mounted tilt stays.



206174	3.4.3.3 Espagnolettes VHH i.S. with mounted tilt stay					No	No Tricoat
silver	1.250	15	1	751 - 1.250	20	206174 <sup>1,2</sup>	207554 <sup>1,2*</sup>
	1.700	15	2	1.251 - 1.700	10	212772 <sup>2,3</sup>	223010 <sup>2,3*</sup>
	2.200	15	3	1.701 - 2.200	10	206271 <sup>2,3</sup>	207555 <sup>2,3*</sup>

<sup>1</sup> One mounted tilt stay.

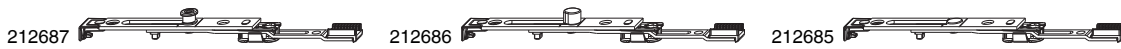
<sup>2</sup> The MACO product liability stipulates the additional use of a commercially available restrictor and cleaning stay. Note the max. sash weight for the restrictor and cleaning stay.

<sup>3</sup> Two mounted tilt stays.

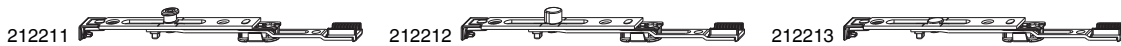


94074	3.4.3.4 Faceplate restrainer for espagnolette				No	No Tricoat
silver				100	94074	

### 3.5 End pieces



3.5.1 End pieces with 90° restriction (turn-only)					No	No Tricoat
silver	90° top with 1 i.S.	0	1	20	<b>212687</b>	<b>222999*</b>
	90° top with 1 VZ	1	0	20	<b>212686</b>	
	90° top without cam	0	0	20	<b>212685</b>	

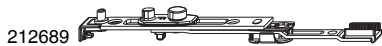


3.5.2 End pieces for 180° (T&T, French casement drive gears)					No	No Tricoat
silver	180° bottom and top with 1 i.S.	0	1	20	<b>212211</b>	<b>222927</b>
	180° bottom and top with 1 VZ	1	0	20	<b>212212</b>	
	180° bottom and top without cam	0	0	20	<b>212213</b>	<b>222929</b>



3.5.3 End pieces top for half round windows					No	No Tricoat
silver	top with 1 i.S.	450 - 1.000	1	20	<b>205177<sup>1</sup></b>	<b>207556<sup>1</sup></b>
	croppable 1090/600 top with 3 i.S.	671 - 1.250	3	10	<b>209033<sup>1</sup></b>	
	for turn-only window top with 2 i.S.	671 - 1.250	2	10	<b>212963<sup>1</sup></b>	<b>223014<sup>1</sup></b>

<sup>1</sup> Use possible only with 1-sashed windows.



3.5.4 Tilt locks for drive gears				No	No Tricoat
silver	with tilt lock bolt for windows bottom	470 - 1.750	20	<b>212689</b>	<b>223001*</b>
	with tilt lock bolt for doors bottom	1.751 - 2.250	20	<b>212688</b>	<b>223000</b>



3.5.5 End piece bottom for drive gears VHH				No	No Tricoat
silver	with tilt lock bolt for doors bottom	1.701 - 2.450	20	<b>203744<sup>1</sup></b>	<b>207560<sup>1</sup></b>

<sup>1</sup> For use with drive gears with 170 mm notch.





3.5.6 End piece EH for drive gears					No	No Tricoat
silver	bottom with 1 i.S.	1.701 - 2.450	1	20	<b>205644<sup>1,2</sup></b>	<b>207558<sup>1,2*</sup></b>

<sup>1</sup> For use with drive gears with 170 mm notch.



<sup>2</sup> For burglar-resistant windows according to standard EN 1627.



225092 

<b>3.5.7 End piece bottom MM with reverse action for turn-only windows with shootbolt</b>				<b>No</b>	<b>No</b> Tricoat
silver		500 - 2.350	20	<b>225092</b>	

208432  214014  214015  214016 






<b>3.5.8 End pieces top for reverse action espagnolette</b>				<b>No</b>	<b>No</b> Tricoat
silver	for reverse action espagnolette top with shootbolt	431 - 2.450	20	<b>208432</b>	<b>222624*</b>
	for reverse action espagnolette top with extendable shootbolt protrusion slanted on one side	431 - 2.450	100	<b>214013</b>	
	for reverse action espagnolette top with extendable shootbolt protrusion slanted on both sides	431 - 2.450	100	<b>214014</b>	
	for reverse action espagnolette lockcase top with extendable shootbolt protrusion	431 - 2.450	100	<b>214015</b>	
	for reverse action espagnolette top with extendable shootbolt protrusion	431 - 2.450	20	<b>214016</b>	<b>223046</b>
	for reverse action espagnolette extendable top with extendable shootbolt protrusion slanted on one side, right	431 - 2.450	100	<b>218977</b>	
	for reverse action espagnolette extendable top with extendable shootbolt protrusion slanted on one side, left	431 - 2.450	100	<b>218978</b>	

\* TRICOAT-PLUS standard parts

### 3.6 Balcony door locks B-TV








203834

<b>3.6.1 Balcony door locks B-TV E85 with PC</b>		<b>L</b>						<b>No</b>	<b>No</b> Tricoat
silver	fixed handle height with 2 i.S. cams	1.347	28	8	1.050	85	5	<b>203834</b>	
			35	8	1.050	85	5	<b>203835</b>	
			40	8	1.050	85	5	<b>203836</b>	
			45	8	1.050	85	5	<b>203837</b>	
			50	8	1.050	85	5	<b>203838</b>	
			55	8	1.050	85	5	<b>203839</b>	








203696

<b>3.6.2 Balcony door locks B-TV E92 with PC</b>		<b>L</b>						<b>No</b>	<b>No</b> Tricoat
silver	fixed handle height with 2 i.S. cams	1.347	25	8	1.050	92	5	<b>203828</b>	
			28	8	1.050	92	5	<b>203696</b>	
			35	8	1.050	92	5	<b>203829</b>	
			40	8	1.050	92	5	<b>203830</b>	
			45	8	1.050	92	5	<b>203831</b>	
			50	8	1.050	92	5	<b>203832</b>	
55	8	1.050	92	5	<b>203833</b>				



203841

<b>3.6.3 Balcony door locks B-TV E94 with RC</b>		<b>L</b>						<b>No</b>	<b>No</b> Tricoat
silver	fixed handle height with 2 i.S. cams	1.347	35	8	1.050	94	5	<b>203841</b>	
			40	8	1.050	94	5	<b>203842</b>	
			45	8	1.050	94	5	<b>203843</b>	
			50	8	1.050	94	5	<b>203844</b>	
			55	8	1.050	94	5	<b>203845</b>	

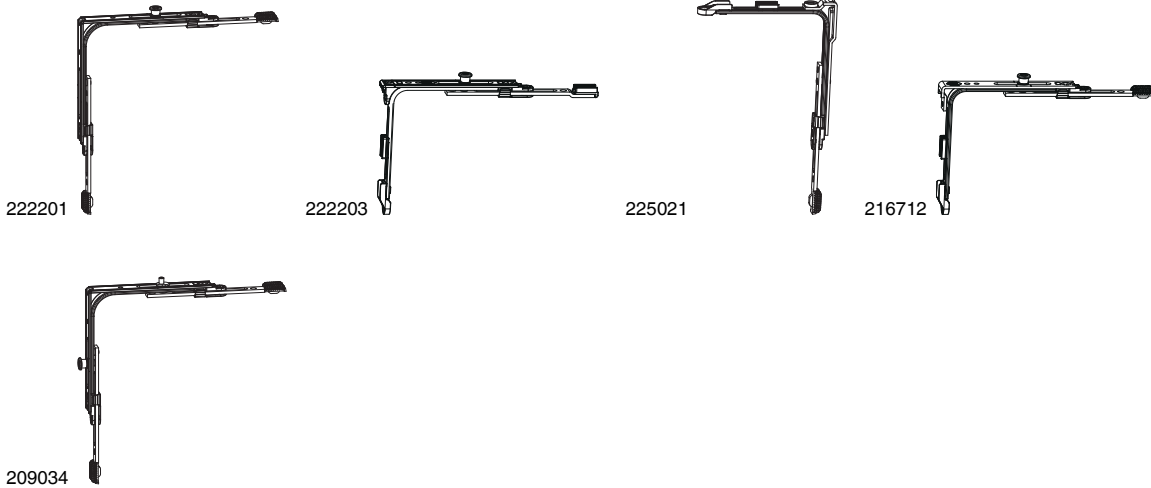


## 4 Corner elements

<b>4.1</b>	<b>Corner elements i.S.</b>	<b>188</b>
4.1.1	Corner elements standard i.S.	188
4.1.2	Corner elements horizontal i.S.	188
4.1.3	Corner elements vertical i.S.	189
<b>4.2</b>	<b>Corner elements VZ</b>	<b>189</b>
<b>4.3</b>	<b>Corner elements i.S. for drive gears VHH</b>	<b>190</b>
<b>4.4</b>	<b>Corner elements i.S. for French casement drive gears</b>	<b>191</b>
<b>4.5</b>	<b>Corner elements i.S. for angled windows</b>	<b>191</b>
<b>4.6</b>	<b>Corner elements i.S. for half round windows</b>	<b>192</b>
<b>4.7</b>	<b>Corner element for threshold 14 mm air gap</b>	<b>192</b>
<b>4.8</b>	<b>Corner element for threshold 18 mm air gap</b>	<b>192</b>
<b>4.9</b>	<b>Accessories for corner elements</b>	<b>193</b>
4.9.1	Travel restrictions	193
4.9.2	Countersunk screw M4x8 for short corner element MM	193
4.9.3	E-style retaining ring for shaft 5 mm, DIN 6799	194
4.9.4	Faceplate restrainer MM	193
4.9.5	Adapter component straight punch MM/replacement part	193
4.9.6	Faceplate strip cover MM	193
4.9.7	Cropped area cover caps MM	193
4.9.8	Connecting plate MM EH	194
4.9.9	Short catching plate for multi-stepped ventilation	194
4.9.10	Cylinder screw cross recess M5x12 for catching plate	194
4.9.11	Insert as operation lock for corner element MM for 3-sashed elements	194
4.9.12	Adhesive film for corner element for angled windows	194
4.9.13	Run-up for horizontal corner element MM	194
4.9.14	Clip-on component for serrated carrier punched	194

## 4 Corner elements

### 4.1 Corner elements i.S.



4.1.1 Corner elements standard i.S.					No	No Tricoat
silver	with 1 i.S.	320 - 1.800	360 - 2.800	50	<b>222201</b>	<b>207564*</b>
	with 2 i.S.	320 - 1.800	360 - 2.800	50	<b>222202</b>	<b>207567*</b>
	short with 1 i.S.	220 - 319	275 - 359	50	<b>222203<sup>1</sup></b>	<b>207566<sup>2*</sup></b>
	short with shootbolt protrusion and faceplate fixing	225 - 319	275 - 359	50	<b>225021<sup>3,4</sup></b>	
	short with faceplate fixing with 1 i.S.	225 - 324	280 - 364	50	<b>216712<sup>5</sup></b>	<b>218976<sup>5</sup></b>
	for night ventilation with 1 i.S.	320 - 1.800	360 - 2.800	50	<b>209034</b>	
	with 5 ventilation positions with 1 i.S.	400 - 1.000	800 - 1.700	30	<b>101879<sup>6</sup></b>	<b>103777<sup>6*</sup></b>
for turn-only window with 1 i.S.	320 - 1.800	360 - 2.800	50	<b>209610</b>	<b>218078</b>	

<sup>1</sup> Countersunk head screw M4x8 mm self-forming, item no. 101339 included.

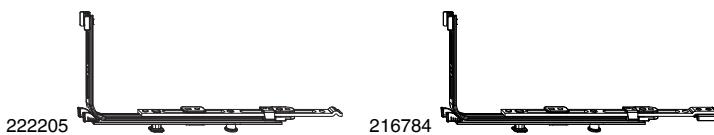
<sup>2</sup> Countersunk head screw M4x8 mm self-forming, item no. 101683 included.

<sup>3</sup> Countersunk head screw M4x6 mm item no. 104548 included.

<sup>4</sup> Can be used only in combination with french casement drive gears for tilt lock bolt.

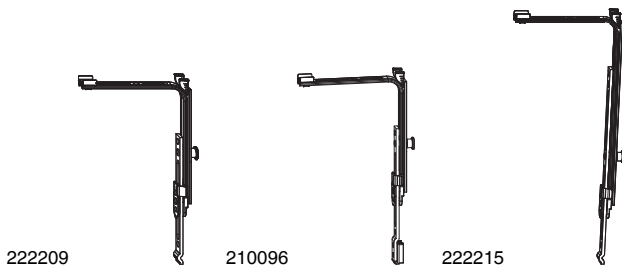
<sup>5</sup> Countersunk head screw M4x6 mm self-forming, item no. 101617 included.

<sup>6</sup> Observe rebate depth with timber!

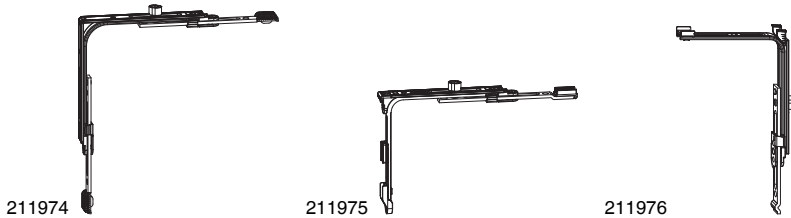


4.1.2 Corner elements horizontal i.S.				No	No Tricoat
silver	horizontal with 1 i.S.	320 - 750	50	<b>222204<sup>1</sup></b>	
	horizontally extendable with 1 i.S.	320 - 1.800	50	<b>222205<sup>1</sup></b>	<b>207569<sup>1*</sup></b>
	with serrated carrier horizontally extendable with 1 i.S.	320 - 1.800	50	<b>216784<sup>1</sup></b>	<b>219370<sup>1</sup></b>

<sup>1</sup> In combination with rebated corner supports possible from SRW 365 mm.



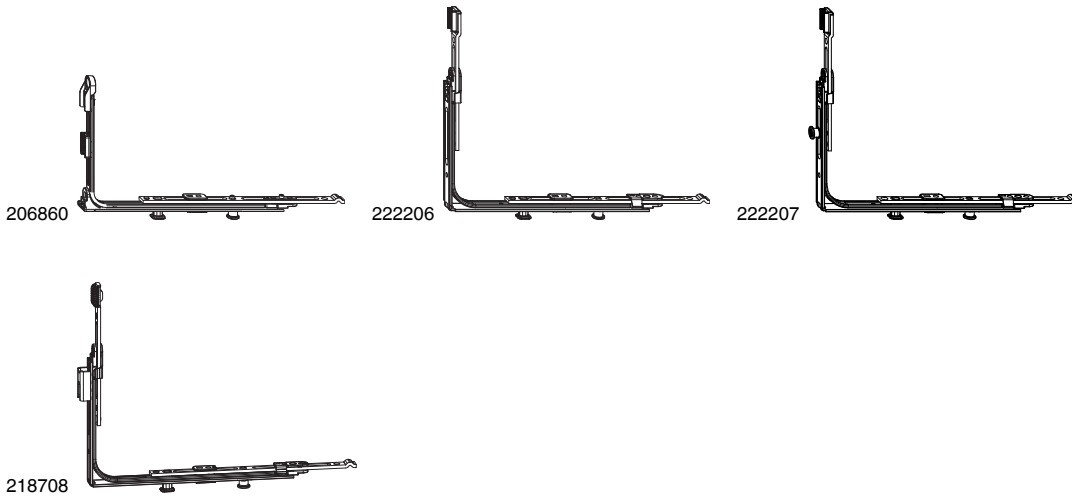
4.1.3 Corner elements vertical i.S.				No	No Tricoat
silver	vertical with 1 i.S.	470 - 750	50	<b>222208</b>	<b>218232</b>
	vertically extendable with 1 i.S.	750 - 2.800	50	<b>222209</b>	<b>207575*</b>
	vertically extendable without i.S. cams	750 - 2.800	50	<b>222214</b>	<b>209792*</b>
	with serrated carrier vertically extendable with 1 i.S.	750 - 2.800	10	<b>210096</b>	<b>211241</b>
	vertically extendable with 1 i.S.	750 - 2.800	50	<b>222215</b>	<b>207576*</b>






4.2 Corner elements VZ					No	No Tricoat
silver	with 1 VZ	320 - 1.800	360 - 2.800	50	<b>211974</b>	
	short with 1 VZ	220 - 319	275 - 359	50	<b>211975<sup>1</sup></b>	
	vertically extendable with 1 VZ	320 - 1.800	750 - 2.800	50	<b>211976</b>	
	for night ventilation with 1 VZ	320 - 1.800	360 - 2.800	50	<b>228430</b>	
	with 5 ventilation positions with 1 VZ	400 - 1.000	800 - 1.700	30	<b>105309<sup>2</sup></b>	

<sup>1</sup> Countersunk head screw M4x8 mm self-forming, item no. 101339 included.

<sup>2</sup> Observe rebate depth with timber!

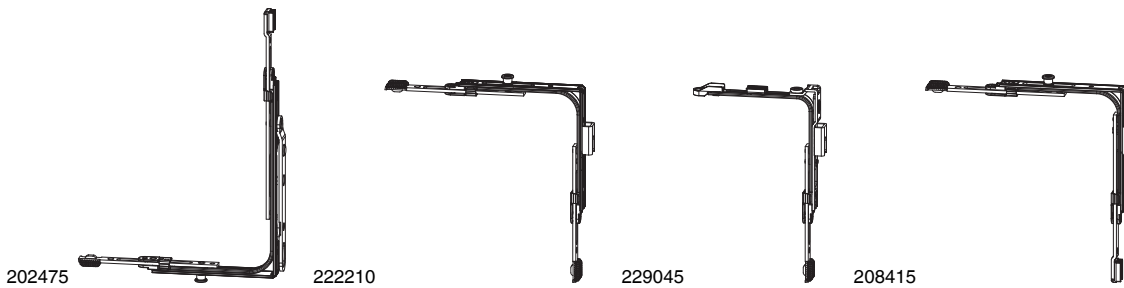


<b>4.3 Corner elements i.S. for drive gears VHH</b>					<b>No</b>	<b>No</b> Tricoat
silver	short for variable espagnolettes horizontally extendable with 1 i.S.	320 - 1.800	250 - 650	50	<b>206860</b> <sup>1,2</sup>	<b>207572</b> <sup>1,3</sup>
	for variable drive gear horizontally extendable with 1 i.S.	320 - 1.800	470 - 2.800	50	<b>222206</b> <sup>1</sup>	<b>207570</b> <sup>1*</sup>
	for variable drive gear horizontally extendable with 2 i.S.	320 - 1.800	470 - 2.800	50	<b>222207</b> <sup>1</sup>	<b>207571</b> <sup>1*</sup>
	for variable drive gear for tilt-first horizontally extendable with 2 i.S.	320 - 1.800	470 - 2.800	50	<b>211934</b> <sup>1</sup>	
	for variable drive gear horizontally extendable with 1 i.S. cam and striker	320 - 1.800	470 - 2.800	50	<b>218708</b> <sup>1</sup>	

<sup>1</sup> In combination with rebated corner supports possible from SRW 365 mm.

<sup>2</sup> Countersunk head screw M4x8 mm self-forming, item no. 101339 included.

<sup>3</sup> Countersunk head screw M4x8 mm self-forming, item no. 101683 included.



4.4 Corner elements i.S. for French casement drive gears					No	No Tricoat
silver	variable 1250 concealed with 1 i.S.		801 - 1.250	10	<b>205973<sup>1</sup></b>	
	variable 1250 with reverse-action lever with 1 i.S.		801 - 1.250	10	<b>202475<sup>2</sup></b>	<b>207578<sup>2</sup></b>
	2-sashed with 1 i.S. cam and striker	320 - 1.800	360 - 2.800	20	<b>222210</b>	<b>207565*</b>
	2-sashed short with shootbolt protrusion and welded-on striker	225 - 319	275 - 359	50	<b>229045<sup>3</sup></b>	
	2-sashed RC2 with sliding locks with 1 i.S.	320 - 1.800	360 - 2.800	20	<b>208415<sup>4</sup></b>	<b>214184<sup>4*</sup></b>
	2-sashed RC2 with striker for bottom	320 - 1.800	841 - 2.800	50	<b>211740</b>	<b>214185</b>
	2-sashed for turn-only window with 1 i.S. cam and striker	320 - 1.800	360 - 2.800	20	<b>209611</b>	<b>216970</b>

<sup>1</sup> Can be used only in combination with French casement drive gears for intermediate profiles VHH (item no. 205970)!

<sup>2</sup> Can be used only in combination with French casement drive gears for Eurogroove VHH (item nos. 227937 and 202471)!

<sup>3</sup> Can be used only in combination with T&T drive gears with tilt lock bolt!

<sup>4</sup> For burglar-resistant windows according to standard EN 1627.

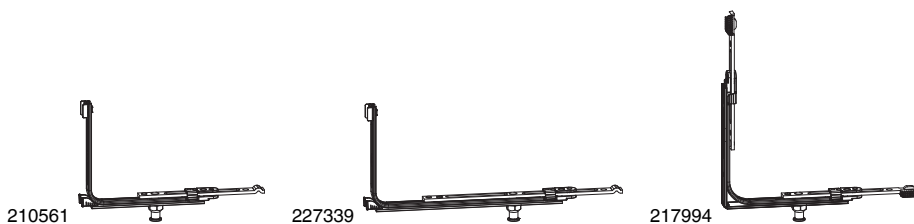


4.5 Corner elements i.S. for angled windows				No	No Tricoat	
silver	with 1 i.S.		440 - 1.300	20	<b>222212</b>	<b>207568</b>
	with 2 i.S.		440 - 1.300	20	<b>214990</b>	<b>217161</b>
	short with 1 i.S.		330 - 1.300	50	<b>209655</b>	<b>217160</b>

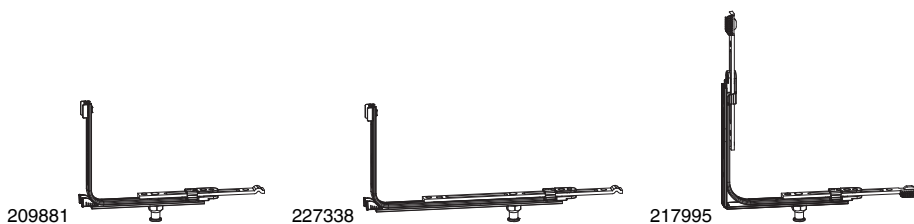


4.6 Corner elements i.S. for half round windows				No	No Tricoat
silver	horizontally croppable with 1 i.S.	450 - 1.300	10	<b>222211<sup>1</sup></b>	<b>207573<sup>1</sup></b>
	for tilt lock bolt horizontally croppable without cam	450 - 1.300	10	<b>215216<sup>1</sup></b>	
	4 mm air gap horizontally croppable with 1 i.S.	450 - 1.300	10	<b>218072<sup>1</sup></b>	
	for variable drive gear horizontally croppable with 2 i.S.	450 - 1.300	10	<b>222213<sup>1</sup></b>	<b>207574<sup>1</sup></b>
	for variable drive gear 4 mm air gap horizontally croppable with 2 i.S.	450 - 1.300	10	<b>218071<sup>1</sup></b>	

<sup>1</sup> Use short corner element and pivot post for PVC for SRW below 380 mm.



4.7 Corner element for threshold 14 mm air gap				No	No Tricoat
silver	corner element MM for threshold	260 - 1.800	50	<b>210561</b>	<b>218229</b>
	corner element MM for threshold for EH	320 - 1.800	50	<b>227339</b>	
	corner element MM for threshold for variable drive gear	260 - 1.800	50	<b>217994</b>	




4.8 Corner element for threshold 18 mm air gap					No	No Tricoat	
silver	corner element MM for threshold	for 18 mm air gap	260 - 1.800	50	<b>209881</b>	<b>211722*</b>	
	corner element MM for threshold for EH	for 18 mm air gap	320 - 1.800	50	<b>227338</b>		
	corner element MM for threshold for variable drive gear	with long cam 18 mm air gap	260 - 1.800	360 - 2.800	50	<b>217995</b>	
		with long cam 18 mm air gap and 1 i.S.	260 - 1.800	360 - 2.800	50	<b>226694</b>	
		with long cam 18 mm air gap and striker plate	260 - 1.800	360 - 2.800	50	<b>226695</b>	


\* TRICOAT-PLUS standard parts


## 4.9 Accessories for corner elements

357081  355418  43625 

4.9.1 Travel restrictions			No	No Tricoat
silver	90° travel restriction surface-mounted	200	357081 <sup>1</sup>	357887 <sup>1*</sup>
white	clip-on 90° travel-restriction MM PVC	200	355418 <sup>1</sup>	
	90° travel restriction surface-mounted PVC	200	43625 <sup>1</sup>	

<sup>1</sup> Can also be supplied in quantities less than one packaging unit.


101339 

4.9.2 Countersunk screw M4x8 for short corner element MM		L		No	No Tricoat
silver		8	50	101339	101683

41823 

4.9.3 E-style retaining ring for shaft 5 mm, DIN 6799			No	No Tricoat
blank		1.000	41823	

355678 

4.9.4 Faceplate restrainer MM			No	No Tricoat
silver		100	355678 <sup>1</sup>	


<sup>1</sup> Can also be supplied in quantities less than one packaging unit.


352980 

4.9.5 Adapter component straight punch MM/replacement part			No	No Tricoat
silver		100	352980 <sup>1,2</sup>	357877 <sup>1,2*</sup>


<sup>1</sup> Can also be supplied in quantities less than one packaging unit.

<sup>2</sup> Creates no positive connection.

357960 

4.9.6 Faceplate strip cover MM		L		No	No Tricoat
silver		90	100	357960	364410

354966 

4.9.7 Cropped area cover caps MM			No	No Tricoat
silver		100	354966	
	with imprint MACO 2-coloured	100	357252	

358368 

<b>4.9.8 Connecting plate MM EH</b>		<b>No</b>	<b>No</b> Tricoat
silver	100	<b>358368<sup>1</sup></b>	<b>385036<sup>1</sup></b>

<sup>1</sup> For burglar-resistant windows according to standard EN 1627.


103121 

<b>4.9.9 Short catching plate for multi-stepped ventilation</b>		<b>No</b>	<b>No</b> Tricoat
silver	30	<b>103121<sup>1</sup></b>	

<sup>1</sup> Use for timber from 30 mm rebate depth.

455213 

<b>4.9.10 Cylinder screw cross recess M5x12 for catching plate</b>	<b>L</b> 	<b>No</b>	<b>No</b> Tricoat
silver	12 300	<b>455213</b>	

363796 

<b>4.9.11 Insert as operation lock for corner element MM for 3-sashed elements</b>		<b>No</b>	<b>No</b> Tricoat
silver	50	<b>363796</b>	


104256 

<b>4.9.12 Adhesive film for corner element for angled windows</b>		<b>No</b>	<b>No</b> Tricoat
silver	100	<b>104256</b>	

366348 

<b>4.9.13 Run-up for horizontal corner element MM</b>		<b>No</b>	<b>No</b> Tricoat
white	100	<b>366348</b>	

44273 

<b>4.9.14 Clip-on component for serrated carrier punched</b>		<b>No</b>	<b>No</b> Tricoat
white	200	<b>44273</b>	






## 5 Centre locks / Horizontal tilt locks / Faceplate extensions

---

5.1	Centre locks FHH i.S. _____	196
5.2	Centre locks extendable i.S. _____	196
5.3	Centre locks extendable VZ _____	196
5.4	Centre locks reverse action i.S. _____	197
5.5	Centre locks single piece i.S. _____	197
5.6	Centre locks single piece VZ _____	197
5.7	Centre locks single piece EH _____	198
5.8	Tilt locks single piece i.S. _____	198
5.9	Tilt locks single piece EH _____	199
5.10	Faceplate extensions fixed and extendable _____	199
5.11	Faceplate extensions croppable MM _____	199
5.12	Faceplate extensions croppable MM B-TV _____	199
5.13	Faceplate extensions for threshold 14 mm air gap _____	200
5.14	Centre locks for threshold 14 mm air gap _____	200
5.15	Faceplate extensions for threshold 18 mm air gap _____	200
5.16	Centre locks for threshold 18 mm air gap _____	200
5.17	Hook closure horizontally extendable _____	200
5.18	Height connectors SKB-S/SE _____	200
5.19	Width connectors SKB-S/SE _____	200




## 5 Centre locks / Horizontal tilt locks / Faceplate extensions

201751 

5.1 Centre locks FHH i.S.				L			N <sup>o</sup>	N <sup>o</sup> Tricoat
silver	1280	with 1 i.S.	1	470	801 - 1.280	20	201751	209781*
	1500	with 1 i.S.	1	705	1.281 - 1.500	20	201752	209782*

201840 

201754 

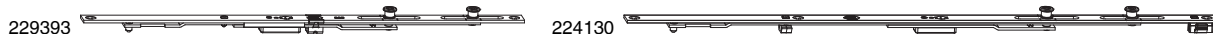
5.2 Centre locks extendable i.S.				L			N <sup>o</sup>	N <sup>o</sup> Tricoat
silver	1280V	with 1 i.S.	1	470	801 - 1.280	20	201840 <sup>1</sup>	207446 <sup>1</sup> *
	1500V	with 1 i.S.	1	705	1.281 - 1.500	20	201753	207447*
	Use 201753 and 201840 for application range 1501-1700 mm.							
	2200V	with 2 i.S.	2	1.410	1.701 - 2.200	10	201754	209783*



<sup>1</sup> Possible only from 850 mm SRH/SRW when using a rebated corner support!

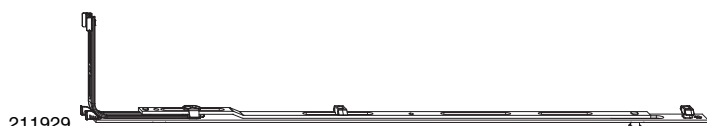
215272 




5.3 Centre locks extendable VZ				L			N <sup>o</sup>	N <sup>o</sup> Tricoat
silver	1280V	with 1 VZ	1	470	801 - 1.280	20	215272 <sup>1</sup>	

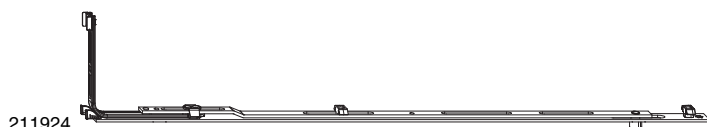
<sup>1</sup> Possible only from 850 mm SRH/SRW when using a rebated corner support!






<b>5.4 Centre locks reverse action i.S.</b>					<b>L</b>		<b>No</b>	<b>No</b> Tricoat
silver	centre lock horizontal reverse action MM	with 2 i.S.	2	360 470	20		<b>229393</b>	
	centre lock vertical reverse action MM	with 2 i.S.	2	470	20		<b>224130</b>	
							<b>224131</b>	



<b>5.5 Centre locks single piece i.S.</b>							<b>No</b>	<b>No</b> Tricoat	
silver	700	with 1 i.S.	1	480 - 700	20		<b>218493</b>		
	Use 215449 (single-piece centre lock size 840) for application range 701-800 mm.								
	1280	with 1 i.S.	1	801 - 1.280	20		<b>211929</b>	<b>222786*</b>	
	1500	with 1 i.S.	1	1.281 - 1.500	20		<b>211930</b>	<b>222787*</b>	
		with 2 i.S.	2	1.281 - 1.500	20		<b>215696</b>	<b>218777</b>	
	2000	with 2 i.S.	2	1.501 - 2.000	10		<b>211931</b>	<b>222788*</b>	
	2200V	with 2 i.S.	2	2.001 - 2.200	10		<b>211932</b>	<b>222789*</b>	
	2450	with 3 i.S.	3	2.201 - 2.450	10		<b>211933</b>	<b>222790*</b>	






<b>5.6 Centre locks single piece VZ</b>							<b>No</b>	<b>No</b> Tricoat
silver	700	with 1 VZ	1	480 - 700	20		<b>228398</b>	
	1280	with 1 VZ	1	801 - 1.280	20		<b>211924</b>	
	1500	with 1 VZ	1	1.281 - 1.500	20		<b>211925</b>	
	2000	with 2 VZ	2	1.501 - 2.000	10		<b>211926</b>	
	2200V	with 2 VZ	2	2.001 - 2.200	10		<b>211927</b>	
	2450	with 3 VZ	3	2.201 - 2.450	10		<b>211928</b>	



215450

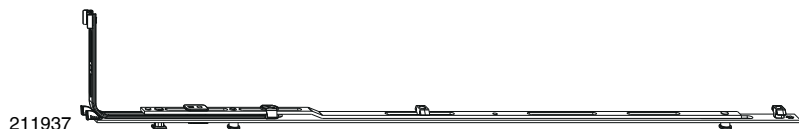
215463






5.7 Centre locks single piece EH						No	No Tricoat
silver	700	with 2 i.S.	2	480 - 700	20	215448 <sup>1</sup>	223265 <sup>1*</sup>
	840	with 2 i.S.	2	701 - 840	20	215449 <sup>1,2</sup>	223266 <sup>1,2*</sup>
	1090	with 2 i.S.	2	841 - 1.090	20	215450 <sup>1</sup>	223267 <sup>1</sup>
	1200	with 3 i.S.	3	1.091 - 1.200	20	215451 <sup>1</sup>	223268 <sup>1</sup>
	1340	with 3 i.S.	3	1.201 - 1.340	20	215452 <sup>1</sup>	223269 <sup>1</sup>
	1450	with 3 i.S.	3	1.341 - 1.450	20	215453 <sup>1</sup>	223270 <sup>1</sup>
	1590	with 3 i.S.	3	1.451 - 1.590	10	215454 <sup>1</sup>	223271 <sup>1</sup>
	1700	with 3 i.S.	3	1.591 - 1.700	20	215455 <sup>1</sup>	223272 <sup>1</sup>
	1850	with 3 i.S.	3	1.701 - 1.850	10	215456 <sup>1</sup>	223273 <sup>1</sup>
	1950	with 3 i.S.	3	1.851 - 1.950	10	215457 <sup>1</sup>	
	2000	with 4 i.S.	4	1.951 - 2.000	10	215458 <sup>1</sup>	223275 <sup>1</sup>
	2100	with 4 i.S.	4	2.001 - 2.100	10	215459 <sup>1</sup>	223276 <sup>1</sup>
	2300	with 4 i.S.	4	2.101 - 2.300	10	215460 <sup>1</sup>	223277 <sup>1</sup>
	2450	with 4 i.S.	4	2.301 - 2.450	10	215461 <sup>1</sup>	223278 <sup>1</sup>
	2500	with 4 i.S.	4	2.451 - 2.500	10	215462 <sup>1</sup>	223279 <sup>1</sup>
	2600V	with 4 i.S.	4	2.501 - 2.600	10	215463 <sup>1</sup>	223280 <sup>1</sup>

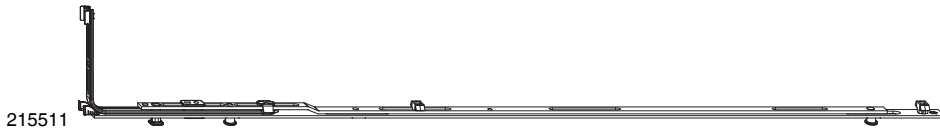
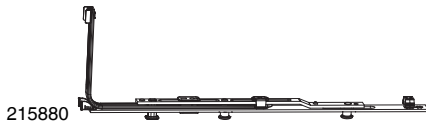
<sup>1</sup> For burglar-resistant windows according to standard EN 1627.

<sup>2</sup> As for single-piece centre lock 1280 but with 2 i.S.



211937

5.8 Tilt locks single piece i.S.						No	No Tricoat
silver	1280	with 2 i.S.	2	801 - 1.280	20	211937	222791*
	1500	with 2 i.S.	2	1.281 - 1.500	20	211938	222792*



5.9 Tilt locks single piece EH						No	No Tricoat	
silver	480	with 2 i.S.	2	350 - 524	20	215880 <sup>1</sup>	223287 <sup>1*</sup>	
	700	with 2 i.S.	2	525 - 700	20	215509 <sup>1</sup>	223281 <sup>1*</sup>	
	800	with 2 i.S.	2	701 - 800	20	215510 <sup>1</sup>		
	For application range 801-900 mm use single-piece tilt lock 211937 (size 1280).							
	1150	with 2 i.S.	2	901 - 1.150	20	215511 <sup>1</sup>	223283 <sup>1</sup>	
	1280	with 2 i.S.	2	801 - 1.280	20	211937 <sup>1</sup>	222791 <sup>1*</sup>	
	1500	with 3 i.S.	3	1.301 - 1.500	20	215513 <sup>1</sup>	223285 <sup>1*</sup>	

<sup>1</sup> For burglar-resistant windows according to standard EN 1627.



5.10 Faceplate extensions fixed and extendable				L		No	No Tricoat
silver	faceplate extension without serrated carrier MM	with 1 i.S.	1	235	20	210496	218772
		with 2 i.S.	2	235	20	214547	
	faceplate extension MM, extendable		0	138,5	20	206630	207443*
		with 1 i.S.	1	138,5	20	201841	207442*
			0	235	20	206197	207445*
		with 1 i.S.	1	235	20	201750	207444*
		with 2 i.S.	2	235	20	214546	
		with sash lifter	0	235	20	212214	
		with pull-in wedge right	0	235	20	217865	
		with pull-in wedge left	0	235	20	217866	



5.11 Faceplate extensions croppable MM			L			No	No Tricoat
silver	515	with sash lifter	515	250	20	218214	
		with sash-lifter run-up	515	250	20	218215	



5.12 Faceplate extensions croppable MM B-TV				L			No	No Tricoat
silver	1950	with 1 i.S.	1	497	260	10	203697	
	2200	with 1 i.S.	1	747	260	10	203698	
	2450	with 2 i.S.	2	997	260	10	203699	



<b>5.13 Faceplate extensions for threshold 14 mm air gap</b>		L		No	No
				Tricoat	
silver	faceplate extension MM, extendable 235	235	20	<b>227619</b>	



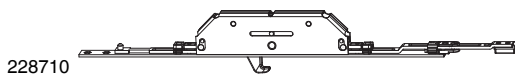
<b>5.14 Centre locks for threshold 14 mm air gap</b>				No	No
				Tricoat	
silver	centre lock extendable MM 1280V	801 - 1.280	10	<b>210562</b>	
	centre lock extendable MM 1500V	1.281 - 1.500	10	<b>210563</b>	



<b>5.15 Faceplate extensions for threshold 18 mm air gap</b>		L		No	No
				Tricoat	
silver	faceplate extension MM, extendable 235	235	10	<b>214848</b>	



<b>5.16 Centre locks for threshold 18 mm air gap</b>				No	No
				Tricoat	
silver	centre lock extendable MM 1280V	801 - 1.280	10	<b>209882</b>	<b>211723</b>
	centre lock extendable MM 1500V	1.281 - 1.500	10	<b>209883</b>	



<b>5.17 Hook closure horizontally extendable</b>		L			No	No
					Tricoat	
silver	for 7.5 mm air gap	349	540 - 1.800	10	<b>228710</b>	
	for 10 mm air gap	349	540 - 1.800	10	<b>229814</b>	



<b>5.18 Height connectors SKB-S/SE</b>				No	No	
				Tricoat		
silver	with 1 i.S.	1090	841 - 1.090	10	<b>210335</b>	<b>211234</b>
		1340	1.091 - 1.340	10	<b>210336</b>	<b>211235</b>
with 2 i.S.	1590	1.341 - 1.590	10	<b>210337</b>	<b>211236</b>	
	1700	1.591 - 1.700	10	<b>210338</b>	<b>211237</b>	
	1950	1.701 - 1.950	10	<b>210339</b>	<b>211238</b>	
with 3 i.S.	2200	1.951 - 2.200	10	<b>210340</b>	<b>211239</b>	
	2450	2.201 - 2.450	10	<b>210341</b>	<b>211240</b>	



<b>5.19 Width connectors SKB-S/SE</b>				No	No	
				Tricoat		
silver	with 1 i.S.	900	620 - 900	20	<b>210380</b>	<b>211229</b>
		1150	901 - 1.150	20	<b>210381</b>	<b>211231</b>
	1400	1.151 - 1.400	20	<b>210382</b>	<b>211232</b>	
	1650	1.401 - 1.650	10	<b>210383</b>	<b>211233</b>	
	with 2 i.S.					



## 6 Scissor stays

---





6.1	Rebated scissor stays _____	202
6.2	Rebated scissor stays MULTI MAMMUT _____	207
6.3	Scissor stays TV _____	209
6.4	Scissor stays INVISIBLE _____	210
6.5	Scissor stays MULTI POWER _____	211
6.6	Comfort scissor stays _____	214
6.7	Tilt stays _____	214
6.8	Horizontal tilt stays _____	214
6.9	Restrictor and cleaning stays _____	215
6.10	Accessories for scissor stays _____	216

## 6 Scissor stays

### 6.1 Rebated scissor stays

201821 



201827 

6.1.1 Scissor stay faceplates i.S. with night-vent						No	No Tricoat	
silver	right	400	0	320 - 400	220 - 320	20	<b>201821</b>	<b>207601</b>
		600	0	401 - 600	321 - 490	20	<b>201823</b>	<b>207603</b>
		800	0	601 - 800	491 - 690	20	<b>204115</b>	<b>207605</b>
		1050	1	801 - 1.050		20	<b>201827<sup>1,2</sup></b>	<b>207607<sup>1,2</sup></b>
	1300	1	1.051 - 1.300		20	<b>201829<sup>1</sup></b>	<b>207609<sup>1</sup></b>	
	left	400	0	320 - 400	220 - 320	20	<b>201822</b>	<b>207602</b>
		600	0	401 - 600	321 - 490	20	<b>201824</b>	<b>207604</b>
		800	0	601 - 800	491 - 690	20	<b>204116</b>	<b>207606</b>
		1050	1	801 - 1.050		20	<b>201828<sup>1,2</sup></b>	<b>207608<sup>1,2</sup></b>
		1300	1	1.051 - 1.300		20	<b>201830<sup>1</sup></b>	<b>207610<sup>1</sup></b>

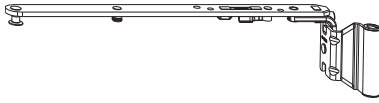
<sup>1</sup> A stabilizing scissor stay is compulsory from a SRW of 1301 mm.

<sup>2</sup> Use scissor stay arm size 1300.

201855 

6.1.2 Scissor stay arms with night-vent				No	No Tricoat	
silver	right	400	220 - 400	20	<b>201853<sup>1</sup></b>	<b>207611<sup>1</sup></b>
		600	401 - 600	20	<b>201855<sup>1</sup></b>	<b>207613<sup>1</sup></b>
		800	601 - 800	20	<b>204117<sup>1</sup></b>	<b>207615<sup>1</sup></b>
		1300	801 - 1.300	20	<b>201857<sup>1</sup></b>	<b>207617<sup>1</sup></b>
	left	400	220 - 400	20	<b>201854<sup>1</sup></b>	<b>207612<sup>1</sup></b>
		600	401 - 600	20	<b>201856<sup>1</sup></b>	<b>207614<sup>1</sup></b>
		800	601 - 800	20	<b>204118<sup>1</sup></b>	<b>207616<sup>1</sup></b>
		1300	801 - 1.300	20	<b>201858<sup>1</sup></b>	<b>207618<sup>1</sup></b>

<sup>1</sup> Use only for "horizontal tilt position" (sash can be pry opened at "vertical tilt position").



202924

<b>6.1.3 Scissor stay arms with night-vent and pre-mounted rebated scissor stay support arm AS/PVC</b>							<b>No</b>	<b>No</b> Tricoat	
silver	right	12/20-13	400	220 - 400	120	20	<b>202922</b> <sup>1</sup>		
			600	401 - 600	120	20	<b>202924</b> <sup>1</sup>		
			800	601 - 800	120	20	<b>204436</b> <sup>1</sup>		
			1300	801 - 1.300	120	20	<b>202926</b> <sup>1</sup>		
	left	12/20-13	400	220 - 400	120	20	<b>202923</b> <sup>1</sup>		
			600	401 - 600	120	20	<b>202925</b> <sup>1</sup>		
			800	601 - 800	120	20	<b>204437</b> <sup>1</sup>		
			1300	801 - 1.300	120	20	<b>202927</b> <sup>1</sup>		
	traffic white RAL 9016	right	12/20-13	400	220 - 400	120	20	<b>202928</b> <sup>1</sup>	
				600	401 - 600	120	20	<b>202930</b> <sup>1</sup>	
				800	601 - 800	120	20	<b>204438</b> <sup>1</sup>	
				1300	801 - 1.300	120	20	<b>202932</b> <sup>1</sup>	
left		12/20-13	400	220 - 400	120	20	<b>202929</b> <sup>1</sup>		
			600	401 - 600	120	20	<b>202931</b> <sup>1</sup>		
			800	601 - 800	120	20	<b>204439</b> <sup>1</sup>		
			1300	801 - 1.300	120	20	<b>202933</b> <sup>1</sup>		

<sup>1</sup> Use only for "horizontal tilt position" (sash can be pry opened at "vertical tilt position").

211128



<b>6.1.4 Scissor stay faceplates i.S.</b>							<b>No</b>	<b>No</b> Tricoat
silver	400	0	320 - 400	220 - 320	20		<b>206862</b>	<b>209785</b>
	600	0	401 - 600	321 - 490	20		<b>206863</b>	<b>209786</b>
	800	0	601 - 800	491 - 690	20		<b>206864</b>	<b>209787</b>
		1	630 - 800	520 - 690	10		<b>211128</b>	
	1050	1	801 - 1.050		20		<b>206865</b> <sup>1,2</sup>	<b>209788</b> <sup>1,2</sup>
	1300	1	1.051 - 1.300		20		<b>206866</b> <sup>1</sup>	<b>209807</b> <sup>1</sup>

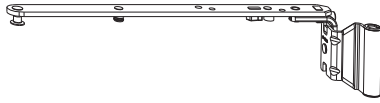
<sup>1</sup> A stabilizing scissor stay is compulsory from a SRW of 1301 mm.

<sup>2</sup> Use scissor stay arm size 1300.



207122

<b>6.1.5 Scissor stay arms</b>					<b>No</b>	<b>No</b> Tricoat
silver	400	220 - 400	20		<b>206856</b>	<b>209784</b>
	600	401 - 600	20		<b>207122</b>	<b>209789</b>
	800	601 - 800	20		<b>207123</b>	<b>209790</b>
	1300	801 - 1.300	20		<b>207124</b>	<b>209791</b>



209270

<b>6.1.6 Scissor stay arms with pre-mounted rebated scissor stay support arm AS/PVC</b>							<b>No</b>	<b>No</b> Tricoat
silver	right	12/20-13	400	220 - 400	120	20	<b>209268</b>	
			600	401 - 600	120	20	<b>209270</b>	
			800	601 - 800	120	20	<b>209272</b>	
			1300	801 - 1.300	120	20	<b>209274</b>	
	left	12/20-13	400	220 - 400	120	20	<b>209269</b>	
			600	401 - 600	120	20	<b>209271</b>	
			800	601 - 800	120	20	<b>209273</b>	
			1300	801 - 1.300	120	20	<b>209275</b>	
traffic white RAL 9016	right	12/20-13	400	220 - 400	120	20	<b>209539</b>	
			600	401 - 600	120	20	<b>209541</b>	
			800	601 - 800	120	20	<b>209543</b>	
			1300	801 - 1.300	120	20	<b>209545</b>	
	left	12/20-13	400	220 - 400	120	20	<b>209540</b>	
			600	401 - 600	120	20	<b>209542</b>	
			800	601 - 800	120	20	<b>209544</b>	
			1300	801 - 1.300	120	20	<b>209546</b>	

211904



<b>6.1.7 Rebated scissor stays i.S.</b>								<b>No</b>	<b>No</b> Tricoat
silver	scissor stay mounted MM	400	0	320 - 400	220 - 320	20	<b>211694</b>	<b>222727*</b>	
		600	0	401 - 600	321 - 490	20	<b>211695</b>	<b>222728*</b>	
		800	0	601 - 800	491 - 690	20	<b>211696</b>	<b>222729*</b>	
			1	630 - 800		20	<b>211904</b>	<b>222772*</b>	
		1050	1	801 - 1.050		20	<b>211905<sup>1</sup></b>	<b>222773<sup>1</sup>*</b>	
		1300	1	1.051 - 1.300		20	<b>211906<sup>1</sup></b>	<b>222774<sup>1</sup>*</b>	

<sup>1</sup> A stabilizing scissor stay is compulsory from a SRW of 1301 mm.

211697



<b>6.1.8 Rebated scissor stays VZ</b>								<b>No</b>	<b>No</b> Tricoat
silver	scissor stay mounted MM	400	0	320 - 400	220 - 320	20	<b>211694</b>	<b>222727*</b>	
		600	0	401 - 600	321 - 490	20	<b>211695</b>	<b>222728*</b>	
		800	0	601 - 800	491 - 690	20	<b>211696</b>	<b>222729*</b>	
			1	630 - 800		20	<b>211697</b>		
		1050	1	801 - 1.050		20	<b>211698<sup>1</sup></b>		
		1300	1	1.051 - 1.300		20	<b>211699<sup>1</sup></b>		

<sup>1</sup> A stabilizing scissor stay is compulsory from a SRW of 1301 mm.

211898



6.1.9 Rebated scissor stays i.S. with night-vent							No	No Tricoat	
silver	right	scissor stay mounted MM	400	0	320 - 400	220 - 320	20	211673 <sup>1</sup>	222715 <sup>1*</sup>
			600	0	401 - 600	321 - 490	20	211675 <sup>1</sup>	222717 <sup>1*</sup>
			800	0	601 - 800	491 - 690	20	211677 <sup>1</sup>	222719 <sup>1*</sup>
				1	630 - 800		20	211898 <sup>1</sup>	
			1050	1	801 - 1.050		20	211900 <sup>1,2</sup>	222768 <sup>1,2*</sup>
			1300	1	1.051 - 1.300		20	211902 <sup>1,2</sup>	222770 <sup>1,2</sup>
			left	scissor stay mounted MM	400	0	320 - 400	220 - 320	20
	600	0			401 - 600	321 - 490	20	211676 <sup>1</sup>	222718 <sup>1*</sup>
	800	0			601 - 800	491 - 690	20	211678 <sup>1</sup>	222720 <sup>1*</sup>
		1			630 - 800		20	211899 <sup>1</sup>	
	1050	1			801 - 1.050		20	211901 <sup>1,2</sup>	222769 <sup>1,2*</sup>
	1300	1			1.051 - 1.300		20	211903 <sup>1,2</sup>	222771 <sup>1,2</sup>

<sup>1</sup> Use only for "horizontal tilt position" (sash can be pry opened at "vertical tilt position").  
<sup>2</sup> A stabilizing scissor stay is compulsory from a SRW of 1301 mm.

211679



6.1.10 Rebated scissor stays VZ with night-vent							No	No Tricoat	
silver	right	scissor stay mounted MM	400	0	320 - 400	220 - 320	20	211673 <sup>1</sup>	222715 <sup>1*</sup>
			600	0	401 - 600	321 - 490	20	211675 <sup>1</sup>	222717 <sup>1*</sup>
			800	0	601 - 800	491 - 690	20	211677 <sup>1</sup>	222719 <sup>1*</sup>
				1	630 - 800		20	211679 <sup>1</sup>	
			1050	1	801 - 1.050		20	211681 <sup>1,2</sup>	
			1300	1	1.051 - 1.300		20	211683 <sup>1,2</sup>	
			left	scissor stay mounted MM	400	0	320 - 400	220 - 320	20
	600	0			401 - 600	321 - 490	20	211676 <sup>1</sup>	222718 <sup>1*</sup>
	800	0			601 - 800	491 - 690	20	211678 <sup>1</sup>	222720 <sup>1*</sup>
		1			630 - 800		20	211680 <sup>1</sup>	
	1050	1			801 - 1.050		20	211682 <sup>1,2</sup>	
	1300	1			1.051 - 1.300		20	211684 <sup>1,2</sup>	

<sup>1</sup> Use only for "horizontal tilt position" (sash can be pry opened at "vertical tilt position").  
<sup>2</sup> A stabilizing scissor stay is compulsory from a SRW of 1301 mm.

202318



6.1.11 Rebated scissor stays i.S. for angled windows							No	No Tricoat	
silver			630	0	430 - 630	80	10	202316	207622
			800	0	500 - 800	80	10	202317	207623
				1	631 - 800	80	10	208892	
			1050	1	801 - 1.050	80	10	202318	207624
			1300	1	1.051 - 1.300	80	10	202319	207625

207621



<b>6.1.12 Rebated scissor stays i.S. for half round windows</b>		L						<b>No</b>	<b>No</b> Tricoat	
silver	9 mm offset	1250	745	335	450 - 1.625	450 - 1.250	80	10	206597 <sup>1,2,3</sup>	207621 <sup>1,2,3</sup>
	13 mm offset	1250	745	335	450 - 1.625	450 - 1.250	80	10	218202 <sup>1,2,3</sup>	226243 <sup>1,2,3</sup>

<sup>1</sup> For arched windows, the notch at the striker is positioned at the beginning of the rounding. In the case of basket and segmental arch windows, the end piece or corner element is positioned at the beginning of the rounding, which is why the application range SRH of the rebated scissor stay for half round windows is increased by 193 mm (78 mm + 115 mm of end piece or corner element).

<sup>2</sup> From SRW 1001 mm, use of the stabilizing scissor stay is mandatory.

<sup>3</sup> Use notch as reference point for screw positions.

204829



<b>6.1.13 Tilt-first scissor stay faceplates i.S.</b>						<b>No</b>	<b>No</b> Tricoat
silver	400	0	320 - 400	220 - 320	10	204826	
	600	0	401 - 600	321 - 490	10	204827	
	800	0	601 - 800	491 - 690	10	204828	
	1050	1	801 - 1.050		10	204829 <sup>1,2</sup>	
	1300	1	1.051 - 1.300		10	204830 <sup>1</sup>	

<sup>1</sup> A stabilizing scissor stay is compulsory from a SRW of 1301 mm.

<sup>2</sup> Use scissor stay arm size 1300.

204832



<b>6.1.14 Tilt-first scissor stay arms</b>				<b>No</b>	<b>No</b> Tricoat
silver	400	220 - 400	10	204831	
	600	401 - 600	10	204832	
	800	601 - 800	10	204833	
	1300	801 - 1.300	10	204834	

212081



<b>6.1.15 Tilt-first rebated scissor stays i.S.</b>						<b>No</b>	<b>No</b> Tricoat	
silver	scissor stay mounted MM	400	0	320 - 400	220 - 320	10	212077	222882
		600	0	401 - 600	321 - 490	10	212078	222883
		800	0	601 - 800	491 - 690	10	212079	222884
			1	630 - 800		10	212080	222885
		1050	1	801 - 1.050		10	212081 <sup>1</sup>	222886 <sup>1</sup>
		1300	1	1.051 - 1.300		10	212082 <sup>1</sup>	222887 <sup>1</sup>

<sup>1</sup> A stabilizing scissor stay is compulsory from a SRW of 1301 mm.



## 6.2 Rebated scissor stays MULTI MAMMUT



223612

6.2.1 Rebated scissor stays MULTI MAMMUT 9 mm offset								No	No Tricoat		
silver	right	12/18-9	670	0	401 - 670	310 - 400	220	10	<b>223594</b>	<b>223690</b>	
			900	1	671 - 900	601 - 670	220	10	<b>223596</b>	<b>223692</b>	
			1200	1	901 - 1.200		220	10	<b>223598</b>	<b>223694</b>	
			1500	2	1.201 - 1.500		220	10	<b>223600<sup>1</sup></b>	<b>223696<sup>1</sup></b>	
	left	12/18-9	670	0	401 - 670	310 - 400	220	10	<b>223595</b>	<b>223691</b>	
			900	1	671 - 900	601 - 670	220	10	<b>223597</b>	<b>223693</b>	
			1200	1	901 - 1.200		220	10	<b>223599</b>	<b>223695</b>	
			1500	2	1.201 - 1.500		220	10	<b>223601<sup>1</sup></b>	<b>223697<sup>1</sup></b>	
	right	12/20-9	670	0	401 - 670	310 - 400	220	10	<b>223610</b>	<b>223706</b>	
			900	1	671 - 900	601 - 670	220	10	<b>223612</b>	<b>223708</b>	
			1200	1	901 - 1.200		220	10	<b>223614</b>	<b>223710</b>	
			1500	2	1.201 - 1.500		220	10	<b>223616<sup>1</sup></b>	<b>223712<sup>1</sup></b>	
	left	12/20-9	670	0	401 - 670	310 - 400	220	10	<b>223611</b>	<b>223707</b>	
			900	1	671 - 900	601 - 670	220	10	<b>223613</b>	<b>223709</b>	
			1200	1	901 - 1.200		220	10	<b>223615</b>	<b>223711</b>	
			1500	2	1.201 - 1.500		220	10	<b>223617<sup>1</sup></b>	<b>223713<sup>1</sup></b>	
	traffic white RAL 9016	right	12/18-9	670	0	401 - 670	310 - 400	220	10	<b>223626</b>	
				900	1	671 - 900	601 - 670	220	10	<b>223628</b>	
				1200	1	901 - 1.200		220	10	<b>223630</b>	
				1500	2	1.201 - 1.500		220	10	<b>223632<sup>1</sup></b>	
left		12/18-9	670	0	401 - 670	310 - 400	220	10	<b>223627</b>		
			900	1	671 - 900	601 - 670	220	10	<b>223629</b>		
			1200	1	901 - 1.200		220	10	<b>223631</b>		
			1500	2	1.201 - 1.500		220	10	<b>223633<sup>1</sup></b>		
right		12/20-9	670	0	401 - 670	310 - 400	220	10	<b>223642</b>		
			900	1	671 - 900	601 - 670	220	10	<b>223644</b>		
			1200	1	901 - 1.200		220	10	<b>223646</b>		
			1500	2	1.201 - 1.500		220	10	<b>223648<sup>1</sup></b>		
left		12/20-9	670	0	401 - 670	310 - 400	220	10	<b>223643</b>		
			900	1	671 - 900	601 - 670	220	10	<b>223645</b>		
			1200	1	901 - 1.200		220	10	<b>223647</b>		
			1500	2	1.201 - 1.500		220	10	<b>223649<sup>1</sup></b>		

<sup>1</sup> From SRW 1401 mm, use of the stabilizing scissor stay is recommended. From SRW 1401 - 1435 mm, scissor stay size 1200 + stabilizing scissor stay must be used.









223620

6.2.2 Rebated scissor stays MULTI MAMMUT 13 mm offset								No	No Tricoat	
silver	right	12/18-13	670	0	401 - 670	310 - 400	220	10	<b>223602</b>	<b>223698</b>
			900	1	671 - 900	601 - 670	220	10	<b>223604</b>	<b>223700</b>
			1200	1	901 - 1.200		220	10	<b>223606</b>	<b>223702</b>
			1500	2	1.201 - 1.500		220	10	<b>223608<sup>1</sup></b>	<b>223704<sup>1</sup></b>
	left	12/18-13	670	0	401 - 670	310 - 400	220	10	<b>223603</b>	<b>223699</b>
			900	1	671 - 900	601 - 670	220	10	<b>223605</b>	<b>223701</b>
			1200	1	901 - 1.200		220	10	<b>223607</b>	<b>223703</b>
			1500	2	1.201 - 1.500		220	10	<b>223609<sup>1</sup></b>	<b>223705<sup>1</sup></b>
	right	12/20-13	670	0	401 - 670	310 - 400	220	10	<b>223618</b>	<b>223714</b>
			900	1	671 - 900	601 - 670	220	10	<b>223620</b>	<b>223716</b>
			1200	1	901 - 1.200		220	10	<b>223622</b>	<b>223718</b>
			1500	2	1.201 - 1.500		220	10	<b>223624<sup>1</sup></b>	<b>223720<sup>1</sup></b>
	left	12/20-13	670	0	401 - 670	310 - 400	220	10	<b>223619</b>	<b>223715</b>
			900	1	671 - 900	601 - 670	220	10	<b>223621</b>	<b>223717</b>
			1200	1	901 - 1.200		220	10	<b>223623</b>	<b>223719</b>
			1500	2	1.201 - 1.500		220	10	<b>223625<sup>1</sup></b>	<b>223721<sup>1</sup></b>
traffic white RAL 9016	right	12/18-13	670	0	401 - 670	310 - 400	220	10	<b>223634</b>	
			900	1	671 - 900	601 - 670	220	10	<b>223636</b>	
			1200	1	901 - 1.200		220	10	<b>223638</b>	
			1500	2	1.201 - 1.500		220	10	<b>223640<sup>1</sup></b>	
	left	12/18-13	670	0	401 - 670	310 - 400	220	10	<b>223635</b>	
			900	1	671 - 900	601 - 670	220	10	<b>223637</b>	
			1200	1	901 - 1.200		220	10	<b>223639</b>	
			1500	2	1.201 - 1.500		220	10	<b>223641<sup>1</sup></b>	
	right	12/20-13	670	0	401 - 670	310 - 400	220	10	<b>223650</b>	
			900	1	671 - 900	601 - 670	220	10	<b>223652</b>	
			1200	1	901 - 1.200		220	10	<b>223654</b>	
			1500	2	1.201 - 1.500		220	10	<b>223656<sup>1</sup></b>	
	left	12/20-13	670	0	401 - 670	310 - 400	220	10	<b>223651</b>	
			900	1	671 - 900	601 - 670	220	10	<b>223653</b>	
			1200	1	901 - 1.200		220	10	<b>223655</b>	
			1500	2	1.201 - 1.500		220	10	<b>223657<sup>1</sup></b>	

<sup>1</sup> From SRW 1401 mm, use of the stabilizing scissor stay is recommended. From SRW 1401 - 1435 mm, scissor stay size 1200 + stabilizing scissor stay must be used.

### 6.3 Scissor stays TV

201864 




6.3.1 Scissor stay faceplates TV i.S.							No	No Tricoat
silver	right	600	0	401 - 600	290 - 490	10	<b>201860</b>	
		800	0	601 - 800	491 - 690	10	<b>201862</b>	
		1050	1	801 - 1.050		10	<b>201864</b>	
		1300	1	1.051 - 1.300		10	<b>201866</b>	
	left	600	0	401 - 600	290 - 490	10	<b>201861</b>	
		800	0	601 - 800	491 - 690	10	<b>201863</b>	
		1050	1	801 - 1.050		10	<b>201865</b>	
		1300	1	1.051 - 1.300		10	<b>201867</b>	

211617







55301



6.3.2 Scissor stay arms TV				L				No	No Tricoat
silver	right	13 mm offset	Euro-rebate 30 mm rebate depth	600/800	249	290 - 800	100	10	<b>211615</b>
			PVC	600/800	249	290 - 800	100	10	<b>55299</b>
		Euro-rebate 30 mm rebate depth	1050/1300	430	801 - 1.300	100	10	<b>211617</b>	
			PVC	1050/1300	430	801 - 1.300	100	10	<b>55301</b>
	left	13 mm offset	Euro-rebate 30 mm rebate depth	600/800	249	290 - 800	100	10	<b>211616</b>
			PVC	600/800	249	290 - 800	100	10	<b>55300</b>
		Euro-rebate 30 mm rebate depth	1050/1300	430	801 - 1.300	100	10	<b>211618</b>	
			PVC	1050/1300	430	801 - 1.300	100	10	<b>55302</b>



206073 

6.3.3 Rebated scissor stays TV i.S. for half round windows								No	No Tricoat
silver	right	13 mm offset	620	1	435 - 620	60	10	<b>206073</b>	
			1250	2	621 - 1.250	60	10	<b>206075<sup>1</sup></b>	
	left	13 mm offset	620	1	435 - 620	60	10	<b>206074</b>	
			1250	2	621 - 1.250	60	10	<b>206076<sup>1</sup></b>	

<sup>1</sup> From SRW 1001 mm, use of the stabilizing scissor stay is mandatory.

## 6.4 Scissor stays INVISIBLE

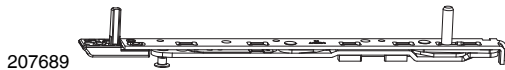


6.4.1 T&T/tilt-first scissor stay faceplates INVISIBLE						No	No Tricoat
silver		690	0	490 - 690	385 - 600	20	<b>206810</b>
		800	0	691 - 800	601 - 700	20	<b>206816</b>
		1050	1	801 - 1.050		20	<b>206817</b>
		1300	1	1.051 - 1.300		20	<b>217861</b>



T 6.4.2 T&T scissor stay arms with hinge INVISIBLE					No	No Tricoat		
silver	screw axis 12 mm	right	9 mm offset	690	385 - 690	80	10	<b>212670<sup>1</sup></b>
			18 mm rebate depth	800/1050/1300	691 - 1.300	80	10	<b>212666</b>
		left	9 mm offset	690	385 - 690	80	10	<b>212671<sup>1</sup></b>
			18 mm rebate depth	800/1050/1300	691 - 1.300	80	10	<b>212667</b>
	screw axis 13 mm	right	9 mm offset	690	385 - 690	100	10	<b>206336<sup>1</sup></b>
				800/1050/1300	691 - 1.300	100	10	<b>206349</b>
		left	9 mm offset	690	385 - 690	100	10	<b>206337<sup>1</sup></b>
				800/1050/1300	691 - 1.300	100	10	<b>206350</b>

<sup>1</sup> For combination with turn-only and tilt-only hinge faceplate item no. 208993.



T 6.4.3 Tilt-first scissor stay arms with hinge INVISIBLE					No	No Tricoat		
silver	screw axis 12 mm	right	9 mm offset	690	385 - 690	80	10	<b>212674</b>
			18 mm rebate depth	800/1050/1300	691 - 1.300	80	10	<b>212678</b>
		left	9 mm offset	690	385 - 690	80	10	<b>212675</b>
			18 mm rebate depth	800/1050/1300	691 - 1.300	80	10	<b>212679</b>
	screw axis 13 mm	right	9 mm offset	690	385 - 690	100	10	<b>207689</b>
				800/1050/1300	691 - 1.300	100	10	<b>207699</b>
		left	9 mm offset	690	385 - 690	100	10	<b>207690</b>
				800/1050/1300	691 - 1.300	100	10	<b>207700</b>



6.5 Scissor stays MULTI POWER



6.5.1 T&T/tilt-first scissor stay faceplates MULTI POWER									No	No Tricoat
silver	600	0	465 - 600	370 - 490	150	20			217346	225296*
	800	0	601 - 800	491 - 690	150	20			217347	225297*
	1050	1	801 - 1.050		150	20			217348	225298*
	1300	1	1.051 - 1.300		150	20			217349 <sup>1</sup>	225299 <sup>1</sup> *

<sup>1</sup> A stabilizing scissor stay is compulsory from a SRW of 1301 mm.



6.5.2 T&T scissor stay arms with hinge for MULTI POWER				L				No	No Tricoat	
silver	right	9 mm offset	timber 24 mm rebate depth	600/800	330	370 - 800	150	10	217468	225305*
				1050/1300	442	801 - 1.300	150	10	217472	225309*
		13 mm offset	timber 24 mm rebate depth	600/800	330	370 - 800	150	10	217470	225307*
				1050/1300	442	801 - 1.300	150	10	217474	225311*
	left	9 mm offset	timber/PVC 30 mm rebate depth	600/800	330	370 - 800	150	10	217478	225315
				1050/1300	442	801 - 1.300	150	10	217482	225319
			timber 24 mm rebate depth	600/800	330	370 - 800	150	10	217469	225306*
				1050/1300	442	801 - 1.300	150	10	217473	225310*
		13 mm offset	timber/PVC 30 mm rebate depth	600/800	330	370 - 800	150	10	217477	
				1050/1300	442	801 - 1.300	150	10	217481	
			timber 24 mm rebate depth	600/800	330	370 - 800	150	10	217471	225308*
				1050/1300	442	801 - 1.300	150	10	217475	225312*
			timber/PVC 30 mm rebate depth	600/800	330	370 - 800	150	10	217479	225316
				1050/1300	442	801 - 1.300	150	10	217483	225320





217490



217498

<b>6.5.3 Tilt-first scissor stay arms with hinge for MULTI POWER</b>				L				No	No Tricoat	
silver	right	9 mm offset	timber 24 mm rebate depth	600/800	330	370 - 800	150	10	<b>217484</b>	<b>225531</b>
				1050/1300	442	801 - 1.300	150	10	<b>217488</b>	<b>225533</b>
			timber/PVC 30 mm rebate depth	1050/1300	442	801 - 1.300	150	10	<b>217496</b>	
		13 mm offset	timber 24 mm rebate depth	600/800	330	370 - 800	150	10	<b>217486</b>	<b>225535</b>
				1050/1300	442	801 - 1.300	150	10	<b>217490</b>	<b>225537</b>
			timber/PVC 30 mm rebate depth	600/800	330	370 - 800	150	10	<b>217494</b>	<b>225543</b>
	left	9 mm offset	timber 24 mm rebate depth	600/800	330	370 - 800	150	10	<b>217485</b>	<b>225532</b>
				1050/1300	442	801 - 1.300	150	10	<b>217489</b>	<b>225534</b>
			timber/PVC 30 mm rebate depth	600/800	330	370 - 800	150	10	<b>217493</b>	
		13 mm offset	timber 24 mm rebate depth	600/800	330	370 - 800	150	10	<b>217487</b>	<b>225536</b>
				1050/1300	442	801 - 1.300	150	10	<b>217491</b>	<b>225538</b>
			timber/PVC 30 mm rebate depth	600/800	330	370 - 800	150	10	<b>217495</b>	<b>225544</b>
		1050/1300	442	801 - 1.300	150	10	<b>217499</b>	<b>225546</b>		



217564



217566

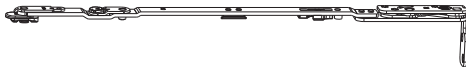
<b>6.5.4 Scissor stay faceplates with night-vent MULTI POWER</b>									No	No Tricoat
silver	right	600	0	465 - 600	370 - 490	150	20		<b>217562<sup>1</sup></b>	<b>225523<sup>1*</sup></b>
		800	0	601 - 800	491 - 690	150	20		<b>217564<sup>1</sup></b>	<b>225525<sup>1*</sup></b>
		1050	1	801 - 1.050		150	20		<b>217566<sup>1</sup></b>	<b>225527<sup>1*</sup></b>
		1300	1	1.051 - 1.300		150	20		<b>217568<sup>1,2</sup></b>	<b>225529<sup>1,2*</sup></b>
	left	600	0	465 - 600	370 - 490	150	20		<b>217563<sup>1</sup></b>	<b>225524<sup>1*</sup></b>
		800	0	601 - 800	491 - 690	150	20		<b>217565<sup>1</sup></b>	<b>225526<sup>1*</sup></b>
		1050	1	801 - 1.050		150	20		<b>217567<sup>1</sup></b>	<b>225528<sup>1*</sup></b>
		1300	1	1.051 - 1.300		150	20		<b>217569<sup>1,2</sup></b>	<b>225530<sup>1,2*</sup></b>

<sup>1</sup> Use only for "horizontal tilt position" (sash can be pry opened at "vertical tilt position").

<sup>2</sup> A stabilizing scissor stay is compulsory from a SRW of 1301 mm.



217647



217655



<b>6.5.5 Scissor stay arms with hinge with night-vent for MULTI POWER</b>				<b>L</b>					<b>No</b>	<b>No</b> Tricoat
silver	right	9 mm offset	timber 24 mm rebate depth	600/800	330	370 - 800	150	10	<b>217641<sup>1</sup></b>	<b>225547<sup>1</sup></b>
				1050/1300	442	801 - 1.300	150	10	<b>217645<sup>1</sup></b>	<b>225549<sup>1</sup></b>
			timber/PVC 30 mm rebate depth	600/800	330	370 - 800	150	10	<b>217649<sup>1</sup></b>	
				1050/1300	442	801 - 1.300	150	10	<b>217653<sup>1</sup></b>	
		13 mm offset	timber 24 mm rebate depth	600/800	330	370 - 800	150	10	<b>217643<sup>1</sup></b>	<b>225551<sup>1*</sup></b>
				1050/1300	442	801 - 1.300	150	10	<b>217647<sup>1</sup></b>	<b>225553<sup>1*</sup></b>
			timber/PVC 30 mm rebate depth	600/800	330	370 - 800	150	10	<b>217651<sup>1</sup></b>	<b>225559<sup>1*</sup></b>
				1050/1300	442	801 - 1.300	150	10	<b>217655<sup>1</sup></b>	<b>225561<sup>1*</sup></b>
	left	9 mm offset	timber 24 mm rebate depth	600/800	330	370 - 800	150	10	<b>217642<sup>1</sup></b>	<b>225548<sup>1</sup></b>
				1050/1300	442	801 - 1.300	150	10	<b>217646<sup>1</sup></b>	<b>225550<sup>1</sup></b>
			timber/PVC 30 mm rebate depth	600/800	330	370 - 800	150	10	<b>217650<sup>1</sup></b>	
				1050/1300	442	801 - 1.300	150	10	<b>217654<sup>1</sup></b>	
		13 mm offset	timber 24 mm rebate depth	600/800	330	370 - 800	150	10	<b>217644<sup>1</sup></b>	<b>225552<sup>1*</sup></b>
				1050/1300	442	801 - 1.300	150	10	<b>217648<sup>1</sup></b>	<b>225554<sup>1*</sup></b>
			timber/PVC 30 mm rebate depth	600/800	330	370 - 800	150	10	<b>217652<sup>1</sup></b>	<b>225560<sup>1*</sup></b>
				1050/1300	442	801 - 1.300	150	10	<b>217656<sup>1</sup></b>	<b>225562<sup>1*</sup></b>

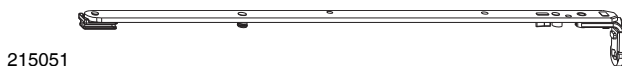
<sup>1</sup> Use only for "horizontal tilt position" (sash can be pry opened at "vertical tilt position").



## 6.6 Comfort scissor stays



6.6.1 Scissor stay faceplates for comfort scissor stay							No	No Tricoat
silver	right	800	0	601 - 800	490 - 600	10	<b>215053</b>	<b>218588</b>
		1050	1	801 - 1.050		10	<b>215055</b>	<b>218590</b>
	left	800	0	601 - 800	490 - 600	10	<b>215054</b>	<b>218589</b>
		1050	1	801 - 1.050		10	<b>215056</b>	<b>218591</b>

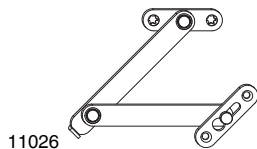


6.6.2 Rebated scissor stay arms for comfort scissor stay							No	No Tricoat
silver	right	800/1050		490 - 1.050	80	10	<b>215051</b>	<b>218049</b>
	left	800/1050		490 - 1.050	80	10	<b>215052</b>	<b>218050</b>



6.7 Tilt stays			L				No	No Tricoat
silver	tilt stay with fixing tab		204	80	20		<b>209723<sup>1</sup></b>	<b>216249<sup>1</sup></b>
	tilt stay with screwhole mounting		204	80	20		<b>101548<sup>1</sup></b>	<b>209297<sup>1*</sup></b>

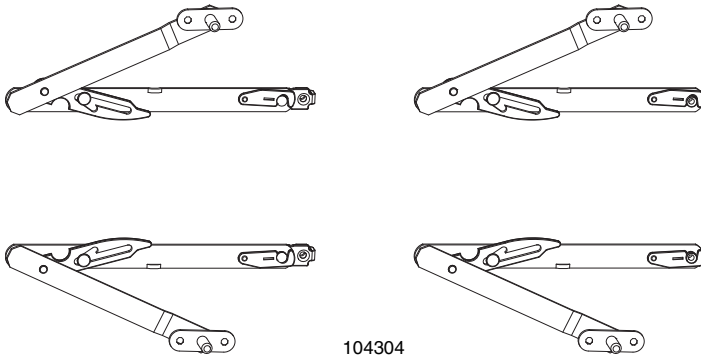
<sup>1</sup> Please note: The minimum sash rebate height depends on window profile or geometry!



6.8 Horizontal tilt stays			L				No	No Tricoat
silver		190	1.400	210 - 800	40	20	<b>11026<sup>1</sup></b>	<b>101354<sup>1</sup></b>
		250	1.400	210 - 800	40	20	<b>11027<sup>1</sup></b>	

<sup>1</sup> Use always two pieces per window!

## 6.9 Restrictor and cleaning stays



6.9.1 Restrictor and cleaning stays						<b>No</b>	<b>No</b> Tricoat
silver	restrictor and cleaning stay with fixing tab	size 1	300 - 500	40	10	<b>455347</b> <sup>1,2</sup>	<b>210263</b> <sup>1,2</sup>
		size 2	501 - 1.200	40	10	<b>455348</b> <sup>1,3</sup>	<b>211390</b> <sup>1,3</sup>
	restrictor and cleaning stay with screw hole fixing	size 1	300 - 500	40	10	<b>104304</b> <sup>1,2</sup>	
		size 2	501 - 1.200	40	10	<b>104305</b> <sup>1,3</sup>	

<sup>1</sup> One piece = one pair.

<sup>2</sup> Application range fully concealed hardware: 520 - 620 mm.

<sup>3</sup> Application range fully concealed hardware: 621 - 1200 mm.

## 6.9.2 Accessories for restrictor and cleaning stays

455386

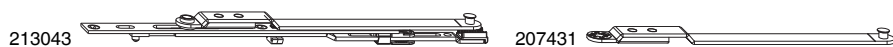
<b>P</b> 6.9.2.1 Spacer plates for restrictor and cleaning stay				<b>No</b>	<b>No</b> Tricoat
silver		1	20	<b>455386</b>	<b>363378</b>
		3	20	<b>455349</b>	
		6	20	<b>455387</b>	
	5° pitched		20	<b>455388</b>	

368425


6.9.2.2 Hinge bolt with screw hole for restrictor and cleaning stay				<b>No</b>	<b>No</b> Tricoat
silver		40	100	<b>368425</b>	



## 6.10 Accessories for scissor stays




### 6.10.1 Stabilizing scissor stays

		L		No	No Tricoat
silver	stabilizing scissor stay MM mounted without night-vent	235	20	213043	216209*
	stabilizing scissor stay arm MM without night-vent	231,5	20	207431	209858
	stabilizing scissor stay faceplate MM	235	20	203765	207626*




### 6.10.2 Stabilizing scissor stays with night-vent

		L		No	No Tricoat
silver	right stabilizing scissor stay MM mounted	235	20	213041	223020
	left stabilizing scissor stay MM mounted	235	20	213042	223021
	right stabilizing scissor stay arm MM	231,5	20	203766	207627*
	left stabilizing scissor stay arm MM	231,5	20	203767	207628*
	stabilizing scissor stay faceplate MM	235	20	203765	207626*



### 6.10.3 Stabilizing scissor stays for tilt-first windows

		L		No	No Tricoat
silver	stabilizing scissor stay MM mounted for tilt-first	330	20	213044	223023
	stabilizing scissor stay arm MM for tilt-first	231,5	20	205933	219511
	stabilizing scissor stay faceplate MM for tilt-first	330	20	205934	




### 6.10.4 Stabilizing scissor stays for half round windows


		L		No	No Tricoat
silver	with 2 i.S.	945	10	203961	207629



### 6.10.5 Anti-slam devices

			No	No Tricoat
traffic white RAL 9016	for scissor stay, sizes 2-4 or 1050/1300	100	43549	
black	for scissor stay, sizes 00-1 or 400/600/800	100	43548	

43551 


<b>6.10.6 Scissor stay restrictors</b>			<b>No</b>	<b>No</b> Tricoat
traffic white RAL 9016	for scissor stay, sizes 2-4 or 1050/1300	100	<b>43552</b> <sup>1,2</sup>	
	for stabilizing scissor stay	100	<b>43613</b> <sup>1</sup>	
black	for scissor stay, sizes 00-1 or 600/800	100	<b>43551</b> <sup>1,3</sup>	

<sup>1</sup> Scissor stay restrictor absolutely necessary for SRH below 600 mm. A scissor stay restrictor may be necessary for a SRH above 600 mm, if required by the window profile and/or the window geometry.

<sup>2</sup> Opening dimension: 80 mm for scissor stay size 1050; 60 mm for size 1300.

<sup>3</sup> Opening dimension: 75 mm for scissor stay size 600; 60 mm for size 800.

369474  366012 


<b>6.10.7 Anti-slam devices / scissor stay restrictors MULTI POWER</b>			<b>No</b>	<b>No</b> Tricoat
grey F1	anti-slam device MULTI POWER	20	<b>369474</b>	
blue	scissor stay restrictor for scissor stay MULTI POWER, sizes 0/1 or 600/800	100	<b>366011</b> <sup>1,2</sup>	
brown	scissor stay restrictor for scissor stay MULTI POWER, sizes 2/3 or 1050/1300	100	<b>366012</b> <sup>2,3</sup>	

<sup>1</sup> Tilt opening 100 mm.

<sup>2</sup> Scissor stay restrictor absolutely necessary for SRH below 600 mm. A scissor stay restrictor may be necessary for a SRH above 600 mm, if required by the window profile and/or the window geometry.

<sup>3</sup> Tilt opening 110 mm.

368077  371916 

<b>6.10.8 Anti-slam devices / scissor stay restrictors MULTI MAMMUT</b>			<b>No</b>	<b>No</b> Tricoat
silver	anti-slam device rough-running Multi Mammut	50	<b>368075</b>	
	anti-slam device smooth-running Multi Mammut	50	<b>368076</b> <sup>1</sup>	
	scissor stay restrictor for scissor stay Multi Mammut	50	<b>368077</b> <sup>2</sup>	
blue	anti-slam device for scissor stay Multi Mammut	50	<b>371916</b>	

<sup>1</sup> For sash weight up to 60 kg.

<sup>2</sup> Scissor stay restrictor absolutely necessary for SRH below 600 mm. A scissor stay restrictor may be necessary for a SRH above 600 mm, if required by the window profile and/or the window geometry.



**MACO  
MULTI-MATIC**



Scissor stays



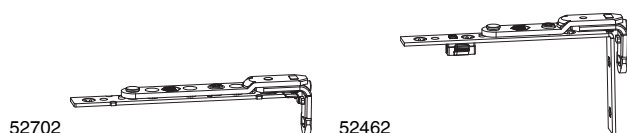
## **7 Turn-only and tilt-only hinges, turn-only hinge - frame parts and compression devices**

---

<b>7.1</b>	<b>Turn-only hinges - sash part / turn-only hinges - frame part / turn-only hinge faceplates AS/DTuni/PVC</b>	<b>220</b>
<b>7.2</b>	<b>Tilt and turn hinges - sash part / tilt-only bearings AS/DTuni/PVC</b>	<b>222</b>
<b>7.3</b>	<b>Turn and tilt hinge faceplates PVC</b>	<b>223</b>
<b>7.4</b>	<b>Turn-only hinges - sash part MULTI MAMMUT</b>	<b>224</b>
<b>7.5</b>	<b>Turn-only hinges - sash part TV</b>	<b>225</b>
<b>7.6</b>	<b>Tilt-only and turn-only hinges - sash part INVISIBLE</b>	<b>226</b>
<b>7.7</b>	<b>Tilt-only and turn-only hinges - sash part MULTI POWER</b>	<b>227</b>
<b>7.8</b>	<b>Turn-only hinges - frame part for 3-sashed windows</b>	<b>229</b>
<b>7.9</b>	<b>Multi-sash centre frame hinges</b>	<b>230</b>
<b>7.10</b>	<b>Compression devices</b>	<b>232</b>
<b>7.11</b>	<b>Cover caps</b>	<b>235</b>

## 7 Turn-only and tilt-only hinges, turn-only hinge - frame parts and compression devices

### 7.1 Turn-only hinges - sash part / turn-only hinges - frame part / turn-only hinge faceplates AS/DTuni/PVC



7.1.1 Turn-only hinges - sash part AS/DTuni/PVC			L	kg	cube	No	No Tricoat
silver	turn-only hinge on top DTuni	timber	152	130	50	52702 <sup>1,2,3</sup>	202314 <sup>1,2,3*</sup>
	turn-only hinge on top PVC + AS corner hinge version		143	120	50	52462 <sup>4</sup>	201764 <sup>4*</sup>

<sup>1</sup> Use extension faceplate item no. 360327 if necessary.

<sup>2</sup> For 13 mm offset without Eurogroove use spacer clips item no. 357881.

<sup>3</sup> For Eurogroove use packer item no. 41103.

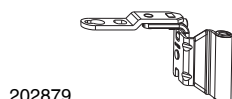
<sup>4</sup> Use extension faceplate item no. 215572 if necessary.



202271

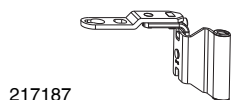
7.1.2 Turn-only hinge arm for turn and tilt hinge faceplates			kg	cube	No	No Tricoat
silver	turn-only hinge arm AS/DTuni/PVC for turn-only hinge faceplate MM		120	50	202271 <sup>1</sup>	208314 <sup>1*</sup>

<sup>1</sup> With rebated scissor stay support arm DT 130 kg.



202879

7.1.3 Turn-only hinge arms with rebated scissor stay support arm AS/PVC for turn and tilt hinge faceplates			kg	cube	No	No Tricoat
silver	right	12/20-13	120	20	202879	
	left	12/20-13	120	20	202880	
traffic white RAL 9016	right	12/20-13	120	20	207392	
	left	12/20-13	120	20	207391	




217187

7.1.4 Turn-only hinge arms with rebated scissor stay support arm DTuni for turn and tilt hinge faceplates			kg	cube	No	No Tricoat
silver	right	12/18-13	130	20	217187	
	left	12/18-13	130	20	217188	
traffic white RAL 9016	right	12/18-13	130	20	217189	
	left	12/18-13	130	20	217190	

206315



7.1.5 Turn-only hinges - sash part for angled windows			<b>No</b>	<b>No</b> Tricoat
silver		20	206315 <sup>1,2,3</sup>	207669 <sup>1,2,3</sup>




<sup>1</sup> Use extension faceplate item no. 360327 if necessary.

<sup>2</sup> For 13 mm offset without Eurogroove use spacer clips item no. 357881.

<sup>3</sup> For Eurogroove use packer item no. 41103.

202269



7.1.6 Turn-only hinge faceplates croppable MM			<b>L</b>			<b>No</b>	<b>No</b> Tricoat
silver	600	0	498,5	350 - 600	20	202269	207671*
	800	0	697,5	601 - 800	20	205940	207672*
	with 1 i.S.	1050	1	947,5	801 - 1.050	20	205941


41103



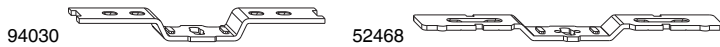
7.1.7 Packer for turn-only hinge - sash part top DTuni		<b>L</b>		<b>No</b>	<b>No</b> Tricoat
natural		142	100	41103	

360327



7.1.8 Faceplate extensions for turn-only hinges - sash part		<b>L</b>		<b>No</b>	<b>No</b> Tricoat
silver	DTuni	180	20	360327	
	AS/PVC	180	20	215572	

## 7.2 Tilt and turn hinges - sash part / tilt-only bearings AS/DTuni/PVC

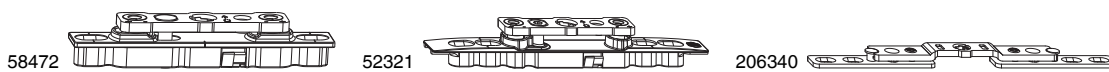


7.2.1 Tilt and turn hinges - sash part AS/DT/PVC		L	kg		No	No Tricoat
silver	tilt-only hinge and turn-only hinge AS/PVC	130	80	100	94030 <sup>1,2</sup>	355816 <sup>1,2*</sup>
	tilt-only hinge and turn-only hinge AS/DTuni	159	80	100	52468 <sup>1,3</sup>	205066 <sup>1,3*</sup>

<sup>1</sup> When our restrictor and cleaning stay is used, the maximum sash weight is 40 kg. Observe FPKF guideline of the Gütegemeinschaft Schlösser und Beschläge (quality community for locks and hardware)!

<sup>2</sup> For Eurogroove.

<sup>3</sup> Without Eurogroove.



7.2.2 Tilt and turn hinges adjustable		L	kg		No	No Tricoat
silver	tilt-only hinge self-regulating	106	30	50	58472 <sup>1,2</sup>	
	tilt-only hinge and turn-only hinge AS/DTuni/PVC adjustable	146	80	50	52321 <sup>1,2</sup>	201631 <sup>1,2*</sup>
	tilt-only hinge and turn-only hinge DTuni adjustable	200	80	50	206340 <sup>1</sup>	213789 <sup>1</sup>

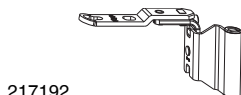
<sup>1</sup> When our restrictor and cleaning stay is used, the maximum sash weight is 40 kg. Observe FPKF guideline of the Gütegemeinschaft Schlösser und Beschläge (quality community for locks and hardware)!

<sup>2</sup> For Eurogroove.



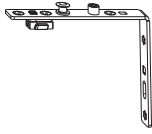
213297

7.2.3 Tilt-only hinge arm for turn and tilt hinge faceplate			No	No Tricoat
silver		20	213297	

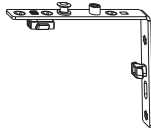


217192

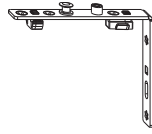
T	7.2.4 Tilt-only hinge arms with rebated scissor stay support arm DTuni for turn and tilt hinge faceplate		kg		No	No Tricoat
	silver	left	12/18-13	130	20	217192
traffic white RAL 9016	right	12/18-13	130	20	217193	
	left	12/18-13	130	20	217194	




202270



207817

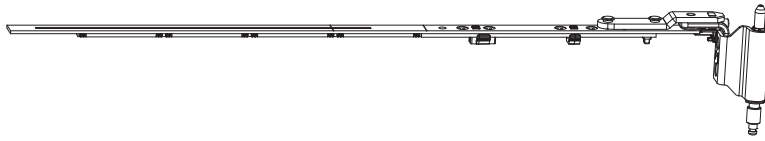


210025



<b>7.3 Turn and tilt hinge faceplates PVC</b>			<b>No</b>	<b>No</b> Tricoat
silver	top turn-only hinge corner-bracket MM	50	<b>202270</b>	<b>207670*</b>
	top turn-only hinge corner-bracket with second positioning component MM	50	<b>207817</b>	<b>211318</b>
	turn-only and tilt-only faceplate for installation with automated machinery MM	50	<b>210025</b>	



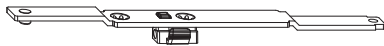
## 7.4 Turn-only hinges - sash part MULTI MAMMUT



223776

7.4.1 Turn-only hinges - sash part croppable MULTI MAMMUT					No	No Tricoat
silver	right	12/18-9	400 - 635	10	223776 <sup>1</sup>	223800 <sup>1</sup>
	left	12/18-9	400 - 635	10	223777 <sup>1</sup>	223801 <sup>1</sup>
	right	12/18-13	400 - 635	10	223778 <sup>1</sup>	223802 <sup>1</sup>
	left	12/18-13	400 - 635	10	223779 <sup>1</sup>	223803 <sup>1</sup>
	right	12/20-9	400 - 635	10	223780 <sup>1</sup>	223804 <sup>1</sup>
	left	12/20-9	400 - 635	10	223781 <sup>1</sup>	223805 <sup>1</sup>
	right	12/20-13	400 - 635	10	223782 <sup>1</sup>	223806 <sup>1</sup>
	left	12/20-13	400 - 635	10	223783 <sup>1</sup>	223807 <sup>1</sup>
traffic white RAL 9016	right	12/18-9	400 - 635	10	223784 <sup>1</sup>	
	left	12/18-9	400 - 635	10	223785 <sup>1</sup>	
	right	12/18-13	400 - 635	10	223786 <sup>1</sup>	
	left	12/18-13	400 - 635	10	223787 <sup>1</sup>	
	right	12/20-9	400 - 635	10	223788 <sup>1</sup>	
	left	12/20-9	400 - 635	10	223789 <sup>1</sup>	
	right	12/20-13	400 - 635	10	223790 <sup>1</sup>	
	left	12/20-13	400 - 635	10	223791 <sup>1</sup>	

<sup>1</sup> Above the maximum application range use faceplate extension and centre lock.



202867

7.4.2 Faceplate extension for turn-only hinge - sash part MULTI MAMMUT					No	No Tricoat
silver			385 - 1.800	20	202867 <sup>1</sup>	216725 <sup>1</sup>

<sup>1</sup> For the use as fixed turn-only hinge combine with croppable turn-only hinge.

## 7.5 Turn-only hinges - sash part TV



54917

7.5.1 Turn-only hinge faceplate TV with packer		L	kg	cube	No	No Tricoat
silver		187	100	100	54917 <sup>1</sup>	

<sup>1</sup> For Eurogroove.

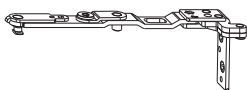


206748



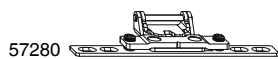
206750

7.5.2 Turn-only hinge faceplates croppable MM TV		roll	L	mm	cube	No	No Tricoat
silver	600	0	497,5	350 - 600	20	206748	
	800	0	696,5	601 - 800	20	206749	
	with 1 i.S.	1050	1	946,5	801 - 1.050	20	206750



54922

7.5.3 Turn-only hinge arms for turn-only hinge faceplate TV timber		L	kg	cube	No	No Tricoat
silver	right	13 mm offset	170	100	100	54922
	left	13 mm offset	170	100	100	54923



57280

7.5.4 Turn-only hinges - sash part for half round windows TV		L	kg	cube	No	No Tricoat
silver	13 mm offset	150	60	50	57280	



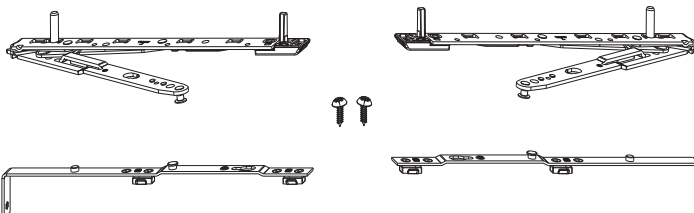
**7.6 Tilt-only and turn-only hinges - sash part INVISIBLE**



208993

7.6.1 Turn-only and tilt-only hinge faceplate INVISIBLE		L	kg	Box	No	No Tricoat
silver		290	100	20	<b>208993<sup>1</sup></b>	

<sup>1</sup> For combination with T&T scissor stay arms with hinge INVISIBLE, size 690.



101901

T 7.6.2 Basic pack tilt-only INVISIBLE			↑	→	Box	No	No Tricoat
silver	12 mm screw axis	tilt-only 18 mm rebate depth 9 mm offset	520 - 1.200	300 - 2.400	10	<b>103302</b>	
	13 mm screw axis	tilt-only 9 mm offset	520 - 1.200	300 - 2.400	10	<b>101901<sup>1</sup></b>	

<sup>1</sup> From SRH 520 mm: use restrictor and cleaning stay!

## 7.7 Tilt-only and turn-only hinges - sash part MULTI POWER

### 7.7.1 Turn-only and tilt-only hinge faceplates / turn-only and tilt-only hinge arms with hinge MULTI POWER



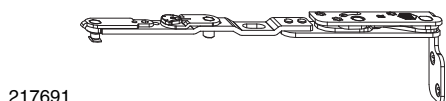
217729

7.7.1.1 Turn-only and tilt-only hinge faceplate fixed MULTI POWER							No	No Tricoat
silver				255 - 1.400	150	20	217729	225300*

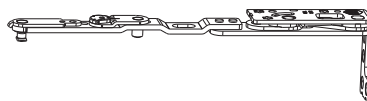


217687

7.7.1.2 Turn-only hinge faceplates croppable MULTI POWER								No	No Tricoat
silver	600	0	401 - 600	320 - 490	20	217685	225301*		
	800	0	601 - 800		20	217686	225302*		
	1050	1	801 - 1.050		20	217687	225303*		
	1300	1	1.051 - 1.300		20	217688	225304*		

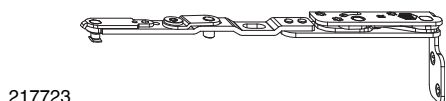


217691

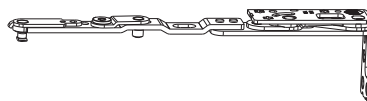


217695

7.7.1.3 Turn-only hinge arms with hinge MULTI POWER							No	No Tricoat
silver	timber 24 mm rebate depth	right	9 mm offset	255 - 1.400	150	10	217689	225321*
		left	9 mm offset	255 - 1.400	150	10	217690	225322*
		right	13 mm offset	255 - 1.400	150	10	217691	225323*
		left	13 mm offset	255 - 1.400	150	10	217692	225324*
	timber/PVC 30 mm rebate depth	right	9 mm offset	255 - 1.400	150	10	217693	
		left	9 mm offset	255 - 1.400	150	10	217694	
		right	13 mm offset	255 - 1.400	150	10	217695	225328*
		left	13 mm offset	255 - 1.400	150	10	217696	225329*



217723



217727

7.7.1.4 Tilt-only hinge arms with hinge MULTI POWER							No	No Tricoat
silver	timber 24 mm rebate depth	right	9 mm offset	255 - 1.200	80	10	217721 <sup>1,2</sup>	225338 <sup>1,2</sup>
		left	9 mm offset	255 - 1.200	80	10	217722 <sup>1,2</sup>	225339 <sup>1,2</sup>
		right	13 mm offset	255 - 1.200	80	10	217723 <sup>1,2</sup>	225340 <sup>1,2</sup>
		left	13 mm offset	255 - 1.200	80	10	217724 <sup>1,2</sup>	225341 <sup>1,2</sup>
	timber/PVC 30 mm rebate depth	right	9 mm offset	255 - 1.200	80	10	217725 <sup>1,2</sup>	
		left	9 mm offset	255 - 1.200	80	10	217726 <sup>1,2</sup>	
		right	13 mm offset	255 - 1.200	80	10	217727 <sup>1,2</sup>	225344 <sup>1,2</sup>
		left	13 mm offset	255 - 1.200	80	10	217728 <sup>1,2</sup>	225345 <sup>1,2</sup>

<sup>1</sup> Observe guideline FPKF (restrictor and cleaning stay) published by "Gütegemeinschaft Schlösser und Beschläge e.V." ([www.schlossindustrie.de](http://www.schlossindustrie.de))

<sup>2</sup> SRW max. 2400 mm. The sash must be stabilized (e.g. taped).

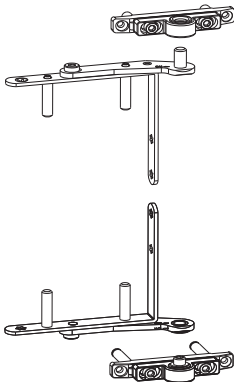


**7.7.2 Turn-only hinge arms with hinge for 3-sashed windows MULTI POWER**



<b>7.7.2.1 Turn-only hinge arms with hinge for 3-sashed windows MULTI POWER</b>							<b>No</b>	<b>No</b> Tricoat
silver	timber 24 mm rebate depth	right	9 mm offset	255 - 1.400	80	10	<b>217713</b>	<b>225330</b>
		left	9 mm offset	255 - 1.400	80	10	<b>217714</b>	<b>225331</b>
		right	13 mm offset	255 - 1.400	80	10	<b>217715</b>	<b>225332</b>
		left	13 mm offset	255 - 1.400	80	10	<b>217716</b>	<b>225333</b>
	timber/PVC 30 mm rebate depth	right	9 mm offset	255 - 1.400	80	10	<b>217717</b>	
		left	9 mm offset	255 - 1.400	80	10	<b>217718</b>	
		right	13 mm offset	255 - 1.400	80	10	<b>217719</b>	<b>225336</b>
		left	13 mm offset	255 - 1.400	80	10	<b>217720</b>	<b>225337</b>

## 7.8 Turn-only hinges - frame part for 3-sashed windows



10721

7.8.1 Turn-only hinges - frame part for 3-sashed windows				kg		No	No Tricoat
silver	PVC	left	top + bottom	60	20	10756 <sup>1</sup>	
	timber	right	top + bottom	80	20	10721 <sup>1,2</sup>	101398 <sup>1,2</sup>
		left	top + bottom	80	20	10722 <sup>1,2</sup>	101399 <sup>1,2</sup>
traffic white RAL 9016	PVC	right	top + bottom	60	20	10901	
		left	top + bottom	60	20	10902 <sup>1</sup>	
	timber	right	top + bottom	80	20	11251 <sup>1,2</sup>	
		left	top + bottom	80	20	11252 <sup>1,2</sup>	

<sup>1</sup> No cover caps are enclosed in the packaging for the frame components for pure silver sash components.

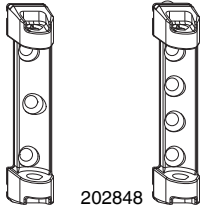
<sup>2</sup> CAUTION: When using the 2 mm and 4 mm packers, the max. sash weight is 60 kg!



T	7.8.2 Packers for turn-only hinges - frame part for 3-sashed windows			No	No Tricoat
	silver	4	100	43709 <sup>1</sup>	
	pearl light grey RAL 9022	2	100	354023 <sup>1</sup>	
	white	4	100	44199 <sup>1</sup>	

<sup>1</sup> CAUTION: When using the 2 mm and 4 mm packers, the max. sash weight is 60 kg!

## 7.9 Multi-sash centre frame hinges



57930

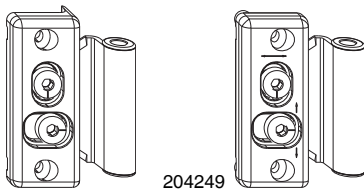
202848

7.9.1 Multi-sash centre frame hinge bearings				kg		No	No Tricoat
silver	scissor stay hinge PVC	with 3 mm positioning pin	PVC	100	100	<b>52480</b>	<b>201082*</b>
	multi-sash centre frame hinge bearing	with centering tip	timber	60	50	<b>57930</b>	<b>205123*</b>
traffic white RAL 9016	multi-sash centre frame hinge bearing	with 7 mm supporting pin	timber/PVC	60	50	<b>202848</b>	<b>205124*</b>
		with 7 mm supporting pin	PVC	60	50	<b>205705</b>	



44470

P 7.9.2 Packers for multi-sash centre frame hinge bearings						No	No Tricoat
traffic white RAL 9016	with 3 mm positioning pin			2,4	100	<b>44477</b>	
	with 7 mm supporting pin			2,4	100	<b>44470</b>	
pearl light grey RAL 9022	with 3 mm positioning pin			2,4	100	<b>44482</b>	
	with 7 mm supporting pin			2,4	100	<b>44475</b>	
brown F5	with 3 mm positioning pin			2,4	100	<b>44481</b>	
	with 7 mm supporting pin			2,4	100	<b>44474</b>	



57892

204249

7.9.3 Multi-sash centre frame hinges - sash part				kg		No	No Tricoat
silver			timber	60	50	<b>57892</b>	<b>205126*</b>
	with 3 mm positioning pin	40 mm cam distance	PVC	60	50	<b>220241</b>	<b>205128</b>
	with 7 mm supporting pin	36 mm cam distance	timber	60	50	<b>204249</b>	
		40 mm cam distance	PVC	60	50	<b>220240</b>	<b>205127</b>



44463

**P 7.9.4 Packers for multi-sash centre frame hinges - sash part**



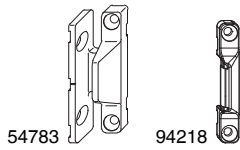
**No**

**No**  
Tricoat

traffic white RAL 9016	with 3 mm positioning pin	2,4	100	<b>44463</b>	
	with 7 mm supporting pin	2,4	100	<b>44456</b>	
pearl light grey RAL 9022	with 3 mm positioning pin	2,4	100	<b>44468</b>	
	with 7 mm supporting pin	2,4	100	<b>44461</b>	
brown F5	with 3 mm positioning pin	2,4	100	<b>44467</b>	
	with 7 mm supporting pin	2,4	100	<b>44460</b>	

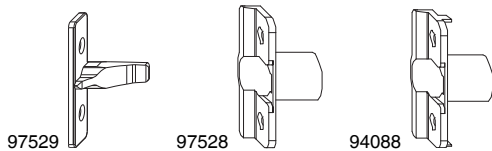


## 7.10 Compression devices



7.10.1 Surface-mounted compression devices				No	No Tricoat
silver	sash and frame component	timber	100	52389 <sup>1</sup>	205054 <sup>1</sup>
		PVC	100	54783 <sup>1</sup>	
	sash and frame component for rebate leg gasket	timber	100	55028 <sup>1</sup>	205055 <sup>1</sup>
	frame component	timber/PVC/alu-timber	100	94218 <sup>1</sup>	
traffic white RAL 9016	sash component	timber/PVC/alu-timber	100	94217 <sup>1</sup>	
	sash and frame component	timber	100	206585 <sup>1</sup>	
	sash and frame component for rebate leg gasket	timber	100	21062 <sup>1</sup>	

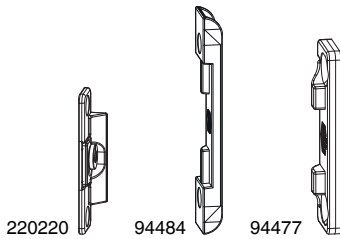
<sup>1</sup> Not suitable for fully concealed hardware!



T	7.10.2 Drill-in compression devices for timber			No	No Tricoat	
silver	sash component 9 / 13 mm offset	for Eurogroove	100	94089 <sup>1,2</sup>	359574 <sup>1,2*</sup>	
	sash component 9 mm offset	without Eurogroove	100	97529 <sup>2</sup>	359211 <sup>2</sup>	
	sash component 13 mm offset	without Eurogroove	100	360009 <sup>2</sup>	360264 <sup>2*</sup>	
	frame component	for 4 mm air gap, 9 mm offset		100	360006 <sup>2</sup>	368198 <sup>2</sup>
		for 4 mm air gap, 13 mm offset		100	358996 <sup>2</sup>	363377 <sup>2</sup>
		Euro-rebate 18 mm rebate depth 9 mm offset		100	354090 <sup>2</sup>	363297 <sup>2</sup>
		Euro-rebate 20 mm rebate depth 9 mm offset		100	97528 <sup>2</sup>	359594 <sup>2</sup>
		Euro-rebate 24 mm rebate depth 13 mm offset		100	357741 <sup>2</sup>	359573 <sup>2*</sup>
		Euro-rebate 30 mm rebate depth 13 mm offset		100	368015 <sup>2</sup>	
		hardware groove 20 mm rebate depth 9 mm offset		100	94088 <sup>2</sup>	
	hardware groove 25 mm rebate depth 9 mm offset		100	94258 <sup>2</sup>		

<sup>1</sup> Spacer for corner hinge item no. 40485 may be used for Eurogroove.

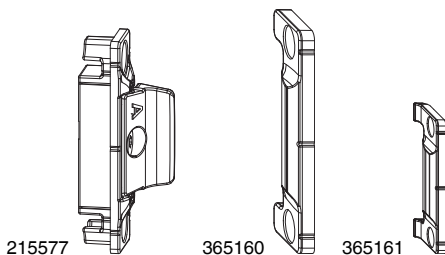
<sup>2</sup> Suitable for MULTI POWER, INVISIBLE, TV, MULTI MAMMUT, DT and AS.



<b>7.10.3 Concealed compression devices adjustable with depth adjustment</b>			<b>No</b>	<b>No</b> Tricoat	
silver	sash component with depth adjustment 9 mm offset	for Eurogroove	100	220219 <sup>1</sup>	201471 <sup>1</sup>
		without Eurogroove	100	220220 <sup>2</sup>	203333 <sup>2</sup>
	sash component with depth adjustment 13 mm offset	without Eurogroove	100	208195 <sup>2</sup>	211008 <sup>2</sup>
		frame component	for 4 mm air gap, 9 mm offset	100	94484 <sup>2</sup>
		for 4 mm air gap, 13 mm offset	100	357677 <sup>2</sup>	
		Euro-rebate 18 mm rebate depth 9 mm offset	100	94477 <sup>2</sup>	355796 <sup>2</sup>
		Euro-rebate 20 mm rebate depth 9 mm offset	100	98265 <sup>2</sup>	358861 <sup>2</sup>
		Euro-rebate 24 mm rebate depth 13 mm offset	100	359002 <sup>2</sup>	359572 <sup>2*</sup>
		hardware groove 6/8/4	100	94478 <sup>2</sup>	
	hardware groove 7/8/4	100	94479 <sup>2</sup>	201469 <sup>2</sup>	

<sup>1</sup> Suitable for: MULTI POWER, INVISIBLE, TV, MULTI MAMMUT, DT, AS.

<sup>2</sup> Not suitable for fully concealed hardware!

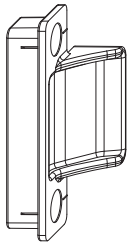


<b>7.10.4 Concealed compression devices adjustable with lateral adjustment</b>			<b>No</b>	<b>No</b> Tricoat	
silver	sash component with lateral adjustment for timber	for Eurogroove	100	215577 <sup>1</sup>	219344 <sup>1*</sup>
	sash component with lateral adjustment for PVC	for Eurogroove	100	218543 <sup>1,2</sup>	226554 <sup>1,2</sup>
pearl light grey RAL 9022	frame component	Euro-rebate 18 mm rebate depth 9 mm offset	100	365159 <sup>1,3</sup>	
		Euro-rebate 20 mm rebate depth 9 mm offset	100	365160 <sup>1,3</sup>	
		Euro-rebate 24 mm rebate depth 13 mm offset	100	365161 <sup>1,3</sup>	
		hardware groove 7/8/4	100	367938 <sup>1,3</sup>	
		Euro-rebate 30 mm rebate depth 13 mm offset	100	367510 <sup>1,3</sup>	
		frame component with positioning pins 8 x 4 mm	Euro-rebate 24 mm rebate depth 13 mm offset	100	367494 <sup>1,3</sup>
	frame component with positioning pins 12 x 3 mm	Euro-rebate 24 mm rebate depth 13 mm offset	100	367652 <sup>1,3</sup>	


<sup>1</sup> Suitable for: MULTI POWER, INVISIBLE, TV, MULTI MAMMUT, DT, AS.

<sup>2</sup> Frame components for PVC, see profile sheet.

<sup>3</sup> For combination with item no. 215577.



94185

<b>P 7.10.5 Concealed compression devices for PVC</b>			<b>N<sub>o</sub></b>	<b>N<sub>o</sub></b> Tricoat
silver	sash component	100	<b>94185<sup>1,2</sup></b>	<b>355815<sup>1,2+</sup></b>
	sash component with 5 mm positioning pin	100	<b>354795<sup>1,2</sup></b>	


<sup>1</sup> Frame components for PVC, see profile sheet.

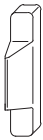
<sup>2</sup> Suitable for: MULTI POWER, INVISIBLE, TV, MULTI MAMMUT, AS.

## 7.11 Cover caps




43568

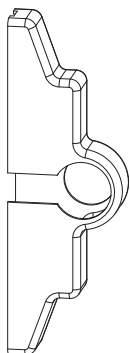
7.11.1 Cover caps for surface-mounted compression devices - sash part			No	No Tricoat
traffic white RAL 9016	dyed	100	41339	
pearl light grey RAL 9022	dyed	100	43568	
silver	painted	100	364107	
champagne	painted	100	41699	
titanium	painted	100	40757	
light bronze	dyed	100	41582	
cream white RAL 9001	dyed	100	41231	
brown F5	dyed	100	41340	
chrome-look	metallised	100	44236	
gold look	metallised	100	40553	






43569

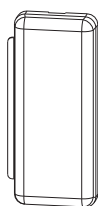
7.11.2 Cover caps for surface-mounted compression devices - frame part			No	No Tricoat
traffic white RAL 9016	dyed	100	41342	
pearl light grey RAL 9022	dyed	100	43569	
silver	painted	100	364106	
champagne	painted	100	41701	
titanium	painted	100	40756	
light bronze	dyed	100	41583	
cream white RAL 9001	dyed	100	41233	
brown F5	dyed	100	41343	
chrome-look	metallised	100	44235	
gold look	metallised	100	40551	








42714

7.11.3 Cover caps for turn-only hinges for 3-sashed windows					
traffic white RAL 9016	dyed		20	<b>42714</b>	
pearl light grey RAL 9022	dyed		50	<b>43618</b>	
silver	painted		50	<b>44287</b>	
champagne	painted		50	<b>41698</b>	
titanium	painted		50	<b>40734</b>	
light bronze	dyed		20	<b>41642</b>	
brown F5	dyed		20	<b>42723</b>	
gold look	metallised		50	<b>40737</b>	
white	dyed	for timber profiles	20	<b>41117</b>	



43800

7.11.4 Cover caps for multi-sash centre frame hinges - sash part					
traffic white RAL 9016	dyed		50	<b>43800</b>	
pearl light grey RAL 9022	dyed		100	<b>44102</b>	
silver	painted		50	<b>44289</b>	
champagne	painted		50	<b>44288</b>	
titanium	painted		50	<b>43803</b>	
light bronze	dyed		50	<b>43801</b>	
cream white RAL 9001	dyed		50	<b>44295</b>	
brown F5	dyed		50	<b>43804</b>	
chrome-look	metallised		50	<b>44286</b>	
gold look	metallised		50	<b>43802</b>	



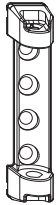
## 8 Scissor stay hinges



<b>8.1</b>	<b>Scissor stay hinges PVC</b>	<b>238</b>
8.1.1	Scissor stay hinges PVC	238
<b>8.2</b>	<b>Surface-mounted scissor stay hinges</b>	<b>238</b>
8.2.1	Surface-mounted scissor stay hinges	238
<b>8.3</b>	<b>Rebated scissor stay support arms AS/PVC</b>	<b>239</b>
<b>8.4</b>	<b>Rebated scissor stay support arms AS/PVC with pre-mounted cover cap in traffic white RAL 9016</b>	<b>239</b>
<b>8.5</b>	<b>Scissor stay hinges DT</b>	<b>240</b>
8.5.1	Scissor stay hinges DT130	240
8.5.2	Scissor stay hinges DT160	240
8.5.3	Rebated scissor stay support arms DTuni	241
<b>8.6</b>	<b>Scissor stay hinges MULTI MAMMUT</b>	<b>241</b>
<b>8.7</b>	<b>Scissor stay hinges TV for half round windows</b>	<b>241</b>
<b>8.8</b>	<b>Cover caps</b>	<b>242</b>
8.8.1	Cover caps for scissor stay hinges AS/DT130/PVC	242
8.8.2	Cover caps for scissor stay hinges DT160	242
8.8.3	Recess cover caps for scissor stay hinges DT160	242
8.8.4	Cover caps for rebated scissor stay support arms AS/PVC	243
8.8.5	Cover caps for rebated scissor stay support arms DTuni	243
<b>8.9</b>	<b>Accessories for scissor stay hinges</b>	<b>244</b>
8.9.1	Scissor stay hinge pin AS/DTuni/PVC	244
8.9.2	Dust cover caps for scissor stay hinges MULTI MAMMUT	244
8.9.3	Accessories for scissor stay hinges MULTI MAMMUT	244

## 8 Scissor stay hinges

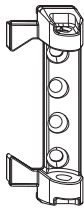
### 8.1 Scissor stay hinges PVC



52480

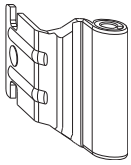
P	8.1.1 Scissor stay hinges PVC		kg		No	No Tricoat
			kg	kg		
silver	with 3 mm positioning pin	100	100	52480	201082*	
	with 7 mm supporting pin	120	100	52481	201402*	
traffic white RAL 9016	with 3 mm positioning pin	100	100	204039		
	with 7 mm supporting pin	120	100	204779		

### 8.2 Surface-mounted scissor stay hinges

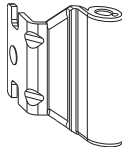


54694

8.2.1	Surface-mounted scissor stay hinges		kg		No	No Tricoat
			kg	kg		
silver	12/18	120	50	54694	204563*	
	12/20	120	50	54695	202519	
traffic white RAL 9016	12/18	120	50	207876		
	12/20	120	50	207877		

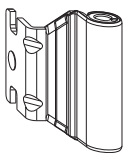


58477



52486

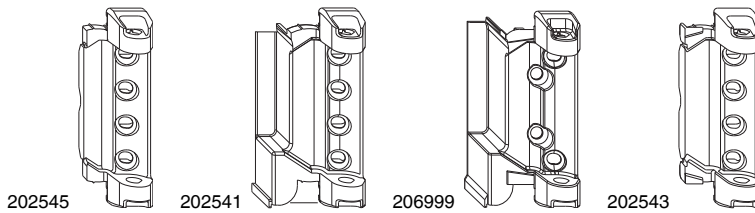
<b>8.3 Rebated scissor stay support arms AS/PVC</b>				<b>No</b>	<b>No</b> Tricoat
silver	12/18-9	120	100	<b>54706</b>	<b>204564*</b>
	12/18-10	120	100	<b>58619</b>	<b>204565*</b>
	12/18-11	120	100	<b>206998</b>	
	12/18-13	120	100	<b>54709</b>	<b>204566*</b>
	12/18-14	120	100	<b>56771</b>	
	12/18-26	80	100	<b>58477</b>	
	12/20-9	120	100	<b>52487</b>	<b>204570</b>
	12/20-10	120	100	<b>52489</b>	
	12/20-11	120	100	<b>52488</b>	
	12/20-13	120	100	<b>52486</b>	<b>201403*</b>
	12/20-14	120	100	<b>55359</b>	<b>204569*</b>
	12/20-15	120	100	<b>55883</b>	
	12/20-26	80	100	<b>59469</b>	
	12/21-13	120	100	<b>58004</b>	<b>204573</b>
	12/22-9	120	100	<b>55085</b>	
	12/22-13	120	100	<b>55051</b>	<b>204576</b>
	traffic white RAL 9016	12/18-9	120	100	<b>207882</b>
12/18-11		120	100	<b>207884</b>	
12/18-13		120	100	<b>207885</b>	
12/20-9		120	100	<b>207268</b>	
12/20-10		120	100	<b>207888</b>	
12/20-11		120	100	<b>207889</b>	
12/20-13		120	100	<b>206588</b>	
12/20-14		120	100	<b>207890</b>	
12/20-15		120	100	<b>207891</b>	
12/21-13		120	100	<b>207267</b>	
12/22-9		120	100	<b>207892</b>	
12/22-13		120	100	<b>207895</b>	



55009

<b>8.4 Rebated scissor stay support arms AS/PVC with pre-mounted cover cap in traffic white RAL 9016</b>				<b>No</b>	<b>No</b> Tricoat
silver	12/20-9	120	100	<b>54799</b>	
	12/20-11	120	100	<b>201066</b>	
	12/20-13	120	100	<b>55009</b>	
	12/20-14	120	100	<b>201064</b>	
	12/21-13	120	100	<b>58006</b>	

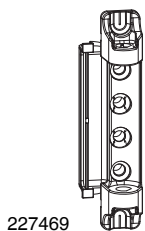
## 8.5 Scissor stay hinges DT



### T 8.5.1 Scissor stay hinges DT130

				<b>No</b>	<b>No</b> Tricoat	
silver	4/15	130	50	<b>202545<sup>1</sup></b>		
	right 4/18-9	130	50	<b>202541<sup>1</sup></b>	<b>206702<sup>1</sup></b>	
	left 4/18-9	130	50	<b>202542<sup>1</sup></b>	<b>206703<sup>1</sup></b>	
	right 4/18-13	130	50	<b>206999<sup>1</sup></b>	<b>215019<sup>1</sup></b>	
	left 4/18-13	130	50	<b>207000<sup>1</sup></b>	<b>215020<sup>1</sup></b>	
	12/18	130	50	<b>202543<sup>1</sup></b>	<b>206704<sup>1*</sup></b>	
	12/20	130	50	<b>202544<sup>1</sup></b>	<b>206705<sup>1*</sup></b>	
	traffic white RAL 9016	right 4/18-9	130	50	<b>207878<sup>1</sup></b>	
		left 4/18-9	130	50	<b>207879<sup>1</sup></b>	
		right 4/18-13	130	50	<b>207006<sup>1</sup></b>	
left 4/18-13		130	50	<b>207007<sup>1</sup></b>		
12/18		130	50	<b>207880<sup>1</sup></b>		
12/20		130	50	<b>207881<sup>1</sup></b>		

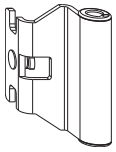
<sup>1</sup> Angled screw-fixing required from 100 kg.



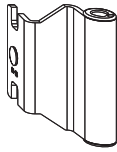
227469

### T 8.5.2 Scissor stay hinges DT160

				<b>No</b>	<b>No</b> Tricoat
silver	4/15	160	50	<b>227469</b>	
	4/18 and 12/18	160	50	<b>227470</b>	
	12/20	160	50	<b>227471</b>	



202534

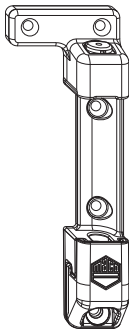


202535

**T 8.5.3 Rebated scissor stay support arms DTuni**

				<b>No</b>	<b>No</b> Tricoat
silver	4/15-9	160	50	202533 <sup>1</sup>	206696 <sup>1</sup>
	4/18-9 and 12/18-9	160	50	202534 <sup>1</sup>	206697 <sup>1*</sup>
	4/18-13 and 12/18-13	160	50	202535 <sup>1</sup>	206698 <sup>1*</sup>
	12/18-11	160	50	202539 <sup>1</sup>	206701 <sup>1*</sup>
	12/18-14	160	50	206718 <sup>1</sup>	
	12/20-9	160	50	202536 <sup>1</sup>	206699 <sup>1*</sup>
	12/20-13	160	50	202537 <sup>1</sup>	206700 <sup>1*</sup>
traffic white RAL 9016	4/15-9	160	100	207896 <sup>1</sup>	
	4/18-9 and 12/18-9	160	100	207897 <sup>1</sup>	
	4/18-13 and 12/18-13	160	100	207898 <sup>1</sup>	
	12/18-11	160	50	208936 <sup>1</sup>	
	12/18-14	160	50	215096 <sup>1</sup>	
	12/20-9	160	100	207899 <sup>1</sup>	
	12/20-13	160	50	212826 <sup>1</sup>	

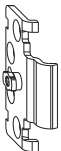
<sup>1</sup> Compatible with scissor stay hinge DT130 and DT160.



210600

**8.6 Scissor stay hinges MULTI MAMMUT**

				<b>No</b>	<b>No</b> Tricoat	
silver	with 9 mm supporting pins	right	220	20	210600	223145
		left	220	20	210601	223146
traffic white RAL 9016	with 9 mm supporting pins	right	220	20	212542	
		left	220	20	212543	



55354

**T 8.7 Scissor stay hinges TV for half round windows**

				<b>No</b>	<b>No</b> Tricoat
silver	13 mm offset	60	100	55354	

## 8.8 Cover caps



42083

8.8.1 Cover caps for scissor stay hinges AS/DT130/PVC			No	No Tricoat
traffic white RAL 9016	dyed	100	42083 <sup>1</sup>	
pearl light grey RAL 9022	dyed	100	43761	
silver	painting	100	44290	
champagne	painting	100	42103	
titanium	painting	100	42099	
light bronze	dyed	100	42097	
cream white RAL 9001	dyed	100	42191	
brown F5	dyed	100	42189	
chrome-look	metallised	100	44243	
black	dyed	100	42190	
gold look	metallised	100	42098	

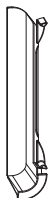
<sup>1</sup> Also available as bulk pack of 500 pieces as item no. 42284.



369607

T	8.8.2 Cover caps for scissor stay hinges DT160			No	No Tricoat
	traffic white RAL 9016	dyed	50	369607 <sup>1</sup>	
	pearl light grey RAL 9022	dyed	50	369608 <sup>1</sup>	
	titanium	painting	50	369609 <sup>1</sup>	
	gold look	metallised	50	369610 <sup>1</sup>	

<sup>1</sup> Also compatible with scissor stay hinge DT 130.




369525

T	8.8.3 Recess cover caps for scissor stay hinges DT160			No	No Tricoat
	grey F1	right 4/15-9 and 4/18-9	50	369525	
		left 4/15-9 and 4/18-9	50	369526	
		right 4/18-13	50	369527	
		left 4/18-13	50	369528	




42084

<b>8.8.4 Cover caps for rebated scissor stay support arms AS/PVC</b>			<b>No</b>	<b>No</b> Tricoat
traffic white RAL 9016	dyed	100	<b>42084<sup>1</sup></b>	
pearl light grey RAL 9022	dyed	100	<b>43760</b>	
silver	painted	100	<b>44291</b>	
champagne	painted	100	<b>42108</b>	
titanium	painted	100	<b>42107</b>	
light bronze	dyed	100	<b>42105</b>	
cream white RAL 9001	dyed	100	<b>42194</b>	
brown F5	dyed	100	<b>42192</b>	
chrome-look	metallised	100	<b>44244</b>	
black	dyed	100	<b>42193</b>	
gold look	metallised	100	<b>42106</b>	

<sup>1</sup> Also available as bulk pack of 500 pieces as item no. 42285.



354669




<b>T</b>	<b>8.8.5 Cover caps for rebated scissor stay support arms DTuni</b>			<b>No</b>	<b>No</b> Tricoat
	traffic white RAL 9016	dyed	100	<b>354669</b>	
	pearl light grey RAL 9022	dyed	100	<b>354674</b>	
	silver	painted	100	<b>360952</b>	
	champagne	painted	100	<b>354673</b>	
	titanium	painted	100	<b>354672</b>	
	light bronze	dyed	100	<b>354670</b>	
	cream white RAL 9001	dyed	100	<b>356597</b>	
	brown F5	dyed	100	<b>354675</b>	
	chrome-look	metallised	100	<b>354676</b>	
	black	dyed	100	<b>356598</b>	
	gold look	metallised	100	<b>354671</b>	



## 8.9 Accessories for scissor stay hinges






94491

8.9.1 Scissor stay hinge pin AS/DTuni/PVC				
silver		200	94491	97553*

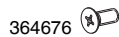


364716

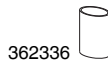
8.9.2 Dust cover caps for scissor stay hinges MULTI MAMMUT				
traffic white RAL 9016	dyed	100	364716	
pearl light grey RAL 9022	dyed	100	364565	
titanium	dyed	100	367812	






364675



364676



362336

8.9.3 Accessories for scissor stay hinges MULTI MAMMUT				
silver	scissor stay hinge pin safety device for scissor stay hinge 180 kg	20	364675	
	countersunk screw M5x12 for slide-over lock for scissor stay hinge pin	20	364676	
traffic white RAL 9016	scissor stay hinge pin safety device for scissor stay hinge 180 kg	20	364677	
	countersunk screw M5x12 for slide-over lock for scissor stay hinge pin	20	364678	
white	clip-on bush 10 mm, Multi Mammut fittings	50	362336	



## 9 Pivot posts







































---

9.1	Matrix for pivot posts and corner supports	246
9.2	Pivot posts PVC	248
9.3	Pivot posts AS (surface-mounted)	252
9.4	Pivot posts DT	254
9.5	Pivot posts MULTI MAMMUT	259
9.6	Pivot posts TV	261
9.7	Pivot posts INVISIBLE	262
9.8	Pivot posts MULTI POWER	263
9.9	Cover caps	267
9.10	Accessories for pivot posts	273

## 9 Pivot posts

### 9.1 Matrix for pivot posts and corner supports

#### 9.1.1 PVC

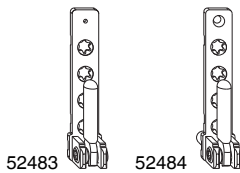
Pivot post	Pivot post with Ø 3 mm positioning pin	Pivot post with Ø 7 mm supporting pins, 3 mm short	Pivot post with Ø 7 mm supporting pins, 12 mm / 23 mm long	Pivot post AS for rebated corner support PVC	Pivot post AS	Pivot post INVISIBLE	Pivot post MULTI POWER	Pivot post MULTI MAMMUT
Corner support								
Corner support PVC with Ø 3 mm positioning pin	 100 kg  max. 2,4 m²	 100 kg  max. 2,4 m²	 100 kg  max. 2,4 m²	--	--	--	--	--
Corner support PVC with Ø 5 mm supporting pins	 100 kg  max. 3,0 m²	 100 kg  max. 3,0 m²	 120 kg  max. 3,0 m²	--	--	--	--	--
Rebated corner support AS/PVC without rebate-leg	 100 kg *  max. 3,0 m²	 100 kg *  max. 3,0 m²	 120 kg *  max. 3,0 m²	 120 kg *  max. 3,0 m²	--	--	--	--
Rebated corner support AS with rebate-leg	--	--	--	--	 120 kg *  max. 3,0 m²	--	--	--
Rebated corner support INVISIBLE	--	--	--	--	--	 100 kg *  max. 2,4 m²	--	--
Rebated corner support MULTI POWER	--	--	--	--	--	--	 150 kg  max. 3,0 m²	--
Rebated corner support MULTI MAMMUT	--	--	--	--	--	--	--	 180 kg  max. 3,6 m²
Corner support PVC MULTI MAMMUT	--	--	--	--	--	--	--	 180 kg  max. 3,6 m²
* Observe max. load or size restrictions (80 kg / 2.4 m²) for certain components!								
Above pivot post / corner support combinations may only be combined with scissor stay hinges of the same bearing type!								

9.1.2 Timber

Pivot post Corner support	Pivot post AS	Pivot post AS for rebated corner support ASI/PVC	Pivot post DT130	Pivot post DT160	Pivot post TV	Pivot post INVISIBLE	Pivot post MULTI POWER	Pivot post MULTI MAMMUT
Rebated corner support AS with rebate-leg 	120 kg max. 3,0 m <sup>2</sup>	--	--	--	--	--	--	--
Rebated corner support ASI/PVC without rebate-leg 	--	120 kg max. 3,0 m <sup>2</sup>	--	--	--	--	--	--
Rebated corner support DT130 without rebate-leg 	--	--	100 kg max. 3,0 m <sup>2</sup>	100 kg max. 3,0 m <sup>2</sup>	--	--	--	--
Rebated corner support DT130 with rebate-leg 	--	--	130 kg max. 3,0 m <sup>2</sup>	130 kg max. 3,0 m <sup>2</sup>	--	--	--	--
Rebated corner support DT160 with rebate-leg 	--	--	--	160 kg max. 3,0 m <sup>2</sup>	--	--	--	--
Rebated corner support TV 	--	--	--	--	100 kg max. 2,4 m <sup>2</sup>	--	--	--
Rebated corner support INVISIBLE 	--	--	--	--	--	100 kg max. 2,4 m <sup>2</sup>	--	--
Rebated corner support MULTI POWER 	--	--	--	--	--	--	150 kg max. 3,0 m <sup>2</sup>	--
Rebated corner support MULTI MAMMUT 	--	--	--	--	--	--	--	220 kg max. 3,6 m <sup>2</sup>
* Observe max. load or size restrictions (80 kg / 2.4 m <sup>2</sup> ) for certain components!								
Above pivot post / corner support combinations may only be combined with scissor stay hinges of the same bearing type!								



## 9.2 Pivot posts PVC

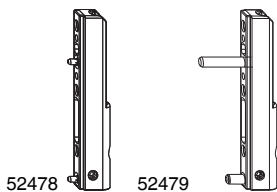


52483

52484

P 9.2.1 Pivot posts PVC		kg		No	No Tricoat
silver	with 3 mm positioning pin	100	100	<b>52483</b>	<b>201084*</b>
	with 7 mm supporting pins 3 mm long	100	100	<b>52485</b>	<b>204613*</b>
	with 7 mm supporting pins 12 mm long	120	100	<b>52764<sup>1</sup></b>	<b>204612<sup>1</sup></b>
	with 7 mm supporting pins 23 mm long	120	100	<b>52484<sup>1</sup></b>	<b>201401<sup>1*</sup></b>
traffic white RAL 9016	with 3 mm positioning pin	100	100	<b>206802</b>	
	with 7 mm supporting pins 3 mm long	100	100	<b>206586</b>	
	with 7 mm supporting pins 12 mm long	120	100	<b>207902<sup>1</sup></b>	
	with 7 mm supporting pins 23 mm long	120	100	<b>207278<sup>1</sup></b>	

<sup>1</sup> Above 100 kg support pin must reach through at least 2 profile walls!



52478

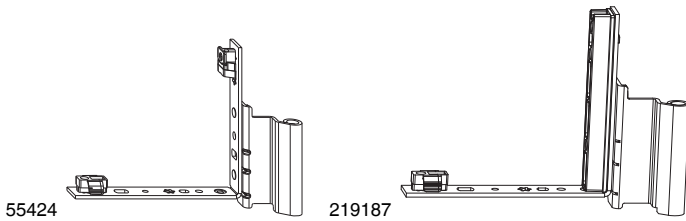
52479

P 9.2.2 Corner supports PVC		kg		No	No Tricoat
silver	with 3 mm positioning pin	100	100	<b>52478<sup>1,2</sup></b>	<b>202647<sup>1,2*</sup></b>
	with 5 mm supporting pin 17 mm long	120	100	<b>206196<sup>1,3</sup></b>	
	with 5 mm supporting pins 23 mm long	120	100	<b>52479<sup>1,3</sup></b>	<b>201400<sup>1,3*</sup></b>
traffic white RAL 9016	with 3 mm positioning pin	100	100	<b>206848<sup>1,2</sup></b>	
	with 5 mm supporting pins 23 mm long	120	100	<b>206584<sup>1,3</sup></b>	

<sup>1</sup> For packers for corner supports refer to accessories for pivot posts PVC.

<sup>2</sup> Maximum sash total surface 2.4 m<sup>2</sup>.

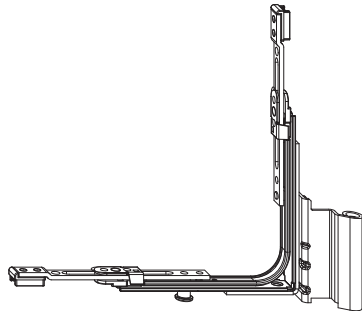
<sup>3</sup> Above 100 kg support pin must reach through at least 2 profile walls!



9.2.3 Rebated corner supports AS/PVC without rebate-leg screw fixing			kg	cube	No	No Tricoat
silver	right	12/18-9	120	100	214391 <sup>1</sup>	215436 <sup>1</sup>
	left	12/18-9	120	100	214392 <sup>1</sup>	215437 <sup>1</sup>
	right	12/18-11	120	100	55424 <sup>1</sup>	204614 <sup>1*</sup>
	left	12/18-11	120	100	55425 <sup>1</sup>	204615 <sup>1*</sup>
	right	12/18-13	120	100	59444 <sup>1</sup>	204616 <sup>1*</sup>
	left	12/18-13	120	100	59443 <sup>1</sup>	204617 <sup>1*</sup>
	right	12/18-26	80	100	58475 <sup>1</sup>	
	left	12/18-26	80	100	58476 <sup>1</sup>	
	right	12/20-9	120	100	54890 <sup>1</sup>	204620 <sup>1</sup>
	left	12/20-9	120	100	54891 <sup>1</sup>	204621 <sup>1</sup>
	right	12/20-13	120	100	54892 <sup>1</sup>	201404 <sup>1*</sup>
	left	12/20-13	120	100	54893 <sup>1</sup>	201405 <sup>1*</sup>
	right	12/20-14	120	100	212967 <sup>1</sup>	
	left	12/20-14	120	100	212968 <sup>1</sup>	
	right	12/20-26	80	100	59916 <sup>1</sup>	
	left	12/20-26	80	100	59917 <sup>1</sup>	
	right	12/22-13	120	100	219187 <sup>1</sup>	
	left	12/22-13	120	100	219188 <sup>1</sup>	
traffic white RAL 9016	right	12/18-11	120	100	207916 <sup>1</sup>	
	left	12/18-11	120	100	207917 <sup>1</sup>	
	right	12/20-9	120	100	207918 <sup>1</sup>	
	left	12/20-9	120	100	207919 <sup>1</sup>	
	right	12/20-13	120	100	207920 <sup>1</sup>	
left	12/20-13	120	100	207921 <sup>1</sup>		

<sup>1</sup> Not for use with half-round or angled windows; use on profile system with overlap gasket upon request.





205664

9.2.4 Rebated corner supports AS/PVC without rebate-leg screw fixing EH with corner element				kg		No	No Tricoat
silver	with 1 i.S.	right	12/18-9	120	20	218155 <sup>1</sup>	
		left	12/18-9	120	20	218156 <sup>1</sup>	
		right	12/18-13	120	20	218159 <sup>1</sup>	218988 <sup>1</sup>
		left	12/18-13	120	20	218160 <sup>1</sup>	218989 <sup>1</sup>
		right	12/18-26	80	20	218161 <sup>1</sup>	
		left	12/18-26	80	20	218162 <sup>1</sup>	
		right	12/20-9	120	20	218163 <sup>1</sup>	
		left	12/20-9	120	20	218164 <sup>1</sup>	
		right	12/20-13	120	20	205664 <sup>1</sup>	207579 <sup>1</sup>
		left	12/20-13	120	20	205665 <sup>1</sup>	207580 <sup>1</sup>
		right	12/20-26	80	20	218165 <sup>1</sup>	
		left	12/20-26	80	20	218166 <sup>1</sup>	

<sup>1</sup> Suitable for half round and angled windows as well as EH.



224282

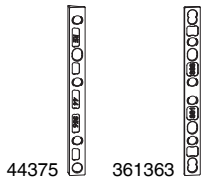
224283

9.2.5 Corner element two-part					No	No Tricoat
silver	corner connector MM bottom for half round			500 - 1.650	20	224282 <sup>1</sup>
	vertically extendable			500 - 1.650	50	224283 <sup>2</sup>





<sup>1</sup> When used for half round windows also item no. 224283.

<sup>2</sup> When used for half round windows also item no. 224282.

9.2.6 Accessories for pivot posts PVC

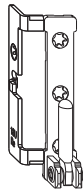


9.2.6.1 Packers for corner supports PVC

							
silver	5°				100	<b>361364</b>	
white	5 mm	8,4	right		100	<b>44375</b>	
			left		100	<b>44374</b>	
	5°				100	<b>361363</b>	
brown F5	5 mm	8,4	right		100	<b>363288</b>	
			left		100	<b>363289</b>	



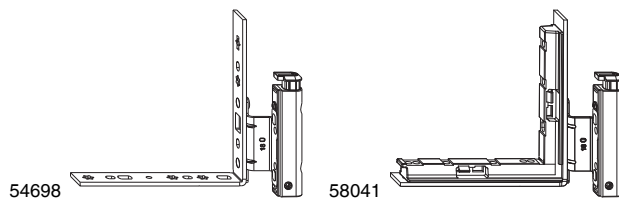
### 9.3 Pivot posts AS (surface-mounted)



214104

9.3.1 Surface-mounted pivot posts for rebated corner supports AS/PVC without rebate-leg screw fixing				kg		No	No Tricoat
silver	right	12/18	120	50	214104 <sup>1</sup>	218986 <sup>1</sup>	
	left	12/18	120	50	214105 <sup>1</sup>	218987 <sup>1</sup>	
	right	12/20	120	50	214106 <sup>1</sup>	224271 <sup>1</sup>	
	left	12/20	120	50	214107 <sup>1</sup>	224272 <sup>1</sup>	
traffic white RAL 9016	right	12/18	120	50	214112 <sup>1</sup>		
	left	12/18	120	50	214113 <sup>1</sup>		
	right	12/20	120	50	214114 <sup>1</sup>		
	left	12/20	120	50	214115 <sup>1</sup>		

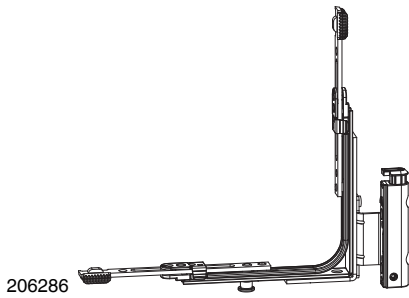
<sup>1</sup> Suitable only with rebated corner support AS/PVC without rebate-leg screw fixing.



9.3.2 Surface-mounted rebated corner supports with rebate-leg screw fixing				kg		No	No Tricoat	
silver	with rebate-leg screw-fixing	right	12/18-9	120	50	54698 <sup>1</sup>	204606 <sup>1</sup>	
		left	12/18-9	120	50	54699 <sup>1</sup>	204607 <sup>1</sup>	
		right	12/18-11	120	50	206996 <sup>1</sup>		
		left	12/18-11	120	50	206997 <sup>1</sup>		
		right	12/18-13	120	50	54700 <sup>1</sup>	204608 <sup>1</sup>	
		left	12/18-13	120	50	54701 <sup>1</sup>	204603 <sup>1</sup>	
		right	12/20-9	120	50	54702 <sup>1</sup>		
		left	12/20-9	120	50	54703 <sup>1</sup>		
		right	12/20-13	120	50	54704 <sup>1</sup>	202520 <sup>1</sup>	
		left	12/20-13	120	50	54705 <sup>1</sup>	202521 <sup>1</sup>	
		pre-assembled spacer bar for corner hinge	right	12/18-9	120	50	58041 <sup>1,2</sup>	
			left	12/18-9	120	50	58042 <sup>1,2</sup>	
			right	12/20-13	120	50	222168 <sup>1,2</sup>	
			left	12/20-13	120	50	222169 <sup>1,2</sup>	
traffic white RAL 9016	with rebate-leg screw-fixing	right	12/18-9	120	50	207922 <sup>1</sup>		
		left	12/18-9	120	50	207923 <sup>1</sup>		
		right	12/18-11	120	50	207924 <sup>1</sup>		
		left	12/18-11	120	50	207925 <sup>1</sup>		
		right	12/18-13	120	50	207926 <sup>1</sup>		
		left	12/18-13	120	50	207927 <sup>1</sup>		
		right	12/20-9	120	50	207928 <sup>1</sup>		
		left	12/20-9	120	50	207929 <sup>1</sup>		
		right	12/20-13	120	50	207930 <sup>1</sup>		
		left	12/20-13	120	50	207931 <sup>1</sup>		
		pre-assembled spacer bar for corner hinge	right	12/20-13	120	50	207932 <sup>1,2</sup>	
			left	12/20-13	120	50	207933 <sup>1,2</sup>	

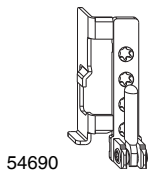
<sup>1</sup> Use on profile systems with overlap gasket upon request.

<sup>2</sup> Not suitable for half round and angled windows.



9.3.3 Surface-mounted rebated corner supports with rebate-leg screw fixing EH with corner element			kg		No	No Tricoat
silver	with 1 i.S.	right 12/18-9	120	20	206286 <sup>1</sup>	
		left 12/18-9	120	20	206287 <sup>1</sup>	
	right 12/18-13	120	20	206288 <sup>1</sup>	207585 <sup>1</sup>	
	left 12/18-13	120	20	206289 <sup>1</sup>	207586 <sup>1</sup>	
	right 12/20-9	120	20	206290 <sup>1</sup>		
	left 12/20-9	120	20	206291 <sup>1</sup>	207588 <sup>1</sup>	
	right 12/20-13	120	20	206292 <sup>1</sup>		
	left 12/20-13	120	20	206293 <sup>1</sup>		

<sup>1</sup> Suitable for half round and angled windows as well as EH.

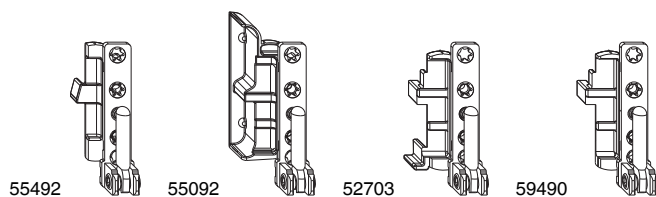


9.3.4 Surface-mounted pivot posts for surface-mounted rebated corner supports with rebate-leg screw fixing			kg		No	No Tricoat
silver	right 12/18	120	50	54690 <sup>1</sup>	204604 <sup>1</sup>	
	left 12/18	120	50	54691 <sup>1</sup>	204605 <sup>1</sup>	
	right 12/20	120	50	54692 <sup>1</sup>	202522 <sup>1</sup>	
	left 12/20	120	50	54693 <sup>1</sup>	202523 <sup>1</sup>	
traffic white RAL 9016	right 12/18	120	50	207904 <sup>1</sup>		
	left 12/18	120	50	207905 <sup>1</sup>		
	right 12/20	120	50	207906 <sup>1</sup>		
	left 12/20	120	50	207907 <sup>1</sup>		

<sup>1</sup> Only suitable with rebated corner support AS with rebate-leg screw fixing!



## 9.4 Pivot posts DT



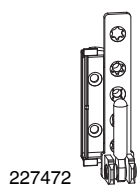
T 9.4.1 Pivot posts DT130		kg		No		No Tricoat		
silver	right	4/15	130	50	55492 <sup>1</sup>			
	left	4/15	130	50	55493 <sup>1</sup>			
	right	4/18	130	50	55092 <sup>1,2,3</sup>	204785 <sup>1,2,3</sup>		
	left	4/18	130	50	55093 <sup>1,2,3</sup>	204786 <sup>1,2,3</sup>		
	right	12/18	130	50	52703 <sup>1</sup>	201601 <sup>1*</sup>		
	left	12/18	130	50	52704 <sup>1</sup>	202311 <sup>1*</sup>		
	right	12/20	130	50	54726 <sup>1</sup>	204787 <sup>1*</sup>		
	left	12/20	130	50	54727 <sup>1</sup>	204788 <sup>1*</sup>		
	for balcony doors		right	12/18	130	50	59490 <sup>1</sup>	204125 <sup>1*</sup>
			left	12/18	130	50	59491 <sup>1</sup>	204126 <sup>1*</sup>
			right	12/20	130	50	58601 <sup>1</sup>	213221 <sup>1</sup>
			left	12/20	130	50	58602 <sup>1</sup>	213222 <sup>1</sup>
	traffic white RAL 9016	right	4/15	130	50	207908 <sup>1</sup>		
		left	4/15	130	50	207909 <sup>1</sup>		
right		4/18	130	50	207910 <sup>1,4</sup>			
left		4/18	130	50	207911 <sup>1,4</sup>			
right		12/18	130	50	207912 <sup>1</sup>			
left		12/18	130	50	207913 <sup>1</sup>			
right		12/20	130	50	207914 <sup>1</sup>			
left		12/20	130	50	207915 <sup>1</sup>			

<sup>1</sup> For sash weights above 100 kg or a dry density below 0.62 g/cm<sup>3</sup>, insert a countersunk head screw 4 x 40 mm flush below the pivot post!

<sup>2</sup> For milling depth 24.5 mm, use packer item no. 360464!

<sup>3</sup> For milling depth 22 mm, use packer item no. 366541!

<sup>4</sup> For milling depth 24.5 mm, use packer item no. 360465!

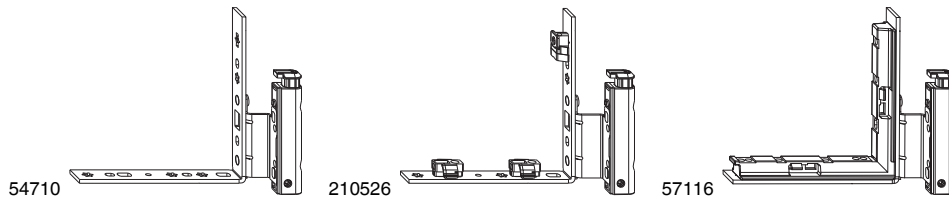


227472

T 9.4.2 Pivot posts DT160		kg		No		No Tricoat	
silver	right	4/15	160	50	227472 <sup>1</sup>		
	left	4/15	160	50	227473 <sup>1</sup>		
	right	4/18	160	50	227474 <sup>1</sup>		
	left	4/18	160	50	227475 <sup>1</sup>		
	right	12/18	160	50	227476 <sup>1</sup>		
	left	12/18	160	50	227477 <sup>1</sup>		
	right	12/20	160	50	227478 <sup>1</sup>		
	left	12/20	160	50	227479 <sup>1</sup>		

<sup>1</sup> Use support rawplug item no. 369535 for a sash weight above 100 kg for windows and balcony doors! For balcony doors between 100 - 130 kg, a support screw may be used alternatively!

9.4.3 Rebated corner supports DT



T

9.4.3.1 Rebated corner supports DT130 with rebate-leg screw fixing



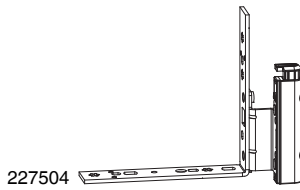
No

No  
Tricoat

Color	Mounting Type	Side	Profile	kg	Box	No	No Tricoat	
silver	with rebate-leg screw-fixing	right	4/15-9	130	50	55494		
		left	4/15-9	130	50	55495		
		right	4/18-9	130	50	220048	204797	
		left	4/18-9	130	50	220051	204798	
		right	4/18-13	130	50	207870		
		left	4/18-13	130	50	207871		
		right	12/18-9	130	50	54710	201602*	
		left	12/18-9	130	50	54711	202310*	
		right	12/18-13	130	50	55452	204808*	
		left	12/18-13	130	50	55453	204809*	
		right	12/20-9	130	50	54712	204810*	
		left	12/20-9	130	50	54713	204811*	
		right	12/20-13	130	50	220045	204812*	
		left	12/20-13	130	50	220046	204813*	
		with rebate-leg screw-fixing for Eurogroove	right	4/18-9	130	50	210526	
	left		4/18-9	130	50	210527		
	right		4/18-13	130	50	210524		
	left		4/18-13	130	50	210525		
	with rebate-leg screw-fixing and pre-assembled spacer for rebated corner hinge		right	12/18-9	130	50	57116	218938
			left	12/18-9	130	50	57117	218937
		right	12/18-11	130	50	201016	204799*	
		left	12/18-11	130	50	201017	204800*	
		right	12/18-13	130	50	209594	211096	
		left	12/18-13	130	50	209595	211097	
		right	12/20-13	130	50	214774		
		left	12/20-13	130	50	214775		
		right	12/18-14	130	50	206994		
		left	12/18-14	130	50	206995		
	traffic white RAL 9016	with rebate-leg screw-fixing	right	4/15-9	130	50	207940	
			left	4/15-9	130	50	207941	
right			4/18-9	130	50	207942		
left			4/18-9	130	50	207943		
right			4/18-13	130	50	207872		
left			4/18-13	130	50	207873		
right			12/18-9	130	50	207944		
left			12/18-9	130	50	207945		
right			12/18-13	130	50	207946		
left			12/18-13	130	50	207947		
right			12/20-9	130	50	207948		
left			12/20-9	130	50	207949		
right			12/20-13	130	50	213683		
left			12/20-13	130	50	213684		
with rebate-leg screw-fixing for Eurogroove			right	4/18-13	130	50	218074	
			left	4/18-13	130	50	218075	
with rebate-leg screw-fixing and pre-assembled spacer for rebated corner hinge			right	12/18-11	130	50	209500	
			left	12/18-11	130	50	209501	
	right	12/18-13	130	50	211720			
	left	12/18-13	130	50	211721			

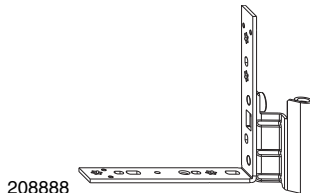


\* TRICOAT-PLUS standard parts



227504

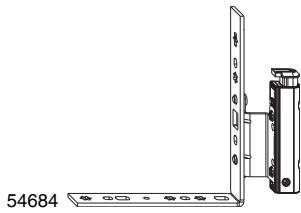
<b>T 9.4.3.2 Rebated corner supports DT160 with rebate-leg screw fixing</b>						<b>No</b>	<b>No</b> Tricoat		
silver	with rebate-leg screw-fixing	right	4/15-9	160	50	<b>227496</b>			
		left	4/15-9	160	50	<b>227497</b>			
		right	4/18-9	160	50	<b>227498</b>			
		left	4/18-9	160	50	<b>227499</b>			
		right	4/18-13	160	50	<b>227500</b>			
		left	4/18-13	160	50	<b>227501</b>			
		right	12/18-9	160	50	<b>227502</b>			
		left	12/18-9	160	50	<b>227503</b>			
		right	12/18-11	160	50	<b>228961</b>			
		left	12/18-11	160	50	<b>228962</b>			
		right	12/18-13	160	50	<b>227504</b>			
		left	12/18-13	160	50	<b>227505</b>			
		right	12/20-9	160	50	<b>227506</b>			
		left	12/20-9	160	50	<b>227507</b>			
		right	12/20-13	160	50	<b>227508</b>			
		left	12/20-13	160	50	<b>227509</b>			
			with rebate-leg screw-fixing and pre-assembled spacer for rebated corner hinge	right	12/18-13	160	50	<b>227510</b>	
				left	12/18-13	160	50	<b>227511</b>	



208888

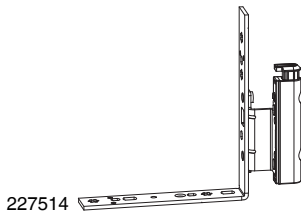
<b>T 9.4.3.3 Rebated corner supports DTuni without rebate-leg screw fixing</b>						<b>No</b>	<b>No</b> Tricoat
silver	right	4/18-9	100	50	<b>55097</b>		
	left	4/18-9	100	50	<b>55098</b>		
	right	12/18-9	100	50	<b>52706</b>	<b>204791</b>	
	left	12/18-9	100	50	<b>52707</b>	<b>204792</b>	
	right	12/18-13	100	50	<b>208888<sup>1</sup></b>		
	left	12/18-13	100	50	<b>208889<sup>1</sup></b>		
	right	12/20-9	100	50	<b>54728</b>	<b>204793</b>	
	left	12/20-9	100	50	<b>54729</b>	<b>204794</b>	
	right	12/20-13	100	50	<b>212209<sup>1</sup></b>	<b>224634<sup>1</sup></b>	
	left	12/20-13	100	50	<b>212210<sup>1</sup></b>	<b>224635<sup>1</sup></b>	
	traffic white RAL 9016	right	4/18-9	100	50	<b>207934</b>	
		left	4/18-9	100	50	<b>207935</b>	
		right	12/18-9	100	50	<b>207936</b>	
		left	12/18-9	100	50	<b>207937</b>	
right		12/20-9	100	50	<b>207938</b>		
left		12/20-9	100	50	<b>207939</b>		

<sup>1</sup> When using spacer for rebated corner hinge item no. 44234, one vertical screw hole omits.



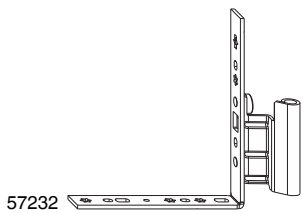
54684

<b>9.4.3.4 Rebated corner supports DT130 for casement doors with rebate-leg screw fixing</b>						<b>No</b>	<b>No</b> Tricoat	
T	silver	for balcony doors with rebate-leg screw-fixing	right	12/18-9	130	50	<b>54684</b>	<b>204122</b>
			left	12/18-9	130	50	<b>54685</b>	<b>204123</b>
			right	12/18-13	130	50	<b>209411</b>	<b>214059*</b>
			left	12/18-13	130	50	<b>209412</b>	<b>214060*</b>
			right	12/20-9	130	50	<b>54688</b>	<b>212588</b>
			left	12/20-9	130	50	<b>54689</b>	<b>213223</b>
			right	12/20-13	130	50	<b>209413</b>	
			left	12/20-13	130	50	<b>209414</b>	



227514

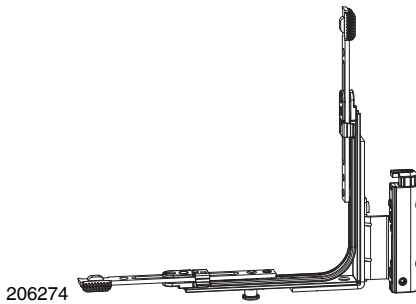
<b>9.4.3.5 Rebated corner supports DT160 for casement doors with rebate-leg screw fixing</b>						<b>No</b>	<b>No</b> Tricoat	
T	silver	for balcony doors with rebate-leg screw-fixing	right	12/18-9	160	50	<b>227512</b>	
			left	12/18-9	160	50	<b>227513</b>	
			right	12/18-13	160	50	<b>227514</b>	
			left	12/18-13	160	50	<b>227515</b>	
			right	12/20-9	160	50	<b>227516</b>	
			left	12/20-9	160	50	<b>227517</b>	
			right	12/20-13	160	50	<b>227518</b>	
			left	12/20-13	160	50	<b>227519</b>	



57232

<b>9.4.3.6 Rebated corner supports DTuni for casement doors without rebate-leg screw fixing</b>						<b>No</b>	<b>No</b> Tricoat	
T	silver	for balcony doors	right	12/18-9	100	50	<b>57232</b>	
			left	12/18-9	100	50	<b>57233</b>	
			right	12/18-13	100	50	<b>209407<sup>1</sup></b>	
			left	12/18-13	100	50	<b>209408<sup>1</sup></b>	
			right	12/20-13	100	50	<b>209409<sup>1</sup></b>	
			left	12/20-13	100	50	<b>209410<sup>1</sup></b>	

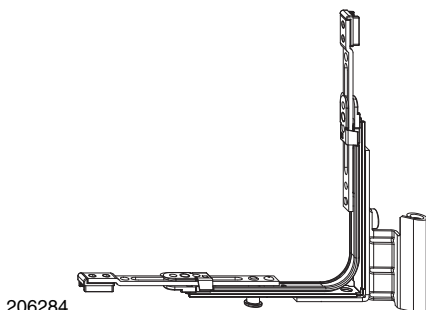
<sup>1</sup> When using spacer for rebated corner hinge item no. 44234, one vertical screw hole omits.



206274

T	9.4.3.7 Rebated corner supports DTuni with rebate-leg screw fixing EH with corner element		kg		No		No	
	silver	with 1 i.S.					Tricoat	
			right	4/15-9	130	20	224284 <sup>1</sup>	
			left	4/15-9	130	20	224285 <sup>1</sup>	
			right	4/18-13	130	20	214908 <sup>1</sup>	
			left	4/18-13	130	20	214910 <sup>1</sup>	
			right	12/18-9	130	20	206274 <sup>1</sup>	207593 <sup>1</sup>
			left	12/18-9	130	20	206275 <sup>1</sup>	207594 <sup>1</sup>
			right	12/18-11	130	20	207065 <sup>1</sup>	207595 <sup>1</sup>
			left	12/18-11	130	20	207066 <sup>1</sup>	207596 <sup>1</sup>
			right	12/18-13	130	20	206276 <sup>1</sup>	208315 <sup>1</sup>
			left	12/18-13	130	20	206277 <sup>1</sup>	208316 <sup>1</sup>
			right	12/20-9	130	20	206278 <sup>1</sup>	207597 <sup>1</sup>
			left	12/20-9	130	20	206279 <sup>1</sup>	207598 <sup>1</sup>
			right	12/20-13	130	20	206280 <sup>1</sup>	207599 <sup>1</sup>
			left	12/20-13	130	20	206281 <sup>1</sup>	207600 <sup>1</sup>

<sup>1</sup> Suitable for half round and angled windows as well as EH.

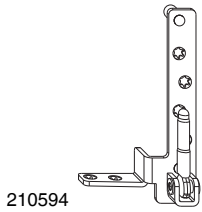


206284

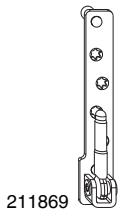
T	9.4.3.8 Rebated corner supports DTuni without rebate-leg screw fixing EH with corner element		kg		No		No	
	silver	with 1 i.S.					Tricoat	
			right	4/18-9	100	20	206284 <sup>1</sup>	
			left	4/18-9	100	20	206285 <sup>1</sup>	
			right	12/18-9	100	20	208773 <sup>1</sup>	
			left	12/18-9	100	20	208774 <sup>1</sup>	
			right	12/18-13	100	20	208793 <sup>1</sup>	217668 <sup>1</sup>
			left	12/18-13	100	20	208794 <sup>1</sup>	217669 <sup>1</sup>
			right	12/20-9	100	20	208775 <sup>1</sup>	
				12/20-13	100	20	208795 <sup>1</sup>	
			left	12/20-13	100	20	208796 <sup>1</sup>	

<sup>1</sup> Suitable for half round and angled windows as well as EH.

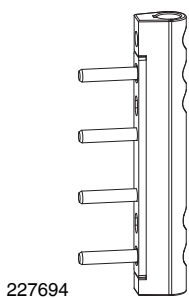
## 9.5 Pivot posts MULTI MAMMUT



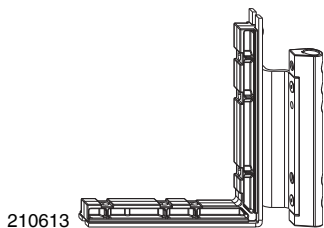
				kg		No	No Tricoat		
<b>T</b> 9.5.1	Pivot posts for timber MULTI MAMMUT	silver	with 9 mm supporting pins	right	12/18	220	20	210594	223053
			left	12/18	220	20	210595	223054	
		traffic white RAL 9016	with 9 mm supporting pins	right	12/20	220	20	210605	223055
				left	12/20	220	20	210606	223056
		silver	with 9 mm supporting pins	right	12/18	220	20	222500	
				left	12/18	220	20	222501	
		traffic white RAL 9016	with 9 mm supporting pins	right	12/20	220	20	222502	
				left	12/20	220	20	222503	





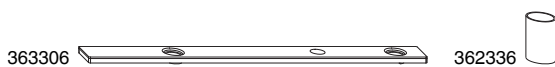
				kg		No	No Tricoat		
<b>P</b> 9.5.2	Pivot posts for PVC MULTI MAMMUT	silver	with 9 mm supporting pins	right	12/18 12/20	180	20	211869	217765
				left	12/18 12/20	180	20	211870	217766
		traffic white RAL 9016	with 9 mm supporting pins	right	12/18 12/20	180	20	212540	
				left	12/18 12/20	180	20	212541	




				kg		No	No Tricoat
<b>P</b> 9.5.3	Corner supports PVC MULTI MAMMUT	silver	with 5 mm supporting pins 23 mm long	180	20	227694	227696
		traffic white RAL 9016	with 5 mm supporting pins 23 mm long	180	20	227695	

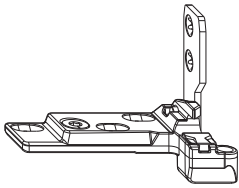


<b>9.5.4 Rebated corner supports MULTI MAMMUT</b>					<b>No</b>	<b>No</b> Tricoat
silver	pre-assembled spacer bar for corner hinge	right 12/18-9	220	20	<b>210613</b>	<b>223059</b>
		left 12/18-9	220	20	<b>210614</b>	<b>223060</b>
		right 12/18-13	220	20	<b>210611</b>	<b>223057</b>
		left 12/18-13	220	20	<b>210612</b>	<b>223058</b>
		right 12/20-9	220	20	<b>210617</b>	<b>223063</b>
		left 12/20-9	220	20	<b>210618</b>	<b>223064</b>
		right 12/20-13	220	20	<b>210615</b>	<b>223061</b>
		left 12/20-13	220	20	<b>210616</b>	<b>223062</b>
traffic white RAL 9016	pre-assembled spacer bar for corner hinge	right 12/18-9	220	20	<b>222506</b>	
		left 12/18-9	220	20	<b>222507</b>	
		right 12/18-13	220	20	<b>222504</b>	
		left 12/18-13	220	20	<b>222505</b>	
		right 12/20-9	220	20	<b>222510</b>	
		left 12/20-9	220	20	<b>222511</b>	
		right 12/20-13	220	20	<b>222508</b>	
		left 12/20-13	220	20	<b>222509</b>	



<b>9.5.5 Accessories for pivot posts MULTI MAMMUT</b>				<b>No</b>	<b>No</b> Tricoat
silver	packer for rebated corner support Multi Mammut	2 mm	50	<b>363306</b>	
		3 mm	50	<b>363307</b>	
white	clip-on bush 10 mm, Multi Mammut fittings		50	<b>362336</b>	

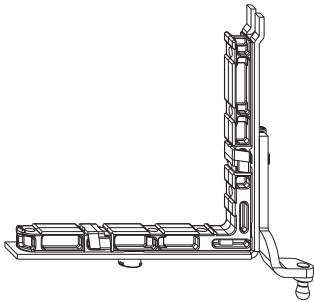
## 9.6 Pivot posts TV



55291

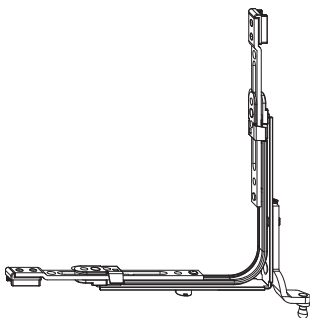
T 9.6.1 Pivot posts TV timber			kg		No	No Tricoat
silver	right	Euro-rebate 24 mm rebate depth 13 mm offset	100	50	55291 <sup>1</sup>	
	left	Euro-rebate 24 mm rebate depth 13 mm offset	100	50	55292 <sup>1</sup>	

<sup>1</sup> Available for PVC windows upon request.



58131

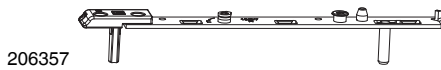
9.6.2 Rebated corner supports TV			kg		No	No Tricoat
silver	right	13 mm offset	100	50	58131	
	left	13 mm offset	100	50	58132	



206163

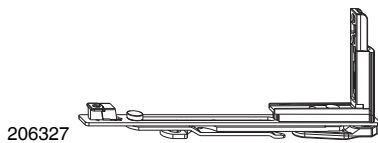
9.6.3 Rebated corner supports TV with corner element			kg		No	No Tricoat
silver	right	13 mm offset	60	10	206163	
	left	13 mm offset	60	10	206165	

## 9.7 Pivot posts INVISIBLE



206357

9.7.1 Pivot posts INVISIBLE					kg		No	No Tricoat
silver	screw axis 12 mm	right	9 mm offset	timber rebate depth 18 mm	80	20	<b>212659</b>	
		left	9 mm offset	timber rebate depth 18 mm	80	20	<b>212660</b>	
	screw axis 13 mm	right	9 mm offset	timber rebate depth 20 mm	100	20	<b>206357</b>	
		left	9 mm offset	timber rebate depth 20 mm	100	20	<b>206358</b>	



206327

9.7.2 Rebated corner supports INVISIBLE					kg		No	No Tricoat
silver	timber rebate depth 18 mm	right	9 mm offset		80	20	<b>212663</b>	
		left	9 mm offset		80	20	<b>212664</b>	
	timber rebate depth 20 mm	right	9 mm offset		100	20	<b>206327</b>	
		left	9 mm offset		100	20	<b>206328</b>	



465315

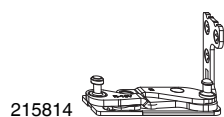
9.7.3 Accessories INVISIBLE							No	No Tricoat
white	clip-on bush 8 mm, Invisible				400		<b>465315</b>	

## 9.8 Pivot posts MULTI POWER

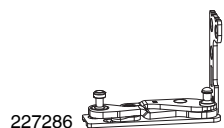


T	9.8.1 Pivot posts for timber MULTI POWER				kg	20	No	No Tricoat
	silver							
		right	timber 24 mm rebate depth 9 mm offset		150	20	215812 <sup>1</sup>	218883 <sup>1*</sup>
		left	timber 24 mm rebate depth 9 mm offset		150	20	215813 <sup>1</sup>	218884 <sup>1*</sup>
		right	timber 24 mm rebate depth 13 mm offset		150	20	215810 <sup>1</sup>	218885 <sup>1*</sup>
		left	timber 24 mm rebate depth 13 mm offset		150	20	215811 <sup>1</sup>	218886 <sup>1*</sup>
		right	timber 30 mm rebate depth 13 mm offset		150	20	214252 <sup>1</sup>	218887 <sup>1*</sup>
		left	timber 30 mm rebate depth 13 mm offset		150	20	214253 <sup>1</sup>	218888 <sup>1*</sup>

<sup>1</sup> Use support rawlplug item no. 36668 for sash weights over 100 kg.

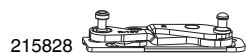


P	9.8.2 Pivot posts for PVC MULTI POWER				kg	20	No	No Tricoat
	silver							
		right	PVC 30 mm rebate depth 9 mm offset		150	20	215816	
		left	PVC 30 mm rebate depth 9 mm offset		150	20	215817	
		right	PVC 30 mm rebate depth 13 mm offset		150	20	215814	218891*
		left	PVC 30 mm rebate depth 13 mm offset		150	20	215815	218892*



P	9.8.3 Pivot posts for PVC MULTI POWER for thresholds				kg	20	No	No Tricoat
	silver	for threshold						
		right	13 mm offset	PVC	150	20	227286 <sup>1</sup>	
		left	13 mm offset	PVC	150	20	227287 <sup>1</sup>	

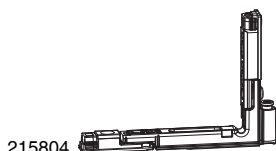
<sup>1</sup> Observe assembly instructions and restrictions for thresholds of type Grundmeier KG Combi, Eifel TB and Profine A075 or A076!



T	9.8.4 Pivot posts for 3-sashed windows for timber MULTI POWER				kg	20	No	No Tricoat
	silver							
		right	timber 24 mm rebate depth 9 mm offset		80	20	215830	218893
		left	timber 24 mm rebate depth 9 mm offset		80	20	215831	218894
		right	timber 24 mm rebate depth 13 mm offset		80	20	215828	218895
		left	timber 24 mm rebate depth 13 mm offset		80	20	215829	218896

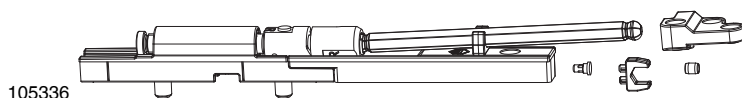


<b>9.8.5 Pivot posts for 3-sashed windows for PVC MULTI POWER</b>				kg		No	No Tricoat
silver	right	PVC 30 mm rebate depth 9 mm offset	80	20	<b>215834</b>		
	left	PVC 30 mm rebate depth 9 mm offset	80	20	<b>215835</b>		
	right	PVC 30 mm rebate depth 13 mm offset	80	20	<b>215832</b>	<b>218899</b>	
	left	PVC 30 mm rebate depth 13 mm offset	80	20	<b>215833</b>	<b>218900</b>	

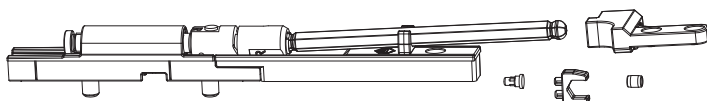


<b>9.8.6 Rebated corner supports MULTI POWER</b>				kg		No	No Tricoat
silver	right	9 mm offset	150	20	<b>215806</b>	<b>218879*</b>	
	left	9 mm offset	150	20	<b>215807</b>	<b>218880*</b>	
	right	13 mm offset	150	20	<b>215804</b>	<b>218881*</b>	
	left	13 mm offset	150	20	<b>215805</b>	<b>218882*</b>	

### 9.8.7 Load transfer MULTI POWER



105336



105338

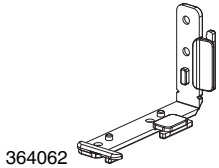
<b>9.8.7.1 Load transfer MULTI POWER</b>				kg		No	No Tricoat
silver	right	FT24	180	10	<b>105336</b>	<b>105574</b>	
	left	FT24	180	10	<b>105339</b>	<b>105787</b>	
	right	FT30	180	10	<b>105338</b>	<b>105575</b>	
	left	FT30	180	10	<b>105337</b>	<b>105788</b>	



<b>9.8.7.2 Accessories for load transfer MULTI POWER</b>					No	No Tricoat
seal for load transfer Multi Power				500	<b>371446</b>	
installation aid for load transfer Multi Power				50	<b>371447</b>	
centre-fixing for load transfer Multi Power				50	<b>371632</b>	

\* TRICOAT-PLUS standard parts

9.8.8 Packers MULTI POWER



364062



9.8.8.1 Packers MULTI POWER for PVC profiles



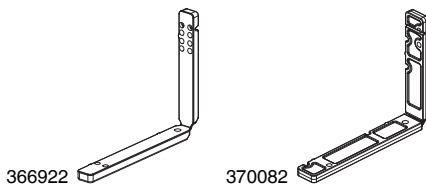
No

No  
Tricoat

grey F1	type01 for Multi Power	Aluplast AD 2000, Veka Softline 70 AD + MD + Topline + Swingline, Brüggmann AD + MD, Alphacan System Alpha 70 + 80, Schüco Corona CT70 / SI 82, Salamander bluEvolution 82 AD + MD	pivot post left/scissor stay hinge right	100	364063	
			pivot post right/scissor stay hinge left	100	364062	
	type02 for Multi Power	Aluplast AD 4000, Aluplast MD 5000 + 6000 + 8000, Schüco Corona AS	pivot post left/scissor stay hinge right	100	364065	
			pivot post right/scissor stay hinge left	100	364064	
	type03 for Multi Power	Salamander bluEvolution 92 + System 76 MD, Gromathic AD 3100	pivot post left/scissor stay hinge right	100	364067	
			pivot post right/scissor stay hinge left	100	364066	
	type04 for Multi Power	Rehau S730 + Brilliant Design AD + Clima Design, Kompen Termoline	pivot post left/scissor stay hinge right	100	364069	
			pivot post right/scissor stay hinge left	100	364068	
	type05 for Multi Power	Profine Trocal Innonova 70 A3/A5/M5	pivot post left/scissor stay hinge right	100	364071	
			pivot post right/scissor stay hinge left	100	364070	
	type06 for Multi Power	Gealan S7000 + S8000 + S9000	pivot post left/scissor stay hinge right	100	364073	
			pivot post right/scissor stay hinge left	100	364072	
	type07 for Multi Power	Salamander 2D + 3D + MD + Streamline 76	pivot post left/scissor stay hinge right	100	364075	
			pivot post right/scissor stay hinge left	100	364074	
	type08 for Multi Power	Rehau Geneo MD + Brilliant Design MD + Thermo Design	pivot post left/scissor stay hinge right	100	364077	
			pivot post right/scissor stay hinge left	100	364076	
	type09 for Multi Power	Profine Trocal System 88 + Innonova 2000	pivot post left/scissor stay hinge right	100	364175 <sup>1</sup>	
			pivot post right/scissor stay hinge left	100	364174 <sup>1</sup>	
	type10 for Multi Power	Aluplast Energeto 5000 + 8000	pivot post left/scissor stay hinge right	100	364177	
			pivot post right/scissor stay hinge left	100	364176	
	type11 for Multi Power	Inoutic AD	pivot post left/scissor stay hinge right	100	364179	
			pivot post right/scissor stay hinge left	100	364178	
	type12 for Multi Power	Inoutic Prestige MD	pivot post left/scissor stay hinge right	100	364181 <sup>1</sup>	
			pivot post right/scissor stay hinge left	100	364180 <sup>1</sup>	
	type13 for Multi Power	Kömmerling Eurofutur AD + MD + 3S + MPF, KBE 70 AD + MD	pivot post left/scissor stay hinge right	100	366340	
			pivot post right/scissor stay hinge left	100	366339	
	type14 for Multi Power	KB07 KBE 70 AD, KB08 KBE 70 MD, KB13 KBE System 88, Trocal 76 AD; Deceuninck Zendow	pivot post left/scissor stay hinge right	100	367263	
			pivot post right/scissor stay hinge left	100	367262	
	type15 for Multi Power	Wymar 3000 AD + MD	pivot post left/scissor stay hinge right	100	367848	
			pivot post right/scissor stay hinge left	100	367847	
	type16 for Multi Power	Swish 24-7 / Profile 22	pivot post left/scissor stay hinge right	100	368311	
			pivot post right/scissor stay hinge left	100	368310	
	type17 for Multi Power	Deceuninck Zendow Kämpfer; Roplasto	pivot post left/scissor stay hinge right	100	369288	
			pivot post right/scissor stay hinge left	100	369287	
	type18 for Multi Power	Eurocell TBT	pivot post left/scissor stay hinge right	100	370031	
			pivot post right/scissor stay hinge left	100	370030	
	type19 for Multi Power	Profile 22 Optima	pivot post left/scissor stay hinge right	100	370466	
			pivot post right/scissor stay hinge left	100	370465	
	type20 for Multi Power	Eurocell und Eurologic 70	pivot post left/scissor stay hinge right	100	370600	
			pivot post right/scissor stay hinge left	100	370599	
	type21 for Multi Power	HL Plastics Liniar	pivot post left/scissor stay hinge right	100	370602	
			pivot post right/scissor stay hinge left	100	370601	
	type22 for Multi Power	Synseal Synerjy	pivot post left/scissor stay hinge right	100	370506	
			pivot post right/scissor stay hinge left	100	370505	

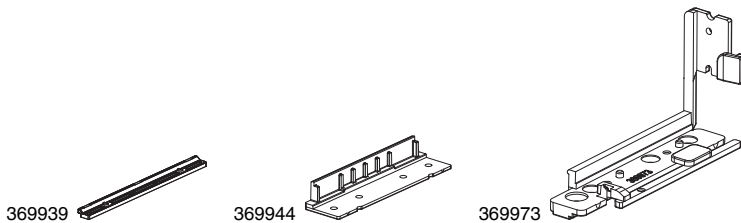
<sup>1</sup> Use pivot post MULTI POWER timber 24 mm rebate depth.



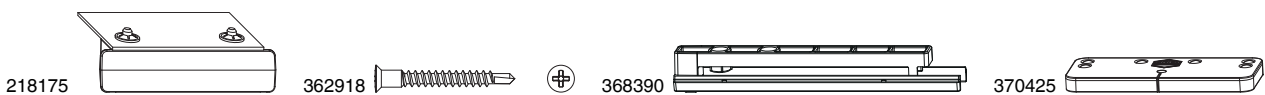


9.8.8.2 Packers MULTI POWER for Alu profiles					No	No Tricoat
pearl light grey RAL 9022	groove 10/14	Heraol	pivot post and scissor stay hinge MULTI POWER	100	366922 <sup>1</sup>	
F1	groove 14/18	Aluprof, Alumil, Aliplast, Blyweert, Ponzio, Yawal, Feal T85, Cortizio 3500, Bauxal	pivot post and scissor stay hinge MULTI POWER	100	370082 <sup>1</sup>	

<sup>1</sup> Use pivot post MULTI POWER timber 24 mm rebate depth.



9.8.8.3 Packers MULTI POWER for thresholds					No	No Tricoat
pearl light grey RAL 9022		GKG Grundmeier	for threshold	20	369939	
		Roto Gluske BKV Eifel TB	for threshold	20	369944	
		Trocal Alu und GFK	for threshold	20	369945	
	right	VEKA	for threshold	20	369973	
	left	VEKA	for threshold	20	369974	



9.8.9 Accessories MULTI POWER		Ø	L		No	No Tricoat
grey F1	mounting cover for pivot post MULTI POWER right/left			5	218175	
silver	special drill screw Multi Power Phillips	4,5	32	1.000	364563 <sup>1</sup>	
	special drill screw Multi Power T20	4,5	38	500	362918	105152*
	support rawlplug Multi Power timber		19	50	36668	104212*
black	clip-on part corner support MULTI POWER for 18 mm air gap		117	20	368390	
	back pull plate for narrow profiles MULTI POWER timber			100	370425	


<sup>1</sup> Maximum sash weight 100 kg!

## 9.9 Cover caps

### 9.9.1 Cover caps for pivot posts




41742

9.9.1.1 Short cover caps for pivot posts AS/DTuni/PVC			No	No Tricoat
traffic white RAL 9016	dyed	100	41742 <sup>1</sup>	
pearl light grey RAL 9022	dyed	100	43566	
silver	painted	100	360232	
champagne	painted	100	42049	
titanium	painted	100	42048	
light bronze	dyed	100	41762	
cream white RAL 9001	dyed	100	42207	
brown F5	dyed	100	42195	
chrome-look	metallised	100	44241	
black	dyed	100	42196	
gold look	metallised	100	41763	

<sup>1</sup> Also available as bulk pack of 500 pieces as item no. 42286.




41743

9.9.1.2 Long cover caps for pivot posts DT130/PVC			No	No Tricoat
traffic white RAL 9016	dyed	100	41743 <sup>1</sup>	
pearl light grey RAL 9022	dyed	100	43567	
silver	painted	100	360231	
champagne	painted	100	42058	
titanium	painted	100	42057	
light bronze	dyed	100	41752	
cream white RAL 9001	dyed	100	42215	
brown F5	dyed	100	42208	
chrome-look	metallised	100	44242	
black	dyed	100	42209	
gold look	metallised	100	41760	

<sup>1</sup> Also available as bulk pack of 500 pieces as item no. 42287.




369611

9.9.1.3 Long cover caps for pivot posts DT160			No	No Tricoat
traffic white RAL 9016	painted	50	369611	
pearl light grey RAL 9022	painted	50	369612	
titanium	painted	50	369613	
gold look	painted	100	369614	




369529

<b>T 9.9.1.4 Recess cover caps for pivot posts DT160</b>				<b>No</b>	<b>No</b> Tricoat
grey F1	right	4/15-9 and 4/18-9	50	<b>369529</b>	
	left	4/15-9 and 4/18-9	50	<b>369530</b>	
	right	4/18-13	50	<b>369531</b>	
	left	4/18-13	50	<b>369532</b>	



43622

<b>9.9.1.5 Long cover caps for surface-mounted pivot posts</b>				<b>No</b>	<b>No</b> Tricoat
traffic white RAL 9016	right	dyed	100	<b>43622</b>	
	left	dyed	100	<b>43623</b>	
pearl light grey RAL 9022	right	dyed	100	<b>43743</b>	
	left	dyed	100	<b>43744</b>	
silver	right	painted	100	<b>363353</b>	
	left	painted	100	<b>363354</b>	
champagne	right	painted	100	<b>43733</b>	
	left	painted	100	<b>43734</b>	
titanium	right	painted	100	<b>43731</b>	
	left	painted	100	<b>43732</b>	
light bronze	right	dyed	100	<b>43727</b>	
	left	dyed	100	<b>43728</b>	
cream white RAL 9001	right	dyed	100	<b>43739</b>	
	left	dyed	100	<b>43740</b>	
brown F5	right	dyed	100	<b>43735</b>	
	left	dyed	100	<b>43736</b>	
chrome-look	right	metallised	100	<b>364087</b>	
	left	metallised	100	<b>364088</b>	
gold look	right	metallised	100	<b>43729</b>	
	left	metallised	100	<b>43730</b>	



362609

<b>9.9.1.6 Cover caps for surface-mounted pivot posts for rebated corner supports AS/PVC</b>					<b>No</b>	<b>No</b> Tricoat
traffic white RAL 9016	right	dyed		100	<b>362609</b>	
	left	dyed		100	<b>362610</b>	
pearl light grey RAL 9022	right	dyed		100	<b>363998</b>	
	left	dyed		100	<b>363999</b>	
silver	right	painted		100	<b>364004</b>	
	left	painted		100	<b>364005</b>	
champagne	right	painted		100	<b>364096</b>	
	left	painted		100	<b>364097</b>	
titanium	right	painted		100	<b>363996</b>	
	left	painted		100	<b>363997</b>	
light bronze	right	dyed		100	<b>364094</b>	
	left	dyed		100	<b>364095</b>	
cream white RAL 9001	right	dyed		100	<b>364000</b>	
	left	dyed		100	<b>364001</b>	
brown F5	right	dyed		100	<b>364018</b>	
	left	dyed		100	<b>364019</b>	
chrome-look	right	metallised		100	<b>364098</b>	
	left	metallised		100	<b>364099</b>	
gold look	right	metallised		100	<b>364016</b>	
	left	metallised		100	<b>364017</b>	



364498



365224

<b>T</b>	<b>9.9.1.7 Cover caps for timber MULTI POWER</b>					<b>No</b>	<b>No</b> Tricoat
pearl light grey RAL 9022	right	timber 24 mm rebate depth	dyed		20	<b>364498</b>	
	left	timber 24 mm rebate depth	dyed		20	<b>364499</b>	
	right	timber 30 mm rebate depth	dyed		20	<b>365224</b>	
	left	timber 30 mm rebate depth	dyed		20	<b>365225</b>	

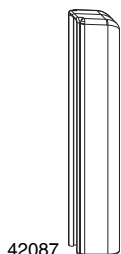


364500


<b>P</b>	<b>9.9.1.8 Cover caps for PVC MULTI POWER</b>					<b>No</b>	<b>No</b> Tricoat
pearl light grey RAL 9022	right	PVC 30 mm rebate depth	dyed		20	<b>364500</b>	
	left	PVC 30 mm rebate depth	dyed		20	<b>364501</b>	



**9.9.2 Cover caps for corner supports, rebated corner supports and rebated corner supports with corner element**




42087

<b>P 9.9.2.1 Cover caps for corner supports PVC</b>			<b>No</b>	<b>No</b> Tricoat
traffic white RAL 9016	dyed	100	<b>42087<sup>1</sup></b>	
pearl light grey RAL 9022	dyed	100	<b>43940</b>	
silver	painted	100	<b>360233</b>	
champagne	painted	100	<b>42096</b>	
titanium	painted	100	<b>42095</b>	
light bronze	dyed	100	<b>42093</b>	
cream white RAL 9001	dyed	100	<b>42188</b>	
brown F5	dyed	100	<b>42186</b>	
chrome-look	metallised	100	<b>44245</b>	
gold look	metallised	100	<b>42094</b>	

<sup>1</sup> Also available as bulk pack of 500 pieces as item no. 42288.




41740

<b>9.9.2.2 Cover caps for rebated corner supports without rebate-leg screw fixing</b>				<b>No</b>	<b>No</b> Tricoat
traffic white RAL 9016	right	dyed	100	<b>41740</b>	
	left	dyed	100	<b>41741</b>	
pearl light grey RAL 9022	right	dyed	100	<b>43564</b>	
	left	dyed	100	<b>43565</b>	
silver	right	painted	100	<b>363116</b>	
	left	painted	100	<b>363117</b>	
champagne	right	painted	100	<b>42064</b>	
	left	painted	100	<b>42061</b>	
titanium	right	painted	100	<b>42063</b>	
	left	painted	100	<b>42060</b>	
light bronze	right	dyed	100	<b>41764</b>	
	left	dyed	100	<b>41770</b>	
cream white RAL 9001	right	dyed	100	<b>43553</b>	
	left	dyed	100	<b>43554</b>	
brown F5	right	dyed	100	<b>42599</b>	
	left	dyed	100	<b>42598</b>	
chrome-look	right	metallised	100	<b>44239</b>	
	left	metallised	100	<b>44240</b>	
black	right	dyed	100	<b>43518</b>	
	left	dyed	100	<b>43519</b>	
gold look	right	metallised	100	<b>41769</b>	
	left	metallised	100	<b>41771</b>	

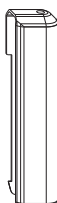



363403



<b>9.9.2.3 Cover caps with tab for rebated corner supports without rebate-leg screw fixing</b>				<b>No</b>	<b>No</b> Tricoat
traffic white RAL 9016	right	dyed	100	<b>362333</b>	
	left	dyed	100	<b>362334</b>	
pearl light grey RAL 9022	right	dyed	100	<b>363508</b>	
	left	dyed	100	<b>363509</b>	
silver	right	painting	100	<b>363403</b>	
	left	painting	100	<b>363404</b>	
titanium	right	painting	100	<b>363137</b>	
	left	painting	100	<b>363138</b>	
light bronze	right	dyed	100	<b>364100</b>	
	left	dyed	100	<b>364101</b>	
cream white RAL 9001	right	dyed	100	<b>363510</b>	
	left	dyed	100	<b>363511</b>	
brown F5	right	dyed	100	<b>364029</b>	
	left	dyed	100	<b>364030</b>	
chrome-look	right	metallised	100	<b>364104</b>	
	left	metallised	100	<b>364105</b>	
gold look	right	metallised	100	<b>364027</b>	
	left	metallised	100	<b>364028</b>	

43587




<b>9.9.2.4 Cover caps for rebated corner supports with rebate-leg screw fixing</b>				<b>No</b>	<b>No</b> Tricoat
traffic white RAL 9016	right	dyed	100	<b>43587</b>	
	left	dyed	100	<b>43588</b>	
pearl light grey RAL 9022	right	dyed	100	<b>43597</b>	
	left	dyed	100	<b>43608</b>	
silver	right	painting	100	<b>360953</b>	
	left	painting	100	<b>360954</b>	
champagne	right	painting	100	<b>43593</b>	
	left	painting	100	<b>43604</b>	
titanium	right	painting	100	<b>43592</b>	
	left	painting	100	<b>43603</b>	
light bronze	right	dyed	100	<b>43590</b>	
	left	dyed	100	<b>43601</b>	
cream white RAL 9001	right	dyed	100	<b>43598</b>	
	left	dyed	100	<b>43609</b>	
brown F5	right	dyed	100	<b>43595</b>	
	left	dyed	100	<b>43606</b>	
chrome-look	right	metallised	100	<b>44246</b>	
	left	metallised	100	<b>44247</b>	
gold look	right	metallised	100	<b>43591</b>	
	left	metallised	100	<b>43602</b>	






43651

<b>9.9.2.5 Dust cover caps for corner supports PVC</b>			<b>No</b>	<b>No</b> Tricoat
traffic white RAL 9016	dyed	100	<b>40341</b>	
pearl light grey RAL 9022	dyed	100	<b>43651</b>	
titanium	dyed	100	<b>209669</b>	
grey aluminium RAL 9007	dyed	100	<b>224132</b>	
grey brown RAL 8019	dyed	100	<b>203287</b>	




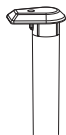
43626

<b>9.9.2.6 Dust cover caps for rebated corner supports AS/DTuni with rebate-leg screw fixing</b>			<b>No</b>	<b>No</b> Tricoat
traffic white RAL 9016	dyed	100	<b>42166</b>	
pearl light grey RAL 9022	dyed	100	<b>43626</b>	
titanium	dyed	100	<b>358989</b>	
grey brown RAL 8019	dyed	100	<b>360230</b>	
pearl gold RAL 1036	dyed	100	<b>40342</b>	




42185

<b>9.9.2.7 Dust cover caps for rebated corner supports AS/PVC and rebated corner supports DTuni without rebate-leg screw fixing</b>			<b>No</b>	<b>No</b> Tricoat
traffic white RAL 9016	dyed	100	<b>42185</b>	
pearl light grey RAL 9022	dyed	100	<b>43701</b>	
black brown RAL 8022	dyed	100	<b>368556</b>	




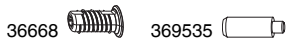
364726



<b>9.9.2.8 Dust cover caps for rebated corner supports MULTI MAMMUT</b>			<b>No</b>	<b>No</b> Tricoat
traffic white RAL 9016	dyed	100	<b>364726</b>	
pearl light grey RAL 9022	dyed	100	<b>363148</b>	
titanium	dyed	100	<b>367573</b>	

## 9.10 Accessories for pivot posts



9.10.1 Spacer bars for corner support				No	No Tricoat
black	packer	for rebated corner support AS/DTuni	100	<b>40485</b>	
	packer with faceplate for 1 mm offset	for rebated corner support AS/DTuni	100	<b>40486</b>	
	spacer bar for corner support	for rebated corner support AS/DTuni	100	<b>44234</b>	



T	9.10.2 Support rawlplug and support dowel			L		No	No Tricoat
	silver	support rawlplug Multi Power timber		19	50	<b>36668</b>	<b>355715*</b>
	support rawlplug pivot post DT160 4 mm air gap / 12 mm air gap		8	20	<b>369535</b>		



**MACO  
MULTI-MATIC**



Pivot posts



## 10 French casement locks

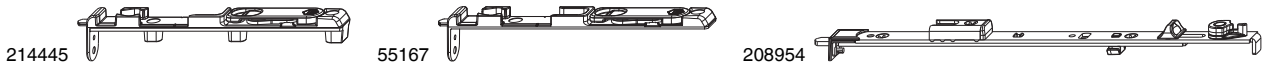
---


<b>10.1</b>	<b>Shootbolts</b>	<b>276</b>
10.1.1	Shootbolts bottom	276
10.1.2	Shootbolts bottom for thresholds	276
10.1.3	Shootbolts top	276
10.1.4	Shootbolts bottom/top	277
10.1.5	Accessories for shootbolts	277
<b>10.2</b>	<b>French casement drive gears</b>	<b>278</b>
10.2.1	French casement drive gears for Eurogroove	278
10.2.2	French casement drive gears for hardware groove	282
10.2.3	French casement drive gears for intermediate profiles (without striker plates)	284
<b>10.3</b>	<b>Horizontal French casement locks</b>	<b>286</b>
<b>10.4</b>	<b>Single piece door striker</b>	<b>286</b>
<b>10.5</b>	<b>Faceplate extension for single piece door striker MM with striker plate</b>	<b>286</b>
<b>10.6</b>	<b>Accessories for 2-sashed windows</b>	<b>287</b>
10.6.1	Intermediate drive gears with spindle	287
10.6.2	Accessories for intermediate drive gears	287
10.6.3	Gap cover caps MM	288
10.6.4	Gap cover caps MM-KS	288
10.6.5	Gap cover cap for hardware groove - sash part	288
10.6.6	Alu profiles for French casement drive gears	288
10.6.7	Fixing of scissor stays for French casement EH	289
<b>10.7</b>	<b>Accessories for French casement drive gears</b>	<b>290</b>
10.7.1	Bullet catch for French casement drive gear	290
10.7.2	Bullet catch rolls	290
10.7.3	Striker plate i.S. for French casement drive gear MM-KS	290
10.7.4	Latch striker plates for balcony door locks B-TV	290

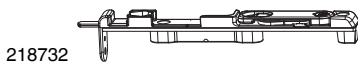



## 10 French casement locks

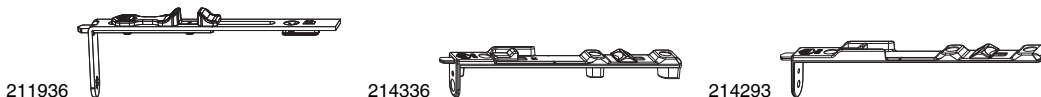
### 10.1 Shootbolts




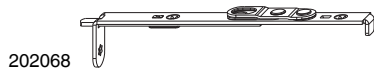
10.1.1 Shootbolts bottom		L		No	No Tricoat
silver	right MMKS for Eurogroove	170	20	214445	
	left MMKS for Eurogroove	170	20	214446	
	MT/MM 4 mm air gap R8	170	20	55409	205068
	MT/MM hardware groove	170	20	52504	201770
	MT/MM Euro-rebate 18 mm rebate depth 9 mm offset	170	20	55167	202383
	MMKS Euro-rebate 24mm rebate depth 13mm offset	170	20	218177	219170*
	flat console with reversible striker plate and swivel plate HH 300 MM	288	20	215781	
	flat console with reversible striker plate and swivel plate HH 400 MM	288	20	215780	
	with i.S. striker plate and sash lifter run-up HH 300 MM	288	20	208955	
	with i.S. striker plate and sash lifter run-up HH 400 MM	288	20	208954	215148
	with reversible striker plate and sash lifter run-up HH 300 MMKS	288	20	215304	
	with reversible striker plate and sash lifter run-up HH 400 MMKS	288	20	215303	



10.1.2 Shootbolts bottom for thresholds		L		No	No Tricoat
silver	right MM/MMKS for Eurogroove and 18 mm deadbolt protrusion	170	20	218732	
	left MM/MMKS for Eurogroove and 18 mm deadbolt protrusion	170	20	218733	



10.1.3 Shootbolts top		L		No	No Tricoat
silver	controlled MM	138	20	211936	
	right MM/MMKS for Eurogroove	162	20	214336	217511
	left MM/MMKS for Eurogroove	162	20	214337	217510
	MM/MMKS hardware groove	162	20	213922	218759
	MM/MMKS Euro-rebate 18 mm rebate depth 9 mm offset	162	20	214293	217442
	MM/MMKS Euro-rebate 24mm rebate depth 13mm offset	162	20	218176	219169
	MM/MMKS 4 mm air gap R8	170	20	214506	
	with i.S. striker plate and operating lever MM	450	20	209073	



<b>10.1.4 Shotbolts bottom/top</b>		<b>L</b>		<b>No</b>	<b>No</b> Tricoat
silver	flat MT/MM for Eurogroove	180	20	<b>202068</b>	<b>212712</b>
	MT/MM for Eurogroove	286	20	<b>208956</b>	
	for striker plate and reverse-action lever MM for Eurogroove	450	20	<b>215240<sup>1</sup></b>	

<sup>1</sup> Compatible striker plate item no. 94221.

### 10.1.5 Accessories for shotbolts






<b>10.1.5.1 Eurogroove packer with shotbolt for Euro-rebate</b>		<b>L</b>		<b>No</b>	<b>No</b> Tricoat
natural		169	100	<b>41263</b>	



## 10.2 French casement drive gears




### 10.2.1 French casement drive gears for Eurogroove



10.2.1.1 French casement drive gears for Eurogroove FHH					No	No Tricoat	
silver	for 1 i.S.	660	190	431 - 660	10	<b>202873<sup>1</sup></b>	<b>207630<sup>1*</sup></b>
		840	300	661 - 840	10	<b>221901</b>	<b>207631*</b>
		1090	400	841 - 1.090	10	<b>221902</b>	<b>207632*</b>
		1340	500	1.091 - 1.340	10	<b>221903</b>	<b>207633*</b>
for 2 i.S.	1590	600	1.341 - 1.590	10	<b>221906</b>	<b>207634*</b>	
	1700	700	1.591 - 1.700	10	<b>207242</b>	<b>207635*</b>	
for 3 i.S.	1950	1.050	1.701 - 1.950	10	<b>221907</b>	<b>207636*</b>	
	2200	1.050	1.951 - 2.200	10	<b>221908</b>	<b>207637*</b>	
for 4 i.S.	2450	1.050	2.201 - 2.450	10	<b>221909</b>	<b>207638*</b>	




<sup>1</sup> Use only in combination with turn-only drive gear 660 (item no. 201731).



10.2.1.2 French casement drive gears for Eurogroove FHH with offset HH					No	No Tricoat	
silver	for 1 i.S.	1090	300	841 - 1.090	10	<b>217875</b>	
			500	841 - 1.090	10	<b>209776</b>	
		1340	400	1.091 - 1.340	10	<b>217878</b>	
for 2 i.S.	1590	500	1.341 - 1.590	10	<b>221911<sup>1</sup></b>	<b>210087<sup>1*</sup></b>	
	1700	500	1.591 - 1.700	10	<b>209263</b>	<b>217509*</b>	




<sup>1</sup> Use only in combination with T&T drive gear 1590 (item no. 201745).



10.2.1.3 French casement drive gears for tilt lock bolt for Eurogroove FHH					No	No Tricoat	
silver	for 1 VZ	840	300	661 - 840	10	<b>209507<sup>1</sup></b>	<b>222681<sup>1</sup></b>
		1090	400	841 - 1.090	10	<b>209508</b>	<b>222682*</b>
		1340	500	1.091 - 1.340	10	<b>209510</b>	<b>222684*</b>
		for 2 VZ	1590	600	1.341 - 1.590	10	<b>209512</b>
for 3 VZ	1700	700	1.591 - 1.700	10	<b>209514</b>	<b>222688</b>	
	1950	1.050	1.701 - 1.950	10	<b>209517</b>	<b>222691</b>	
for 4 VZ	2200	1.050	1.951 - 2.200	10	<b>209518</b>	<b>222692*</b>	
	2450	1.050	2.201 - 2.450	10	<b>209519</b>	<b>222693*</b>	

<sup>1</sup> Only in combination with turn-only drive gear 840 with tilt lock bolt (item no. 209590).



10.2.1.4 French casement drive gears for tilt lock bolt for Eurogroove FHH with offset HH					No	No Tricoat	
silver	for 1 VZ	1090	300	841 - 1.090	10	<b>209509<sup>1</sup></b>	<b>222683<sup>1</sup></b>
			500	841 - 1.090	10	<b>216143</b>	
		1340	400	1.091 - 1.340	10	<b>209511</b>	<b>222685</b>
		1590	500	1.341 - 1.590	10	<b>209513</b>	<b>222687*</b>
		1700	500	1.591 - 1.700	10	<b>209516</b>	<b>222690</b>
for 2 VZ	1700	600	1.591 - 1.700	10	<b>209515</b>	<b>222689</b>	

<sup>1</sup> Can be used only in combination with turn-only drive gear 1090 with tilt lock bolt (item no. 209591).

218715

10.2.1.5 French casement drive gears for tilt lock bolt for Eurogroove FHH for thresholds									
					No	No Tricoat			
silver	for 3 VZ	1950	1.050	1.701 - 1.950	10	<b>218715</b>			
		2200	1.050	1.951 - 2.200	10	<b>218716</b>			
	for 4 VZ	2450	1.050	2.201 - 2.450	10	<b>218717</b>			

221904

10.2.1.6 French casement drive gears EH for Eurogroove FHH									
					No	No Tricoat			
silver	for 2 i.S.	840	300	661 - 840	10	<b>206582</b> <sup>1,2</sup>	<b>207639</b> <sup>1,2</sup>		
		1090	400	841 - 1.090	10	<b>221904</b> <sup>2</sup>	<b>207640</b> <sup>2</sup>		
		1340	500	1.091 - 1.340	10	<b>221905</b> <sup>2</sup>	<b>207641</b> <sup>2</sup>		
	for 3 i.S.	1590	600	1.341 - 1.590	10	<b>205643</b> <sup>2</sup>	<b>207642</b> <sup>2</sup>		
		1700	700	1.591 - 1.700	10	<b>207308</b> <sup>2,3</sup>	<b>207643</b> <sup>2,3</sup>		

<sup>1</sup> Use only in combination with turn-only drive gear 840 EH (item no. 206614).

<sup>2</sup> For burglar-resistant windows according to standard EN 1627.

<sup>3</sup> Above SRH 1700 mm use French casement drive gear FHH for Eurogroove and crop at 170 mm notch. Then extend with bottom end piece for drive gears VHH item no. 205717.

221910

10.2.1.7 French casement drive gears EH for Eurogroove FHH with offset HH									
					No	No Tricoat			
silver	for 2 i.S.	1090	300	841 - 1.090	10	<b>217877</b> <sup>1,2</sup>			
		1340	400	1.091 - 1.340	10	<b>221910</b> <sup>2,3</sup>			
		1590	500	1.341 - 1.590	10	<b>209023</b> <sup>2,4</sup>			
	for 3 i.S.	1700	600	1.591 - 1.700	10	<b>208967</b> <sup>2</sup>			
		1950	700	1.701 - 1.950	10	<b>208970</b> <sup>2</sup>			

<sup>1</sup> Use only in combination with T&T drive gear EH 1090 (item no. 217969).

<sup>2</sup> For burglar-resistant windows according to standard EN 1627.

<sup>3</sup> Use only in combination with T&T drive gear EH 1340 (item no. 201744).



<sup>4</sup> Use only in combination with T&T drive gear EH 1590 (item no. 208804).



229658



10.2.1.8 French casement drive gears FHH for hook closure									
					No	No Tricoat			
silver	for 4 i.S.	1950	1050	1.700 - 1.950	10	<b>229658</b>			
		2200	1050	1.951 - 2.200	10	<b>229659</b>			



10.2.1.9 French casement drive gears for Eurogroove VHH i.S.					No	No Tricoat
silver	for 1 i.S.	800	695 - 800	10	<b>227937</b> <sup>1</sup>	
		1250	801 - 1.250	10	<b>202471</b> <sup>1</sup>	<b>207644</b> <sup>1*</sup>
	for 2 i.S.	1750	1.251 - 1.750	10	<b>202472</b>	<b>207645</b> <sup>*</sup>
	for 3 i.S.	2250	1.751 - 2.250	10	<b>202473</b>	<b>207646</b> <sup>*</sup>



<sup>1</sup> Use only in combination with corner element item no. 202475.



10.2.1.10 French casement drive gears for Eurogroove VHH VZ					No	No Tricoat
silver	for 1 VZ	1250	840 - 1.250	10	<b>211791</b> <sup>1</sup>	
	for 2 VZ	1750	1.251 - 1.750	10	<b>209670</b>	
	for 3 VZ	2250	1.751 - 2.250	10	<b>209671</b>	<b>222713</b>

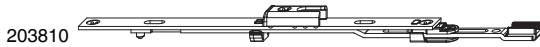
<sup>1</sup> Use only in combination with end piece item no. 209648. At centered handle position the application range changes to 930 – 1250 mm.




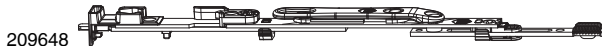
10.2.1.11 French casement drive gears EH for Eurogroove VHH with central reverse-action lever					No	No Tricoat
silver	without striker plates	800	500 - 800	10	<b>227784</b> <sup>1</sup>	
		1250	801 - 1.250	10	<b>227785</b> <sup>1</sup>	


<sup>1</sup> For burglar-resistant windows according to standard EN 1627.

10.2.1.12 Accessoires for French casement drive gears for Eurogroove

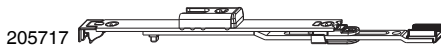


10.2.1.12.1 Faceplate extensions for French casement drive gears				No	No Tricoat
silver	for 1 i.S.	235	20	203810	207559*
		470	20	208333	208369*
	for 1 VZ	235	20	214712	223048



10.2.1.12.2 End pieces with shootbolt protrusion for French casement drive gears MM-KS				No	No Tricoat
silver	top		20	211745 <sup>1</sup>	222748 <sup>1*</sup>
	bottom		20	209637	222709
		with reverse-action lever	20	209648	


<sup>1</sup> Striker plate enclosed.



10.2.1.12.3 End piece EH for French casement drive gears					No	No Tricoat
silver	with striker bottom		1.340 - 2.450	20	205717 <sup>1</sup>	207557 <sup>1</sup>

<sup>1</sup> For burglar-resistant windows according to standard EN 1627.



10.2.1.12.4 Striker plate cover for French casement drive gear MM				No	No Tricoat
silver			100	44660	



10.2.1.12.5 Locking slider for French casement drive gear MM				No	No Tricoat
silver			100	97550 <sup>1</sup>	

<sup>1</sup> Thread forming screw item no. 44162 must be ordered separately.



10.2.1.12.6 Thread tapping screw M5x12 for slider-locks MM			L		No	No Tricoat
silver			12	100	44162	

10.2.2 French casement drive gears for hardware groove



226635

10.2.2.1 French casement drive gears for hardware groove FHH					No	No Tricoat	
silver		660	190	431 - 660	10	203482 <sup>1,2</sup>	207650 <sup>1,2</sup>
	for 1 i.S.	840	300	661 - 840	10	226629 <sup>1</sup>	
for 2 i.S.		1090	400	841 - 1.090	10	226635 <sup>1</sup>	
		1340	500	1.091 - 1.340	10	226636 <sup>1</sup>	
		1590	600	1.341 - 1.590	10	226637 <sup>1</sup>	
		1700	700	1.591 - 1.700	10	226638 <sup>1</sup>	
for 3 i.S.		1950	1.050	1.701 - 1.950	10	226639 <sup>1</sup>	
		2200	1.050	1.951 - 2.200	10	226640 <sup>1</sup>	226754 <sup>1</sup>
for 4 i.S.		2450	1.050	2.201 - 2.450	10	226641 <sup>1</sup>	226755 <sup>1</sup>

<sup>1</sup> Bracket item no. 94035 and faceplate restrainer item no. 94036 must be ordered separately! The type and the number of fixtures is dependent on the capabilities of the French casement drive gear after cutting.

<sup>2</sup> Possible only with turn-only drive gear BS 15!



226643

10.2.2.2 French casement drive gears for hardware groove FHH with offset HH					No	No Tricoat	
silver	for 1 i.S.	1090	300	841 - 1.090	10	226642 <sup>1</sup>	
			500	841 - 1.090	10	226643 <sup>1</sup>	
for 2 i.S.		1340	400	1.091 - 1.340	10	226644 <sup>1</sup>	
		1590	500	1.341 - 1.590	10	226645 <sup>1</sup>	

<sup>1</sup> Bracket item no. 94035 and faceplate restrainer item no. 94036 must be ordered separately! The type and the number of fixtures is dependent on the capabilities of the French casement drive gear after cutting.



226646

10.2.2.3 French casement drive gears for tilt lock bolt for hardware groove FHH					No	No Tricoat	
silver	for 1 VZ	840	300	661 - 840	10	209556 <sup>1,2</sup>	222694 <sup>1,2</sup>
		1090	400	841 - 1.090	10	226646 <sup>1</sup>	226757 <sup>1</sup>
		1340	500	1.091 - 1.340	10	226647 <sup>1</sup>	226758 <sup>1</sup>
for 2 VZ		1590	600	1.341 - 1.590	10	226648 <sup>1</sup>	226759 <sup>1</sup>
		1700	700	1.591 - 1.700	10	226649 <sup>1</sup>	226760 <sup>1</sup>
for 3 VZ		1950	1.050	1.701 - 1.950	10	226650 <sup>1</sup>	226761 <sup>1</sup>
		2200	1.050	1.951 - 2.200	10	226651 <sup>1</sup>	226762 <sup>1</sup>
for 4 VZ		2450	1.050	2.201 - 2.450	10	226652 <sup>1</sup>	226763 <sup>1</sup>

<sup>1</sup> Bracket item no. 94035 and faceplate restrainer item no. 94036 must be ordered separately! The type and the number of fixtures is dependent on the capabilities of the French casement drive gear after cutting.

<sup>2</sup> Possible only with turn-only drive gear BS 15!

209558



10.2.2.4 French casement drive gears for tilt lock bolt for hardware groove FHH with offset HH						No	No Tricoat
silver	for 1 VZ	1090	300	841 - 1.090	10	209558 <sup>1</sup>	222696 <sup>1</sup>
			500	841 - 1.090	10	226653 <sup>1</sup>	
		1340	400	1.091 - 1.340	10	226654 <sup>1</sup>	226765 <sup>1</sup>
	for 2 VZ	1590	500	1.341 - 1.590	10	226655 <sup>1</sup>	226766 <sup>1</sup>
		1700	500	1.591 - 1.700	10	226656 <sup>1</sup>	226767 <sup>1</sup>
		1700	600	1.591 - 1.700	10	226657 <sup>1</sup>	226768 <sup>1</sup>

<sup>1</sup> Bracket item no. 94035 and faceplate restrainer item no. 94036 must be ordered separately! The type and the number of fixtures is dependent on the capabilities of the French casement drive gear after cutting.

211795



10.2.2.5 French casement drive gears for hardware groove with 180° operating lever						No	No Tricoat
silver	right	840	300	661 - 840	10	211793 <sup>1</sup>	222751 <sup>1</sup>
		1090	400	841 - 1.090	10	211795 <sup>1</sup>	222753 <sup>1</sup>
		1340	500	1.091 - 1.340	10	211797 <sup>1</sup>	222755 <sup>1</sup>
		1590	600	1.341 - 1.590	10	211799 <sup>1</sup>	222757 <sup>1</sup>
		1700	700	1.591 - 1.700	10	211801 <sup>1</sup>	222759 <sup>1</sup>
		1950	1.050	1.701 - 1.950	10	211803 <sup>1</sup>	222761 <sup>1</sup>
		2200	1.050	1.951 - 2.200	10	211805 <sup>1</sup>	222763 <sup>1</sup>
		2450	1.050	2.201 - 2.450	10	211807 <sup>1</sup>	222765 <sup>1</sup>
		left	840	300	661 - 840	10	211792 <sup>1</sup>
	1090		400	841 - 1.090	10	211794 <sup>1</sup>	222752 <sup>1</sup>
	1340		500	1.091 - 1.340	10	211796 <sup>1</sup>	222754 <sup>1</sup>
	1590		600	1.341 - 1.590	10	211798 <sup>1</sup>	222756 <sup>1</sup>
	1700		700	1.591 - 1.700	10	211800 <sup>1</sup>	
	1950		1.050	1.701 - 1.950	10	211802 <sup>1</sup>	222760 <sup>1</sup>
	2200		1.050	1.951 - 2.200	10	211804 <sup>1</sup>	222762 <sup>1</sup>
	2450		1.050	2.201 - 2.450	10	211806 <sup>1</sup>	222764 <sup>1</sup>

<sup>1</sup> Bracket item no. 94035 and faceplate restrainer item no. 94036 must be ordered separately! The type and the number of fixtures is dependent on the capabilities of the French casement drive gear after cutting.



226658



10.2.2.6 French casement drive gears for hardware groove VHH					No	No Tricoat
silver	for 1 i.S.	1250	801 - 1.250	10	226658 <sup>1,2</sup>	226769 <sup>1,2</sup>
	for 1 VZ	1250	840 - 1.250	10	226659 <sup>2,3</sup>	
	for 2 i.S.	1750	1.251 - 1.750	10	226660 <sup>2</sup>	226771 <sup>2</sup>
	for 3 i.S.	2250	1.751 - 2.250	10	226661 <sup>2</sup>	226772 <sup>2</sup>


<sup>1</sup> End piece item no. 203771 required (length 200 mm).

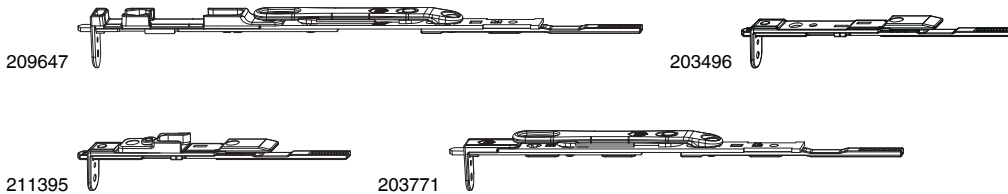
<sup>2</sup> Bracket item no. 94035 and faceplate restrainer item no. 94036 must be ordered separately! The type and the number of fixtures is dependent on the capabilities of the French casement drive gear after cutting.


<sup>3</sup> End piece item no. 209647 required (length 269 mm) with tilt striker plate.

10.2.2.7 Accessories for French casement drive gears for hardware groove

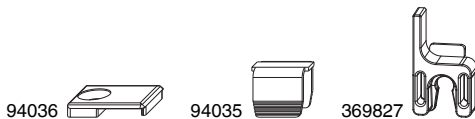
218626  203480  205921 


10.2.2.7.1 Faceplate extensions for French casement drive gears MM for hardware groove				No	No Tricoat
silver	140 without striker plate		20	218626	225238
	235 with striker		20	203480	207561
	470 with striker		20	218627	225239
	connecting plate MM hardware groove		50	205921	208317



10.2.2.8 End pieces for French casement drive gears for hardware groove				No	No Tricoat
silver	end piece for French casement drive gear MMKS hardware groove	bottom with shootbolt	20	209775	222714
		bottom for tilt lock bolt with operating lever	20	209647 <sup>1,2</sup>	222710 <sup>1,2</sup>
	end piece for French casement drive-gear MM hardware groove	top with shootbolt	20	203496	207562
		top with striker with shootbolt	20	211395	217454
		bottom with reverse-action lever	20	203771 <sup>1,3</sup>	207563 <sup>1,3</sup>




<sup>1</sup> Order connection plate item no. 205921 separately!  
<sup>2</sup> For French casement drive gear use item no. 226659!  
<sup>3</sup> For French casement drive gear use item no. 226658!

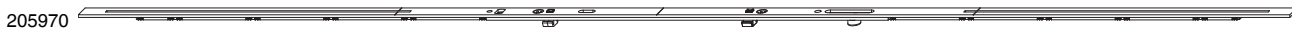



10.2.2.9 Accessories for French casement drive gears for hardware groove				No	No Tricoat
silver	faceplate restrainer		50	94036	355818
	fixing clamp		100	94035	353299
pearl light grey RAL 9022	spare part lifter run-up for French casement drive gear left		50	369827	
	spare part lifter run-up for French casement drive gear right		50	369828	

### 10.2.3 French casement drive gears for intermediate profiles (without striker plates)



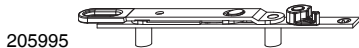
10.2.3.1 French casement drive gears for intermediate profiles FHH						No	No Tricoat
silver	without striker plates	660	190	431 - 660	10	<b>205962</b>	
		1090	400	841 - 1.090	10	<b>205964</b>	
		1340	500	1.091 - 1.340	10	<b>205965</b>	
		1590	600	1.341 - 1.590	10	<b>205966</b>	
		1950	1.050	1.701 - 1.950	10	<b>205967</b>	
		2200	1.050	1.951 - 2.200	10	<b>205968</b>	




10.2.3.2 French casement drive gears for intermediate profiles VHH					No	No Tricoat
silver	without striker plates	1250	801 - 1.250	10	<b>205970<sup>1</sup></b>	
		1750	1.251 - 1.750	10	<b>205971</b>	
		2250	1.751 - 2.250	10	<b>205972</b>	

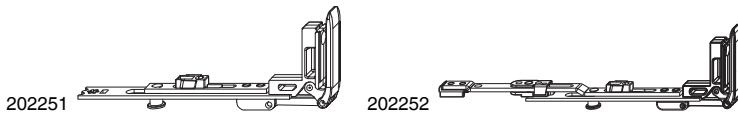
<sup>1</sup> Only in combination with corner element item no. 205973.



### 10.2.3.3 Accessories for French casement drive gears for intermediate profiles

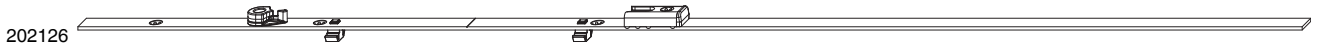





10.2.3.3.1 Operating levers for French casement drive gears without striker plate				No	No Tricoat
silver	right	with spacer sleeve 13 mm	20	<b>208433</b>	
		with spacer sleeve 36 mm	20	<b>208434</b>	
		with spacer sleeve 43 mm	20	<b>208435</b>	
	left	with spacer sleeve 13 mm	20	<b>205995</b>	
		with spacer sleeve 36 mm	20	<b>206108</b>	
		with spacer sleeve 43 mm	20	<b>206107</b>	

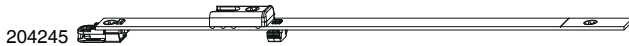





<b>10.3 Horizontal French casement locks</b>				<b>N<sup>o</sup></b>	<b>N<sup>o</sup></b> Tricoat
silver	French casement lock MM	230 - 800	20	<b>202251</b>	<b>207662</b>
	extendable French casement lock MM	240 - 1.650	20	<b>202252</b>	<b>207663</b>

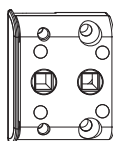


<b>10.4 Single piece door striker</b>		<b>L</b>				<b>N<sup>o</sup></b>	<b>N<sup>o</sup></b> Tricoat	
silver	for 1 i.S.	840	809,5	300	661 - 840	10	<b>202126</b>	<b>207665</b>
		1340	1.296,5	500	841 - 1.340	10	<b>202128</b>	<b>207666</b>
	for 2 i.S.	1590	1.559,5	600	1.341 - 1.590	10	<b>202131</b>	<b>207667</b>
	for 3 i.S.	2200	2.169,5	1.050	1.701 - 2.200	10	<b>202133</b>	<b>207668</b>



<b>10.5 Faceplate extension for single piece door striker MM with striker plate</b>		<b>L</b>		<b>N<sup>o</sup></b>	<b>N<sup>o</sup></b> Tricoat
silver		349,5	20	<b>204245</b>	

## 10.6 Accessories for 2-sashed windows



10804

### T 10.6.1 Intermediate drive gears with spindle



No

No  
Tricoat

silver						No	No Tricoat
	4 air gap/15 rebate leg/9 offset	-3,5	20			10945 <sup>1</sup>	101356 <sup>1</sup>
	12 air gap/18 rebate leg/9 offset	-6	20			10804 <sup>1</sup>	101357 <sup>1</sup>
	12 air gap/18 rebate leg/13 offset	-6	20			102233 <sup>1</sup>	
	12 air gap/20 rebate leg/9 offset	-6	20			10920 <sup>1</sup>	101358 <sup>1</sup>
	12 air gap/20 rebate leg/13 offset	-6	20			102234 <sup>1</sup>	

<sup>1</sup> Available for PVC windows upon request.

### 10.6.2 Accessories for intermediate drive gears



44274

#### T 10.6.2.1 Packer for intermediate drive gears



No

No  
Tricoat

silver			L			No	No Tricoat
9 mm offset	5 mm (for SV150-180, SV415a-418-155)	56	5	100		44274 <sup>1</sup>	
	6 mm (for SV33, SV103)	56	6	100		44250 <sup>2</sup>	
	7 mm (for SV33, SV103)	56	7	100		44300 <sup>3</sup>	
	without rebate leg gasket, 1 mm distance	56	1,5	100		360221	
	10 mm (for SV33, SV103)	56	11	100		356970	
13 mm offset	10 mm (for SV150-180, SV415a-418-155)	56	11	100		43509	
	without rebate leg gasket	56	6	100		360220	

<sup>1</sup> For rebate leg gasket 9 mm offset, without overlap gasket 13 mm offset.

<sup>2</sup> For rebate leg gasket SV33, SV103.

<sup>3</sup> For rebate leg gasket plus 1 mm.



32365

#### T 10.6.2.2 Spindles for intermediate drive gears



No

No  
Tricoat

				No	No Tricoat
7x20 mm			100	32365	
7x25 mm			100	32412 <sup>1</sup>	
7x30 mm			20	93228 <sup>2</sup>	

<sup>1</sup> For rebate leg gasket 9 mm offset, without overlap gasket 13 mm offset.

<sup>2</sup> For rebate leg gasket 13 mm offset.



94219

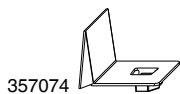
#### 10.6.2.3 Drill-in bush for deadbolt 8 x 4 mm



No

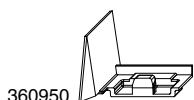
No  
Tricoat

silver				No	No Tricoat
			100	94219	



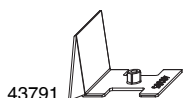
357074

10.6.3 Gap cover caps MM				No	No Tricoat
silver	left bottom	9 mm offset	100	357091	
		11 mm offset	100	357092	
		13 mm offset	100	357093	
	left top	9 mm offset	100	357078	
		11 mm offset	100	357074	
		13 mm offset	100	357075	
	right bottom	9 mm offset	100	357079	
		11 mm offset	100	357076	
		13 mm offset	100	357077	
	right top	9 mm offset	100	357088	
		11 mm offset	100	357089	
		13 mm offset	100	357090	



360950

10.6.4 Gap cover caps MM-KS				No	No Tricoat
silver	top left / bottom right	9 mm offset	100	360950	
		11 mm offset	100	365193	
		13 mm offset	100	365195	
	top right / bottom left	9 mm offset	100	360951	
		11 mm offset	100	365194	
		13 mm offset	100	365196	

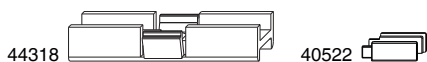


43791

10.6.5 Gap cover cap for hardware groove - sash part				No	No Tricoat
pearl light grey RAL 9022			100	43791	



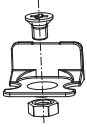
37535



44318

40522

T 10.6.6 Alu profiles for French casement drive gears			L		No	No Tricoat
blank	aluminium profile for French casement drive-gear	1.000	10	37535		
		1.250	10	37536		
		1.500	10	37537		
		1.800	10	37554		
		2.350	10	37538		
		2.600	10	357399		
		6.000	10	37571		
silver	packer for serrated carrier connection		100	44318		
white	clip-on end cap for aluminium groove		100	40522		



105316

**10.6.7 Fixing of scissor stays for French casement EH**



**No**

**No**  
Tricoat

silver


50

**105316**



## 10.7 Accessories for French casement drive gears


213460 


T 10.7.1 Bullet catch for French casement drive gear			No	No Tricoat
silver	bullet catch French casement drive gear	50	213460 <sup>1,2</sup>	

<sup>1</sup> Order steel bullet catch roll item no. 362446 or PVC item no. 362060 separately!


<sup>2</sup> For Eurogroove use packer item no. 362059!





362446 

10.7.2 Bullet catch rolls			No	No Tricoat
pearl light grey RAL 9022	bullet-catch roll PVC	100	362060	
silver	bullet-catch roll steel	100	362446	

365791 

10.7.3 Striker plate i.S. for French casement drive gear MM-KS			No	No Tricoat
silver	for French casement drive gear MMKS	100	365791	366724

35178  218605 

10.7.4 Latch striker plates for balcony door locks B-TV			No	No Tricoat
silver	for French casement drive gear	50	35178	355819
	1 fixed slot	50	218605	
	adjustable	50		



## 11 Striker plates

---

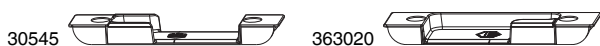
11.1	Striker plates 4 mm air gap _____	292
11.2	Striker plates 12 mm air gap, hardware groove 6/8/4 _____	295
11.3	Striker plates 12 mm air gap, hardware groove 7/8/4 _____	296
11.4	Striker plates 12 mm air gap, hardware groove 6/8/4 and 7/8/4 _____	298
11.5	Striker plates 12 mm air gap, Euro-rebate, 18 mm rebate depth _____	299
11.6	Striker plates 12 mm air gap, Euro-rebate, 20 mm rebate depth _____	301
11.7	Striker plates 12 mm air gap, Euro-rebate, 24 mm rebate depth _____	303
11.8	Striker plates 12 mm air gap, Euro-rebate, 30 mm rebate depth _____	306
11.9	Striker plates 12 mm air gap, Euro-rebate, 18 - 30 mm rebate depth _____	308
11.10	Striker plates for opposite Eurogroove _____	309
11.11	Hook striker plates _____	309
11.12	Accessories for striker plates _____	310




## 11 Striker plates

### 11.1 Striker plates 4 mm air gap

#### 11.1.1 Striker plates 4 mm air gap

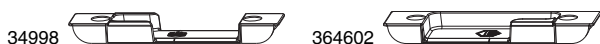



T 11.1.1.1 Striker plates 4 mm air gap			No	No Tricoat
silver	for 4 mm air gap, 9 mm offset	200	<b>30545</b> <sup>1,2</sup>	<b>355132</b> <sup>1,2</sup>
	for 4 mm air gap, 13 mm offset	right 200	<b>363020</b> <sup>2,3</sup>	
		left 200	<b>363021</b> <sup>2,3</sup>	
	- 1 mm gasket-compression	right 200	<b>357671</b> <sup>2,3</sup>	<b>359251</b> <sup>2,3</sup>
		left 200	<b>357672</b> <sup>2,3</sup>	<b>359252</b> <sup>2,3</sup>

<sup>1</sup> 18 mm milling depth.

<sup>2</sup> Routing length 90 mm.

<sup>3</sup> 22 mm milling depth.




T 11.1.1.2 Striker plates for 3-sashed windows 4 mm air gap			No	No Tricoat
silver	for 4 mm air gap, 9 mm offset	200	<b>34998</b> <sup>1,2</sup>	
	for 4 mm air gap, 13 mm offset	right 100	<b>364602</b> <sup>2,3</sup>	
		left 100	<b>364604</b> <sup>2,3</sup>	

<sup>1</sup> 18 mm milling depth.

<sup>2</sup> Routing length 90 mm.

<sup>3</sup> 22 mm milling depth.



T 11.1.1.3 Sash lifters 4 mm air gap			No	No Tricoat
silver	for 4 mm air gap, 9 mm offset	right 100	<b>356504</b> <sup>1,2</sup>	<b>357924</b> <sup>1,2</sup>
		left 100	<b>356505</b> <sup>1,2</sup>	<b>357925</b> <sup>1,2</sup>
	with door catch	right 20	<b>206113</b> <sup>1,3</sup>	
		left 20	<b>206114</b> <sup>1,3</sup>	
	for 4 mm air gap, 13 mm offset	right 100	<b>357675</b> <sup>2,4</sup>	<b>367294</b> <sup>2,4</sup>
		left 100	<b>357676</b> <sup>2,4</sup>	<b>367295</b> <sup>2,4</sup>
	with door catch	right 20	<b>214543</b> <sup>3,4</sup>	
		left 20	<b>214544</b> <sup>3,4</sup>	

<sup>1</sup> 18 mm milling depth.

<sup>2</sup> Routing length 90 mm.

<sup>3</sup> Routing length 160 mm.

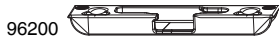
<sup>4</sup> 22 mm milling depth.



96565

<b>T 11.1.1.4 Striker plates i.S. 4 mm air gap</b>						<b>No</b>	<b>No</b> Tricoat
silver	for 4 mm air gap, 9 mm offset	angled screw-fixing	right	100		<b>96565</b> <sup>1,2</sup>	<b>355826</b> <sup>1,2</sup>
			left	100		<b>96566</b> <sup>1,2</sup>	<b>355827</b> <sup>1,2</sup>
			- 1 mm gasket-compression	right		<b>96305</b> <sup>1,2</sup>	
			left	100		<b>96306</b> <sup>1,2</sup>	
	for 4 mm air gap, 9 mm offset without reinforcement rings	angled screw-fixing	right	100		<b>357958</b> <sup>1,2</sup>	
			left	100		<b>357959</b> <sup>1,2</sup>	
	for 4 mm air gap, 13 mm offset	angled screw-fixing	right	100		<b>357673</b> <sup>2,3</sup>	<b>359253</b> <sup>2,3</sup>
			left	100		<b>357674</b> <sup>2,3</sup>	<b>359254</b> <sup>2,3</sup>
			- 1 mm gasket-compression	right		<b>360102</b> <sup>2,3</sup>	
			left	100		<b>360103</b> <sup>2,3</sup>	

<sup>1</sup> 18 mm milling depth.  
<sup>2</sup> Routing length 90 mm.  
<sup>3</sup> 22 mm milling depth.



96200

<b>T 11.1.1.5 Horizontal tilt striker plates i.S. 4 mm air gap</b>						<b>No</b>	<b>No</b> Tricoat
silver	for 4 mm air gap, 9 mm offset	angled screw-fixing	right	100		<b>96200</b> <sup>1,2</sup>	<b>204964</b> <sup>1,2</sup>
			left	100		<b>96201</b> <sup>1,2</sup>	<b>204965</b> <sup>1,2</sup>
	for 4 mm air gap, 13 mm offset	angled screw-fixing	right	100		<b>357678</b> <sup>2,3</sup>	<b>365089</b> <sup>2,3</sup>
			left	100		<b>357679</b> <sup>2,3</sup>	<b>365090</b> <sup>2,3</sup>

<sup>1</sup> 18 mm milling depth.  
<sup>2</sup> Routing length 90 mm.  
<sup>3</sup> 22 mm milling depth.



97377

<b>T 11.1.1.6 Tilt-first striker plates i.S. 4 mm air gap</b>						<b>No</b>	<b>No</b> Tricoat
silver	for 4 mm air gap, 9 mm offset		right and left	100		<b>97377</b> <sup>1,2</sup>	

<sup>1</sup> 18 mm milling depth.  
<sup>2</sup> Routing length 113 mm.



55112

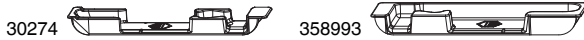
23883

220089

<b>T 11.1.1.7 Shootbolt striker plates 4 mm air gap</b>						<b>No</b>	<b>No</b> Tricoat
silver	for 4 mm air gap, 9 mm offset	1 slot		100		<b>55112</b> <sup>1,2</sup>	
		2 slots		100		<b>23883</b> <sup>1,2</sup>	<b>203993</b> <sup>1,2</sup>
			+ 1 mm gasket-compression	100		<b>26083</b> <sup>1,2</sup>	
		3 slots		100		<b>220089</b> <sup>1,3,4</sup>	
	for 4 mm air gap, 13 mm offset	2 slots		100		<b>209338</b> <sup>2,5</sup>	<b>215023</b> <sup>2,5</sup>

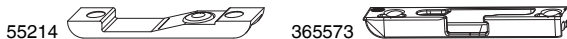
<sup>1</sup> 18 mm milling depth.  
<sup>2</sup> Routing length 90 mm.  
<sup>3</sup> Routing length 120 mm.  
<sup>4</sup> For windows - Group C5 EN 12210.  
<sup>5</sup> 22 mm milling depth.





<b>11.1.1.8 Tilt striker plates 4 mm air gap</b>						 Tricoat
silver	for 4 mm air gap, 9 mm offset	right and left	100	30274 <sup>1,2</sup>	355134 <sup>1,2</sup>	
	for 4 mm air gap, 13 mm offset	right	100	358993 <sup>2,3</sup>		
		left	100	358994 <sup>2,3</sup>		

<sup>1</sup> 18 mm milling depth.  
<sup>2</sup> Routing length 90 mm.  
<sup>3</sup> 22 mm milling depth.



<b>11.1.1.9 Sash lifter striker plates and tilt striker plates for half round and angled windows 4 mm air gap</b>						 Tricoat
silver	sash lifter striker plate for half round and angled windows for 4 mm air gap, 9 mm offset		50	55214 <sup>1,2,3</sup>		
	sash lifter striker plate for half round and angled windows for 4 mm air gap, 13 mm offset		50	209364 <sup>2,3,4</sup>		
	tilt striker i.S. horizontal for half round and angled window for 4 mm air gap, 9 mm offset	angled screw-fixing	right	100	365573 <sup>1,5,6</sup>	
			left	100	365574 <sup>1,5,6</sup>	
	tilt striker i.S. horizontal for half round and angled window for 4 mm air gap, 13 mm offset	angled screw-fixing	right	100	365571 <sup>4,5,6</sup>	
			left	100	365572 <sup>4,5,6</sup>	
	sash lifter striker plate for half round and angled windows for 4 mm air gap, 13 mm offset		50	218076 <sup>4,5,6,7</sup>		
	sash lifter striker plate for half round and angled windows for 4 mm air gap, 9 mm offset		50	218077 <sup>1,5,6,7</sup>		

<sup>1</sup> 18 mm milling depth.  
<sup>2</sup> Routing length 90 mm.  
<sup>3</sup> Use with corner element item no. 215216, item no. 215217.  
<sup>4</sup> 22 mm milling depth.  
<sup>5</sup> Use with corner element item no. 218071, item no. 218072.  
<sup>6</sup> Routing length 169 mm.  
<sup>7</sup> Only in combination with tilt lock item no. 218072.

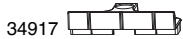



<b>11.1.1.10 Run-up blocks 4 mm air gap for horizontal tilt lock</b>						 Tricoat
silver	run-up block 4 mm air gap		500	94022		

## 11.2 Striker plates 12 mm air gap, hardware groove 6/8/4



<b>T</b>	<b>11.2.1 Striker plates 12 mm air gap, hardware groove 6/8/4</b>			<b>No</b>	<b>No</b> Tricoat
	silver		200	<b>34921</b>	<b>355443</b>
		- 1 mm gasket-compression	200	<b>34979</b>	<b>355901</b>



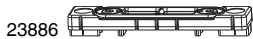
<b>T</b>	<b>11.2.2 Striker plate for 3-sashed windows 12 mm air gap, hardware groove 6/8/4</b>			<b>No</b>	<b>No</b> Tricoat
	silver		200	<b>34917</b>	




<b>T</b>	<b>11.2.3 Sash lifters MM 12 mm air gap, hardware groove 6/8/4</b>			<b>No</b>	<b>No</b> Tricoat
	silver		right 100	<b>363175</b>	
			left 100	<b>363176</b>	




<b>T</b>	<b>11.2.4 Striker plates i.S. 12 mm air gap, hardware groove 6/8/4</b>			<b>No</b>	<b>No</b> Tricoat
	silver	angled screw-fixing	100	<b>96563</b>	
		- 1 mm gasket-compression	100	<b>96263</b>	




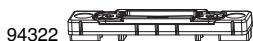
<b>T</b>	<b>11.2.5 Shootbolt striker plates 12 mm air gap, hardware groove 6/8/4</b>			<b>No</b>	<b>No</b> Tricoat
	silver	2 slots	100	<b>23886</b>	<b>201484</b>
		+ 1 mm gasket-compression	100	<b>26610</b>	



<b>T</b>	<b>11.2.6 Tilt striker plate 12 mm air gap, hardware groove 6/8/4</b>			<b>No</b>	<b>No</b> Tricoat
	silver		right and left 100	<b>33932</b>	<b>355558</b>



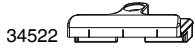
<b>T</b>	<b>11.2.7 Striker plate for espagnolette with mounted tilt scissor stay 12 mm air gap, hardware groove 6/8/4</b>			<b>No</b>	<b>No</b> Tricoat
	silver		100	<b>56930</b>	




<b>T</b>	<b>11.2.8 Latch striker plate 12 mm air gap, hardware groove 6/8/4</b>			<b>No</b>	<b>No</b> Tricoat
	silver	adjustable	50	<b>94322</b>	




### 11.3 Striker plates 12 mm air gap, hardware groove 7/8/4




T 11.3.1 Striker plates 12 mm air gap, hardware groove 7/8/4			No	No Tricoat
silver		200	34902	201481*
	- 1 mm gasket-compression	200	34969	201465
	angled screw-fixing	200	34522	




T 11.3.2 Sash lifters MM 12 mm air gap, hardware groove 7/8/4			No	No Tricoat
silver	angled screw-fixing	right 100	356774	357928
		left 100	356775	357929




T 11.3.3 Striker plates i.S. 12 mm air gap, hardware groove 7/8/4			No	No Tricoat
silver	angled screw-fixing	100	96564	352994
	- 0.8 mm gasket-compression	100	360564	
	- 1 mm gasket-compression	100	96264	358450
	without reinforcement rings angled screw-fixing	100	363486	




T 11.3.4 Tilt-first striker plates i.S. 12 mm air gap, hardware groove 7/8/4			No	No Tricoat
silver	MM	right 100	365426	
		left 100	365427	




T 11.3.5 Shootbolt striker plates 12 mm air gap, hardware groove 7/8/4			No	No Tricoat
silver	2 slots	100	23886	201484
	1 fixed slot	+ 0.8 mm gasket-compression	100	360561 <sup>1</sup>
			100	98110 <sup>1</sup>

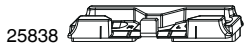
<sup>1</sup> For windows - Group C5 EN 12210.



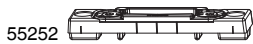
T 11.3.6 Tilt striker plates 12 mm air gap, hardware groove 7/8/4			No	No Tricoat
silver		right 100	33970	
		left 100	33971	



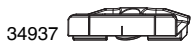
<b>T</b>	<b>11.3.7 Striker plate for espagnolette with mounted tilt scissor stay 12 mm air gap, hardware groove 7/8/4</b>		<b>No</b>	<b>No</b> Tricoat
	silver	100	56910	211783




<b>T</b>	<b>11.3.8 Night-vent striker plate 12 mm air gap, hardware groove 7/8/4</b>		<b>No</b>	<b>No</b> Tricoat
	silver	100	25838	




<b>T</b>	<b>11.3.9 Latch striker plate 12 mm air gap, hardware groove 7/8/4</b>		<b>No</b>	<b>No</b> Tricoat
	silver adjustable	50	55252	



<b>T</b>	<b>11.3.10 Striker plate with positioning pins 12 x 3 mm 12 mm air gap, hardware groove 7/8/4</b>		<b>No</b>	<b>No</b> Tricoat
	silver angled screw-fixing	200	34937	




<b>T</b>	<b>11.3.11 Striker plate i.S. with positioning pins 12 x 3 mm 12 mm air gap, hardware groove 7/8/4</b>		<b>No</b>	<b>No</b> Tricoat
	silver angled screw-fixing	100	96691	




**11.4 Striker plates 12 mm air gap, hardware groove 6/8/4 and 7/8/4**




<b>T</b>	<b>11.4.1 Sash lifter for half round and angled windows 12 mm air gap, hardware groove 6/8/4 and 7/8/4</b>			<b>No</b>	<b>No</b> Tricoat
	silver		50	<b>25924</b>	



<b>T</b>	<b>11.4.2 Striker plates for opening restrictor 12 mm air gap, hardware groove 6/8/4 and 7/8/4</b>			<b>No</b>	<b>No</b> Tricoat	
	silver	frame component for opening restrictor Euro-rebate 18 mm	angled screw-fixing	50	<b>54697</b>	<b>201785</b>
		packer for striker plate for opening restrictor for timber		100	<b>40349</b>	



<b>T</b>	<b>11.4.3 Stabilizing scissor stay casing 12 mm air gap, hardware groove 6/8/4 and 7/8/4</b>			<b>No</b>	<b>No</b> Tricoat
	silver			100	<b>55066</b>

## 11.5 Striker plates 12 mm air gap, Euro-rebate, 18 mm rebate depth

34943 34980

11.5.1 Striker plates 12 mm air gap, Euro-rebate, 18 mm rebate depth			No	No Tricoat
silver	double screw fixing	200	34943	201476*
	angled screw-fixing	200	34980	355135
	- 1 mm gasket-compression	200	357844	

356298

11.5.2 Sash lifters MM 12 mm air gap, Euro-rebate, 18 mm rebate depth			No	No Tricoat	
silver	angled screw-fixing	right	100	356298	357918
		left	100	356299	357919

96860

11.5.3 Striker plates i.S. 12 mm air gap, Euro-rebate, 18 mm rebate depth			No	No Tricoat	
silver	angled screw-fixing		100	96860	97544*
		+ 1 mm gasket-compression	100	359770	
		- 0.7 mm gasket-compression	100	96660	362849
	without reinforcement rings	angled screw-fixing	100	355606	358991*

365400

11.5.4 Tilt-first striker plates i.S. 12 mm air gap, Euro-rebate, 18 mm rebate depth			No	No Tricoat	
silver	MM	right	100	365400	366528
		left	100	365401	366529

98021 23731 26308

11.5.5 Shootbolt striker plates 12 mm air gap, Euro-rebate, 18 mm rebate depth			No	No Tricoat	
silver	1 fixed slot	100	98021 <sup>1</sup>		
	2 slots	100	23731	201482*	
		+ 1 mm gasket-compression	100	26745	
	2 slots with angled screw-fixing	100	26741		
	3 slots	100	26308 <sup>1</sup>	218695 <sup>1</sup>	

<sup>1</sup> For windows - Group C5 EN 12210.

33981

11.5.6 Tilt striker plate 12 mm air gap, Euro-rebate, 18 mm rebate depth			No	No Tricoat
silver		100	33981	201486

25118								
<b>T</b>	<b>11.5.7 Night-vent striker plate 12 mm air gap, Euro-rebate, 18 mm rebate depth</b>			<b>No</b>	<b>No</b>			
	silver		100	25118				
55277								
<b>T</b>	<b>11.5.8 Striker plate for espagnolette with mounted tilt stay 12 mm air gap, Euro-rebate, 18 mm rebate depth</b>			<b>No</b>	<b>No</b>			
	silver		100	55277	204970*			
52794								
<b>T</b>	<b>11.5.9 Stabilizing scissor stay casing 12 mm air gap, Euro-rebate, 18 mm rebate depth</b>			<b>No</b>	<b>No</b>			
	silver		100	52794	204972*			
38924								
<b>T</b>	<b>11.5.10 Latch striker plate 12 mm air gap, Euro-rebate, 18 mm rebate depth</b>			<b>No</b>	<b>No</b>			
	silver	adjustable	50	38924				
34963								
<b>T</b>	<b>11.5.11 Striker plates with positioning pins 12 x 3 mm 12 mm air gap, Euro-rebate, 18 mm rebate depth</b>			<b>No</b>	<b>No</b>			
	silver	angled screw-fixing	200	34963	359212			
			- 1 mm gasket-compression	200	370110	370111		
96690								
<b>T</b>	<b>11.5.12 Striker plates i.S. with positioning pins 12 x 3 mm 12 mm air gap, Euro-rebate, 18 mm rebate depth</b>			<b>No</b>	<b>No</b>			
	silver	angled screw-fixing	100	96690	359213			
			- 0.7 mm gasket-compression	100	96890			
26621								
<b>T</b>	<b>11.5.13 Shootbolt striker plate with positioning pins 12 x 3 mm 12 mm air gap, Euro-rebate, 18 mm rebate depth</b>			<b>No</b>	<b>No</b>			
	silver	2 slots	100	26621	210273			
364286								
<b>T</b>	<b>11.5.14 Sash lifters MM with positioning pins 12 x 3 mm 12 mm air gap, Euro-rebate, 18 mm rebate depth</b>			<b>No</b>	<b>No</b>			
	silver	angled screw-fixing	right 100	364286				
			left 100	364287				

**11.6 Striker plates 12 mm air gap, Euro-rebate, 20 mm rebate depth**

34981

<b>T</b> 11.6.1 Striker plates 12 mm air gap, Euro-rebate, 20 mm rebate depth			No	No Tricoat
silver	angled screw-fixing	200	34981	355797*
		- 1 mm gasket-compression	200	355396
	without reinforcement rings angled screw-fixing	200	34986	

361960

<b>T</b> 11.6.2 Striker plate rear-engaging 12 mm air gap, Euro-rebate, 20 mm rebate depth			No	No Tricoat
silver	angled screw-fixing	200	361960 <sup>1</sup>	

<sup>1</sup> Only for i.S. cam!

356326

<b>T</b> 11.6.3 Sash lifters MM 12 mm air gap, Euro-rebate, 20 mm rebate depth			No	No Tricoat
silver	angled screw-fixing	right 100	356326	357920*
		left 100	356327	357921*

96561

<b>T</b> 11.6.4 Striker plates i.S. 12 mm air gap, Euro-rebate, 20 mm rebate depth			No	No Tricoat
silver	angled screw-fixing	100	96561	355865*
		- 0.7 mm gasket-compression	100	96861
	without reinforcement rings angled screw-fixing	100	96779	359370
		- 0.7 mm gasket-compression	100	96641

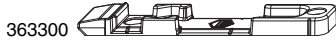
363797

<b>T</b> 11.6.5 Tilt-first striker plate i.S. 12 mm air gap, Euro-rebate, 20 mm rebate depth			No	No Tricoat
silver	MM	right and left 100	363797	369981

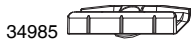
26241

<b>T</b> 11.6.6 Shootbolt striker plates 12 mm air gap, Euro-rebate, 20 mm rebate depth			No	No Tricoat
silver	2 slots	100	26241	208368
		+ 1 mm gasket-compression	100	208439

\* TRICOAT-PLUS standard parts



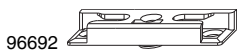
<b>T</b>	<b>11.6.7 Tilt striker plate 12 mm air gap, Euro-rebate, 20 mm rebate depth</b>			<b>No</b>	<b>No</b> Tricoat
	silver	right and left			



<b>T</b>	<b>11.6.8 Striker plate with positioning pins 12 x 3 mm 12 mm air gap, Euro-rebate, 20 mm rebate depth</b>			<b>No</b>	<b>No</b> Tricoat
	silver	angled screw-fixing			



<b>T</b>	<b>11.6.9 Sash lifters MM with positioning pins 12 x 3 mm 12 mm air gap, Euro-rebate, 20 mm rebate depth</b>			<b>No</b>	<b>No</b> Tricoat				
	silver	angled screw-fixing				right	100	<b>356959</b>	<b>362671</b>
						left	100	<b>356960</b>	<b>362670</b>



<b>T</b>	<b>11.6.10 Striker plate i.S. with positioning pins 12 x 3 mm 12 mm air gap, Euro-rebate, 20 mm rebate depth</b>			<b>No</b>	<b>No</b> Tricoat
	silver	angled screw-fixing			





<b>T</b>	<b>11.6.11 Shootbolt striker plate with positioning pins 12 x 3 mm 12 mm air gap, Euro-rebate, 20 mm rebate depth</b>			<b>No</b>	<b>No</b> Tricoat
	silver	2 slots			


\* TRICOAT-PLUS standard parts

## 11.7 Striker plates 12 mm air gap, Euro-rebate, 24 mm rebate depth

34934 


11.7.1 Striker plates 12 mm air gap, Euro-rebate, 24 mm rebate depth, 13 mm offset					No	No Tricoat
T	silver	angled screw-fixing		200	34934	359575*
			- 1 mm gasket-compression	200	359297	361346*
		without reinforcement rings	angled screw-fixing	100	362812	


360849 


11.7.2 Striker plate rear-engaging 12 mm air gap, Euro-rebate, 24 mm rebate depth, 13 mm offset					No	No Tricoat
T	silver	angled screw-fixing		200	360849 <sup>1</sup>	

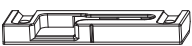
<sup>1</sup> Only for i.S. cam!

356333 


11.7.3 Sash lifters MM 12 mm air gap, Euro-rebate, 24 mm rebate depth, 13 mm offset					No	No Tricoat
T	silver	angled screw-fixing	right	100	356333	357922*
			left	100	356334	357923*


364952  363027 

11.7.4 Striker plates i.S. 12 mm air gap, Euro-rebate, 24 mm rebate depth, 13 mm offset					No	No Tricoat
T	silver	without reinforcement rings	angled screw-fixing	100	364952	366635*
			- 1 mm gasket-compression	100	364953	366636*
		design without reinforcement rings	angled screw-fixing	100	363027	

369757 

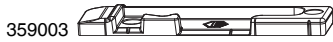
11.7.5 Tilt-first striker plates i.S. 12 mm air gap, Euro-rebate, 24 mm rebate depth, 13 mm offset					No	No Tricoat
T	silver		right	100	369757	
			left	100	369758	


360624  203329 

11.7.6 Shootbolt striker plates 12 mm air gap, Euro-rebate, 24 mm rebate depth, 13 mm offset					No	No Tricoat	
T	silver	24 mm rebate depth, 13 mm offset	1 fixed slot	100	360624 <sup>1</sup>		
			2 slots	100	203329	208979*	
			2 slots with angled screw-fixing	+ 1 mm	100	212474 <sup>2</sup>	
				+ 1 mm gasket-compression	100	211369	
			24 mm rebate depth, 13 mm offset without reinforcement rings	2 slots with angled screw-fixing + 1 mm gasket-compression	100	212343	


<sup>1</sup> For windows - Group C5 EN 12210.

<sup>2</sup> Height + 1 mm.




<b>T</b>	<b>11.7.7 Tilt striker plates 12 mm air gap, Euro-rebate, 24 mm rebate depth, 13 mm offset</b>				<b>No</b>	<b>No</b> Tricoat	
	silver			right	100	<b>359003</b>	<b>359570*</b>
				left	100	<b>359004</b>	<b>359571*</b>



<b>T</b>	<b>11.7.8 Night-vent striker plate 12 mm air gap, Euro-rebate, 24 mm rebate depth, 13 mm offset</b>				<b>No</b>	<b>No</b> Tricoat
	silver				100	<b>370925</b>




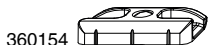
<b>T</b>	<b>11.7.9 Sash lifter for half round and angled windows, 12 mm air gap, Euro-rebate, 24 mm rebate depth, 13 mm offset</b>				<b>No</b>	<b>No</b> Tricoat
	silver				50	<b>206200</b>




<b>T</b>	<b>11.7.10 Latch striker plate 12 mm air gap, Euro-rebate, 24 mm rebate depth, 13 mm offset</b>				<b>No</b>	<b>No</b> Tricoat
	silver	adjustable			50	<b>209347</b>




<b>T</b>	<b>11.7.11 Striker plates with positioning pins 12 x 3 mm 12 mm air gap, Euro-rebate, 24 mm rebate depth, 13 mm offset</b>				<b>No</b>	<b>No</b> Tricoat	
	silver		angled screw-fixing		200	<b>356961</b>	<b>358851*</b>
				+ 1.2 mm gasket compression	200	<b>357213</b>	




<b>T</b>	<b>11.7.12 Striker plate rear-engaging with positioning pins 12 x 3 mm 12 mm air gap, Euro-rebate, 24 mm rebate depth, 13 mm offset</b>				<b>No</b>	<b>No</b> Tricoat
	silver				200	<b>360154<sup>1</sup></b>

<sup>1</sup> Only for i.S. cam!




<b>T</b>	<b>11.7.13 Sash lifters MM with positioning pins 12 x 3 mm 12 mm air gap, Euro-rebate, 24 mm rebate depth, 13 mm offset</b>				<b>No</b>	<b>No</b> Tricoat	
	silver		angled screw-fixing	right	200	<b>363992</b>	<b>365567</b>
				left	200	<b>363993</b>	<b>365568</b>



T	11.7.14 Striker plates i.S. with positioning pins 12 x 3 mm 12 mm air gap, Euro-rebate, 24 mm rebate depth, 13 mm offset				No	No Tricoat
	silver	with positioning pins 12x3 mm	angled screw-fixing			
		- 1 mm gasket-compression	100	<b>370557</b>	<b>370558*</b>	
	design with positioning pins 12x3 mm	angled screw-fixing	100	<b>363487</b>	<b>366921</b>	



T	11.7.15 Shootbolt striker plates with positioning pins 12 x 3 mm 12 mm air gap, Euro-rebate, 24 mm rebate depth, 13 mm offset				No	No Tricoat
	silver	2 slots				



### 11.8 Striker plates 12 mm air gap, Euro-rebate, 30 mm rebate depth



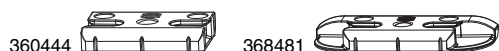
<b>T</b>	<b>11.8.1 Striker plate 12 mm air gap, Euro-rebate, 30 mm rebate depth, 13 mm offset</b>				<b>No.</b>		<b>No.</b>
	silver	angled screw-fixing	200	<b>360443</b>	<b>362304</b>		



<b>T</b>	<b>11.8.2 Striker plates rear-engaging 12 mm air gap, Euro-rebate, 30 mm rebate depth, 13 mm offset</b>				<b>No.</b>		<b>No.</b>
	silver	angled screw-fixing	200	<b>361100</b>			
		+ 0.8 mm gasket-compression	100	<b>368482</b>			



<b>T</b>	<b>11.8.3 Sash lifters MM 12 mm air gap, Euro-rebate, 30 mm rebate depth, 13 mm offset</b>				<b>No.</b>		<b>No.</b>
	silver	angled screw-fixing	right 100	<b>360445</b>	<b>368095</b>		
			left 100	<b>360446</b>	<b>368096</b>		



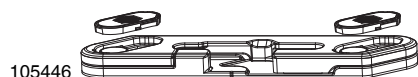
<b>T</b>	<b>11.8.4 Striker plates i.S. 12 mm air gap, Euro-rebate, 30 mm rebate depth, 13 mm offset</b>				<b>No.</b>		<b>No.</b>
	silver	angled screw-fixing	100	<b>360444</b>	<b>362305</b>		
		+ 0.7 mm gasket compression	100	<b>368481</b>			



<b>11.8.5 Shootbolt striker plate 12 mm air gap, Euro-rebate, 30 mm rebate depth, 13 mm offset</b>					<b>No.</b>		<b>No.</b>
silver	2 slots		100	<b>225431</b>			



<b>T</b>	<b>11.8.6 Tilt striker plates 12 mm air gap, Euro-rebate, 30 mm rebate depth, 13 mm offset</b>				<b>No.</b>		<b>No.</b>
	silver		right 200	<b>368345</b>			
			left 200	<b>368346</b>			




<b>T</b>	<b>11.8.7 SV striker plates i.S. 12 mm air gap, Euro-rebate, 30 mm rebate depth, 13 mm offset</b>				<b>No.</b>		<b>No.</b>
	silver	secured ventilation position	right 20	<b>105446<sup>1</sup></b>			
			left 20	<b>105447<sup>1</sup></b>			

<sup>1</sup> Refer to profile data sheets for PVC profiles.



357964 


<b>T</b> 11.8.8 Striker plates for multi-stepped ventilation 12 mm air gap, Euro-rebate, 30 mm rebate depth, 13 mm offset			<b>No</b>	<b>No</b> Tricoat
silver	with 4 stop positions	100	<b>357964<sup>1</sup></b>	
	with 5 stop positions	100	<b>356425<sup>1</sup></b>	

<sup>1</sup> A minimum rebate depth of 24 mm is required for 9 mm offset.




## 11.9 Striker plates 12 mm air gap, Euro-rebate, 18 - 30 mm rebate depth


206200 

<b>T</b>	<b>11.9.1 Sash lifter for half round and angled windows 12 mm air gap, Euro-rebate, 18 - 30 mm rebate depth</b>		<b>No</b>	<b>No</b> Tricoat
	silver	50	206200	210646


55277 

<b>T</b>	<b>11.9.2 Striker plate for espagnolette with mounted tilt stay 12 mm air gap, Euro-rebate, 18 - 30 mm rebate depth</b>		<b>No</b>	<b>No</b> Tricoat
	silver	100	55277	204970*

34958 


<b>T</b>	<b>11.9.3 Striker plate for 3-sashed windows 12 mm air gap, Euro-rebate, 18 - 30 mm rebate depth</b>		<b>No</b>	<b>No</b> Tricoat
	silver	200	34958	


207432 

<b>T</b>	<b>11.9.4 Striker plate for opening restrictor 12 mm air gap, Euro-rebate, 20 - 30 mm rebate depth</b>		<b>No</b>	<b>No</b> Tricoat
	silver      angled screw-fixing	50	207432	212218

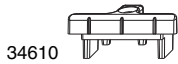
25118 

<b>T</b>	<b>11.9.5 Night-vent striker plate 12 mm air gap, Euro-rebate, 18 - 30 mm rebate depth</b>		<b>No</b>	<b>No</b> Tricoat
	silver	100	25118	

52794 

<b>T</b>	<b>11.9.6 Stabilizing scissor stay casing 12 mm air gap, Euro-rebate, 18 - 30 mm rebate depth</b>		<b>No</b>	<b>No</b> Tricoat
	silver	100	52794	204972*

## 11.10 Striker plates for opposite Eurogroove



34610

### 11.10.1 Striker plates for opposite Eurogroove



No

No  
Tricoat

silver

200

34610

354028

- 1 mm gasket-compression

200

34606

359599\*



34618

### 11.10.2 Striker plate for 3-sashed windows for opposite Eurogroove



No

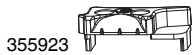
No  
Tricoat

silver

200

34618

366537



355923

### 11.10.3 Sash lifters MM for opposite Eurogroove



No

No  
Tricoat

silver

right

100

355923

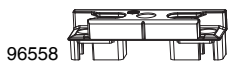
357926\*

left

100

355924

357927\*



96558

### 11.10.4 Striker plates i.S. for opposite Eurogroove



No

No  
Tricoat

silver

100

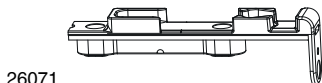
355221

- 0.8 mm gasket-compression

100

96558

358862



26071

### 11.10.5 Tilt striker plate for opposite Eurogroove for PVC



No

No  
Tricoat

silver

right and  
left

100

26071



228711

## P 11.11 Hook striker plates

L

W



No

No  
Tricoat

silver

+/- 1.5 mm gasket compression

FT22 (GKG Combi Plan 0.0,  
Inoutic Easystep, Profine  
Premiplan + Premiplan+, Rehau  
Synego + Geneo)

140

22

10

228711<sup>1</sup>

FT24

140

24

20

229946<sup>1</sup>

Veka-Nullbarriere-System

140

28

20

229518<sup>1</sup>

FT30

140

30


20

229945<sup>1</sup>

<sup>1</sup> Threshold-system see installation instructions no. 757345.


## 11.12 Accessories for striker plates

365791 


11.12.1 Striker plates for French casement drive gears			No	No Tricoat
silver	for French casement drive gear MMKS	100	<b>365791<sup>1</sup></b>	

<sup>1</sup> Compatible for shootbolt item no. 215240 and MT.


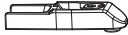

355615  43922 


11.12.2 Sash run-up block 2-sashed			No	No Tricoat
silver	for i.S striker plate MM	100	<b>355615</b>	
pearl light grey RAL 9022	for shootbolt striker plate	1.000	<b>43922</b>	

365561 

11.12.3 Adapter			No	No Tricoat
adapter MM for i.S. striker plate		50	<b>365561<sup>1</sup></b>	

<sup>1</sup> Only for i.S. striker plates with 50 mm length.

355920  205563  94037 

11.12.4 Accessories for 3-sashed windows			No	No Tricoat
silver	clip-on bush for i.S. cam	100	<b>355920</b>	
	clip-on bush for locking cam	100	<b>94031</b>	
	clip-on striker plate for locking cam	100	<b>55039</b>	
	clip-on striker plate for i.S. cams	100	<b>205563</b>	<b>207676</b>
	locking cam hardware groove	100	<b>94037</b>	
	locking cam opposite Eurogroove	100	<b>94038</b>	

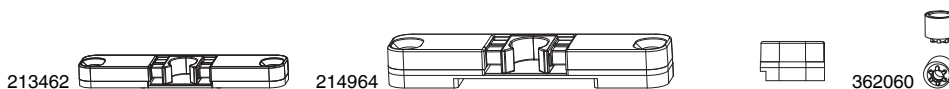


## 12 Accessories MULTI-MATIC

12.1	Door catches and bullet catches for 2-sashed windows	312
12.2	PVC bullet catches for 2-sashed windows	312
12.3	Self-catching turn locks	312
12.4	Concealed turn locks 4 mm air gap	313
12.5	Concealed turn locks 12 mm air gap	313
12.6	MULTI VENT vent adjusters	313
12.7	Vent adjusters	314
12.8	Vent adjusters for 2-sashed windows	314
12.9	Vent adjuster for turn-only windows	314
12.10	Turn-only hinge safety devices	314
12.11	Turn retarders	315
12.12	Turn restrictions	315
12.13	Turn restrictions MULTI POWER	315
12.14	Opening restrictors	316
12.15	Comfort adjusters	317
12.16	MULTI SKY skylight fitting	318
12.17	SAFETY PIN fall protection	318
12.18	Components for E-hardware	319
12.19	Glazing-bar hinges for glazing-bar frame	319
12.20	Glazing-bar catches for glazing-bar cross and glazing-bar frame	319
12.21	Drill-in glazing-bar catches	320
12.22	Universal coupling hinges	320
12.23	Universal coupling catches	320
12.24	Coupling hardware for aluminium front profile	320
12.25	Run-up blocks	321
12.26	Run-up blocks for thresholds	321
12.27	Screws	321
12.28	E-style retaining ring for shaft 5 mm, DIN 6799	321
12.29	Serrated carrier connector MM	321
12.30	Clip-on bush for i.S. cam 3-sashed	322
12.31	Faceplate strip cover	322
12.32	Tricoat repair paint	322
12.33	Hardware croppers	323

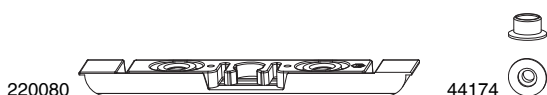


## 12 Accessories MULTI-MATIC



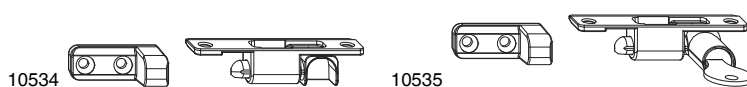
12.1 Door catches and bullet catches for 2-sashed windows			<b>N<sup>o</sup></b>	<b>N<sup>o</sup></b> Tricoat
silver	bullet catch timber 18 mm rebate depth 9 mm offset and 22 mm rebate depth 13 mm offset	50	<b>213461</b>	
	bullet catch timber 20 mm rebate depth 9 mm offset and 24 mm rebate depth 13 mm offset	50	<b>213462</b>	<b>217455</b>
	bullet catch hardware groove	50	<b>214804</b>	
	bullet-catch roll for timber 9 mm offset	with plate	50	<b>215372</b>
	bullet-catch roll for timber 13 mm offset	with plate	50	<b>215374</b>
	bullet-catch roll Eurogroove	with plate	50	<b>215373</b>
	bullet-catch roll steel		100	<b>362446</b>
	bullet catch French casement drive gear		50	<b>213460</b>
	bullet catch opposite Eurogroove		50	<b>214964</b>
	packer for bullet catch for Eurogroove		100	<b>362059<sup>1</sup></b>
pearl light grey RAL 9022	bullet-catch roll PVC		100	<b>362060</b>

<sup>1</sup> Use for installation into Eurogroove!

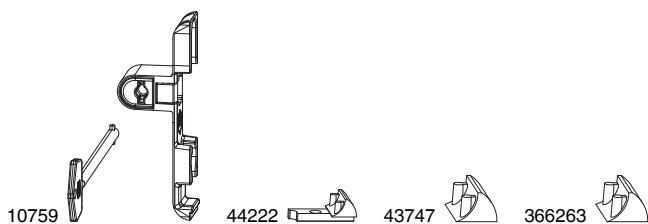


12.2 PVC bullet catches for 2-sashed windows			<b>N<sup>o</sup></b>	<b>N<sup>o</sup></b> Tricoat
silver	2-sashed bullet catch 4 mm air gap 9 mm offset mill-in	50	<b>220080<sup>1</sup></b>	
	2-sashed bullet catch without Eurogroove	50	<b>57891</b>	
	2-sashed bullet catch for Eurogroove	50	<b>55189</b>	
	bullet-catch roll Euro-rebate 10x7 mm	100	<b>44174</b>	
	bullet-catch roll hardware groove 10x7 mm with lip	100	<b>44175</b>	
	bullet-catch roll Euro-rebate 10x9 mm	100	<b>94111</b>	

<sup>1</sup> Routing length 120 mm.



12.3 Self-catching turn locks			<b>N<sup>o</sup></b>	<b>N<sup>o</sup></b> Tricoat
silver	turn lock self-catching	20	<b>10534</b>	<b>102049</b>
	turn lock self-catching lockable	20	<b>10535</b>	<b>102193</b>
	packer for frame component self-catching turn lock 2 mm	20	<b>366651</b>	
	key for self-catching turn lock lockable 2D057	100	<b>40401</b>	
traffic white RAL 9016	turn lock self-catching	20	<b>12067</b>	
	turn lock self-catching lockable	20	<b>12069</b>	
grey brown RAL 8019	turn lock self-catching	20	<b>12068</b>	
	turn lock self-catching lockable	20	<b>12070</b>	



<b>T 12.4 Concealed turn locks 4 mm air gap</b>			<b>N<sup>o</sup></b>	<b>N<sup>o</sup></b> Tricoat
silver	concealed turn lock for 4 mm air gap, 9 mm offset	20	<b>10759</b> <sup>1,2,3,4</sup>	<b>100036</b> <sup>1,2,3,4</sup>
	right concealed turn lock 4 mm air gap, 13 mm offset	20	<b>103874</b> <sup>2,3,5,6</sup>	
	left concealed turn lock 4 mm air gap, 13 mm offset	20	<b>103875</b> <sup>2,3,5,6</sup>	
	tilt-stay key	50	<b>94079</b>	
pearl light grey RAL 9022	right adapter spacer for turn lock cases Hardware groove 6/8/4	100	<b>44222</b>	
	left adapter spacer for turn lock cases Hardware groove 6/8/4	100	<b>44223</b>	
	adapter spacer for turn lock cases Euro-rebate	100	<b>43747</b>	
	adapter spacer for turn lock cases 12 air gap	20	<b>366263</b>	

<sup>1</sup> 9 mm offset: 18 mm milling depth.

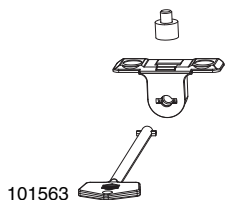
<sup>2</sup> For 4 mm air gap 90 mm milling length.

<sup>3</sup> Box contents: Turn lock and tilt-stay key.

<sup>4</sup> For timber 18 mm rebate depth 9 mm offset use end cap item no. 43747 and for hardware groove 6/8/4 end cap item no. 44222 on the right and/or item no. 44223 on the left.

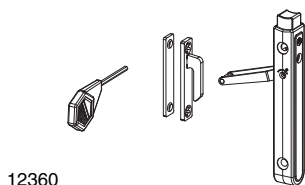
<sup>5</sup> Use end cap item no. 366263 for 12 mm air gap.

<sup>6</sup> 11 + 13 mm offset: 22 mm milling depth.



<b>12.5 Concealed turn locks 12 mm air gap</b>			<b>N<sup>o</sup></b>	<b>N<sup>o</sup></b> Tricoat
silver	lockable 9 mm offset	20	<b>101563</b> <sup>1</sup>	
	lockable 13 mm offset	20	<b>101562</b> <sup>1</sup>	<b>103414</b> <sup>1</sup>
	tilt-stay key	50	<b>94079</b>	

<sup>1</sup> Box contents: Turn lock, bolt for turn lock, Sped-Form screw, tilt-stay key.




<b>12.6 MULTI VENT vent adjusters</b>			<b>N<sup>o</sup></b>	<b>N<sup>o</sup></b> Tricoat
traffic white RAL 9016		20	<b>12360</b>	
cream white RAL 9001		20	<b>101524</b>	
grey brown RAL 8019		20	<b>12361</b>	
white	packer for Multi-Vent cases 5°	100	<b>42509</b>	
	packer for Multi-Vent cases 15°	100	<b>42514</b>	






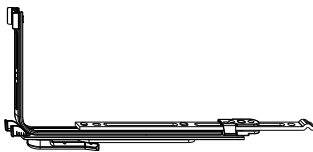
101671

12.7 Vent adjusters			No	No Tricoat
silver	right	50	<b>10890</b>	
	left	50	<b>10891</b>	
traffic white RAL 9016	right	50	<b>10137</b>	
	left	50	<b>10138</b>	
	left/right	50	<b>101671</b>	
		50	<b>101672</b>	
pearl light grey RAL 9022	left/right	50	<b>101673</b>	
		50	<b>101674</b>	
jet black RAL 9005	right	50	<b>12460</b>	
	left	50	<b>12461</b>	



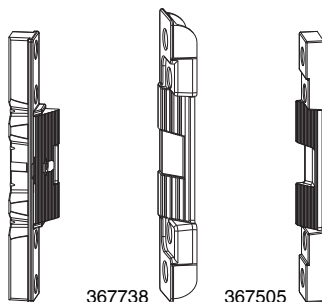
10892

12.8 Vent adjusters for 2-sashed windows			No	No Tricoat
silver	right	50	<b>10892</b>	
	left	50	<b>10893</b>	



209303


12.9 Vent adjuster for turn-only windows			No	No Tricoat
silver	9 V / 13 V	20	<b>209303</b>	



217584

367738

367505

12.10 Turn-only hinge safety devices			No	No Tricoat
silver	turn-only hinge safety device - sash component	20	<b>217584<sup>1,2,3</sup></b>	<b>224968<sup>1,2,3</sup></b>
	turn-only hinge safety device - frame component for 4 mm air gap, 9 mm offset	20	<b>368014<sup>4,5</sup></b>	
	turn-only hinge safety device - frame component 4 mm air gap, 13 mm offset	20	<b>367738<sup>5,6</sup></b>	
	turn-only hinge safety device - frame component timber 18 mm rebate depth 9 mm offset and 22 mm rebate depth 13 mm offset	20	<b>367505</b>	<b>367721</b>
	turn-only hinge safety device - frame component hardware groove	20	<b>367722</b>	<b>367723</b>

<sup>1</sup> Sash must have a Eurogroove in the sash component area.

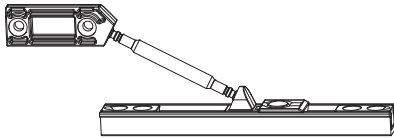
<sup>2</sup> For PVC and timber/alu profiles — see profile data sheets.

<sup>3</sup> Must be used for MACO basic security B and D.

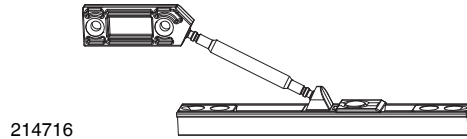
<sup>4</sup> 18 mm milling depth.

<sup>5</sup> Routing length 120 mm.

<sup>6</sup> 22 mm milling depth.



214718



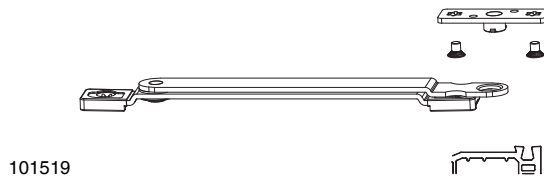
214716

### 12.11 Turn retarders

			<b>No</b>	<b>No</b> Tricoat
silver	concealed turn retarder timber	20	<b>214718</b>	
	concealed turn retarder PVC	20	<b>214716</b>	

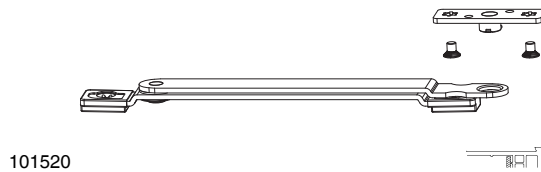


101517



101519

with end cap - type 1



101520

with end cap - type 2

### 12.12 Turn restrictions

					<b>No</b>	<b>No</b> Tricoat
silver	turn restriction timber Euro-rebate	240 - 1.300	80	20	<b>101517</b> <sup>1,2</sup>	<b>101888</b> <sup>1,2</sup>
	turn restriction timber hardware groove	240 - 1.300	80	20	<b>101518</b> <sup>1,2</sup>	
	turn restriction PVC / TV PVC end cap - type 1	240 - 1.300	80	20	<b>101519</b> <sup>1,2</sup>	
	turn restriction PVC / TV PVC end cap - type 2	240 - 1.300	80	20	<b>101520</b> <sup>1,2</sup>	
	turn restriction TV timber Euro-rebate	240 - 1.300	80	20	<b>206207</b>	
	turn restriction MM for half round windows	505 - 1.300	80	20	<b>103080</b>	
	packer for turn restriction sash component for Eurogroove			100	<b>40456</b>	
	screw for turn restriction for half round window			100	<b>101655</b>	

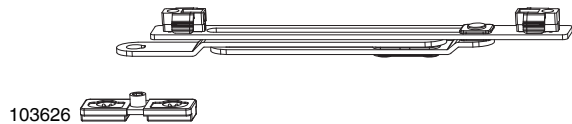
<sup>1</sup> In combination with horizontal corner support, the application area increases by 250 mm.

<sup>2</sup> Not for use in combination with rebated corner support without rebate-leg screw fixing.



103625

with end cap - type 1



103626

with end cap - type 2

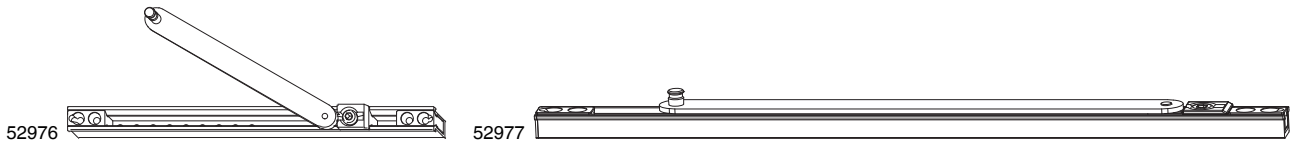
### 12.13 Turn restrictions MULTI POWER



					<b>No</b>	<b>No</b> Tricoat
silver	timber Euro-rebate	330 - 1.400	150	20	<b>103623</b> <sup>1</sup>	<b>103778</b> <sup>1</sup>
	timber hardware groove	330 - 1.400	150	20	<b>103624</b> <sup>1</sup>	
	PVC with end cap - type 1	330 - 1.400	150	20	<b>103625</b> <sup>1</sup>	<b>103780</b> <sup>1</sup>
	PVC with end cap - type 2	330 - 1.400	150	20	<b>103626</b> <sup>1</sup>	

<sup>1</sup> With horizontal corner element, application range from 560 mm.



## 12.14 Opening restrictors



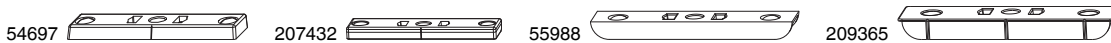
12.14.1 Opening restrictors		L			No	No Tricoat
silver	opening restrictor with brake arm length 145 mm	244	280 - 380	20	52976 <sup>1,2</sup>	201784 <sup>1,2*</sup>
	opening restrictor with brake arm length 210 mm	244	360 - 449	20	216367 <sup>1,2</sup>	
	opening restrictor with brake arm length 250 mm	244	381 - 470	20	52978 <sup>2</sup>	202432 <sup>2*</sup>
	opening restrictor with brake arm length 250 mm	333	471 - 1.650	20	52977 <sup>2,3</sup>	201774 <sup>2,3*</sup>
	opening restrictor with brake arm length 274 mm	333	480 - 1.800	20	214328 <sup>2,4</sup>	223210 <sup>2,4</sup>


<sup>1</sup> Crop the corner support at the notch.

<sup>2</sup> In combination with horizontal corner support, the application area increases by 250 mm.

<sup>3</sup> In connection with MULTI POWER application range 470 - 1400 mm.

<sup>4</sup> In connection with MULTI MAMMUT application range from 695 mm.



12.14.2 Frame components for opening restrictors		L		No	No Tricoat
silver	frame component for opening restrictor for PVC	78	50	10757	101408
	frame component for opening restrictor Euro-rebate 18 mm angled screw-fixing	80	50	54697	201785
	frame component for opening restrictor Euro-rebate 20 mm angled screw-fixing	80	50	207432	212218
	frame component for opening restrictor for 4 mm air gap, 9 mm offset angled screw-fixing	90	50	55988 <sup>1,2</sup>	208788 <sup>1,2</sup>
	frame component for opening restrictor for 4 mm air gap, 13 mm offset	90	100	209365 <sup>2,3</sup>	

<sup>1</sup> 18 mm milling depth.

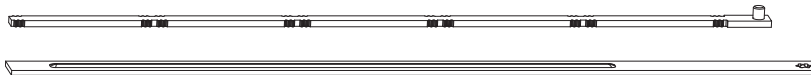
<sup>2</sup> Routing length 90 mm.

<sup>3</sup> 22 mm milling depth.



## 12.15 Comfort adjusters



105428



105429

12.15.1 Comfort adjusters		L			No	No Tricoat
silver	parking brake arm length 145 mm size 1	250	566 - 800	20	<b>105428</b> <sup>1,2</sup>	
	parking brake arm length 250 mm size 2	250	660 - 1.800	20	<b>105429</b> <sup>1,3</sup>	

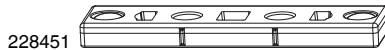
<sup>1</sup> Use sash lifter and mishandling device retrofittable for comfort adjuster item no. 370922!

<sup>2</sup> Sash rebate width only for corner support, not for rebated corner support!

<sup>3</sup> Sash rebate width for rebated corner support; 670 mm for MULTI POWER.



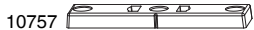
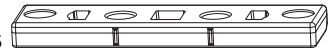
229225




228451



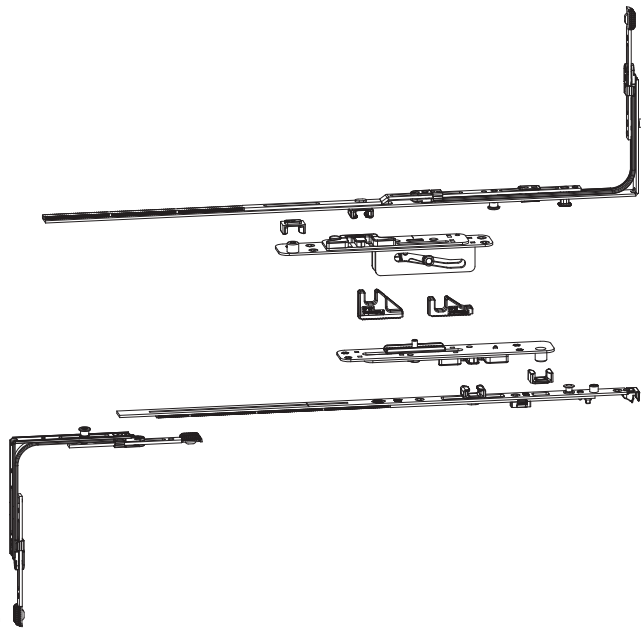
228785









10757

12.15.2 Frame components for comfort adjusters					No	No Tricoat
silver	frame component for comfort adjuster for timber	angled screw-fixing	18 mm rebate depth	50	<b>229225</b>	
	12 mm air gap					
	frame component for opening restrictor for timber	angled screw-fixing	20 mm rebate depth and 24 mm rebate depth	50	<b>228451</b>	
	12 mm air gap					
	frame component for comfort adjuster for PVC	MULTI POWER		50	<b>228785</b>	
	frame component for opening restrictor for PVC			50	<b>10757</b>	





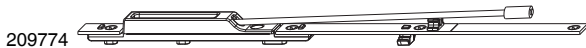
105359

12.16 MULTI SKY skylight fitting								
silver	right	13 mm offset	600 - 1.300	500 - 800	30	1	<b>105359</b> <sup>1,2</sup>	
	left	13 mm offset	600 - 1.300	500 - 800	30	1	<b>105360</b> <sup>1,3</sup>	

<sup>1</sup> **IMPORTANT:** For a right-hand side central sash, a left version of Multi Sky must be ordered and vice versa!

<sup>2</sup> Consisting of: transom kinematics top right, transom kinematics bottom right, turn-only hinge - sash part, croppable MM 600 SRW 430 - 600, corner element bottom horizontal, corner element MM with 1 i.S. SRW 320 - 1650, 2 piece location screw, connector plate distance 43 - 48 mm (for transom 51 - 56 mm).





<sup>3</sup> Consisting of: transom kinematics top left, transom kinematics bottom left, turn-only hinge - sash part, croppable MM 600 SRW 430 - 600, corner element bottom horizontal, corner element MM with 1 i.S. SRW 320 - 1650, 2 piece location screw, connector plate distance 43 - 48 mm (for transom 51 - 56 mm).



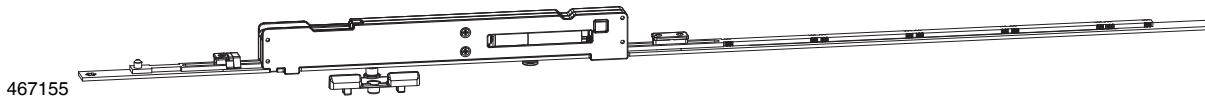
209774



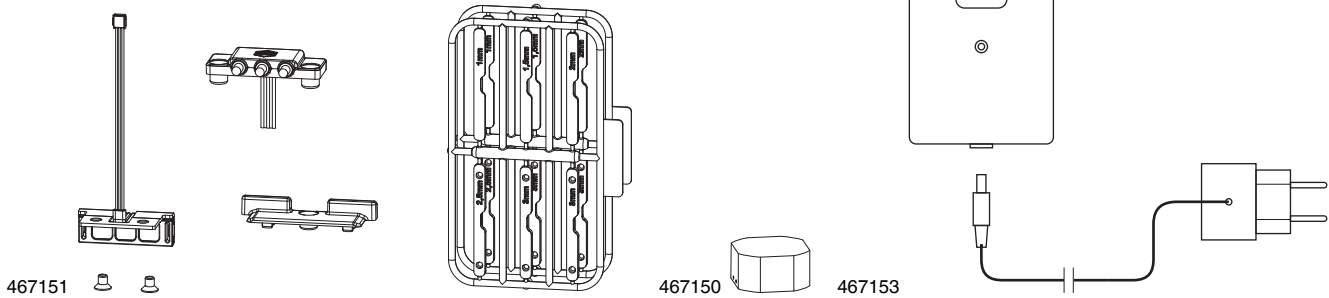
215159

12.17 SAFETY PIN fall protection						
silver		centre lock cable junction TR to MM	280 - 2.800	20	<b>206538</b>	
		bottom anti-unhinge safety device for PVC and timber		20	<b>209774</b> <sup>1</sup>	<b>223236</b> <sup>1</sup>
		top anti-unhinge device for PVC and timber, extendable, 1 i.S.		20	<b>215159</b>	<b>223245</b>
yellow	right	base plate for anti-unhinge device angled screw-fixing with positioning pins for timber and PVC		20	<b>102301</b>	<b>105154</b>
	left	base plate for anti-unhinge device angled screw-fixing with positioning pins for timber and PVC		20	<b>102302</b>	
white		packer for PVC hinged plate 2 mm		50	<b>363605</b>	
		packer for PVC hinged plate 3 mm		50	<b>363606</b>	

<sup>1</sup> Must be used from SRH 1850 mm!



467155



467151

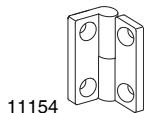
467150

467153

### 12.18 Components for E-hardware

		No	No Tricoat
E-hardware silver	1	467155 <sup>1</sup>	
contact transition for E-hardware	1	467151	
Power supply for E-hardware	1	467150	
activating device for E-hardware	1	467153	

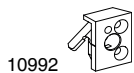
<sup>1</sup> For not circumferential central locking system maximum 60 kg sash weight, for circumferential central locking system maximum 80 kg!



11154

### T 12.19 Glazing-bar hinges for glazing-bar frame

			No	No Tricoat
white	right	50	11472	
	left	50	11473	
brown	right	50	11154	
	left	50	11155	



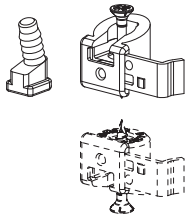
10992

### T 12.20 Glazing-bar catches for glazing-bar cross and glazing-bar frame

			No	No Tricoat
white	for 26 mm glazing-bar cross/glazing-bar frame	50	11470 <sup>1</sup>	
	for 33 mm glazing-bar cross	50	11471	
brown	for 22 mm glazing-bar cross/glazing-bar frame	50	13130 <sup>1</sup>	
	for 26 mm glazing-bar cross/glazing-bar frame	50	11153 <sup>1</sup>	
	for 33 mm glazing-bar cross	50	10992	

<sup>1</sup> Compatible with glazing-bar hinges.

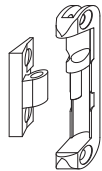




12387

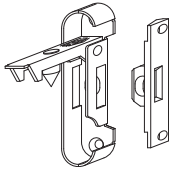
<b>T 12.21 Drill-in glazing-bar catches</b>			<b>No</b>	<b>No</b> Tricoat
white		50	12388 <sup>1</sup>	
brown		50	12387 <sup>1</sup>	

<sup>1</sup> 25 each left and right.



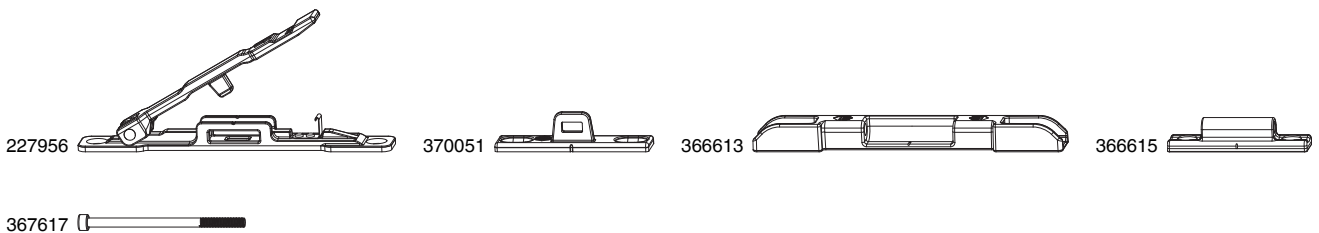
101251

<b>T 12.22 Universal coupling hinges</b>				<b>No</b>	<b>No</b> Tricoat
silver	with 2 mm air gap	40	50	101248	
	without air gap	40	50	101251	



101252

<b>T 12.23 Universal coupling catches</b>			<b>No</b>	<b>No</b> Tricoat
silver	with 2 mm air gap	50	101250	
	without air gap	50	101252	



227956

370051

366613

366615

367617

**12.24 Coupling hardware for aluminium front profile**

			<b>No</b>	<b>No</b> Tricoat
Tricoat	locking unit for alu front profiles	20		227956*
	frame component for lock for alu front profiles	20		370051*
	packer for frame component for alu front profiles	20		370052*
	coupling hinge for alu front profiles	20		366613 <sup>1</sup> *
	coupling hinge roll for alu front profiles 15 mm high	20		366614*
	coupling hinge roll for alu front profiles 16 mm high	20		366615*
	shaft pin for coupling hinge	20		367617 <sup>1</sup> *

<sup>1</sup> Please order screw for pin safety device item no. 104302 separately.



94022 44351 44350

T 12.25 Run-up blocks				No	No Tricoat
silver	run-up block	4 mm air gap	500	94022 <sup>1</sup>	
		sash component	50	44351 <sup>1</sup>	
		frame component	50	44350 <sup>1</sup>	

<sup>1</sup> Only for Euro-rebate 20 mm rebate depth.

370252 369791

P 12.26 Run-up blocks for thresholds				W	L		No	No Tricoat
silver	frame component		8	21,8	50	100	370252 <sup>1</sup>	
				23,5	50	100	371009 <sup>2</sup>	
				27,3	50	100	371712 <sup>3</sup>	
				28	50	100	370390 <sup>4</sup>	
				33,9	50	100	369788 <sup>5</sup>	
grey F1	sash component	4 mm air gap		20	20	100	369791	
		6 mm air gap		20	20	100	369790	
		10 mm air gap		20	20	100	369789	

<sup>1</sup> TROCAL and GKG

<sup>2</sup> MACO TRANSIT

<sup>3</sup> Schüco Living

<sup>4</sup> Eifel TB

<sup>5</sup> VEKA

362918 ⊕ 101473 ⊕ 104371 ⊕

12.27 Screws		L	Ø		No	No Tricoat
silver	special drill screw Multi Power for timber and PVC Phillips 7.2 mm head	38	4,5	100	362918	105152*
	special drill screw Multi Power for timber and PVC T20 7.2 mm head	38	4,5	500	367828	104212*
Tricoat	hardware bolt for PVC Phillips with drill bit 7 mm head	25	3,9	100		101474*
		32	3,9	100		101473*
		38	3,9	100		101472*
	hardware bolt for timber and PVC Phillips 7 mm head	22	4,2	100		101466*
		25	4,2	100		104371*
		30	4,2	100		101469*
		40	4,2	100		101470*
		55	4,2	500		102269*

41823

12.28 E-style retaining ring for shaft 5 mm, DIN 6799				No	No Tricoat
blank			1.000	41823	

206692

12.29 Serrated carrier connector MM				No	No Tricoat
silver			50	206692 <sup>1</sup>	

<sup>1</sup> Can also be supplied in quantities less than one packaging unit.



<b>12.30 Clip-on bush for i.S. cam 3-sashed</b>			<b>No</b>	<b>No</b> Tricoat
silver		100	<b>355920</b>	

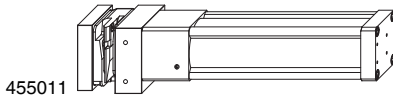


<b>12.31 Faceplate strip cover</b>		<b>L</b>		<b>No</b>	<b>No</b> Tricoat
silver		1.400	10	<b>364686</b>	
		2.200	10	<b>364687</b>	



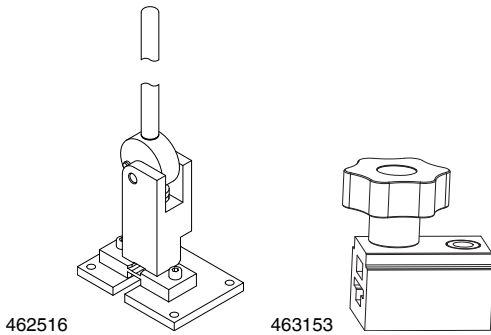
<b>12.32 Tricoat repair paint</b>			<b>No</b>	<b>No</b> Tricoat
Tricoat repair paint 0,125 L tin		1	<b>358440</b>	

### 12.33 Hardware croppers



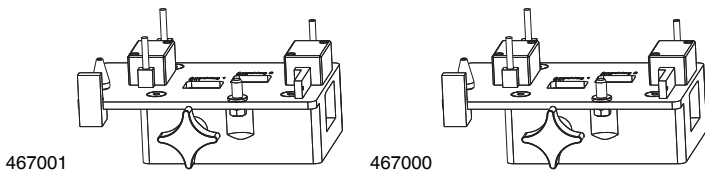
12.33.1 SOMATEC hardware croppers			No	No Tricoat
Somatec hardware angle cropper MM without accessories left	1		455457	
Somatec hardware angle cropper MM without accessories right	1		455458	
SOMATEC hardware cropper MM with accessories left	1		455008 <sup>1</sup>	
SOMATEC hardware cropper MM with accessories right	1		455009 <sup>1</sup>	
SOMATEC hardware cropper MM without accessories left	1		455011	
SOMATEC hardware cropper MM without accessories right	1		455012	
SOMATEC hardware cropper with straight cut with accessories left	1		465205 <sup>1</sup>	
SOMATEC hardware cropper with straight cut with accessories right	1		465206 <sup>1</sup>	

<sup>1</sup> Accessories: filter and regulation unit, pedal, air-tube.



12.33.2 Hand cropper/cropping aid for offset cut			No	No Tricoat
manual fitting cutter MM Reiplinger	1		462516	
cropping aid for offset punch MULTI MATIC	1		463153	
set of cutting blade and punching tool for hand cropper MM 462516	1		478324	

### 12.33.3 Accessories for SOMATEC hardware croppers




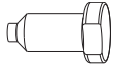
12.33.3.1 Fences			No	No Tricoat
fence for SOMATEC hardware cropper left MM 2.500	1		455010	
fence for SOMATEC hardware cropper right MM 2.500	1		455122	
stop for SOMATEC ruler left MM	1		467001	
stop for SOMATEC ruler right MM	1		467000	
support for fence MM	1		466850	





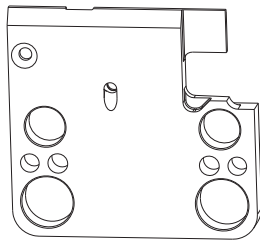
455048

12.33.3.2 Cutting punches		No	No Tricoat
punch for SOMATEC hardware cropper 0006 right MM	1	455049	
punch for SOMATEC hardware cropper 0007 MM	1	455048	
punch for SOMATEC hardware cropper 0106 left MM	1	455050	




455051

12.33.3.3 Hole-punch		No	No Tricoat
punching die for SOMATEC hardware cropper MM	10	455051	




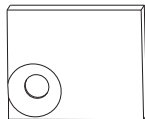
455052

12.33.3.4 Female dies		No	No Tricoat
female die for SOMATEC hardware cropper 0001 left MM	1	455052	
female die for SOMATEC hardware cropper 0101 right MM	1	455053	




455054


12.33.3.5 Fibro springs		No	No Tricoat
Fibro spring for SOMATEC hardware cropper D12x4x12, 90 mm long, Shore MM	1	455054	
Fibro spring for SOMATEC hardware cropper D32.5x13.5x23, 80 mm long, Shore MM	1	455055	



455056

12.33.3.6 Fibro insertions		No	No Tricoat
Fibro insertion for SOMATEC hardware cropper left MM	1	455056	
Fibro insertion for SOMATEC hardware cropper right MM	1	455057	



12.33.3.7 Controls		No	No Tricoat
pressure regulating valve for SOMATEC hardware cropper MM	1	455059	
corner kit for pressure control MM	1	466859	
foot control for SOMATEC hardware cropper MM	1	455058	



**MACO  
MULTI-MATIC**



Accessories MULTI-MATIC



## 13 Stackable pallets


---







<b>13.1</b>	<b>T&amp;T drive gears</b>	<b>328</b>
13.1.1	T&T drive gears BS 15 FHH i.S.	328
13.1.2	T&T drive gears BS 15 FHH with tilt lock bolt	328
13.1.3	T&T drive gear BS 15 VHH i.S.	328
13.1.4	T&T drive gears EH BS 15 FHH i.S.	328
13.1.5	T&T drive gears EH BS 6.5 FHH i.S.	328
<b>13.2</b>	<b>Corner elements</b>	<b>329</b>
13.2.1	Corner elements	329
<b>13.3</b>	<b>Centre locks and faceplate extensions</b>	<b>329</b>
13.3.1	Centre locks	329
13.3.2	Faceplate extension	329
<b>13.4</b>	<b>Scissor stays</b>	<b>330</b>
13.4.1	Rebated scissor stays VZ and i.S.	330
13.4.2	Rebated scissor stays VZ with night-vent	330
13.4.3	Scissor stay faceplates i.S. with night-vent	330
<b>13.5</b>	<b>French casement locks</b>	<b>330</b>
13.5.1	French casement drive gear for Eurogroove FHH	330









## 13 Stackable pallets


### 13.1 T&T drive gears





208442 


13.1.1 T&T drive gears BS 15 FHH i.S.							No	No Tricoat
silver	430	15	0	125	360 - 430	0	560	<b>210896</b>
	660	15	0	190	431 - 660	0	560	<b>210897</b>
	840	15	1	300	661 - 840	1	320	<b>208442</b>
	1090	15	1	400	841 - 1.090	1	320	<b>204423</b>
	1340	15	1	500	1.091 - 1.340	1	320	<b>204424</b>






216935 


13.1.2 T&T drive gears BS 15 FHH with tilt lock bolt						No	No Tricoat
silver	15	1	400	841 - 1.090	320	<b>216935</b>	
			500	1.091 - 1.340	320	<b>216936</b>	






208443 

13.1.3 T&T drive gear BS 15 VHH i.S.					No	No Tricoat
silver	15	1	801 - 1.250	320	<b>208443</b>	

208444 

13.1.4 T&T drive gears EH BS 15 FHH i.S.						No	No Tricoat
silver	15	2	300	661 - 840	320	<b>208444</b>	
			400	841 - 1.090	320	<b>210900</b>	
			500	1.091 - 1.340	320	<b>210901</b>	

211435 

13.1.5 T&T drive gears EH BS 6.5 FHH i.S.						No	No Tricoat
silver	6,5	2	400	841 - 1.090	320	<b>211435</b>	
			500	1.091 - 1.340	320	<b>211436</b>	

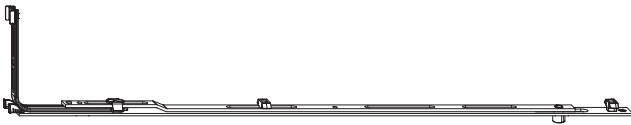
### 13.2 Corner elements



208440

13.2.1 Corner elements					No	No Tricoat
silver	vertically extendable with 1 i.S.		750 - 2.800	1.100	<b>204408</b>	<b>212178*</b>
	vertically extendable without i.S. cams		750 - 2.800	1.100	<b>215247</b>	
	with 1 i.S.	320 - 1.800	360 - 2.800	1.100	<b>204407</b>	<b>212177*</b>
	with 2 i.S.	320 - 1.800	360 - 2.800	1.000	<b>208440</b>	
	horizontally extendable with 1 i.S.	320 - 1.800	360 - 2.800	1.100	<b>204409</b>	<b>212179*</b>
	with 1 VZ	320 - 1.800	360 - 2.800	1.100	<b>216934</b>	
	for variable drive gear horizontally extendable with 1 i.S.	320 - 1.800	470 - 2.800	1.000	<b>204410</b>	
for variable drive gear horizontally extendable with 2 i.S.	320 - 1.800	470 - 2.800	900	<b>208441</b>		

### 13.3 Centre locks and faceplate extensions



216941

13.3.1 Centre locks			No	No Tricoat
silver	centre lock MM 1280	900	<b>204418</b>	
	centre lock one piece MM 1280	560	<b>216941</b>	
	centre lock extendable MM 1280V	900	<b>204417</b>	
	centre lock MM 1500	750	<b>204419</b>	
	centre lock one piece MM 1500	450	<b>216942</b>	
	centre lock extendable MM 1500V	540	<b>204420</b>	



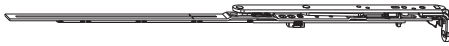
214760





13.3.2 Faceplate extension			No	No Tricoat
silver	faceplate extension MM, extendable 235	1 1.200	<b>214760</b>	



### 13.4 Scissor stays




216938



13.4.1 Rebated scissor stays VZ and i.S.						No	No Tricoat
silver	600	0	0	401 - 600	560	<b>216938</b>	
	800	0	0	601 - 800	480	<b>216939</b>	
	1050	1	0	801 - 1.050	480	<b>216940</b>	
	1050	0	1	801 - 1.050	480	<b>216416</b>	




229237



13.4.2 Rebated scissor stays VZ with night-vent					No	No Tricoat	
silver	right	600	0	401 - 600	560	<b>218064</b>	
	left	600	0	401 - 600	560	<b>218065</b>	
	right	800	0	601 - 800	480	<b>218066</b>	
	left	800	0	601 - 800	480	<b>218067</b>	
	right	1050	1	801 - 1.050	480	<b>229237</b>	
	left	1050	1	801 - 1.050	480	<b>229238</b>	

204447






13.4.3 Scissor stay faceplates i.S. with night-vent					No	No Tricoat	
silver	right	600	0	401 - 600	720	<b>204443</b>	
	left	600	0	401 - 600	720	<b>204444</b>	
	right	800	0	601 - 800	630	<b>204445</b>	
	left	800	0	601 - 800	630	<b>204446</b>	
	right	1050	1	801 - 1.050	450	<b>204447</b>	
	left	1050	1	801 - 1.050	450	<b>204448</b>	
	right	1300	1	1.051 - 1.300	320	<b>204449</b>	
	left	1300	1	1.051 - 1.300	320	<b>204450</b>	

### 13.5 French casement locks

204426



13.5.1 French casement drive gear for Eurogroove FHH					No	No Tricoat	
silver	for 1 i.S.	1340	500	1.091 - 1.340	320	<b>204426</b>	



## 14 Jigs, tools and adjusting screws

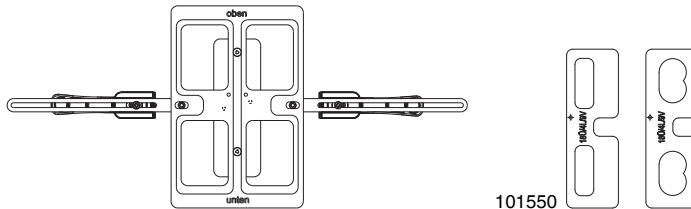
---

14.1	Jigs timber 4 mm air gap	332
14.2	Jigs timber 12 mm air gap	335
14.3	Jigs timber 4 mm + 12 mm air gap	337
14.4	Jigs PVC	338
14.5	Jigs timber and PVC	340
14.6	Tools and adjustment keys	345



## 14 Jigs, tools and adjusting screws

### 14.1 Jigs timber 4 mm air gap



206751

101550

#### 14.1.1 Routing jigs for pivot posts and scissor stay hinges DT 4 mm air gap

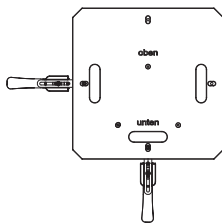


No

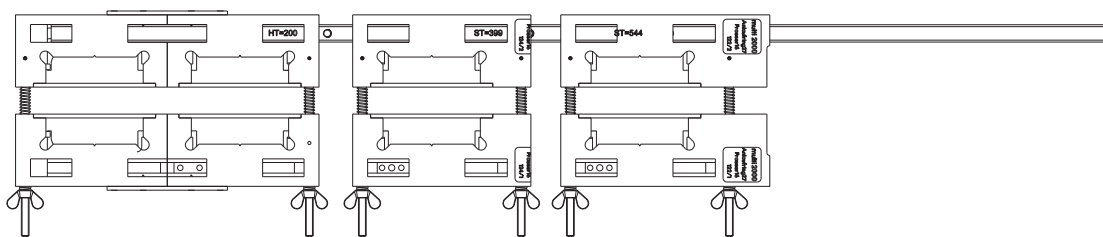
No  
Tricoat

routing frame for pivot post and scissor stay hinge	timber	DT FR16/AR27		1	206751 <sup>1</sup>	
routing jig insert for pivot post and scissor stay hinge	timber	DT FR16/AR27	4 air gap/15 rebate leg	1	101551	
			4 air gap/18 rebate leg/9 offset	1	101550	
			4 air gap/18 rebate leg/13 offset	1	102890	

<sup>1</sup> Order routing plates item no. 101551, item no. 101550, item no. 102890 separately.



214813



214152

#### 14.1.2 Routing jigs for drive gears MM/MM-KS 4 mm air gap

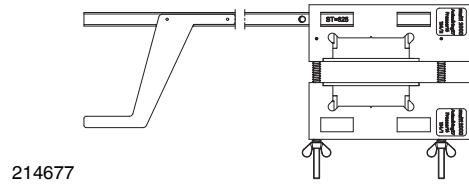


No

No  
Tricoat

routing template for drive gear FHH MM	& corner element i.S.	4 mm air gap		1	214813 <sup>1</sup>	
routing template for drive gear FHH MM/MMKS		4 mm air gap	661 - 1.090	1	214152	
			841 - 1.340	1	214153	
			1.341 - 1.700	1	214154	
			1.701 - 2.200	1	214155	
	door catch	4 mm air gap	1.701 - 2.200	1	214156	

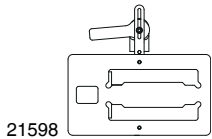
<sup>1</sup> Corner element item no. 222215.



**14.1.3 Positioning jigs and routing jigs for centre locks and scissor stays MM/MM-KS 4 mm air gap**

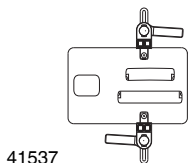
						No	No Tricoat
striker positioning jig scissor stay MM/MMKS	with 48 mm retainer	4 mm air gap	630 - 1.300		1	214669 <sup>1</sup>	
routing template for bottom centre lock MM		4 mm air gap	801 - 1.500		1	214677	
routing template for bottom centre lock MMKS		4 mm air gap	801 - 1.500		1	214163	
routing template for hinge side centre lock MM		4 mm air gap		801 - 2.200	1	214676	
routing template for hinge side centre lock MMKS		4 mm air gap		801 - 2.450	1	214162	
routing template for hinge side centre lock MM/MMKS		4 mm air gap		801 - 1.500	1	214161	

<sup>1</sup> Top 12 mm air gap.



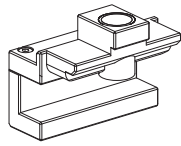
**14.1.4 Routing jigs for 2-sashed windows for drive gears, centre locks and shootbolts MM/MM-KS 4 mm air gap**

						No	No Tricoat
routing template for 2-sashed windows	timber shootbolt FR16/AR27	4 mm air gap			1	21598	
routing template for drive gear FHH MM/MMKS	2-sashed	4 mm air gap		841 - 1.340	1	214157	
				1.341 - 1.700	1	214158	
				1.701 - 2.200	1	214159	
	door catch 2-sashed	4 mm air gap		1.701 - 2.200	1	214160	
routing template for bottom centre lock MM	2-sashed	4 mm air gap	801 - 1.500		1	214679	
routing template for centre lock Euronut	2-sashed	4 mm air gap	801 - 1.500		1	215016	
routing template for bottom centre lock MMKS	2-sashed	4 mm air gap	801 - 1.500		1	214164	



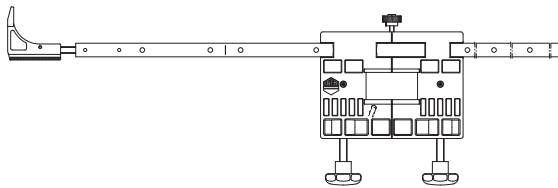
**14.1.5 Routing jigs for half round windows 4 mm air gap**

					No	No Tricoat
routing template MT/MM for half round windows stabilizing scissor stay case and strikers	4 mm air gap timber				1	41537
routing template MT/MM for half round scissor stay	4 mm air gap timber				1	28337



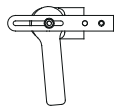
214542

<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">T</span> <b>14.1.6 Drilling jigs for compression devices 4 mm air gap</b>							<b>No</b> 	<b>No</b> Tricoat
drill jig for compression device	timber	drill-in	9 mm offset	4 mm air gap	1		<b>23871</b>	
			13 mm offset	4 mm air gap	1		<b>214542</b>	

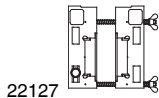


28377

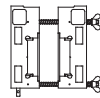
<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">T</span> <b>14.1.7 Routing jig for intermediate drive gears 4 mm air gap</b>							<b>No</b> 	<b>No</b> Tricoat
routing template for intermediate drive gear	timber	FR16/AR27/BO12		4 mm air gap / 15 mm rebate leg	1		<b>28377</b>	



11195

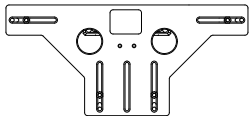


22127



<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">T</span> <b>14.1.8 Replacement parts and single components for jigs 4 mm air gap</b>							<b>No</b> 	<b>No</b> Tricoat
clamp for routing jig	timber	2 pcs. with screws			10		<b>11195</b>	
routing jig 122/1+2	timber	replacement part for routing jig		4 mm air gap	1		<b>22127</b>	
routing jig 123/1+2	timber	replacement part for routing jig		4 mm air gap	1		<b>20924</b>	
routing jig 124/1+2	timber	replacement part for routing jig		4 mm air gap	1		<b>20925</b>	
routing jig 125/1+2	timber	replacement part for routing jig		4 mm air gap	1		<b>20926</b>	

## 14.2 Jigs timber 12 mm air gap



20890

### 14.2.1 Routing jig for pivot posts and scissor stay hinges DT 12 mm air gap

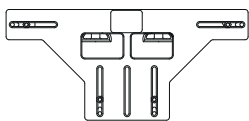


No

No  
Tricoat

routing template for pivot post and scissor stay hinge	timber	DT FR34/AR40	12 mm air gap / 18 mm rebate leg + 12 mm air gap / 20 mm rebate leg	1	20890 <sup>1</sup>
--	--------	--------------	--	---	--------------------

<sup>1</sup> Replacement part and single component available.



23957

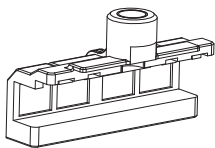
### 14.2.2 Routing jig for scissor stay hinges for angled windows DT 12 mm air gap



No

No  
Tricoat

routing template for angled window scissor stay hinge	timber	DT FR34/AR40	12 mm air gap / 18 mm rebate leg + 12 mm air gap / 20 mm rebate leg	1	23957
---	--------	--------------	--	---	-------



22482

### 14.2.3 Drilling jigs for compression devices 12 mm air gap



No

No  
Tricoat

striker positioning jig for compression device	timber	drill-in	sash component		1	29489
drilling block for compression device	timber	drill-in		12 mm air gap 9 mm offset	1	22482
drill jig for compression device	timber	drill-in	frame components	12 mm air gap 9 mm offset	1	29490
drilling block for compression device	timber	drill-in		Euro-rebate 24 mm rebate depth 13 mm offset	1	206881
drill jig for compression device	timber	drill-in		Euro-rebate 24 mm rebate depth 13 mm offset	1	207300



212949

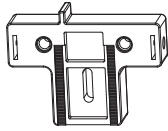
### 14.2.4 Drilling jig for Safety Pin 12 mm air gap



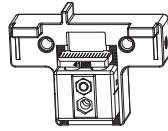
No

No  
Tricoat

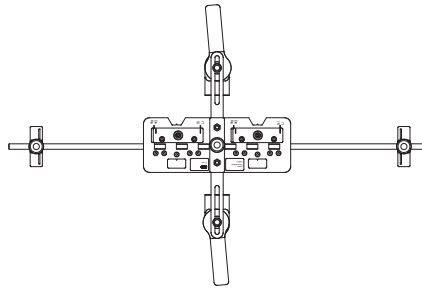
drill jig for safety pin	timber			Euro-rebate 24 mm rebate depth 13 mm offset	1	212949
--------------------------	--------	--	--	--	---	--------



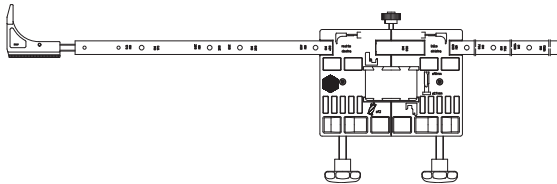
12506



11025



T 14.2.5 Drilling jigs for 3-sashed windows 12 mm air gap			No	No Tricoat
drill jig for 3-sashed turn-only hinge	timber	1	12506	
drill jig for multi-sash centre frame hinge	timber	1	11025	



206581

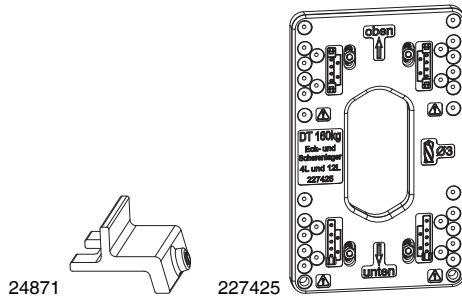
T 14.2.6 Routing jigs for intermediate drive gears 12 mm air gap			No	No Tricoat
routing template for intermediate drive gear	timber FR16/AR27/BO12 9 mm offset	1	28376	
	13 mm offset	1	206581	




370313

T 14.2.7 Replacement parts and single components for jigs 12 mm air gap			No	No Tricoat
Stop piece DT160	18 mm high	2	370313	

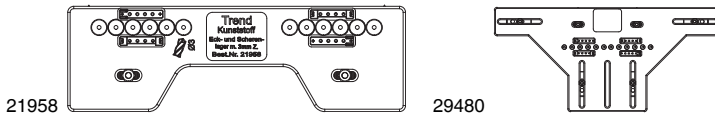
### 14.3 Jigs timber 4 mm + 12 mm air gap



#### T 14.3.1 Drilling jigs

			<b>No</b>	<b>No</b> Tricoat
drill jig for glazing-bar catch	timber	10	<b>24871</b>	
drill jig for pivot post and scissor stay hinge DT160		1	<b>227425</b>	

## 14.4 Jigs PVC



21958

29480

### P 14.4.1 Drilling jigs for pivot posts and scissor stay hinges

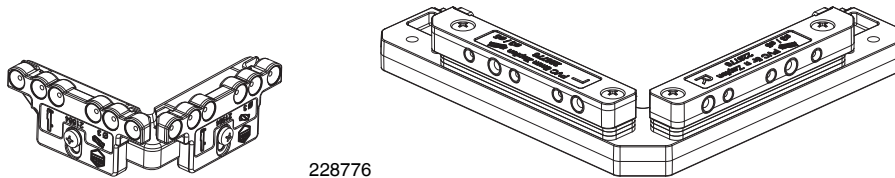


No

No  
Tricoat

drill jig for pivot post and scissor stay hinge	PVC	with 3 mm pin	1	21958 <sup>1</sup>	
		self-tightening with 3 mm pin	1	29480 <sup>1</sup>	
		with 7 mm pin	1	21694 <sup>1</sup>	
		self-tightening with 7 mm pin	1	28597 <sup>1</sup>	

<sup>1</sup> Replacement part and single component available.



21564

228776

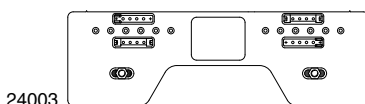
### P 14.4.2 Drilling jigs for corner supports



No

No  
Tricoat

drill jig for corner support	PVC	with 3 mm pin	1	21564	
		with 5 mm positioning pin	1	229224	Design Multi Mammut
		with 5 mm positioning pin	1	21562	
		with 5 mm positioning pin	1	228776	Design Multi Mammut
	5° angle	with 5 mm positioning pin	1	23279	
		MULTI MAMMUT	1	228043	



24003

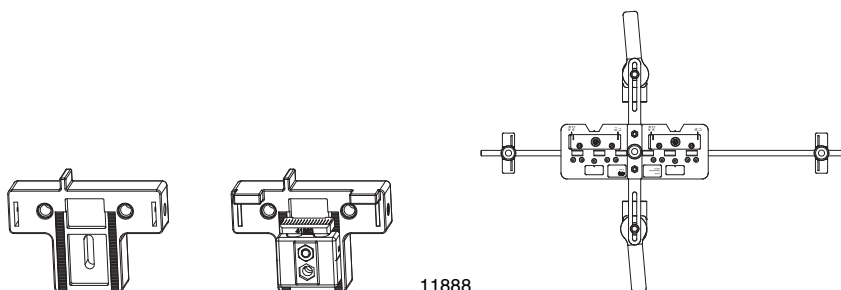
### P 14.4.3 Drilling jigs for pivot posts and scissor stay hinges for angled windows



No

No  
Tricoat

drill jig for angled window	PVC	with 3 mm pin	1	24003	
scissor stay hinge		with 7 mm pin	1	24004	



13029

11888

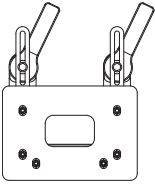
### P 14.4.4 Drilling jigs for 3-sashed windows



No

No  
Tricoat

drill jig for 3-sashed turn-only hinge	PVC		1	13029	
drill jig for multi-sash centre frame hinge	PVC	with 3 mm pin	1	11888	drilling-hole pattern 11.5/5/23.5
		with 7 mm pin	1	11889	drilling-hole pattern 11.5/5/23.5



202641

**14.4.5 Jig for intermediate drive gears**



**No**

**No**  
Tricoat

routing template for intermediate drive gear frontal

1

**202641**

104941

6x



2x

**P**

**14.4.6 Replacement parts and single components for jigs PVC**



**No**

**No**  
Tricoat

silver

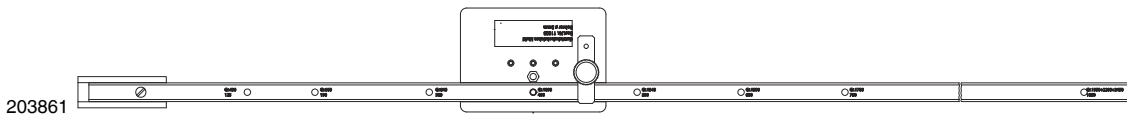
Packers for drilling jig corner support PVC MULTI MAMMUT

1

**104941**

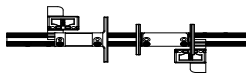


## 14.5 Jigs timber and PVC

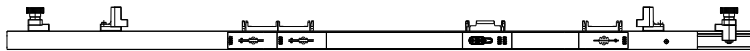


14.5.1 Jigs for drive gear holes MM/MM-KS			No	No Tricoat
drill jig for drive gear drill-hole MM	for 3 mm drillbits	1	203861	
	for 3 mm and 12 mm drill bit	1	203862	
drill jig for lockable door espagnolettes BS 25-50 mm	profile width max. 110 mm	1	214634	

### 14.5.2 Striker plate jigs timber 12 mm air gap and PVC



14.5.2.1 Striker plate jigs for drive gears FHH MM/MM-KS				No	No Tricoat
striker positioning jig for drive gear FHH MM	with 48 mm retainer	431 - 660	1	204773	
		661 - 1.340	1	204774	
		1.341 - 1.700	1	204775	
	for doors	1.701 - 2.450	1	204776	



14.5.2.2 Striker plate jigs for drive gears VHH MM/MM-KS				No	No Tricoat
striker positioning jig for drive gear MM	with 48 mm retainer	1.250 - 1.750	1	206049	
	variable (centred)	1.751 - 2.250	1	206067	



14.5.2.3 Striker plate jigs for centre locks and scissor stays MM/MM-KS					No	No Tricoat
striker positioning jig for centre lock and scissor stay MM	with 48 mm retainer	260 - 1.500	270 - 2.000	1	204771	
striker positioning jig for centre lock MM	with 48 mm retainer	horizontal		1	204772	
striker positioning jig scissor stay	with 48 mm retainer	MULTI MAMMUT		1	213310	
striker positioning jig for bottom centre lock MM	with 50 mm retainer	i.S.		1	229783	
striker positioning jig for hinge side centre lock MM	with 50 mm retainer	i.S.	360 - 1.450	1	229782	
			1.451 - 2.800	1	229785	



206260

14.5.2.4 Striker plate jigs for 2-sashed centre locks MM/MM-KS					No	No Tricoat
striker positioning jig for centre lock MM	2-sashed			1	206260	
striker positioning jig for centre deadbolt striker plate MMKS	2-sashed			1	213865	



210983

14.5.2.5 Striker plate jigs for 2-sashed windows for drive gears FHH Eurogroove MM/MM-KS						No	No Tricoat
striker positioning jig for drive gear FHH MM	for striker plate 48 mm	2-sashed	for Eurogroove	431 - 1.340	1	210983	
	for striker plate 68 mm	2-sashed	for Eurogroove	431 - 1.340	1	209954	
	for striker plate 48 mm	2-sashed	for Eurogroove	1.341 - 1.700	1	210984	
	for striker plate 68 mm	2-sashed	for Eurogroove	1.341 - 1.700	1	209955	
	for striker plate 48 mm	2-sashed	for Eurogroove	1.701 - 2.450	1	210985	
	for striker plate 68 mm	2-sashed	for Eurogroove	1.701 - 2.450	1	209956	

14.5.3 Striker plate jigs timber 12 mm air gap and PVC EH



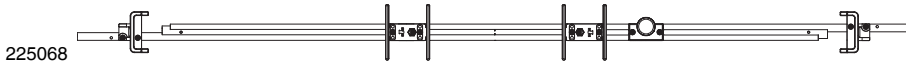
224959

14.5.3.1 Striker plate jigs for drive gears FHH EH MM						No	No Tricoat
striker positioning jig for drive gear FHH MM	with 50 mm retainer	EH		661 - 1.340	1	224959	
				1.341 - 1.700	1	224960	
				1.701 - 2.450	1	224961	



225022

14.5.3.2 Striker plate jigs for centre locks and scissor stays EH MM							No	No Tricoat
striker positioning jig for scissor stay MM	with 50 mm retainer	EH		480 - 1.650	1	225022		
striker positioning jig for bottom centre lock MM	with 50 mm retainer	EH		480 - 1.650	1	225032		
striker positioning jig for hinge side centre lock MM	with 50 mm retainer	EH		480 - 1.340	1	225038		
		EH		1.341 - 1.950	1	225059		
				1.951 - 2.600	1	225060		

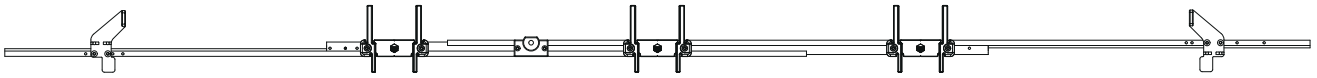


225068

14.5.3.3 Striker plate jigs for 2-sashed centre locks EH MM					No	No Tricoat
striker positioning jig for bottom centre lock MM	with 50 mm retainer	2-sashed	EH	1	225068	
striker positioning jig for top centre lock MM	with 50 mm retainer	2-sashed	EH	1	225069	



57247



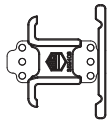
**14.5.4 Jigs for compression devices**



**No**

**No**  
Tricoat

drill jig for compression device with positioning jig-rod	surface-mounted	1	<b>11029</b>	
striker positioning jig for compression device	concealed ES+TV sash and frame component	1	<b>57247</b>	



359408

**T 14.5.5 Jigs for single components, sash lifter brackets timber**



**No**

**No**  
Tricoat

lifting component retainer MM timber	Euro-rebate 24 mm rebate depth 13 mm offset	20	<b>359408</b>	
	Euro-rebate 9 mm offset	20	<b>364241</b>	



40116

**14.5.6 Jigs for single components, striker plate brackets**



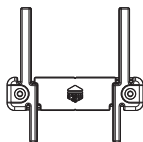
**No**

**No**  
Tricoat

striker plate retainer	for striker plate 48 mm		10	<b>40116</b>	
		with long stop	1	<b>441296<sup>1</sup></b>	
timber	for striker plate 68 mm	i.S.	1	<b>13318</b>	
	for striker plate 48 mm		Euro-rebate 24 mm rebate depth 13 mm offset	20	<b>359407</b>
PVC	for striker plate 68 mm	i.S.	Euro-rebate 24 mm rebate depth 13 mm offset	20	<b>359410</b>
			Euro-rebate 9 mm offset	20	<b>359409</b>
PVC	for striker plate 34943		Euro-rebate	10	<b>40107</b>
	for striker plate 34980		Euro-rebate	20	<b>41272</b>
	for striker plate 50 mm	i.S.		10	<b>43702<sup>2</sup></b>

<sup>1</sup> Striker plate 48 mm and sash lifter MM PVC.

<sup>2</sup> Striker plate rear-engaging.



361815

**14.5.7 Jig for single components, striker plate brackets compression device**



**No**

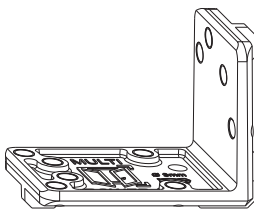
**No**  
Tricoat

striker plate retainer for compression device	concealed ES+TV sash and frame component	timber	1	<b>361815</b>	
---	--	--------	---	---------------	--

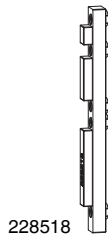


102978

14.5.8 Drilling jigs for INVISIBLE				No	No Tricoat
drill jig for pivot post and scissor stay hinge VV	13 mm screw axis		1	102978	
		Euro-rebate 18 mm rebate depth 9 mm offset	1	102979	
drilling jig accessories for VV flush			1	102980	

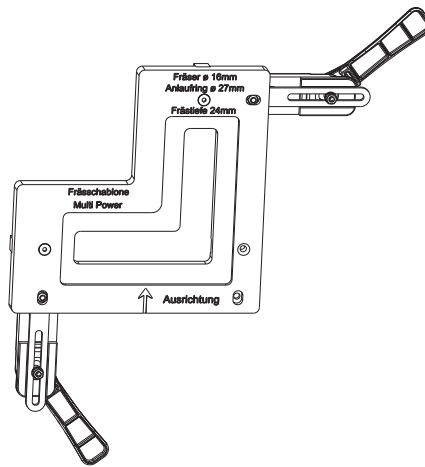


217092



228518

225618



368035

14.5.9 Drilling and routing jigs for MULTI POWER				No	No Tricoat
drill jig for pivot post and scissor stay hinge	right	FT24	1	217092	
		groove 10/14 Heroal	1	219539	
	left	FT24	1	217093	
		groove 10/14 Heroal	1	219540	
	right/left	FT30	1	217094	
drill jig for pivot post	right/left	for threshold PVC rebate depth 24/30 mm	1	227810	
drill jig for load transfer			1	228518	
routing frame			1	225618 <sup>1,2</sup>	
routing jig insert for 3-sashed turn-only hinge	right/left		1	368094	
routing jig insert for pivot post	right/left		1	368035	
routing jig insert for scissor stay hinge	right/left		1	368036	

<sup>1</sup> Replacement part and single component available.

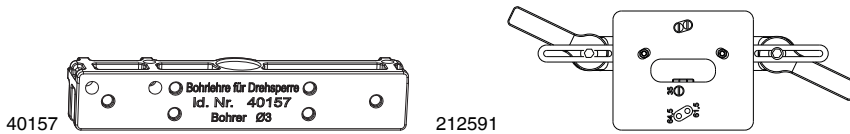
<sup>2</sup> Order routing jig for pivot post, scissor stay hinge or 3-sash turn-only hinge (frame part) separately.



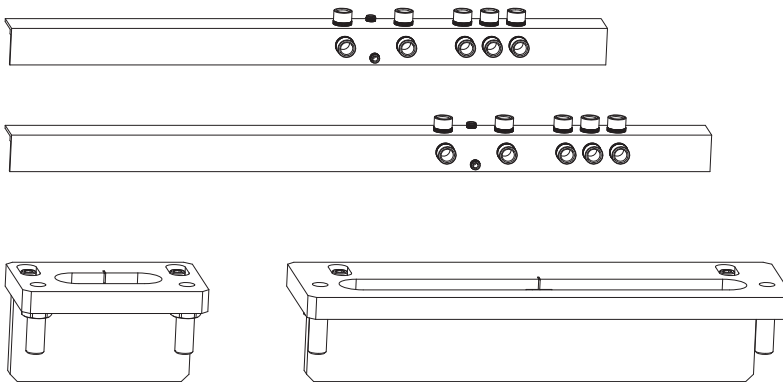
213097

14.5.10 Drilling and routing jigs for MULTI MAMMUT				No	No Tricoat
drill jig for pivot post and scissor stay hinge	right	MULTI MAMMUT	1	213096	
	left	MULTI MAMMUT	1	213097	
routing jig for corner support & rebated scissor stay support arm	timber	MULTI MAMMUT	1	213099	

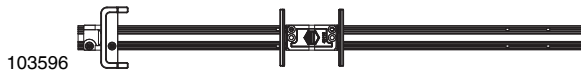




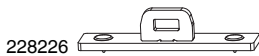
14.5.11 Drilling and routing jigs for turn locks and MULTI VENT				No	No Tricoat
drill jig for turn lock	self-closing	timber/PVC	10	40157	
drill jig for Multi-Vent tilt restrictor		timber/PVC/alu-timber	1	42505	
routing template for turn lock MT/MM	concealed		1	212591	



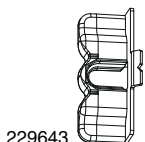
14.5.12 Drilling and routing jig for E-Hardware				No	No Tricoat
drilling and routing jig set for E-hardware	surface-mounted	12 air gap/20 rebate leg/ 13 offset	1	104717	



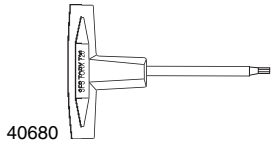
14.5.13 Striker plate jig for sash lifter striker plate for half round windows and stabilizing scissor stay casing				No	No Tricoat
striker plate jig MM for sash lifter striker plate half round window and stabilizing scissor stay casing			1	103596	



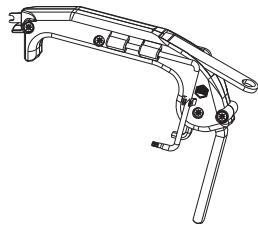
14.5.14 Marking jig for alu front profiles				No	No Tricoat
marking jig for frame component for alu front profiles			5	228226	



14.5.15 Marking jig for i.S. cam				No	No Tricoat
marking jig for i.S. cam			10	229643	



206417



## 14.6 Tools and adjustment keys



**No**

**No**  
Tricoat

universal access key	20	<b>40720</b>	
adjusting spanner/key allen key, bent twice, 145 mm long SW 4	50	<b>454888</b>	
adjusting spanner/key allen key, bent twice, 75 mm long SW 4	50	<b>41017</b>	
adjusting spanner/key for locking cams and scissor stays	50	<b>20947</b>	
adjusting spanner/key for i.S. cams, bent twice, 145 mm long T15	50	<b>465776</b>	
adjusting spanner/key for i.S. cams, bent twice, 75 mm long T15	50	<b>44192</b>	
adjusting spanner/key for i.S. cams - 4 mm Allen key and T15	100	<b>43647</b>	
pin pull-handle for rebated scissor stay TX20	50	<b>40680</b>	
MACO allen key for MULTI VENT SW 2.5	100	<b>24239</b>	
scriber	100	<b>42465</b>	
multifunctional key	20	<b>206417</b>	
key for scissor stay hinge pin	20	<b>28620</b>	

**MACO  
MULTI-MATIC**



Jigs, tools and adjusting screws



## 15 MACO TRONIC

---

<b>15.1 Window monitoring</b>	<b>348</b>
15.1.1 Sash components for locking monitoring	348
15.1.2 Frame components/sensors for locking monitoring	349
15.1.3 Accessories for window monitoring	350



## 15 MACO TRONIC




### 15.1 Window monitoring

#### 15.1.1 Sash components for locking monitoring

##### 15.1.1.1 Corner elements with magnetic cam





206190

15.1.1.1.1 Corner element standard with magnetic cam					No	No Tricoat
silver	with 1 i.S. and 1 magnetic cam	320 - 1.650	360 - 2.450	50	206190	209920



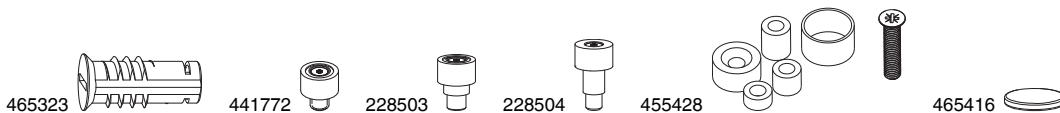
228493

15.1.1.1.2 Corner element vertical with magnetic cam				No	No Tricoat
silver	vertically extendable with 1 magnetic cam	750 - 2.450	50	228493	228568



201755

15.1.1.2 Faceplate extension MM, extendable with magnetic cam			No	No Tricoat
silver	140 with 1 magnetic cam	20	201755	209921



465323


441772

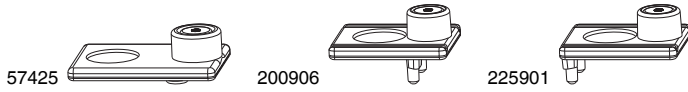
228503

228504

455428

465416

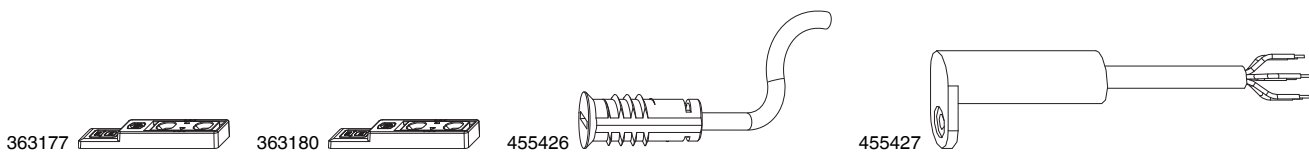
15.1.1.3 Magnetic cam and accessories			No	No Tricoat
silver	screw-in magnet in zink case	100	465323	
	contact sensor cam M5 Ø 10x10 mm	100	441772	
	contact sensor cam short Ø 10x13.4 mm	100	228503	
	contact sensor cam long Ø 10x17.7 mm	100	228504	
white	surface mounted contact sensor	10	455428	
blank	magnetic disc Ø 8x1 mm	200	465416	



15.1.1.4 Adaptors with magnetic cam						No	No Tricoat
grey	adaptor with contact sensor				50	57425	
	adaptor with contact sensor KVS MM				50	200906	
	adaptor with contact sensor KVS MM suitable for automation				10	225901	

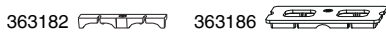
## 15.1.2 Frame components/sensors for locking monitoring

### 15.1.2.1 Tethered sensors



15.1.2.1.1 Reed contacts							No	No Tricoat
grey	built-on	RVS	for locking and tilt monitoring	VdS B/C	6 m cable (0.14 mm <sup>2</sup> )	10	363177	
					10 m cable (0.14 mm <sup>2</sup> )	10	363178	
					15 m cable (0.14 mm <sup>2</sup> )	10	363179 <sup>1</sup>	
		RHS	for central heating control		6 m cable (0.14 mm <sup>2</sup> )	10	363180	
					15 m cable (0.14 mm <sup>2</sup> )	10	363181	
silver	built-in	MVE	for locking and tilt monitoring	VdS C	6 m cable (0.14 mm <sup>2</sup> )	10	455426	
					MVF	for combined opening and locking monitoring	VdS C	6 m cable (0.14 mm <sup>2</sup> )

<sup>1</sup> Reed contact for lock monitoring RVS cable 15 m is not approved by VdS.



15.1.2.1.2 Injection-moulded parts for reed contact						No	No Tricoat
white	type 1				10	363182 <sup>1</sup>	
	type 2				10	363183 <sup>1</sup>	
	type 3				10	363184 <sup>1</sup>	
	type 4				10	363185 <sup>1</sup>	
	type 5				10	363186 <sup>1</sup>	
	type 6				10	363187 <sup>1</sup>	
	type 7				10	370482 <sup>1</sup>	

<sup>1</sup> To select the correct injection-moulded part please refer to the latest profile data sheet.

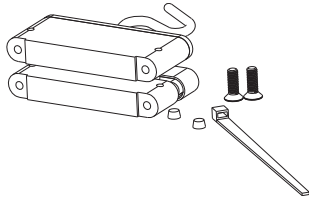
### 15.1.2.2 Radio sensors



15.1.2.2.1 mTRONIC						No	No Tricoat
grey	RAL 7035				10	476776	



### 15.1.3 Accessories for window monitoring



458062

#### 15.1.3.1 Electrical, contactless signal transmitter



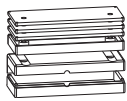
No

No  
Tricoat

for alarm glass and glass breakage sensors

1

458062



455431



455429

#### 15.1.3.2 Accessories for signal transmitter



No

No  
Tricoat

white	construction case set for electronic cable junction without contacts	1	455431	
	fixing frame for electronic cable junction without contacts	1	455429	
brown	construction case set for electronic cable junction without contacts	1	455432	
	fixing frame for electronic cable junction without contacts	1	455430	

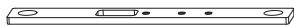
458281



363472



363474



363473



#### 15.1.3.3 Removable cable transitions

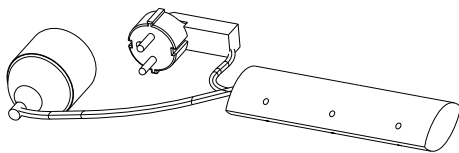


No

No  
Tricoat

	detachable cable junction 6-pin	1	458281	
	detachable cable junction for alarm contact	1	363472	
stainless steel	cable junction cover plate, PVC for alarm contact	1	363474	
	cable junction cover plate, timber	1	363473	

458063



#### 15.1.3.4 Exit air controls



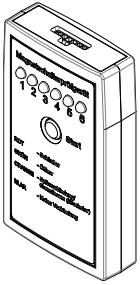
No

No  
Tricoat

exit air control	cable version	1	458063 <sup>1</sup>	
	radio version	1	458064 <sup>2</sup>	

<sup>1</sup> Box contents: 1 x controller, 1 x magnetic switch, 1 x contact sensor, 6 x packers for PVC profiles.

<sup>2</sup> Box contents: 1 x controller, 1 x radio sensor, 1 x radio magnet.



364524

**15.1.3.5 Test device for reed contacts**



**No**

**No**  
Tricoat

test device for reed contacts




1

**364524**











16 Directory

№		Page	№		Page	№		Page
<b>1</b>			105787	10	264	201745	10	164
100036	20	313	105788	10	264	201746	20	164,164,174,174
101248	50	320	10721	20	229	201747	20	164
101250	50	320	10722	20	229	201748	10	164
101251	50	320	10756	20	229	201749	10	164
101252	50	320	10757	50	316,317	201750	20	199
101339	50	193	10759	20	313	201751	20	196
101354	20	214	10804	20	287	201752	20	196
101356	20	287	10890	50	314	201753	20	196
101357	20	287	10891	50	314	201754	10	196
101358	20	287	10892	50	314	201755	20	348
10137	50	314	10893	50	314	201764	50	220
10138	50	314	10901	20	229	201770	20	276
101398	20	229	10902	20	229	201774	20	316
101399	20	229	10920	20	287	201784	20	316
101408	20	316	10945	20	287	201785	50	298,316
101466	100	321	10992	50	319	201821	20	202
101469	100	321	11025	1	336	201822	20	202
101470	100	321	11026	20	214	201823	20	202
101472	100	321	11027	20	214	201824	20	202
101473	100	321	11029	1	342	201827	20	202
101474	100	321	11153	50	319	201828	20	202
101517	20	315	11154	50	319	201829	20	202
101518	20	315	11155	50	319	201830	20	202
101519	20	315	11195	10	334	201833	20	173
101520	20	315	11251	20	229	201834	20	173
101524	20	313	11252	20	229	201835	10	173
101548	20	214	11470	50	319	201836	10	173
101550	1	332	11471	50	319	201837	10	173
101551	1	332	11472	50	319	201838	10	173
101562	20	313	11473	50	319	201839	10	173
101563	20	313	11888	1	338	201840	20	196
101655	100	315	11889	1	338	201841	20	199
101671	50	314	12067	20	312	201842	10	162
101672	50	314	12068	20	312	201843	10	162
101673	50	314	12069	20	312	201844	10	162
101674	50	314	12070	20	312	201853	20	202
101683	50	193	12360	20	313	201854	20	202
101879	30	188	12361	20	313	201855	20	202
101888	20	315	12387	50	320	201856	20	202
101901	10	226	12388	50	320	201857	20	202
102049	20	312	12460	50	314	201858	20	202
102193	20	312	12461	50	314	201860	10	209
102233	20	287	12506	1	336	201861	10	209
102234	20	287	13029	1	338	201862	10	209
102269	500	321	13130	50	319	201863	10	209
102301	20	318	13318	1	342	201864	10	209
102302	20	318	<b>2</b>			201865	10	209
102890	1	332	200906	50	349	201866	10	209
102978	1	343	201016	50	255	201867	10	209
102979	1	343	201017	50	255	202068	20	277
102980	1	343	201064	100	239	202126	10	286
103080	20	315	201066	100	239	202128	10	286
103302	10	226	201082	100	230,238	202131	10	286
103414	20	313	201084	100	248	202133	10	286
103596	1	344	201168	50	178	202170	20	174
103623	20	315	201400	100	248	202171	10	174
103624	20	315	201401	100	248	202172	10	174
103625	20	315	201402	100	238	202205	10	167
103626	20	315	201403	100	239	202206	20	166,175
103777	30	188	201404	100	249	202207	20	166
103778	20	315	201405	100	249	202208	20	166
103780	20	315	201465	200	296	202209	10	166
103874	20	313	201466	50	307	202210	20	175
103875	20	313	201469	100	233	202211	20	175
104212	500	266,321	201471	100	233	202212	10	175
104256	100	194	201476	200	299	202213	20	167
104304	10	215	201481	200	296	202214	20	167
104305	10	215	201482	100	299	202215	10	167
104371	100	321	201484	100	299	202216	10	166
104717	1	344	201484	100	295,296	202217	10	166
104941	1	339	201486	100	299	202218	10	166
105152	100	266,321	201601	50	254	202219	10	175
105309	30	189	201602	50	255	202220	10	175
105316	50	289	201631	50	222	202221	10	175
105336	10	264	201730	20	162,173	202251	20	286
105337	10	264	201731	20	173	202252	20	286
105338	10	264	201732	20	162	202269	20	221
105339	10	264	201733	20	162	202270	50	223
10534	20	312	201734	20	162	202271	50	220
10535	20	312	201735	10	162	202310	50	255
105359	1	318	201736	20	163	202311	50	254
105360	1	318	201737	20	163	202314	50	220
105428	20	317	201738	10	163	202316	10	205
105429	20	317	201739	10	162	202317	10	205
105446	20	306	201740	10	162	202318	10	205
105447	20	306	201741	10	162	202319	10	205
105574	10	264	201742	10	162	202383	20	276
105575	10	264	201743	20	164	202432	20	316
			201744	10	164	202471	10	280






<b>№</b>		<b>Page</b>	<b>№</b>		<b>Page</b>	<b>№</b>		<b>Page</b>
202472	10	280	204407	1.100	328	205472	10	170
202473	10	280	204408	1.100	328	205473	10	170
202475	10	191	204409	1.100	328	205479	10	170
202491	20	167,168,175,175	204410	1.000	328	205480	10	170
202492	20	167	204417	900	329	205487	10	170
202493	20	175	204418	900	329	205488	10	170
202494	10	167	204419	750	329	205489	10	170
202495	10	175	204420	540	329	205490	10	170
202497	10	175	204423	320	328	205491	10	170
202519	50	238	204424	320	328	205492	10	170
202520	50	252	204426	320	329	205493	10	170
202521	50	252	204436	20	203	20550	1	335
202522	50	253	204437	20	203	205513	10	170
202523	50	253	204438	20	203	205514	10	170
202533	50	241	204439	20	203	205515	10	176
202534	50	241	204443	720	329	205516	10	176
202535	50	241	204445	630	329	205517	10	170,176
202536	50	241	204446	630	329	205518	10	170
202537	50	241	204447	450	329	205520	10	170
202539	50	241	204448	450	329	205523	10	176
202541	50	240	204449	320	329	205525	10	170
202542	50	240	204450	320	329	205529	10	170
202543	50	240	204563	50	238	205530	10	170
202544	50	240	204564	100	239	205531	10	170
202545	50	240	204565	100	239	205532	10	170
202581	50	178	204566	100	239	205533	10	170
202641	1	339	204569	100	239	205534	10	170
202647	100	248	204570	100	239	205535	10	170
202737	10	166	204573	100	239	205536	10	170
202738	10	166	204576	100	239	205537	10	170
202739	10	164	204603	50	252	205538	10	170
202848	50	230	204604	50	253	205539	10	170
202867	20	224	204605	50	253	205540	10	170
202873	10	278	204606	50	252	205541	10	176
202879	20	220	204607	50	252	205542	10	174
202880	20	220	204608	50	252	205543	10	174
202922	20	203	204612	100	248	205544	10	174
202923	20	203	204613	100	248	205545	10	174
202924	20	203	204614	100	249	205546	20	174
202925	20	203	204615	100	249	205547	20	174
202926	20	203	204616	100	249	205548	10	174
202927	20	203	204617	100	249	205549	10	174
202928	20	203	204620	100	249	205550	10	174
202929	20	203	204621	100	249	205551	10	174
202930	20	203	204771	1	340	205563	100	309
202931	20	203	204772	1	340	205571	10	171
202932	20	203	204773	1	340	205602	10	171
202933	20	203	204774	1	340	205623	10	171
203287	100	272	204775	1	340	205624	10	171
203329	100	303	204776	1	340	205627	10	171
203333	100	233	204779	100	238	205628	10	171
203482	10	282	204785	50	254	205629	10	171
203496	20	284	204786	50	254	205630	10	171
203696	5	186	204787	50	254	205631	10	171
203697	10	199	204788	50	254	205632	10	171
203698	10	199	204791	50	256	205633	10	171
203699	10	199	204792	50	256	205634	10	171
203744	20	184	204793	50	256	205635	10	171
203765	20	216,216	204794	50	256	205636	10	171
203766	20	216	204797	50	255	205643	10	279
203767	20	216	204798	50	255	205644	20	184
203771	20	284	204799	50	255	205664	20	250
203810	20	280	204800	50	255	205665	20	250
203828	5	186	204808	50	255	205670	10	171
203829	5	186	204809	50	255	205671	10	171
203830	5	186	204810	50	255	205672	10	171
203831	5	186	204811	50	255	205673	10	171
203832	5	186	204812	50	255	205674	10	171
203833	5	186	204813	50	255	205675	10	171
203834	5	186	204826	10	206	205705	50	230
203835	5	186	204827	10	206	205717	20	281
203836	5	186	204828	10	206	205921	50	284
203837	5	186	204829	10	206	205933	20	216
203838	5	186	204830	10	206	205934	20	216
203839	5	186	204831	10	206	205940	20	221
203841	5	186	204832	10	206	205941	20	221
203842	5	186	204833	10	206	205962	10	284
203843	5	186	204834	10	206	205964	10	284
203844	5	186	204964	100	293	205965	10	284
203845	5	186	204965	100	293	205966	10	284
203861	1	340	204968	100	233	205967	10	284
203862	1	340	204970	100	300,307	205968	10	284
203961	10	216	204972	100	300,307	205970	10	285
203993	100	293	205054	100	232	205971	10	285
204039	100	238	205055	100	232	205972	10	285
204115	20	202	205066	100	222	205973	10	191
204116	20	202	205068	20	276	205995	20	285
204117	20	202	205123	50	230	206049	1	340
204118	20	202	205124	50	230	206067	1	340
204122	50	257	205126	50	230	206073	10	209
204123	50	257	205127	50	230	206074	10	209
204125	50	254	205128	50	230	206075	10	209
204126	50	254	205177	20	184	206076	10	209
204245	20	286	205464	10	170	206107	20	285
204249	50	230	205465	10	170	206108	20	285



 №	Page	 №	Page	 №	Page
206113	20	206984	10	207508	10
206114	20	206985	10	207509	10
206153	10	206986	10	207510	10
206155	10	206994	50	207512	10
206163	10	206995	50	207514	10
206165	10	206996	50	207515	10
206174	20	206997	50	207516	10
206190	50	206998	100	207517	10
206196	100	206999	50	207518	10
206197	20	207000	50	207520	10
206200	50	207006	50	207521	10
206207	20	207007	50	207522	10
206260	1	207014	10	207523	10
206268	20	207065	20	207524	10
206269	10	207066	20	207525	10
206270	10	207122	20	207527	10
206271	10	207123	20	207528	10
206274	20	207124	20	207529	10
206275	20	207242	10	207530	10
206276	20	207267	100	207531	10
206277	20	207268	100	207532	10
206278	20	207278	100	207533	10
206279	20	207300	1	207534	10
206280	20	207301	10	207536	10
206281	20	207302	10	207537	10
206284	20	207303	10	207538	10
206285	20	207304	10	207540	10
206286	20	207305	10	207541	10
206287	20	207306	10	207542	10
206288	20	207308	10	207543	10
206289	20	207316	10	207544	10
206290	20	207317	10	207545	10
206291	20	207318	10	207546	10
206292	20	207368	100	207547	10
206293	20	207391	20	207548	10
206308	10	207392	20	207549	10
206309	10	207431	20	207550	10
206310	10	207432	50	207551	20
206315	20	207434	50	207552	10
206327	20	207435	50	207553	10
206328	20	207442	20	207554	20
206336	10	207443	20	207555	10
206337	10	207444	20	207556	20
206340	50	207445	20	207557	20
206349	10	207446	20	207558	20
206350	10	207447	20	207559	20
206357	20	207448	20	207560	20
206358	20	207449	20	207562	20
206399	10	207450	20	207563	20
206400	10	207451	20	207564	50
206401	10	207452	10	207565	20
206402	10	207453	10	207566	50
206403	10	207454	10	207567	50
206417	20	207455	10	207568	20
206538	20	207456	10	207569	50
206581	1	207457	10	207570	50
206582	10	207458	10	207571	50
206584	100	207460	20	207572	50
206585	100	207461	20	207573	10
206586	100	207462	10	207574	10
206588	100	207463	10	207575	50
206597	10	207467	10	207576	50
206614	20	207468	20	207578	10
206630	20	207469	20	207579	20
206692	50	207470	20	207580	20
206696	50	207471	20	207585	20
206697	50	207472	20	207586	20
206698	50	207473	10	207588	20
206699	50	207474	10	207593	20
206700	50	207475	10	207594	20
206701	50	207476	10	207595	20
206702	50	207477	10	207596	20
206703	50	207479	20	207597	20
206704	50	207480	10	207598	20
206705	50	207481	20	207599	20
206718	50	207482	20	207600	20
206748	20	207483	10	207601	20
206749	20	207484	10	207602	20
206750	20	207485	10	207603	20
206751	1	207487	10	207604	20
206802	100	207488	10	207605	20
206810	20	207489	10	207606	20
206816	20	207490	10	207607	20
206817	20	207491	10	207608	20
206847	10	207492	10	207609	20
206848	100	207493	10	207610	20
206856	20	207495	10	207611	20
206860	50	207496	10	207612	20
206862	20	207497	10	207613	20
206863	20	207498	10	207614	20
206864	20	207501	10	207615	20
206865	20	207503	10	207616	20
206866	20	207504	10	207617	20
206881	1	207505	10	207618	20
206977	100	207506	10	207621	10






<b>№</b>		<b>Page</b>	<b>№</b>		<b>Page</b>	<b>№</b>		<b>Page</b>
207622	10	205	207931	50	252	209023	10	279
207623	10	205	207932	50	252	209033	10	184
207624	10	205	207933	50	252	209034	50	188
207625	10	205	207934	50	256	209073	20	276
207626	20	216,216	207935	50	256	20924	1	334
207627	20	216	207936	50	256	20925	1	334
207628	20	216	207937	50	256	20926	1	334
207629	10	216	207938	50	256	209261	10	164
207630	10	278	207939	50	256	209263	10	278
207631	10	278	207940	50	255	209268	20	204
207632	10	278	207941	50	255	209269	20	204
207633	10	278	207942	50	255	209270	20	204
207634	10	278	207943	50	255	209271	20	204
207635	10	278	207944	50	255	209272	20	204
207636	10	278	207945	50	255	209273	20	204
207637	10	278	207946	50	255	209274	20	204
207638	10	278	207947	50	255	209275	20	204
207639	10	279	207948	50	255	209297	20	214
207640	10	279	207949	50	255	209303	20	314
207641	10	279	208195	100	233	209338	100	293
207642	10	279	208314	50	220	209347	50	304
207643	10	279	208315	20	258	209364	50	294
207644	10	280	208316	20	258	209365	100	316
207645	10	280	208317	50	284	209370	20	162,163,173,173
207646	10	280	208318	10	164	209371	20	162,163,173,173
207650	10	282	208319	10	164	209372	20	162
207662	20	286	208323	20	182	209373	20	162
207663	20	286	208324	20	182	209374	20	164
207665	10	286	208325	20	182	209375	10	162
207666	10	286	208326	10	182	209376	10	164
207667	10	286	208327	10	182	209377	10	162
207668	10	286	208328	20	180	209378	10	164
207669	20	221	208329	20	180	209379	10	162
207670	50	223	208330	20	180	209381	10	164
207671	20	221	208331	10	180	209382	10	162
207672	20	221	208332	10	180	209383	10	162
207673	20	221	208333	20	280	209384	10	162
207674	50	178	208343	20	180	209385	10	162
207676	100	309	208344	20	180	209386	10	162
207689	10	210	208345	20	180	209387	10	162
207690	10	210	208346	20	180	209407	50	257
207699	10	210	208347	10	180	209408	50	257
207700	10	210	208348	10	180	209409	50	257
207817	50	223	208349	10	180	209410	50	257
207870	50	255	208350	10	180	209411	50	257
207871	50	255	208351	10	180	209412	50	257
207872	50	255	208352	10	180	209413	50	257
207873	50	255	208368	100	301	209414	50	257
207876	50	238	208369	20	280	20947	50	345
207877	50	238	208395	10	181	209500	50	255
207878	50	240	208415	20	191	209501	50	255
207879	50	240	208432	20	185	209507	10	278
207880	50	240	208433	20	285	209508	10	278
207881	50	240	208434	20	285	209509	10	278
207882	100	239	208435	20	285	209510	10	278
207884	100	239	208436	10	180	209511	10	278
207885	100	239	208439	100	301	209512	100	278
207888	100	239	208440	1.000	328	209513	10	278
207889	100	239	208441	900	328	209514	10	278
207890	100	239	208442	320	328	209515	10	278
207891	100	239	208443	320	328	209516	10	278
207892	100	239	208444	320	328	209517	10	278
207895	100	239	208747	10	177	209518	10	278
207896	100	241	208748	10	177	209519	10	278
207897	100	241	208773	20	258	209539	20	204
207898	100	241	208774	20	258	209540	20	204
207899	100	241	208775	20	258	209541	20	204
207902	100	248	208777	10	164	209542	20	204
207904	50	253	208779	10	167	209543	20	204
207905	50	253	208780	10	167	209544	20	204
207906	50	253	208781	10	167	209545	20	204
207907	50	253	208782	10	167	209546	20	204
207908	50	254	208783	10	167	209556	10	282
207909	50	254	208784	10	167	209558	10	283
207910	50	254	208785	10	167	209590	20	173
207911	50	254	208786	10	164	209594	50	255
207912	50	254	208788	50	316	209595	50	255
207913	50	254	208793	20	258	209609	20	167
207914	50	254	208794	20	258	209610	50	188
207915	50	254	208795	20	258	209611	20	191
207916	100	249	208796	20	258	209637	20	281
207917	100	249	208804	10	164	209647	20	284
207918	100	249	208887	20	178	209648	20	281
207919	100	249	208888	50	256	209655	50	191
207920	100	249	208889	50	256	209669	100	272
207921	100	249	208892	10	205	209670	10	280
207922	50	252	20890	1	335	209671	10	280
207923	50	252	208936	50	241	209723	20	214
207924	50	252	208954	20	276	209770	20	164
207925	50	252	208955	20	276	209774	20	318
207926	50	252	208956	20	277	209775	20	284
207927	50	252	208967	10	279	209776	10	278
207928	50	252	208970	10	279	209781	20	196
207929	50	252	208979	100	303	209782	20	196
207930	50	252	208993	20	226	209783	10	196






No	Page	No	Page	No	Page
209784	20	203	211240	10	200
209785	20	203	211241	10	189
209786	20	203	211244	20	173
209787	20	203	211247	10	173
209788	20	203	211318	50	223
209789	20	203	211338	10	174
209790	20	203	211339	10	174
209791	20	203	211340	10	174
209792	50	189	211369	100	303
209807	20	203	211390	10	215
209858	20	216	211395	20	284
209881	50	192	211435	320	328
209882	10	200	211436	320	328
209883	10	200	211615	10	209
209920	50	348	211616	10	209
209921	20	348	211617	10	209
209954	1	341	211618	10	209
209955	1	341	211659	10	176
209956	1	341	211660	10	176
209968	10	176	211673	20	205,205
210004	100	305	211674	20	205,205
210025	50	223	211675	20	205,205
210072	10	164	211676	20	205,205
210073	10	173	211677	20	205,205
210074	10	173	211678	20	205,205
210075	10	173	211679	20	205
210087	10	278	211680	20	205
210096	10	189	211681	20	205
210263	10	215	211682	20	205
210273	100	300	211683	20	205
210287	20	180	211684	20	205
210288	20	180	211694	20	204,204
210335	10	200	211695	20	204,204
210336	10	200	211696	20	204,204
210337	10	200	211697	20	204
210338	10	200	211698	20	204
210339	10	200	211699	20	204
210340	10	200	211720	50	255
210341	10	200	211721	50	255
210343	20	173	211722	50	192
210347	10	171	211723	10	200
210380	20	200	211740	50	191
210381	20	200	211745	20	281
210382	20	200	211783	100	297
210383	10	200	211791	10	280
210496	20	199	211792	10	283
210524	50	255	211793	10	283
210525	50	255	211794	10	283
210526	50	255	211795	10	283
210527	50	255	211796	10	283
210561	50	192	211797	10	283
210562	10	200	211798	10	283
210563	10	200	211799	10	283
21058	1	335	211800	10	283
210594	20	259	211801	10	283
210595	20	259	211802	10	283
210600	20	241	211803	10	283
210601	20	241	211804	10	283
210605	20	259	211805	10	283
210606	20	259	211806	10	283
210611	20	260	211807	10	283
210612	20	260	211869	20	259
210613	20	260	211870	20	259
210614	20	260	211898	20	205
210615	20	260	211899	20	205
210616	20	260	211900	20	205
210617	20	260	211901	20	205
210618	20	260	211902	20	205
21062	100	232	211903	20	205
210646	50	304	211904	20	204
210896	560	328	211905	20	204
210897	560	328	211906	20	204
210900	320	328	211924	20	197
210901	320	328	211925	20	197
210941	10	176	211926	10	197
210942	10	176	211927	10	197
210943	10	176	211928	10	197
210944	10	176	211929	20	197
210983	1	341	211930	20	197
210984	1	341	211931	10	197
210985	1	341	211932	10	197
211008	100	233	211933	10	197
211096	50	255	211934	50	190
211097	50	255	211936	20	276
211128	10	203	211937	20	198,199
211229	20	200	211938	20	198
211231	20	200	211961	20	180
211232	20	200	211962	20	180
211233	10	200	211963	20	180
211234	10	200	211964	20	180
211235	10	200	211965	10	180
211236	10	200	211966	10	180
211237	10	200	211967	10	180
211238	10	200	211968	10	180
211239	10	200	211969	10	180
211970	10	180	211970	10	180
211971	20	180	211971	20	180
211972	10	180	211972	10	180
211973	10	180	211973	10	180
211974	50	189	211974	50	189
211975	50	189	211975	50	189
211976	50	189	211976	50	189
211981	20	182	211981	20	182
211982	20	182	211982	20	182
211983	20	182	211983	20	182
211984	10	182	211984	10	182
211985	10	182	211985	10	182
211986	10	182	211986	10	182
211987	10	182	211987	10	182
211988	10	182	211988	10	182
211989	20	181	211989	20	181
211990	20	181	211990	20	181
211991	20	181	211991	20	181
211992	10	181	211992	10	181
211993	10	181	211993	10	181
211994	10	181	211994	10	181
212000	10	181	212000	10	181
212001	10	181	212001	10	181
212002	10	181	212002	10	181
212003	10	181	212003	10	181
212004	10	181	212004	10	181
212005	10	181	212005	10	181
212006	10	181	212006	10	181
212007	10	181	212007	10	181
212008	10	181	212008	10	181
212009	10	181	212009	10	181
212010	10	181	212010	10	181
212028	20	166,166	212028	20	166,166
212029	20	166	212029	20	166
212030	20	167	212030	20	167
212031	20	166	212031	20	166
212032	10	167	212032	10	167
212033	10	166	212033	10	166
212034	10	167	212034	10	167
212035	10	166	212035	10	166
212036	10	167	212036	10	167
212037	10	166	212037	10	166
212038	10	166	212038	10	166
212040	10	166	212040	10	166
212042	20	175	212042	20	175
212044	20	175	212044	20	175
212045	10	175	212045	10	175
212046	10	175	212046	10	175
212048	20	166	212048	20	166
212049	20	166	212049	20	166
212050	10	166	212050	10	166
212051	10	167	212051	10	167
212052	10	166	212052	10	166
212053	10	167	212053	10	167
212054	10	166	212054	10	166
212055	10	166	212055	10	166
212057	10	166	212057	10	166
212059	20	175	212059	20	175
212060	20	175	212060	20	175
212061	10	175	212061	10	175
212062	10	175	212062	10	175
212063	10	175	212063	10	175
212064	10	175	212064	10	175
212065	10	175	212065	10	175
212066	10	167	212066	10	167
212077	10	206	212077	10	206
212078	10	206	212078	10	206
212079	10	206	212079	10	206
212080	10	206	212080	10	206
212081	10	206	212081	10	206
212082	10	206	212082	10	206
212118	20	163	212118	20	163
212119	20	173	212119	20	173
212120	20	163	212120	20	163
212121	20	173	212121	20	173
212122	10	163	212122	10	163
212123	10	173	212123	10	173
212124	10	163	212124	10	163
212125	10	173	212125	10	173
212126	10	163	212126	10	163
212127	10	173	212127	10	173
212128	10	163	212128	10	163
212129	10	163	212129	10	163
212130	10	173	212130	10	173
212131	10	163	212131	10	163
212132	10	163	212132	10	163
212133	10	173	212133	10	173
212134	10	163	212134	10	163
212135	10	163	212135	10	163
212136	10	173	212136	10	173
212156	20	164	212156	20	164
212157	20	174	212157	20	174
212158	10	164	212158	10	164
212159	10	174	212159	10	174
212160	10	164	212160	10	164






<b>№</b>		<b>Page</b>	<b>№</b>		<b>Page</b>	<b>№</b>		<b>Page</b>
212161	10	174	213533	10	182	215372	50	312
212177	1.100	328	213534	10	182	215373	50	312
212178	1.100	328	213683	50	255	215374	50	312
212179	1.100	328	213684	50	255	215408	20	174
212184	20	170	213789	50	222	215437	100	249
212185	10	170	213865	1	341	215448	20	198
212199	10	170	213922	20	276	215449	20	198
212209	50	256	214013	100	185	215450	20	198
212210	50	256	214014	100	185	215451	20	198
212211	20	184	214015	100	185	215452	20	198
212212	20	184	214016	20	185	215453	20	198
212213	20	184	214059	50	257	215454	10	198
212214	20	199	214060	50	257	215455	20	198
212218	50	307,316	214104	50	252	215456	10	198
212256	10	171	214105	50	252	215457	10	198
212258	10	171	214106	50	252	215458	20	198
212343	100	303	214107	50	252	215459	10	198
212474	100	303	214112	50	252	215460	10	198
212540	20	259	214113	50	252	215461	10	198
212541	20	259	214114	50	252	215462	10	198
212542	20	241	214115	50	252	215463	10	198
212543	20	241	214152	1	332	215509	20	199
212588	50	257	214153	1	332	215510	20	199
212591	1	344	214154	1	332	215511	20	199
212634	10	180	214155	1	332	215513	20	199
212635	10	180	214156	1	332	215572	20	221
212637	10	180	214157	1	333	215577	100	233
212659	20	262	214158	1	333	21562	1	338
212660	20	262	214159	1	333	21564	1	338
212663	20	262	214160	1	333	215696	20	197
212664	20	262	214161	1	333	215752	20	173
212666	10	210	214162	1	333	215780	20	276
212667	10	210	214163	1	333	215781	20	276
212670	10	210	214164	10	333	215804	20	264
212671	10	210	214184	20	191	215805	20	264
212674	10	210	214185	50	191	215806	20	264
212675	10	210	214252	20	263	215807	20	264
212678	10	210	214253	20	263	215810	20	263
212679	10	210	214293	20	276	215811	20	263
212685	20	184	214297	10	180	215812	20	263
212686	20	184	214310	20	164	215813	20	263
212687	20	184	214328	20	316	215814	20	263
212688	20	184	214336	20	276	215815	20	263
212689	20	184	214337	20	276	215816	20	263
212694	10	181	214391	100	249	215817	20	263
212702	20	183	214392	100	249	215828	20	263
212703	10	183	214441	10	163,173	215829	20	263
212704	10	183	214445	20	276	215830	20	263
212712	20	277	214446	20	276	215831	20	263
212724	10	181	214506	20	276	215832	20	264
212726	10	181	214542	1	334	215833	20	264
212727	10	181	214543	20	292	215834	20	264
212728	10	181	214544	20	292	215835	20	264
212769	10	181	214546	20	199	215880	20	199
212772	10	183	214547	20	199	21598	1	333
212826	50	241	214634	1	340	216142	20	164
212949	1	335	214669	1	333	216143	10	278
212963	10	184	214676	1	333	216209	20	216
212967	100	249	214677	1	333	216249	20	214
212968	100	249	214679	1	333	216353	10	182
212970	10	180	214712	20	280	216354	10	182
213041	20	216	214716	20	315	216367	20	316
213042	20	216	214718	20	315	216712	50	188
213043	20	216	214727	10	171	216725	20	224
213044	20	216	214760	1.200	329	216784	50	188
213071	10	170	214774	50	255	216836	20	180
213072	10	170	214775	50	255	216934	1.100	328
213073	10	170	214804	50	312	216935	320	329
213074	10	171	214813	1	332	216936	320	329
213075	10	171	214848	10	200	216938	560	329
213096	1	343	214904	10	176	216939	480	329
213097	1	343	214908	20	258	21694	1	338
213099	1	343	214910	20	258	216940	480	329
213221	50	254	214964	50	312	216941	560	329
213222	50	254	214990	20	191	216942	450	329
213223	50	257	215016	1	333	216970	20	191
213287	100	178	215019	50	240	216982	10	181
213297	20	222	215020	50	240	216983	10	181
213310	1	340	215023	100	293	217092	1	343
213460	50	290,312	215051	10	214	217093	1	343
213461	50	312	215052	10	214	217094	1	343
213462	50	312	215053	10	214	217158	10	180
213516	10	182	215054	10	214	217159	10	180
213520	10	182	215055	10	214	217160	50	191
213521	10	182	215056	10	214	217161	20	191
213522	10	182	215096	50	241	217187	20	220
213523	10	182	215148	20	276	217188	20	220
213524	10	182	215159	20	318	217189	20	220
213525	10	182	215216	10	192	217190	20	220
213526	10	182	215239	50	178	217192	20	222
213527	10	182	215240	20	277	217193	20	222
213528	10	182	215247	1.100	328	217194	20	222
213529	10	182	215272	20	196	217346	20	211
213530	10	182	215303	20	276	217347	20	211
213531	10	182	215304	20	276	217348	20	211








<b>№</b>		<b>Page</b>	<b>№</b>		<b>Page</b>	<b>№</b>		<b>Page</b>
222636	10	181	222885	10	206	223635	10	208
222637	10	181	222886	10	206	223636	10	208
222638	10	181	222887	10	206	223637	10	208
222656	10	181	222927	20	184	223638	10	208
222657	20	162, 163, 173, 173	222929	20	184	223639	10	208
222658	20	162, 163, 173, 173	222999	20	184	223640	10	208
222659	20	162	223000	20	184	223641	10	208
222660	20	162	223001	20	184	223642	10	207
222661	20	164	223004	10	181	223643	10	207
222662	10	162	223006	10	181	223644	10	207
222663	10	164	223008	10	181	223645	10	207
222664	10	162	223010	10	183	223646	10	207
222665	10	164	223014	10	184	223647	10	207
222666	10	162	223020	20	216	223648	10	207
222668	10	164	223021	20	216	223649	10	207
222670	10	162	223023	20	216	223650	10	208
222671	10	162	223046	20	185	223651	10	208
222672	10	162	223048	20	280	223652	10	208
222673	10	162	223053	20	259	223653	10	208
222674	10	162	223054	20	259	223654	10	208
222681	10	278	223055	20	259	223655	10	208
222682	10	278	223056	20	259	223656	10	208
222683	10	278	223057	20	260	223657	10	208
222684	10	278	223058	20	260	223690	10	207
222685	10	278	223059	20	260	223691	10	207
222686	10	278	223060	20	260	223692	10	207
222687	10	278	223061	20	260	223693	10	207
222688	10	278	223062	20	260	223694	10	207
222689	10	278	223063	20	260	223695	10	207
222690	10	278	223064	20	260	223696	10	207
222691	10	278	223145	20	241	223697	10	207
222692	10	278	223146	20	241	223698	10	208
222693	10	278	223210	20	316	223699	10	208
222694	10	282	223245	20	318	223700	10	208
222696	10	283	223253	10	164	223701	10	208
222709	20	281	223265	20	198	223702	10	208
222710	20	284	223266	20	198	223703	10	208
222711	20	281	223267	20	198	223704	10	208
222714	20	284	223268	20	198	223705	10	208
222715	20	205, 205	223269	20	198	223706	10	207
222716	20	205, 205	223270	20	198	223707	10	207
222717	20	205, 205	223271	10	198	223708	10	207
222718	20	205, 205	223272	20	198	223709	10	207
222719	20	205, 205	223273	10	198	223710	10	207
222720	20	205, 205	223275	20	198	223711	10	207
222727	20	204, 204	223276	10	198	223712	10	207
222728	20	204, 204	223277	10	198	223713	10	207
222729	20	204, 204	223278	10	198	223714	10	208
222748	20	281	223279	10	198	223715	10	208
222750	10	283	223280	10	198	223716	10	208
222751	10	283	223281	20	199	223717	10	208
222752	10	283	223283	20	199	223718	10	208
222753	10	283	223285	20	199	223719	10	208
222754	10	283	223287	20	199	223720	10	208
222755	10	283	223594	10	207	223721	10	208
222756	10	283	223595	10	207	223776	10	224
222757	10	283	223596	10	207	223777	10	224
222759	10	283	223597	10	207	223778	10	224
222760	10	283	223598	10	207	223779	10	224
222761	10	283	223599	10	207	223780	10	224
222762	10	283	223600	10	207	223781	10	224
222763	10	283	223601	10	207	223782	10	224
222764	10	283	223602	10	208	223783	10	224
222765	10	283	223603	10	208	223784	10	224
222768	20	205	223604	10	208	223785	10	224
222769	20	205	223605	10	208	223786	10	224
222770	20	205	223606	10	208	223787	10	224
222771	20	205	223607	10	208	223788	10	224
222772	20	204	223608	10	208	223789	10	224
222773	20	204	223609	10	208	223790	10	224
222774	20	204	223610	10	207	223791	10	224
222786	20	197	223611	10	207	223800	10	224
222787	20	197	223612	10	207	223801	10	224
222788	10	197	223613	10	207	223802	10	224
222789	10	197	223614	10	207	223803	10	224
222790	10	197	223615	10	207	223804	10	224
222791	20	198, 199	223616	10	207	223805	10	224
222792	20	198	223617	10	207	223806	10	224
222793	20	180	223618	10	208	223807	10	224
222794	20	180	223619	10	208	224130	20	197
222795	20	180	223620	10	208	224131	20	197
222811	20	181	223621	10	208	224132	100	272
222812	10	181	223622	10	208	224139	10	176
222813	10	181	223623	10	208	224140	10	176
222814	10	181	223624	10	208	224141	10	176
222820	10	181	223625	10	208	224142	10	176
222821	10	181	223626	10	207	224143	10	176
222834	20	166	223627	10	207	224144	10	176
222836	20	166	223628	10	207	224145	10	176
222838	10	166	223629	10	207	224146	10	176
222840	10	166	223630	10	207	224271	50	252
222845	10	166	223631	10	207	224272	50	252
222882	10	206	223632	10	207	224282	20	250
222883	10	206	223633	10	207	224283	50	250
222884	10	206	223634	10	208	224284	20	258






№		Page	№		Page	№		Page
224285	20	258	226008	20	284	227696	20	259
224634	50	256	226243	10	206	227784	10	280
224635	50	256	226434	20	169	227785	10	280
22482	1	335	226436	10	169	227810	1	343
224959	1	341	226439	10	169	227863	10	163
224960	1	341	226554	100	233	227864	10	163
224961	1	341	226629	10	282	227865	20	163
224968	20	314	226635	10	282	227866	20	163
225021	50	188	226636	10	282	227867	20	163
225022	1	341	226637	10	282	227868	10	163
225032	1	341	226638	10	282	227869	10	163
225038	1	341	226639	10	282	227870	10	163
225059	1	341	226640	10	282	227871	10	163
225060	1	341	226641	10	282	227872	10	163
225068	1	341	226642	10	282	227873	10	163
225069	1	341	226643	10	282	227874	10	163
225092	20	184	226644	10	282	227876	10	163
225098	20	164	226645	10	282	227877	10	163
225296	20	211	226646	10	282	227936	20	164
225297	20	211	226647	10	282	227937	10	280
225298	20	211	226648	10	282	227956	20	320
225299	20	211	226649	10	282	228043	1	338
225300	20	227	226650	10	282	228128	20	165
225301	20	227	226651	10	282	228226	5	344
225302	20	227	226652	10	282	228320	10	163
225303	20	227	226653	10	283	228398	20	197
225304	20	227	226654	10	283	228430	50	189
225305	10	211	226655	10	283	228451	50	317
225306	10	211	226656	10	283	228493	50	348
225307	10	211	226657	10	283	228503	100	348
225308	10	211	226658	10	283	228504	100	348
225309	10	211	226659	10	283	228518	1	343
225310	10	211	226660	10	283	228710	10	200
225311	10	211	226661	10	283	228711	10	308
225312	10	211	226754	10	282	228776	1	338
225315	10	211	226755	10	282	228785	50	317
225316	10	211	226757	10	282	228961	50	256
225319	10	211	226758	10	282	228962	50	256
225320	10	211	226759	10	282	229045	50	191
225321	10	227	226760	10	282	229225	50	317
225322	10	227	226761	10	282	229389	20	165
225323	10	227	226762	10	282	229390	10	165
225324	10	227	226763	10	282	229391	10	165
225328	10	227	226765	10	283	229393	20	197
225329	10	227	226766	10	283	23279	1	338
225330	10	228	226767	10	283	23731	100	299
225331	10	228	226768	10	283	23871	1	334
225332	10	228	226769	10	283	23883	100	293
225333	10	228	226771	10	283	23886	100	295,296
225336	10	228	226772	10	283	23957	1	335
225337	10	228	226924	20	284	24003	1	338
225338	10	227	226925	20	284	24004	1	338
225339	10	227	227286	20	263	24239	100	345
225340	10	227	227287	20	263	24871	10	337
225341	10	227	227338	50	192	25114	50	307
225344	10	228	227339	50	192	25118	100	300,307
225345	10	228	227425	1	337	25838	100	297
225431	100	306	227469	50	240	25924	50	298
225523	20	212	227470	50	240	26071	100	308
225524	20	212	227471	50	240	26083	100	293
225525	20	212	227472	50	254	26241	100	301
225526	20	212	227473	50	254	26308	100	299
225527	20	212	227474	50	254	26610	100	295
225528	20	212	227475	50	254	26621	100	300
225529	20	212	227476	50	254	26741	100	299
225530	20	212	227477	50	254	26745	100	299
225531	10	211	227478	50	254	28337	1	333
225532	10	211	227479	50	254	28376	1	336
225533	10	211	227496	50	256	28377	1	334
225534	10	211	227497	50	256	28597	1	338
225535	10	211	227498	50	256	28620	20	345
225536	10	211	227499	50	256	29480	1	338
225537	10	211	227500	50	256	29489	1	335
225538	10	211	227501	50	256	29490	1	335
225543	10	212	227502	50	256			
225544	10	212	227503	50	256			
225545	10	212	227504	50	256			
225546	10	212	227505	50	256			
225547	10	212	227506	50	256			
225548	10	212	227507	50	256			
225549	10	212	227508	50	256			
225550	10	212	227509	50	256			
225551	10	212	227510	50	256			
225552	10	212	227511	50	256			
225553	10	212	227512	50	257			
225554	10	212	227513	50	257			
225559	10	213	227514	50	257			
225560	10	213	227515	50	257			
225561	10	213	227516	50	257			
225562	10	213	227517	50	257			
225618	1	343	227518	50	257			
225901	10	349	227519	50	257			
226005	20	284	227619	10	200			
226006	20	284	227694	20	259			
226007	20	284	227695	20	259			
						<b>3</b>		
						30274	100	294
						30545	200	292
						32365	100	287
						32412	100	287
						33932	100	295
						33970	100	296
						33971	100	296
						33981	100	299
						34522	200	296
						34606	200	308
						34610	200	308
						34618	200	308
						34902	200	296
						34917	200	295
						34921	200	295
						34934	200	303
						34937	200	297
						34943	200	299
						34958	200	307






<b>№</b>		<b>Page</b>	<b>№</b>		<b>Page</b>	<b>№</b>		<b>Page</b>
34963	200	300	357887	200	193	362671	100	302
34969	200	296	357918	100	299	362812	100	303
34979	200	295	357919	100	299	362849	100	299
34980	200	299	357920	100	301	362918	100	266,321
34981	200	301	357921	100	301	363020	200	292
34985	200	302	357922	100	303	363021	200	292
34986	200	301	357923	100	303	363027	100	303
34998	200	292	357924	100	292	363116	100	270
35178	50	290	357925	100	292	363117	100	270
352980	100	193	357926	100	308	363137	100	271
352994	100	296	357927	100	308	363138	100	271
353299	100	284	357928	100	296	363148	100	272
354023	100	229	357929	100	296	363175	100	295
354028	200	308	357958	100	293	363176	100	295
354090	100	232	357959	100	293	363177	10	349
354669	100	243	357960	100	193	363178	10	349
354670	100	243	358368	100	193	363179	10	349
354671	100	243	358440	1	322	363180	10	349
354672	100	243	358450	100	296	363181	10	349
354673	100	243	358851	200	304	363182	10	349
354674	100	243	358861	100	233	363183	10	349
354675	100	243	358862	100	308	363184	10	349
354676	100	243	358989	100	272	363185	10	349
354795	100	234	358991	100	299	363186	10	349
354966	100	193	358993	100	294	363187	10	349
355132	200	292	358994	100	294	363192	100	178
355134	100	294	358996	100	232	363288	100	251
355135	200	299	359002	100	233	363289	100	251
355221	100	308	359003	100	304	363297	100	232
355396	200	301	359004	100	304	363300	100	302
355418	200	193	359211	100	232	363306	50	260
355443	200	295	359212	200	300	363307	50	260
355558	100	295	359213	100	300	363353	100	268
355606	100	299	359251	200	292	363354	100	268
355615	100	309	359252	200	292	363377	100	232
355678	100	193	359253	100	293	363378	20	215
355715	50	273	359254	100	293	363403	100	271
355796	100	233	359297	200	303	363404	100	271
355797	200	301	359370	100	301	363472	1	350
355798	100	302	359407	20	342	363473	1	350
355815	100	234	359408	20	342	363474	1	350
355816	100	222	359409	20	342	363486	100	296
355818	50	284	359410	20	342	363487	100	305
355819	50	290	359570	100	304	363508	100	271
355826	100	293	359571	100	304	363509	100	271
355827	100	293	359572	100	233	363510	100	271
355865	100	301	359573	100	232	363511	100	271
355901	200	295	359574	100	232	363605	50	318
355920	100	309,321	359575	200	303	363606	50	318
355923	100	308	359594	100	232	363796	50	194
355924	100	308	359599	200	308	363797	100	301
356298	100	299	359770	100	299	363992	200	304
356299	100	299	360006	100	232	363993	200	304
356326	100	301	360009	100	232	363996	100	269
356327	100	301	360102	100	293	363997	100	269
356333	100	303	360103	100	293	363998	100	269
356334	100	303	360154	200	304	363999	100	269
356504	100	292	360220	100	287	364000	100	269
356505	100	292	360221	100	287	364001	100	269
356597	100	243	360230	100	272	364004	100	269
356598	100	243	360231	100	267	364005	100	269
356774	100	296	360232	100	267	364016	100	269
356775	100	296	360233	100	270	364017	100	269
356959	100	302	360264	100	232	364018	100	269
356960	100	302	360293	100	301	364019	100	269
356961	200	304	360327	20	221	364027	100	271
356970	100	287	360443	200	306	364028	100	271
357074	100	288	360444	100	306	364029	100	271
357075	100	288	360445	100	306	364030	100	271
357076	100	288	360446	100	306	364062	100	265
357077	100	288	360561	100	296	364063	100	265
357078	100	288	360564	100	296	364064	100	265
357079	100	288	360624	100	303	364065	100	265
357081	200	193	360849	200	303	364066	100	265
357088	100	288	360950	100	288	364067	100	265
357089	100	288	360951	100	288	364068	100	265
357090	100	288	360952	100	243	364069	100	265
357091	100	288	360953	100	271	364070	100	265
357092	100	288	360954	100	271	364071	100	265
357093	100	288	361100	200	306	364072	100	265
357213	200	304	361346	200	303	364073	100	265
357252	100	193	361363	100	251	364074	100	265
357399	10	288	361815	1	342	364075	100	265
357671	200	292	361960	200	301	364076	100	265
357672	200	292	362059	100	312	364077	100	265
357673	100	293	362060	100	290,312	364087	100	268
357674	100	293	362304	200	306	364088	100	268
357675	100	292	362305	100	306	364094	100	269
357676	100	292	362333	100	271	364095	100	269
357677	100	233	362334	100	271	364096	100	269
357678	100	293	362336	50	244,260	364097	100	269
357679	100	293	362446	100	290,312	364098	100	269
357741	100	232	362609	100	269	364099	100	269
357844	200	299	362610	100	269	364100	100	271
357877	100	193	362670	100	302	364101	100	271




№		Page	№		Page	№		Page
364104	100	271	367617	20	320	37554	10	288
364105	100	271	367652	100	233	37571	10	288
364106	100	235	367721	20	314	385036	100	193
364107	100	235	367722	20	314	38924	50	300
364174	100	265	367723	20	314			
364175	100	265	367738	20	314			
364176	100	265	367812	100	244	<b>4</b>		
364177	100	265	367828	500	266,321	40107	10	342
364178	100	265	367847	100	265	40116	10	342
364179	100	265	367848	100	265	40157	10	344
364180	100	265	367850	50	179	40341	100	272
364181	100	265	367938	100	233	40342	100	272
364241	20	342	368014	20	314	40349	100	298
364286	100	300	368015	100	232	40401	100	312
364287	100	300	368035	1	343	40456	100	315
364410	100	193	368036	1	343	40485	100	273
364498	20	269	368075	50	217	40486	100	273
364499	20	269	368076	50	217	40522	100	288
364500	20	269	368077	50	217	40551	100	235
364501	20	269	368094	1	343	40553	100	235
364524	1	351	368095	100	306	40680	50	345
364563	1.000	266	368096	100	306	40720	20	345
364565	100	244	368198	100	232	40734	50	236
364602	100	292	368310	100	265	40737	50	236
364604	100	292	368311	100	265	40756	100	235
364675	20	244	368345	200	306	40757	100	235
364676	20	244	368346	200	306	41017	50	345
364677	20	244	368390	20	266	41103	100	221
364678	20	244	368425	100	215	41117	20	236
364686	10	322	368481	100	306	41231	100	235
364687	10	322	368482	100	306	41233	100	235
364716	100	244	368556	100	272	41263	100	277
364726	100	272	369287	100	265	41272	20	342
364952	100	303	369288	100	265	41339	100	235
364953	100	303	369474	20	217	41340	100	235
364954	100	305	369525	50	242	41342	100	235
365089	100	293	369526	50	242	41343	100	235
365090	100	293	369527	50	242	41537	1	333
365159	100	233	369528	50	242	41582	100	235
365160	100	233	369529	50	268	41583	100	235
365161	100	233	369530	50	268	41642	20	236
365193	100	288	369531	50	268	41698	50	236
365194	100	288	369532	50	268	41699	100	235
365195	100	288	369535	50	273	41701	100	235
365196	100	288	369607	50	242	41740	100	270
365224	20	269	369608	50	242	41741	100	270
365225	20	269	369609	50	242	41742	100	267
365400	100	299	369610	50	242	41743	100	267
365401	100	299	369611	50	267	41752	100	267
365426	100	296	369612	50	267	41760	100	267
365427	100	296	369613	50	267	41762	100	267
365561	50	309	369614	100	267	41763	100	267
365567	200	304	369757	100	303	41764	100	270
365568	200	304	369758	100	303	41769	100	270
365571	100	294	369788	100	321	41770	100	270
365572	100	294	369789	100	321	41771	100	270
365573	100	294	369790	100	321	42048	100	267
365574	100	294	369791	100	321	42049	100	267
365791	100	290,309	369827	50	284	42057	100	267
366006	50	179	369828	50	284	42058	100	267
366007	50	179	369939	20	266	42060	100	270
366008	50	179	369944	20	266	42061	100	270
366011	100	217	369945	20	266	42063	100	270
366012	100	217	369973	20	266	42064	100	270
366263	20	313	369974	20	266	42083	100	242
366284	100	179	369981	100	301	42084	100	243
366339	100	265	370030	100	265	42087	100	270
366340	100	265	370031	100	265	42093	100	270
366348	100	194	370051	20	320	42094	100	270
366379	200	301	370052	20	320	42095	100	270
366528	100	299	370082	100	266	42096	100	270
366529	100	299	370110	200	300	42097	100	242
366537	200	308	370111	200	300	42098	100	242
366613	20	320	370252	100	321	42099	100	242
366614	20	320	370313	2	336	42103	100	242
366615	20	320	370390	100	321	42105	100	243
366635	100	303	370425	100	266	42106	100	243
366636	100	303	370465	100	265	42107	100	243
366638	100	305	370466	100	265	42108	100	243
366651	20	312	370482	10	349	42166	100	272
36668	50	266,273	370505	100	265	42185	100	272
366719	50	179	370506	100	265	42186	100	270
366724	100	290	370557	100	305	42188	100	270
366920	200	304	370558	100	305	42189	100	242
366921	100	305	370599	100	265	42190	100	242
366922	100	266	370600	100	265	42191	100	242
366988	100	302	370601	100	265	42192	100	243
367262	100	265	370602	100	265	42193	100	243
367263	100	265	370922	10	178	42194	100	243
367294	100	292	371009	100	321	42195	100	267
367295	100	292	371712	100	321	42196	100	267
367494	100	233	37535	10	288	42207	100	267
367505	20	314	37536	10	288	42208	100	267
367510	100	233	37537	10	288	42209	100	267
367573	100	272	37538	10	288	42215	100	267
						42465	100	345



<b>№</b>		<b>Page</b>	<b>№</b>		<b>Page</b>	<b>№</b>		<b>Page</b>
42505	1	344	44247	100	271	52479	100	248
42509	100	313	44250	100	287	52480	100	230,238
42514	100	313	44273	200	194	52481	100	238
42598	100	270	44274	100	287	52483	100	248
42599	100	270	44286	50	236	52484	100	248
42714	20	236	44287	50	236	52485	100	248
42723	20	236	44288	50	236	52486	100	239
43509	100	287	44289	50	236	52487	100	239
43518	100	270	44290	100	242	52488	100	239
43519	100	270	44291	100	243	52489	100	239
43548	100	216	44295	50	236	52504	20	276
43549	100	216	44300	100	287	52702	50	220
43551	100	217	44318	100	288	52703	50	254
43552	100	217	44349	100	178	52704	50	254
43553	100	270	44350	50	321	52706	50	256
43554	100	270	44351	50	321	52707	50	256
43564	100	270	44374	100	251	52764	100	248
43565	100	270	44375	100	251	52794	100	300,307
43566	100	267	44456	100	231	52976	20	316
43567	100	267	44460	100	231	52977	20	316
43568	100	235	44461	100	231	52978	20	316
43569	100	235	44463	100	231	54684	50	257
43587	100	271	44467	100	231	54685	50	257
43588	100	271	44468	100	231	54688	50	257
43590	100	271	44470	100	230	54689	50	257
43591	100	271	44474	100	230	54690	50	253
43592	100	271	44475	100	230	54691	50	253
43593	100	271	44477	100	230	54692	50	253
43595	100	271	44481	100	230	54693	50	253
43597	100	271	44482	100	230	54694	50	238
43598	100	271	44660	100	281	54695	50	238
43601	100	271	45038	100	178	54697	50	298,316
43602	100	271	454888	50	345	54698	50	252
43603	100	271	455008	1	323	54699	50	252
43604	100	271	455009	1	323	54700	50	252
43606	100	271	455010	1	323	54701	50	252
43608	100	271	455011	1	323	54702	50	252
43609	100	271	455012	1	323	54703	50	252
43613	100	217	455048	1	324	54704	50	252
43618	50	236	455049	1	324	54705	50	252
43622	100	268	455050	1	324	54706	100	239
43623	100	268	455051	10	324	54709	100	239
43625	200	193	455052	1	324	54710	50	255
43626	100	272	455053	1	324	54711	50	255
43647	100	345	455054	1	324	54712	50	255
43651	100	272	455055	1	324	54713	50	255
43701	100	272	455056	1	324	54726	50	254
43702	10	342	455057	1	324	54727	50	254
43709	100	229	455058	1	325	54728	50	256
43727	100	268	455059	1	325	54729	50	256
43728	100	268	455122	1	323	54783	100	232
43729	100	268	455347	10	215	54799	100	239
43730	100	268	455348	10	215	54890	100	249
43731	100	268	455349	20	215	54891	100	249
43732	100	268	455386	20	215	54892	100	249
43733	100	268	455387	20	215	54893	100	249
43734	100	268	455388	20	215	54917	100	225
43735	100	268	455426	10	349	54922	100	225
43736	100	268	455427	10	349	54923	100	225
43739	100	268	455428	10	348	55009	100	239
43740	100	268	455429	1	350	55028	100	232
43743	100	268	455430	1	350	55039	100	309
43744	100	268	455431	1	350	55051	100	239
43747	100	313	455432	1	350	55066	100	298
43760	100	243	455457	1	323	55085	100	239
43761	100	242	455458	1	323	55092	50	254
43791	100	288	458062	1	350	55093	50	254
43800	50	236	458063	1	350	55097	50	256
43801	50	236	458281	1	350	55098	50	256
43802	50	236	462516	1	323	55112	100	293
43803	50	236	463153	1	323	55167	20	276
43804	50	236	464526	1	322	55189	50	312
43922	1.000	309	464534	1	322	55214	50	294
43940	100	270	465205	1	323	55252	50	297
44102	100	236	465206	1	323	55277	100	300,307
441296	1	342	465315	400	262	55291	50	261
44162	100	281	465323	100	348	55292	50	261
44174	100	312	465416	200	348	55299	10	209
44175	100	312	465776	50	345	55300	10	209
441772	100	348	466850	1	323	55301	10	209
44192	50	345	466859	1	325	55302	10	209
44199	100	229	467000	1	323	55354	100	241
44222	100	313	467001	1	323	55359	100	239
44223	100	313	467150	1	319	55409	20	276
44234	100	273	467151	1	319	55424	100	249
44235	100	235	467153	1	319	55425	100	249
44236	100	235	467155	1	319	55452	50	255
44239	100	270	476776	10	349	55453	50	255
44240	100	270				55492	50	254
44241	100	267				55493	50	254
44242	100	267	52321	50	222	55494	50	255
44243	100	242	52389	100	232	55495	50	255
44244	100	243	52462	50	220	55883	100	239
44245	100	270	52468	100	222	55988	50	316
44246	100	271	52478	100	248	56771	100	239

**5**



№		Page
56910	100	297
56930	100	295
57116	50	255
57117	50	255
57232	50	257
57233	50	257
57247	1	342
57280	50	225
57425	50	349
57891	50	312
57892	50	230
57930	50	230
58004	100	239
58006	100	239
58041	50	252
58042	50	252
58131	50	261
58132	50	261
58472	50	222
58475	100	249
58476	100	249
58477	100	239
58601	50	254
58602	50	254
58619	100	239
59443	100	249
59444	100	249
59469	100	239
59490	50	254
59491	50	254
59916	100	249
59917	100	249

**9**

93228	20	287
94022	500	294,321
94030	100	222
94031	100	309
94035	100	284
94036	50	284
94037	100	309
94038	100	309
94074	100	183
94088	100	232
94089	100	232
94111	100	312
94185	100	234
94217	100	232
94218	100	232
94219	100	287
94258	100	232
94322	50	295
94477	100	233
94478	100	233
94479	100	233
94484	100	233
94491	200	244
96200	100	293
96201	100	293
96263	100	295
96264	100	296
96305	100	293
96306	100	293
96558	100	308
96561	100	301
96563	100	295
96564	100	296
96565	100	293
96566	100	293
96641	100	301
96660	100	299
96690	100	300
96691	100	297
96692	100	302
96779	100	301
96860	100	299
96861	100	301
96890	100	300
97377	100	293
97528	100	232
97529	100	232
97544	100	299
97550	100	281
97553	200	244
98021	100	299
98110	100	296
98265	100	233



# Do you want everything from a single source?

We are your **full-service provider** for **large-surfaces, window and door components** – with solutions for **timber, PVC** and **Aluminium**. Discover what is possible on our website: [www.maco.eu](http://www.maco.eu)



**MACO in your area:**  
[www.maco.eu/contact](http://www.maco.eu/contact)



TECHNOLOGY IN MOTION



This print document is revised regularly. The latest version is available at <http://www.maco.eu/sites/assets/MacoDocs/49778/49778en.pdf> or by scanning the QR code.

Order No. 49778EN - Creation date: 01/2020  
All rights and amendments reserved.