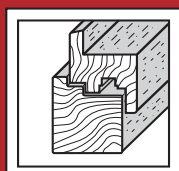


ARX

The Perfect Move



ARX spin

High-quality, durable and simple
For Timber profiles

Hardware for timber profile windows
Catalogue of products 2013
Photography by:
Kovinoplastika Lož d.d.

All the information in the following brochure has been carefully selected and verified. In the time of ever-growing technical progress and improvements, necessary changes constantly take place. We therefore thank you for your understanding, as we can not be held responsible for the correctness and completeness of the brochure content due to the reasons mentioned above. We reserve all the rights, especially the right to reproduce and transmit all parts of this publication.

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Kovinoplastika Lož d. d. is an international company with a long-standing tradition; its aim is to meet the customers' demand for functional quality products. We are organized as a single entity joint-stock company with three divisions and many affiliated companies in Slovenia and abroad.

The operations which are performed in accordance with the international certificates obtained, our knowledge and modern technologies, result in a successful performance in all our core product lines.

We are developing business excellence and making investments in the development in all the strategic areas. Our products and services are marketed under trademarks which are managed by ourselves and with the help of our partners.

Besides its distinctive quality, the building hardware of Kovinoplastika Lož has an excellent quality-to-price ratio, providing Kovinoplastika Lož with a fast and effective strategy of winning market positions both in the European Union and other European countries.

The ARX building hardware made by Kovinoplastika Lož - turn & tilt hardware for doors and shutters are the most distinguished. Is available on selected international markets, where Kovinoplastika Lož markets its products and effectively manages them with its own subsidiaries, whereas the others are managed by maintaining long-lasting and successful partnerships with local companies.

It must be pointed out that Kovinoplastika Lož was the first company in the world, which developed and patented the system of multi-point door locks, operating on the lever principle.

Besides managing production development and marketing all the programmes of building hardware, Kovinoplastika Lož ranks successfully among the top kitchen sink suppliers and gastronomic dishes for professional kitchens under our own trademark ALVEUS.

Compatibility of components to ensure reliability of operation



The ARX building hardware is new hardware for windows, balcony doors and door locks, being a product of our own development. We are an European hardware manufacturer from Slovenia, with extensive experience in the field of development, production and marketing of the most complex hardware for windows and doors.

The ARX building hardware is fully reliable and adjusted to hard climate; it combines the following features:

Innovation of functional solutions

- High-quality material
- High quality production and installation of individual hardware sets by using highly automated production
- Hardware is easy to maintain, providing a simple and environmentally friendly degradation
- A wide range of use
- Long-term operation and simple installation
- Offers the possibility of high level of automation assembly hardware on the window sash and frame
- Proper surface protection ARXCoat, providing good anti-corrosion durability and a trendy silver appearance, all due to the hot-dip galvanizing process

With a thoroughly made - out design, the ARX building hardware will add a new value to your windows and balcony doors.

Manufacturer's standards and certificates

In January 1994, Kovinoplastika Lož acquired the ISO 9001 compliance certification. After that in 2002, the company was successfully recertified and acquired the ISO 9001:2000.

In 2009, Kovinoplastika Lož acquired an important certificate - ISO/TS 16949, proving appropriate compliance certification for implementing appropriate environmental policy.

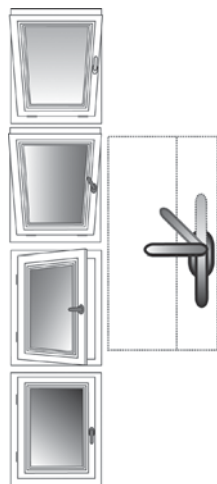
Kovinoplastika Lož was the first big industrial company in Slovenia to gain the ISO 14001 compliance certification for implementing appropriate environmental policy.

Based on successfully finished tests has Kovinoplastika Lož d.d. in November 2011 received also certificate about accordance of building fittings ARX spin with regulations in EU.



Product warranty and liability - turn only, tilt&turn hardware

Position of sash and lever



Tilt

Night vent

Open

Close

According to the instructions of the Quality Association for Locks and Hardware (Gütegemeinschaft Schlösser und Beschläge), the VHBH Directive, issued on 11.12.2009 and the manufacturer's responsibility for its products, defined in the Consumer Protection Act (Consumer Protection Act of the Republic of Slovenia, paragraph 2, §4-11a), the following information about the turn-only and tilt&turn hardware for sashes must be observed. Failure to comply with the following information exempts the manufacturer from liability.

1. Product information and stipulated application

1.1 Quality Assurance Association for Locks and Hardware (Gütegemeinschaft Schlösser und Beschläge) published in the VHBH Directive states that turn-only and tilt-and-turn hardware is hardware for turnable and tiltable sashes for windows in building construction.

This hardware is used for:

- bringing windows and sashes of windows, by activation of a handle, into a turning position,
- bringing windows and sashes of windows into a tilting position restricted by means of a scissor stay version.

Turn-only and turn&tilt hardware is used for installation in windows and balcony doors which are to be vertically installed, made from timber, PVC, aluminium or steel, and their corresponding combination.

According to the definition above, the regular function of the turn-only and turn & tilt hardware is closing the windows and sashes and opening them in different airing positions. When the sash is closed, the resistance of a gasket normally needs to be overcome.

1.3 Misuse – exclusion of liability

Misuse is not compliant with the basic purpose of hardware. Anti-theft windows and balcony doors for wet spaces and installation in aggressive and corrosive climate require special hardware with particularly defined characteristics, adjusted to individual building case.

1.4 Restrictions on the use

Open windows, sashes and balcony doors only have protective function and do not provide window slot sealing, safety in heavy rain or snow, sound and thermal insulation and anti-theft protection. In windy weather and in case of draught, windows and sashes must be closed and bolted. Windy weather and draught logically mean that a window, a sash or balcony doors open and close automatically and uncontrollably in one of the open positions due to air pressure or whirlwind. The only way to make a window, sash or balcony doors fixedly open, is to install additional hardware elements.

1.5 Use in case of special requirements

Wind resistance of the closed and bolted window depends on the actual structure of window and balcony doors. In case a window (or a sash or balcony door) has to endure wind load, according to the DIN EN 12210 standards (in particular pressure test p₃), suitable hardware compilations are to be matched in relation to the respective window design and frame material, and each case individually agreed upon.

Anti-theft windows and balcony doors for wet spaces and installation in aggressive and corrosive climate require special hardware with particularly defined characteristics, adjusted to individual building case.

In general, the turn-only, turn&tilt and tilt&slide hardware meet the requirements according to the DIN 18025 standards, applicable to open-type buildings. To this end, particular agreements and adjustments regarding the appropriate hardware structure and its installation on windows and balcony doors are required.

2. Misuse of the product

Misuse of the turn&tilt and slide hardware for window and balcony doors (i.e. the use, non-compliant with intended use of the product) includes the following:

- inserting obstacles in the opening vicinity between the frame and sash and thus preventing the proper specified use,
- if, contrary to the instructions of use, the window or the sash is uncontrollably pushed toward the window reveals (e.g. because of the wind), causing damage or destruction of hardware, sash material or other parts of the window and the sash,
- additional load on the windows or balcony door sashes (if, for example, children swing on the windows or balcony door sashes),
- inserting a hand or an object into the rebate between the window and the sash when closing the window or balcony doors (risk of injury).

3. Product warranty

Kovinoplastika Lož is one of the leading manufacturers of building hardware in the European Union; the quality of the company's product is based on a 56-year tradition in development, production and ensuring quality according to the acquired ISO 9001: 2000 certificate. We therefore provide a 2-year warranty, pertaining to building hardware functionality and surface protection for the ARX building hardware, provided the instructions in this catalogue, regarding installation and maintenance of the ARX building hardware, are followed.

We also declare that for the period of 10 years, all the spare parts of the ARX building hardware can be repaired or replaced by the experts, provided that the sash and the window frame or balcony doors have not been damaged. A 10-year period of providing spare parts or equivalent replacement parts starts with the beginning of eventual termination of the ARX building hardware production. Hardware servicing, replacement and repair services, repair time and travel expenses, arising from ensuring the above mentioned services are payable according to the price list of services, provided by Kovinoplastika Lož d.d. The hardware structure may only consist of the hardware elements from the ARX building hardware programme. In case of inappropriately performed hardware installation and/or inappropriate use of non-original additional parts, which have not been confirmed by the manufacturer, the latter assumes no responsibility. In order to fixate the hardware professionally, »Implementation regulations for the fixing of supporting hinge-sided hardware components« must be followed.

3.1 Product warranty – exclusion of liability

For functional problems or hardware damage and therefore corresponding trouble of the windows or balcony doors equipped with such hardware, being the subject of insufficient tender or failing to follow the installation rules or application diagram, the hardware manufacturer is not to be held responsible.

Warranty is applicable only to original parts of the ARX building hardware.

4. Product characteristics – manufacturer's instructions for use

4.1 Maximum sash weights

The maximum sash weight for individual hardware installation must not be exceeded. The construction element with the smallest possible permissible load defines the maximum weight of the sash. Application diagrams and component classification must be considered.

4.2 Sash sizes

Application diagrams show the relationship between the permissible sash rebate heights, depending on various glass weights i.e. total glass weight. The calculated sash dimensions in the rebate or the sash formats (portrait and/or landscape format), as well as the maximum sash weight must not be exceeded under any circumstances.

4.3 Hardware combination

The manufacturer's regulations, regarding the combination of hardware (i.e. the application of additional stay arms, the hardware design for anti-theft windows and balcony door sashes), must be followed.

4.4 Hardware functionality

Permanent hardware functionality can be ensured by consistently following the rules below:

- Professional installation of hardware components must be performed according to the attached instructions for installation,
- hardware assembly in the process of window installation is to be done professionally,
- the window manufacturer must deliver the instructions for use and maintenance to the user, along with the guidelines regarding product warranty,
- hardware as a whole can only consist of the original ARX building hardware; any product warranty is excluded for simultaneously using hardware parts, not originally belonging to the ARX building hardware.

5. Product maintenance

Hardware components, important for safety, must be checked at least once a year for fitting tightness and tight fitting. If necessary, the fixing screws can be additionally fastened and the component parts replaced. The following maintenance work must be performed at least once a year:

- Greasing and functional control of all the movable parts and all the locking points of the turn-only and tilt&turn hardware. The use of the ARX grease is highly recommended,
- only the cleaning and maintenance agents, which do not reduce the anti-corrosion hardware protection, may be used.

Hardware a – particularly in the vicinity of the pivot rest and the scissor-stay, as well as replacement parts and the unhinging & hinging of the active sash – must be provided by highly-qualified experts. In case of surface treatment for windows and balcony doors (e.g. varnishing), all the hardware components must be excluded from treatment; they must also be protected against potential contamination, caused by surface treatment.

5.1 Maintaining the quality of surface treatment

In normal climate, the hot-dip galvanized coating is not damaged by corrosion, as long as condensed water is not produced in hardware parts or if the condensed water quickly dries up.

In order to maintain long-lasting quality of surface treatment and prevent adverse corrosion effects, the instructions below must be followed:

- Hardware and window rebates must be thoroughly aired (particularly during the construction phase) by making sure that the elements mentioned are not exposed to moisture and condensed water,
- hardware must be protected against any covers or contamination with building materials (e.g. roughcast, dust, cement and the like),
- aggressive vapours in the window rebate (e.g. formic acid and acetic acid, ammonia, amino- and ammonium compounds, aldehyde, phenol, tannic acid etc.) may quickly lead to corrosion of hardware components in combination with a small amount of condensed water; in case of aggressive vapours, thorough airing of rebates on the windows and balcony doors must be provided; this is particularly important for windows and balcony doors made of oak and other types of wood, containing a large amount of tannic acid,
- gaskets with acetic acid or acidic net structure or gaskets, containing the above mentioned ingredients must not be used, as the direct contact with the gasket and its vapours may corrode the hardware surface,
- hardware can only be cleaned with soft, ph-neutral cleaning agent in diluted form; aggressive, acidiferous cleaners or abrasive cleaning agents, containing the above mentioned ingredients, must not be used at any time.

6. Information and instructions

In order to carry out duties of informing and giving instructions and performing maintenance according to »Consumer Protection Act«, the following publications are available:

- »Catalogues« for designers and authorized dealers
- »Installation instructions« and »factory drawings« for manufacturers of windows and balcony doors,
- »instructions for maintenance and cleaning« and »Instructions for use« for investors and users.

In order to ensure the functionality of the turn-only, turn&tilt and slide hardware for windows and balcony doors, the following rules must be observed:

- The designers are required to obtain information from the manufacturer or the authorized dealer, regarding the products, and act accordingly,
- the authorized dealers must pay attention to product information and the information mentioned herein, along with installation instructions, factory drawings and instructions for maintenance and cleaning; they must obtain instructions for use from the manufacturer and pass them on to manufacturers of windows and balcony doors,
- the manufacturers of windows and balcony doors must consider all the relevant product information and ask the manufacturer or authorized dealer for maintenance and
- cleaning instructions in particular, along with instructions for use and pass them on to investors and users.

All information regarding turn&tilt, turn or tilt only hardware systems for windows and balcony doors made of PVC should be observed. In case of non-compliance the manufacturer is exempt from liability.

High-quality, durable and simple

ARX Spin is a system of turn&tilt hardware fittings. Its technology enables effortless turning and tilting of window sashes with a single handle operation. ARX Spin hardware can be operated very conveniently and is also available in a high-security version. The system can be fitted to a wide range of window sizes and allows for simple integration of components during fabrication process.

The ARX spin turn and tilt building hardware is fully reliable and adjusted to hard climate; it combines the following features:



ARXCoat – High quality surface protection

ARXCoat surface protection gives excellent appearance to building hardware and simultaneously ensures long-term and durable surface.

It maintains very high corrosion resistance in severe conditions and extreme climate, exceeding Grade 5 of BS EN1670 (480 hours exposure to salt spray), thereby guaranteeing long-term and simple use without any maintenance trouble.

How have we accomplished this? Through a special technological process that consists of electroplated zinc coating and low-temperature thick-layer passivation, followed by application of organic sealant to increase the anti-corrosion properties.



Tilt guide with integrated anti-slam lock

Integrated tilt lock keeps the sash in tilted position, thus preventing sash slamming in windy conditions.



R – Cam

R-Cams incorporate a regulatory function which allows installer or user to optimize the window compression by +/-1,2mm, thereby improving the sealing properties of windows and balcony doors. Moreover, the R-Cams provide smoother operation to window users who only need to apply a minimum force in order to operate the handle.



Night vent

Night Vent is provided to allow gentle circulation of air through its gap in case of hot weather or in order to prevent glass condensation, or even mould forming. The window handle is set at the 45 degree angle between the two open positions. – see on page 56.

High-quality, durable and simple

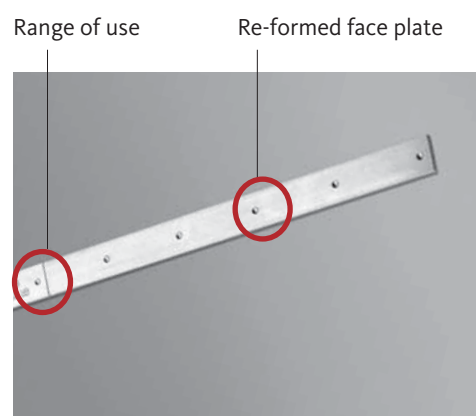
A wide range of products

ARX Spin hardware is available in extensive variety of components, which can be combined into a number of turn&tilt solutions. ARX Spin therefore easily meets desires and requirements of different customers. For instance, a wide range of corner drives and shoot-bolts provides an excellent product choice to both very demanding and less stringent security requirements.



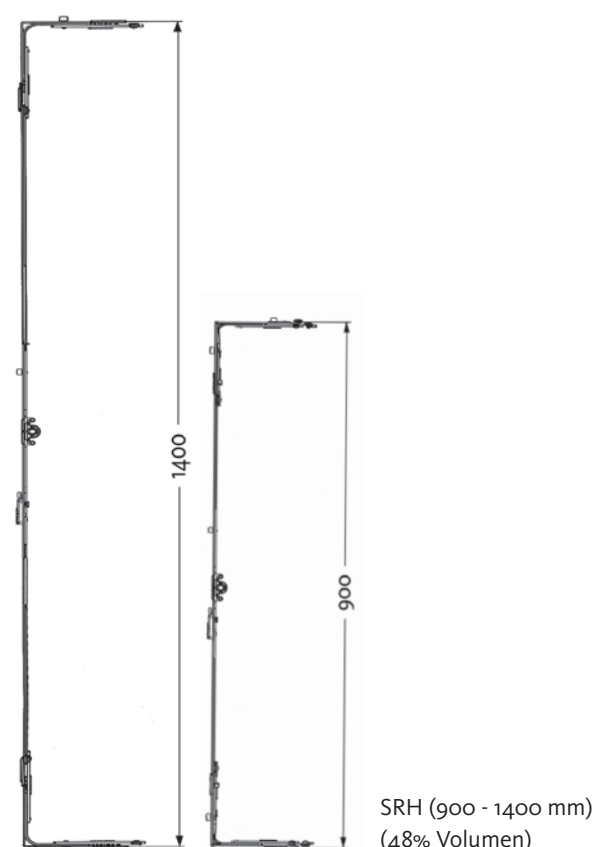
Uniform length of redesigned espagnolettes

A special feature of ARX Spin hardware is also uniform length of its espagnolettes. A one-size espagnolette can fit a range of sash dimension, covering up to 50% of total requirement. Each espagnolette can be cropped within the marked cut-off area.



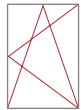
Reduced friction between driving rod and faceplate

The espagnolettes have been redesigned to reduce the contact between the gearplate and faceplate, thereby reducing potential damage to surface protection.



The explanation of symbols, diagrams and tables

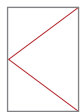
In the part describing the ARX Spin, different symbols, diagrams and tables are used in order to provide a clear picture and demonstration of the hardware application. The meanings are as follows:



Tilt and turn sash

L (mm)

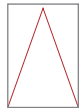
Material Length



Turn only sash

MS (mm)

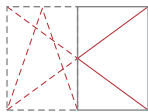
Mishandling device position



Tilt only sash



Locking cam position



Turn and tilt / turn only sash



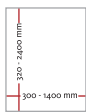
Number of strikers



Sash weight max. 100 kg



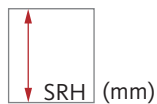
Number of screws



Application range:
Sash rebate width 325 - 1600 mm
Sash rebate height 420 - 2400 mm



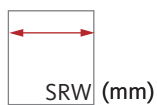
Locking cam R



Sash rebate height



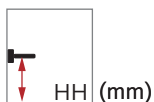
Locking cam P



Sash rebate width



NV - night vent

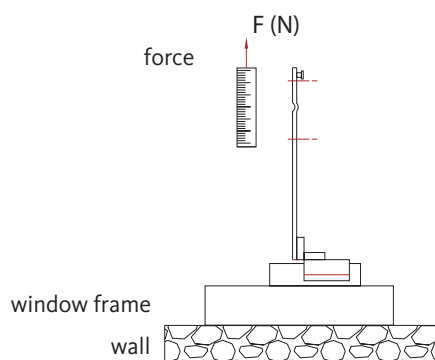


Handle height

Regulation of product warranty

In order to fix hardware components, silver galvanized, steel construction screws of 3,5/4,0 x.... are used. The window manufacturer must ensure sufficient fixing of hardware components. If necessary, the manufacturer of construction screws may also be included in the process of installing hardware.

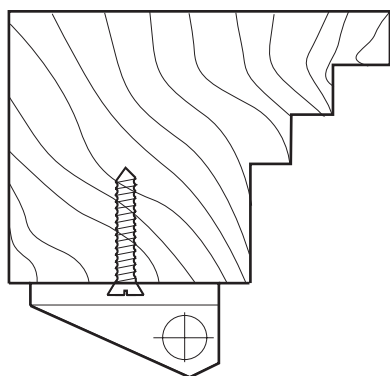
Sash weight (Kg)	F (N)
60	1650
70	1900
80	2200
90	2450
100	2700
110	3000
120	3250
130	3500
140	3900
150	4200
160	4400
170	4700
180	5000
190	5300
200	5500



When fixing safety relevant bearing hardware components (scissor stay bearing and pivot rest), the vertical tractive force on the sash level must reach the values according to the following table (the tractive force values in dependence of the sash weight according to RAL-RG 607/3).

The stated values refer to the stay bearing. These are also valid for the pivot rest if the fixing is carried out in the same manner as with the stay bearing.

Wood profile



Gaskets with acetic net structure must not be used, as their use may lead to corrosion of hardware components. Guidelines regarding the window glazing technique must be followed.

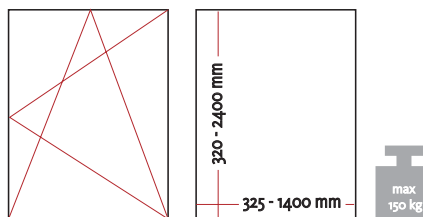
Use of related hardware types

Different options within the individual hardware system (e.g. tilt hardware) must be considered according to the product information, purpose, misuse, product characteristics, maintenance and information and instructions, in regard to the characteristics of the hardware assembly.

TURN & TILT Hardware - wood Fixed & Centered / variable Handle Height - Basic

1 T&T ESPAGNOLETTE BS 14,5 mm

Sash rebate height	Handle height	Lenght	Material Nr.
320 - 460 ⁴⁾	120	320	1083081
461 - 600	170	460	1083082
601 - 800	263	660	1083083
801 - 1000	413	860	1083084
801 - 1000	413	860	1 R 1083085
1001 - 1200	513	1060	1 R 1083086
1201 - 1400	563	1260	1 R 1083087
1401 - 1600	563	1460	1 R 1083088
1601 - 1800	563	1660	1 R 1083089
1601 - 1800	1000	1660	1 R 1083090
1801 - 2000	1000	1860	2 R 1083091
2001 - 2200	1000	2060	2 R 1083092
2201 - 2400	1000	2260	2 R 1083093



SYSTEM 12/20-9

Sash rebate width	Type/Lenght	Material Nr.
325 - 610	250	L 1094045
325 - 610	250	R 1094046
611 - 810	350	L 1094047
611 - 810	350	R 1094048
811 - 1400	500	L 1094049
811 - 1400	500	R 1094050
SYSTEM 12/18-13 + SYSTEM 12/20-13 L&R		SEE PAGE 34

2 T&T ESPAGNOLETTE M BS 14,5 mm

Sash rebate height	Handle height	Lenght	Material Nr.
420 - 620 ⁴⁾	210 - 310	340	1083117
600 - 1000	300 - 500	720	1 R 1088473
900 - 1400	450 - 700	1120	1 R 1088474
1401 - 1800	701 - 900	1520	1 R 1088475
1601 - 2000	801 - 1000	1720	2 R 1088476
2001 - 2400	1001 - 1200	2120	2 R 1088477

2a	TILT LOCK BOLT SRH < 1000	1083255
	TILT LOCK BOLT SRH > 1000	1083256

3	CORNER DRIVE	1 R	1083044
	CORNER DRIVE	2 R	1083045
	CORNER DRIVE	1 R + NV ^{1) 5)}	R 1083047
	CORNER DRIVE	1 R + NV ^{1) 5)}	L 1083054

4	SHORT CORNER DRIVE	1 R	1083049
	SHORT CORNER DRIVE w. SHOOTBOLT ⁵⁾		1083048

5 SASH STAY GUIDE

Sash rebate width	Type/Lenght	Material Nr.
325 - 610 ²⁾	250 - 470	1083038
611 - 810	350 - 670	1083039
811 - 1010	500 - 870	1 R 1083040
1011 - 1210	500 - 1070	1 R 1083041
1211 - 1410	500 - 1270	1 R 1083042

6 STAY ARM SYSTEM 12/18-9

Sash rebate width	Type/Lenght	Material Nr.
325 - 610	250	L 1083002
325 - 610	250	R 1083003
611 - 810	350	L 1083004
611 - 810	350	R 1083005
811 - 1400	500	L 1083006
811 - 1400	500	R 1083007

6a COVER CAP STAY ARM

SEE PAGE 39

7 STAY BEARING WITH PIN

SYSTEM 12/18-9 + SYSTEM 12/18-13 L&R	1083251
SYSTEM 12/20-9 + SYSTEM 12/20-13 L&R	1093888

7a COVER CAP STAY BEARING

SEE PAGE 39

8 CENTRE LOCK

Sash rebate width	Sash rebate height	Type/Lenght	Material Nr.
801 - 1200	1001 - 1200	500/550	2 R 1083058
1201 - 1400	1201 - 1600	800/850	2 R 1083059
/	1601 - 2200	1500/1550	3 R 1083060
/	2201 - 2400	1950/2000	4 R 1083064

9 CORNER HINGE,

SYSTEM 12/18-9	L 1083245
	R 1083246
SYSTEM 12/20-9	L 1093883
	R 1093884
SYSTEM 12/18-13	L 1096619
	R 1096621
SYSTEM 12/20-13	L 1096622
	R 1096623

9a COVER CAP CORNER HINGE

SEE PAGE 39

10 CORNER PIVOT REST,

SYSTEM 12/18-9 + SYSTEM 12/18-13	L 1083248
	R 1083249
SYSTEM 12/20-9 + SYSTEM 12/20-13	L 1093886
	R 1093887

10a COVER CAP CORNER PIVOT REST

SEE PAGE 39

11 T&T STRIKER

SEE PAGE 40

12 STRIKER

SEE PAGE 40

13 MISHANDLING DEVICE - sash

1093907

14 MISHANDLING DEVICE - frame

SEE PAGE 40

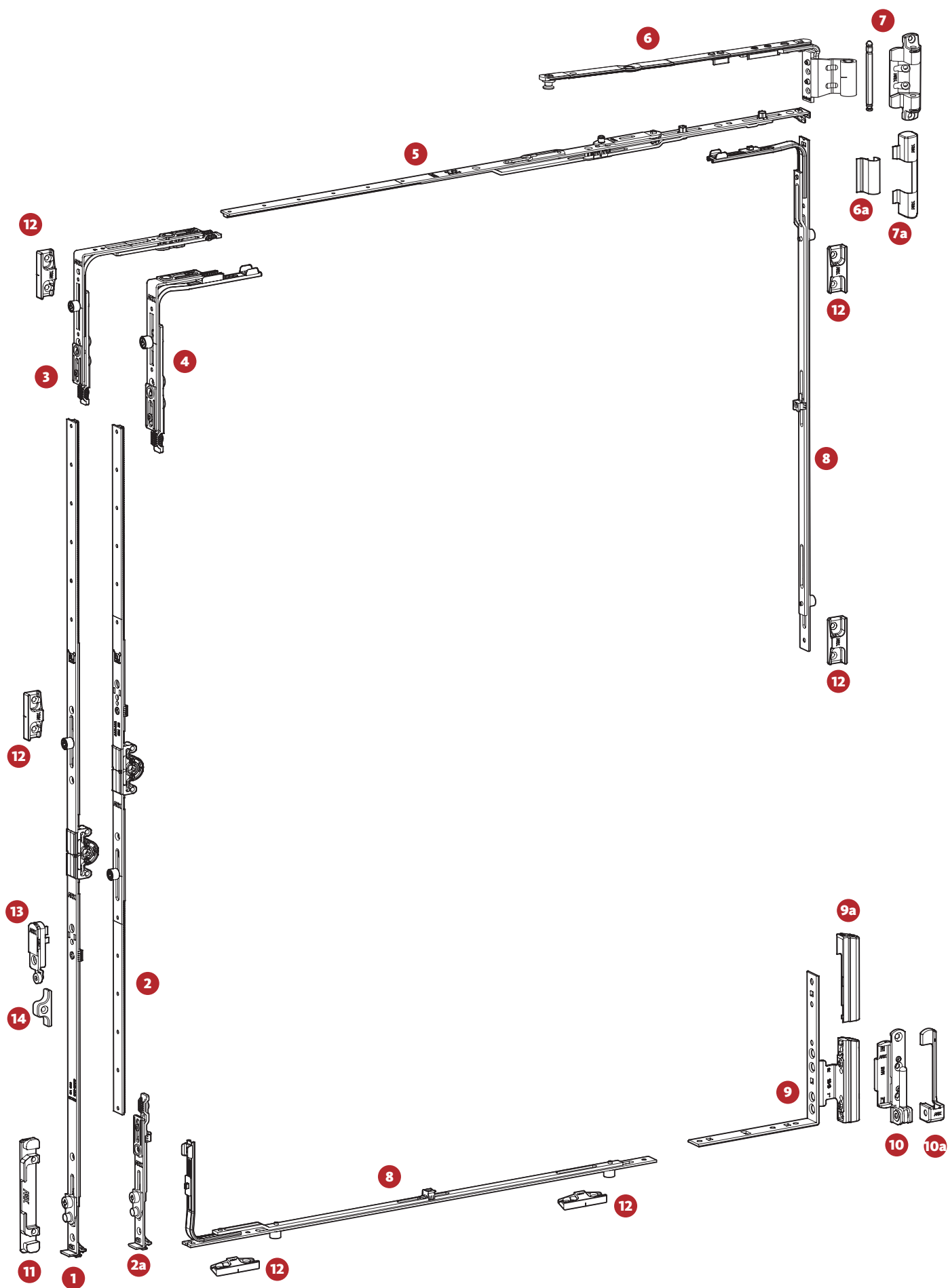
¹⁾ NV = night vent

²⁾ SRW = 325 - 410; with special corner drive

⁴⁾ Mishandling device not available

⁵⁾ Without schema

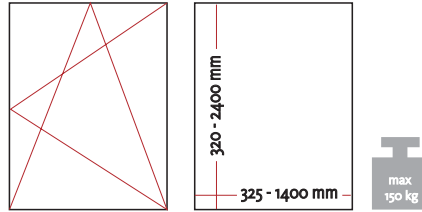
Parts review



TURN & TILT Hardware - wood Fixed & Centered / variable Handle Height - Standard

1 T&Ti ESPAGNOLETTE BS 14,5 mm

Sash rebate height	Handle height	Lenght	Material Nr.
320 - 460 ³⁾⁴⁾	120	320	1095620
461 - 600	170	460	1083094
601 - 800	263	660	1083095
801 - 1000	413	860	1 R 1083096
1001 - 1200	513	1060	1 R 1083097
1201 - 1400	563	1260	1 R 1083098
1401 - 1600	563	1460	1 R 1083099
1601 - 1800	563	1660	1 R 1083100
1801 - 2000	1000	1860	2 R 1083101
2001 - 2200	1000	2060	2 R 1083102
2201 - 2400	1000	2260	2 R 1083103



6a COVER CAP STAY ARM

SEE PAGE 39

7 STAY BEARING WITH PIN

SYSTEM 12/18-9 + SYSTEM 12/18-13 L&R	1083251
SYSTEM 12/20-9 + SYSTEM 12/20-13 L&R	1093888

7a COVER CAP STAY BEARING

SEE PAGE 39

1a T & T CORNER DRIVE 140 1 P 1087801

2 T&T ESPAGNOLETTE M BS 14,5 mm

Sash rebate height	Handle height	Lenght	Material Nr.
420 - 620 ⁴⁾	210 - 310	340	1083117
600 - 1000	300 - 500	720	1 R 1088473
900 - 1400	450 - 700	1120	1 R 1088474
1401 - 1800	701 - 900	1520	1 R 1088475
1601 - 2000	801 - 1000	1720	2 R 1088476
2001 - 2400	1001 - 1200	2120	2 R 1088477

8 CENTRE LOCK

Sash rebate height	Type/Lenght	Material Nr.
1001 - 1200	500/550 2 R	1083058
1201 - 1600	800/850 2 R	1083059
1601 - 2200	1500/1550 3 R	1083060
2201 - 2400	1950/2000 4 R	1083064

9 CENTRE LOCK

Sash rebate width	Type/Lenght	Material Nr.
801 - 1200	400 1 R	1083061
1201 - 1400	600 1 R	1083062

10 CORNER HINGE,

SYSTEM 12/18-9	L 1083245
	R 1083246
SYSTEM 12/20-9	L 1093883
	R 1093884
SYSTEM 12/18-13	L 1096619
	R 1096621
SYSTEM 12/20-13	L 1096622
	R 1096623

10a COVER CAP CORNER HINGE

SEE PAGE 39

11 CORNER PIVOT REST,

SYSTEM 12/18-9 + SYSTEM 12/18-13	L 1083248
	R 1083249
SYSTEM 12/20-9 + SYSTEM 12/20-13	L 1093886
	R 1093887

11a COVER CAP CORNER PIVOT REST

SEE PAGE 39

12 STRIKER

SEE PAGE 40

13 T&Ti STRIKER SECURITY

SEE PAGE 40

14 MISHANDLING DEVICE - sash

1093907

15 MISHANDLING DEVICE - frame

SEE PAGE 40

3 CORNER DRIVE	1 R	1083044
CORNER DRIVE	2 R ⁵⁾	1083045
CORNER DRIVE	1 R + NV ^{1) 5)}	R 1083047
CORNER DRIVE	1 R + NV ^{1) 5)}	L 1083054

10 CORNER HINGE,

3a CORNER DRIVE	1 P	1083051
-----------------	-----	---------

4 SHORT CORNER DRIVE

1 R

1083049

SHORT CORNER DRIVE w. SHOOTBOLT⁵⁾ 1083048

5 SASH STAY GUIDE

Sash rebate width	Type/Lenght	Material Nr.
325 - 610 ²⁾	250 - 470	1083038
611 - 810	350 - 670	1083039
811 - 1010	500 - 870	1 R 1083040
1011 - 1210	500 - 1070	1 R 1083041
1211 - 1400	500 - 1270	1 R 1083042

10a COVER CAP CORNER HINGE

SEE PAGE 39

11 CORNER PIVOT REST,

SYSTEM 12/18-9 + SYSTEM 12/18-13	L 1083248
	R 1083249
SYSTEM 12/20-9 + SYSTEM 12/20-13	L 1093886
	R 1093887

11a COVER CAP CORNER PIVOT REST

SEE PAGE 39

12 STRIKER

SEE PAGE 40

13 T&Ti STRIKER SECURITY

SEE PAGE 40

14 MISHANDLING DEVICE - sash

1093907

15 MISHANDLING DEVICE - frame

SEE PAGE 40

6 STAY ARM SYSTEM 12/18-9

Sash rebate width	Type/Lenght	Material Nr.
325 - 610	250 L	1083002
325 - 610	250 R	1083003
611 - 810	350 L	1083004
611 - 810	350 R	1083005
811 - 1400	500 L	1083006
811 - 1400	500 R	1083007

SYSTEM 12/20-9

Sash rebate width	Type/Lenght	Material Nr.
325 - 610	250 L	1094045
325 - 610	250 R	1094046
611 - 810	350 L	1094047
611 - 810	350 R	1094048
811 - 1400	500 L	1094049
811 - 1400	500 R	1094050

SYSTEM 12/18-13 + SYSTEM 12/20-13 L&R SEE PAGE 34

1) NV = night vent

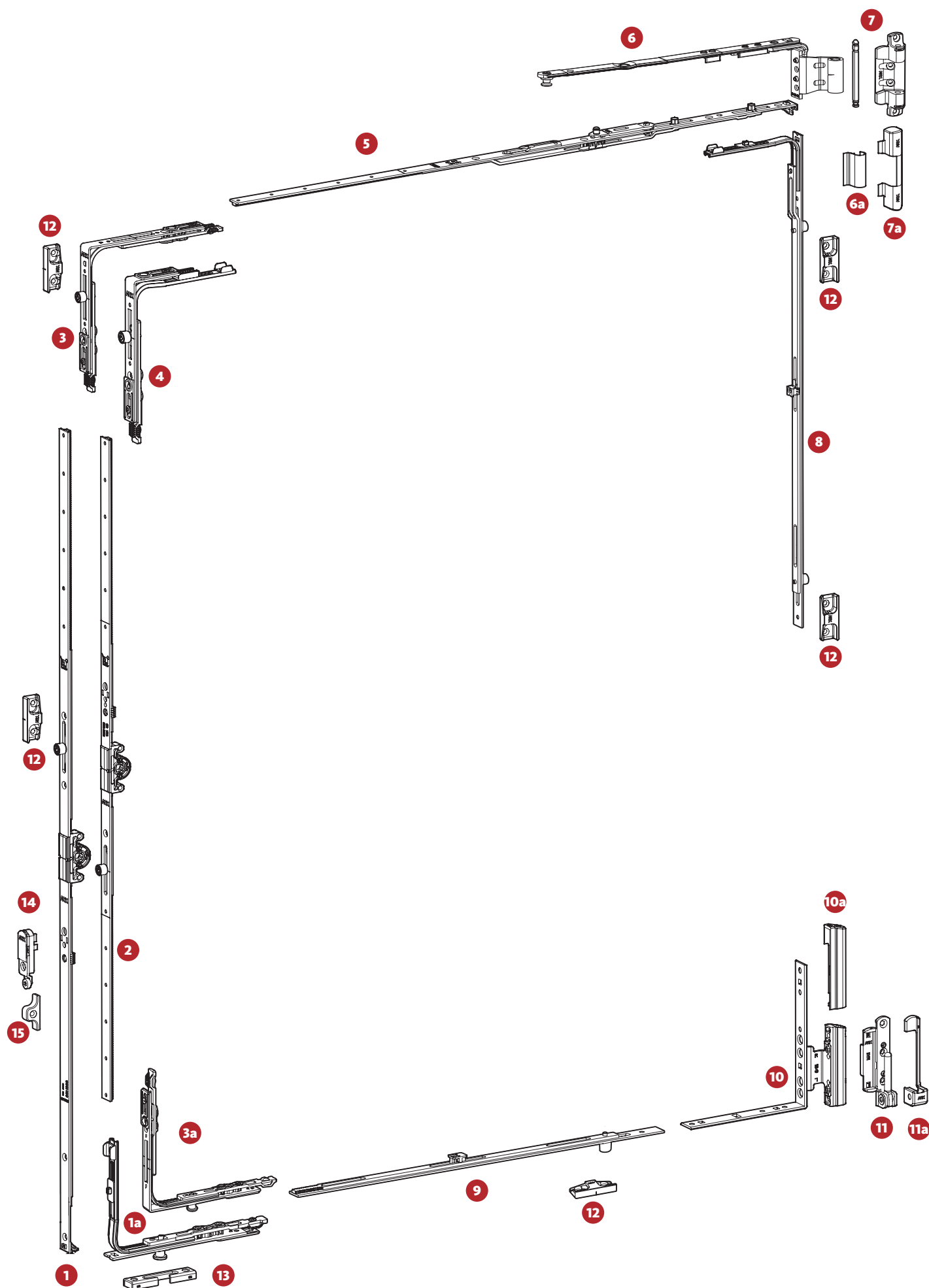
2) SRW = 325 - 410; with special corner drive

3) With integrated T&T corner drive 1P

4) Mishandling device not available

5) Without shema

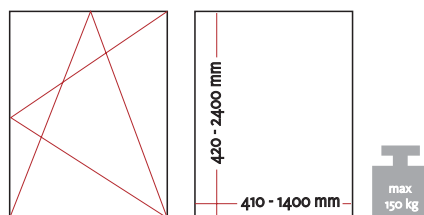
Parts review



TURN & TILT Hardware - wood Fixed & Centered / variable Handle Height - security

1 T&Ti ESPAGNOLETTE BS 14,5 mm

Sash rebate height	Handle height	Lenght	Material Nr.
320 - 460 ¹⁾²⁾	120	320	1095620
461 - 600	170	460	1083094
601 - 800	263	660	1083095
801 - 1000	413	860	1 R 1083096
1001 - 1200	513	1060	1 R 1083097
1201 - 1400	563	1260	1 R 1083098
1401 - 1600	563	1460	1 R 1083099
1601 - 1800	563	1660	1 R 1083100
1801 - 2000	1000	1860	2 R 1083101
2001 - 2200	1000	2060	2 R 1083102
2201 - 2400	1000	2260	2 R 1083103



7 STAY BEARING WITH PIN

SYSTEM 12/18-9 + SYSTEM 12/18-13 L&R	1083251
SYSTEM 12/20-9 + SYSTEM 12/20-13 L&R	1093888

7a COVER CAP STAY BEARING

SEE PAGE 39

9 CORNER HINGE,

SYSTEM 12/18-9	L 1083245
	R 1083246
SYSTEM 12/20-9	L 1093883
	R 1093884
SYSTEM 12/18-13	L 1096619
	R 1096621
SYSTEM 12/20-13	L 1096622
	R 1096623

9a COVER CAP CORNER HINGE

SEE PAGE 39

10 CORNER PIVOT REST,

SYSTEM 12/18-9 + SYSTEM 12/18-13	L 1083248
	R 1083249
SYSTEM 12/20-9 + SYSTEM 12/20-13	L 1093886
	R 1093887

10a COVER CAP CORNER PIVOT REST

SEE PAGE 39

11 CENTRE LOCK

Sash rebate width	Sash rebate height	Type	Material Nr.
601 - 800	/	200	1P 1083065
801 - 1000	801 - 1200	400	1P 1083066
1201 - 1400	1201 - 1400	600	1P 1083067
/	1401 - 1800	600+400	2P 1083070 - 1083066
/	1801 - 2000	600+600	2P 1083070 - 1083067
/	2011 - 2400	2X 600+400	3P 2X 1083070 - 1083066

T&T CORNER DRIVE 180	1 P	1083057
T&T CORNER DRIVE 180	1 R ³⁾	1083053

13 MISHANDLING DEVICE - sash

1093907

14 MISHANDLING DEVICE - frame

SEE PAGE 40

15 STRIKER

SEE PAGE 40

16 T & Ti STRIKER SECURITY

SEE PAGE 40

17 SECURITY STRIKER

SEE PAGE 40

1a T & T CORNER DRIVE 140 1 P 1087801

2 T&T ESPAGNOLETTE M BS 14,5 mm

Sash rebate height	Handle height	Lenght	Material Nr.
410 - 620 ²⁾	210 - 310	340	1083117
600 - 1000	300 - 500	720	1 R 1088473
900 - 1400	450 - 700	1120	1 R 1088474
1401 - 1800	701 - 900	1520	1 R 1088475
1601 - 2000	801 - 1000	1720	2 R 1088476
2001 - 2400	1001 - 1200	2120	2 R 1088477

3 CORNER DRIVE 1 R + 1 P 1083046

4 CORNER DRIVE 1 P 1083051

5 SASH STAY GUIDE

Sash rebate width	Type/Lenght	Material Nr.
410 - 610	250 - 470	1083038
611 - 810	350 - 670	1083039
811 - 1010	500 - 870	1 R 1083040
1011 - 1210	500 - 1070	1 R 1083041
1211 - 1410	500 - 1270	1 R 1083042

6 STAY ARM SYSTEM 12/18-9

Sash rebate width	Type/Lenght	Material Nr.
410 - 610	250	L 1083002
325 - 610	250	R 1083003
611 - 810	350	L 1083004
611 - 810	350	R 1083005
811 - 1400	500	L 1083006
811 - 1400	500	R 1083007

SYSTEM 12/20-9

Sash rebate width	Type/Lenght	Material Nr.
410 - 610	250	L 1094045
325 - 610	250	R 1094046
611 - 810	350	L 1094047
611 - 810	350	R 1094048
811 - 1400	500	L 1094049
811 - 1400	500	R 1094050

SYSTEM 12/18-13 + SYSTEM 12/20-13 L&R SEE PAGE 34

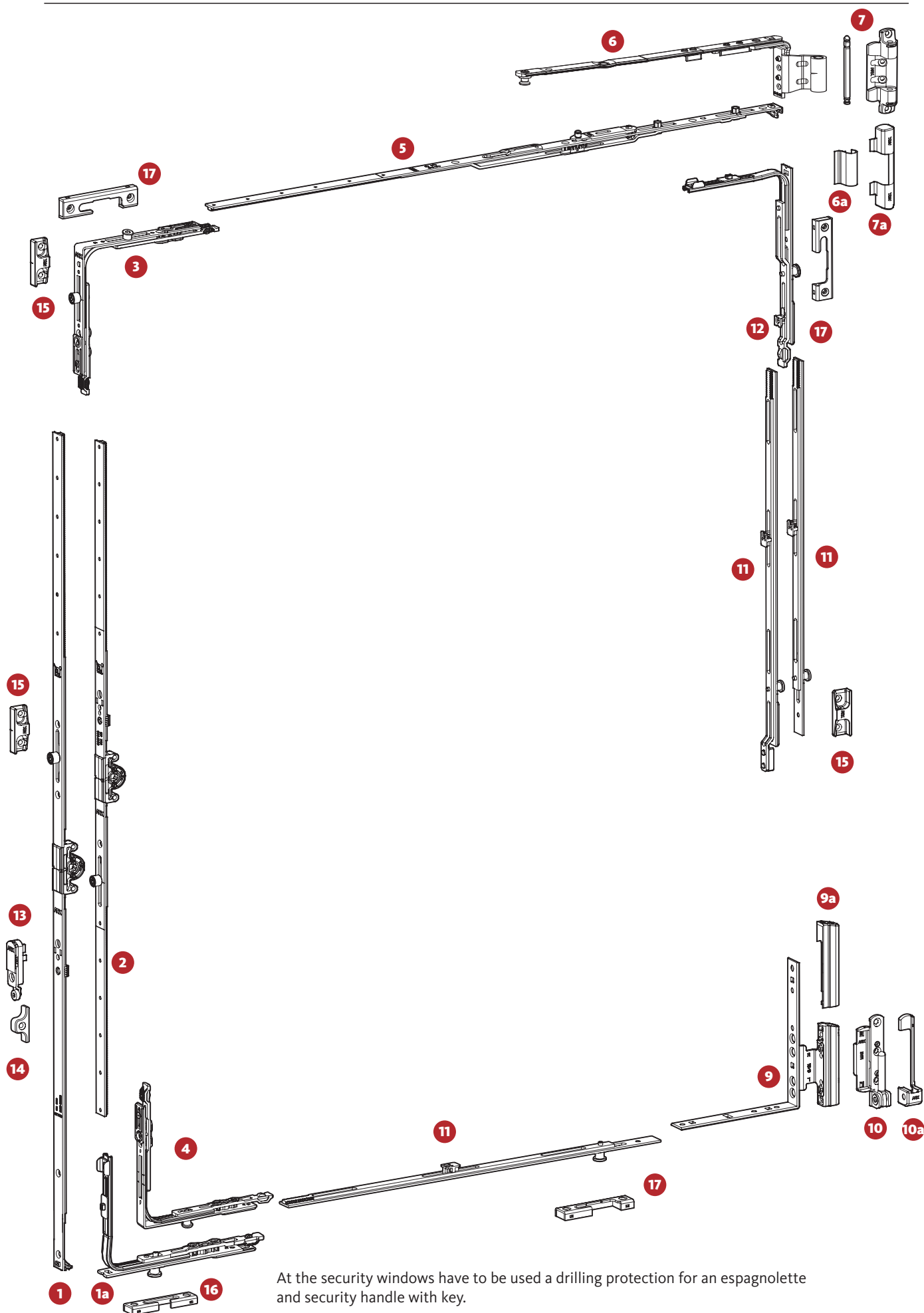
6a COVER CAP STAY ARM SEE PAGE 39

¹⁾ With integrated T&T corner drive 1P

²⁾ Mishandling device not available

³⁾ Without shema

Parts review

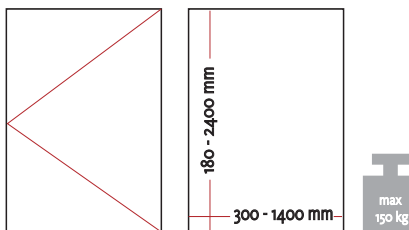


At the security windows have to be used a drilling protection for an espagnolette and security handle with key.

TURN Hardware - wood Centered / variable Handle Height

1 T&T ESPAGNOLETTE M BS 14,5 mm

Sash rebate height	Handle height	Lenght	Material Nr.
420 - 620 ¹⁾	210 - 310	340	1083117
600 - 1000	300 - 500	720	1 R 1088473
900 - 1400	450 - 700	1120	1 R 1088474
1401 - 1800	701 - 900	1520	1 R 1088475
1601 - 2000	801 - 1000	1720	2 R 1088476
2001 - 2400	1001 - 1200	2120	2 R 1088477



2 ESPAGNOLETTE M BS 14,5 mm

Sash rebate height	Handle height	Lenght	Material Nr.
180 - 250 ¹⁾	90 - 125	180	1 R 1083163
251 - 500 ¹⁾	126 - 250	500	1 R 1083164
501 - 900	251 - 450	900	2 R 1083165
901 - 1400	451 - 700	1400	3 R 1083166
1401 - 1900	701 - 950	1900	4 R 1083167
1901 - 2400	951 - 1200	2400	4 R 1083168

3 STRIKER

SEE PAGE 40

4 TILT LOCK BOLT 140

1 R 1083257

5 TILT LOCK BOLT 140/90

1 R 1083260

6 CENTRE LOCK

Sash rebate width	Type/Lenght	Material Nr.
800 - 1210	500 - 550	2 R 1083058
1200 - 1400	800 - 850	2 R 1083059

7 REBATE STAY ARM

SYSTEM 12/18-9	L 1093892
	R 1093893
SYSTEM 12/20-9	L 1093894
	R 1093895
SYSTEM 12/18-13	L 1096113
	R 1096114
SYSTEM 12/20-13	L 1096115
	R 1096116

7a COVER CAP STAY ARM

SEE PAGE 39

8 STAY BEARING WITH PIN

SYSTEM 12/18-9 + SYSTEM 12/18-13	L&R 1083251
SYSTEM 12/20-9 + SYSTEM 12/20-13	L&R 1093888

8a COVER CAP STAY BEARING

SEE PAGE 39

9 CONNCEALED STRIKER CLOSER - sash

1093911

10 CONNCEALED STRIKER CLOSER - frame

SEE PAGE 41

11 CORNER HINGE,

SYSTEM 12/18-9

L 1083245

R 1083246

SYSTEM 12/20-9

L 1093883

R 1093884

SYSTEM 12/18-13

L 1096619

R 1096621

SYSTEM 12/20-13

L 1096622

R 1096623

11a COVER CAP CORNER HINGE

SEE PAGE 39

12 CORNER PIVOT REST,

SYSTEM 12/18-9 + SYSTEM 12/18-13

L 1083248

R 1083249

SYSTEM 12/20-9 + SYSTEM 12/20-13

L 1093886

R 1093887

12a COVER CAP CORNER PIVOT REST

SEE PAGE 39

13 MISHANDLING DEVICE - sash

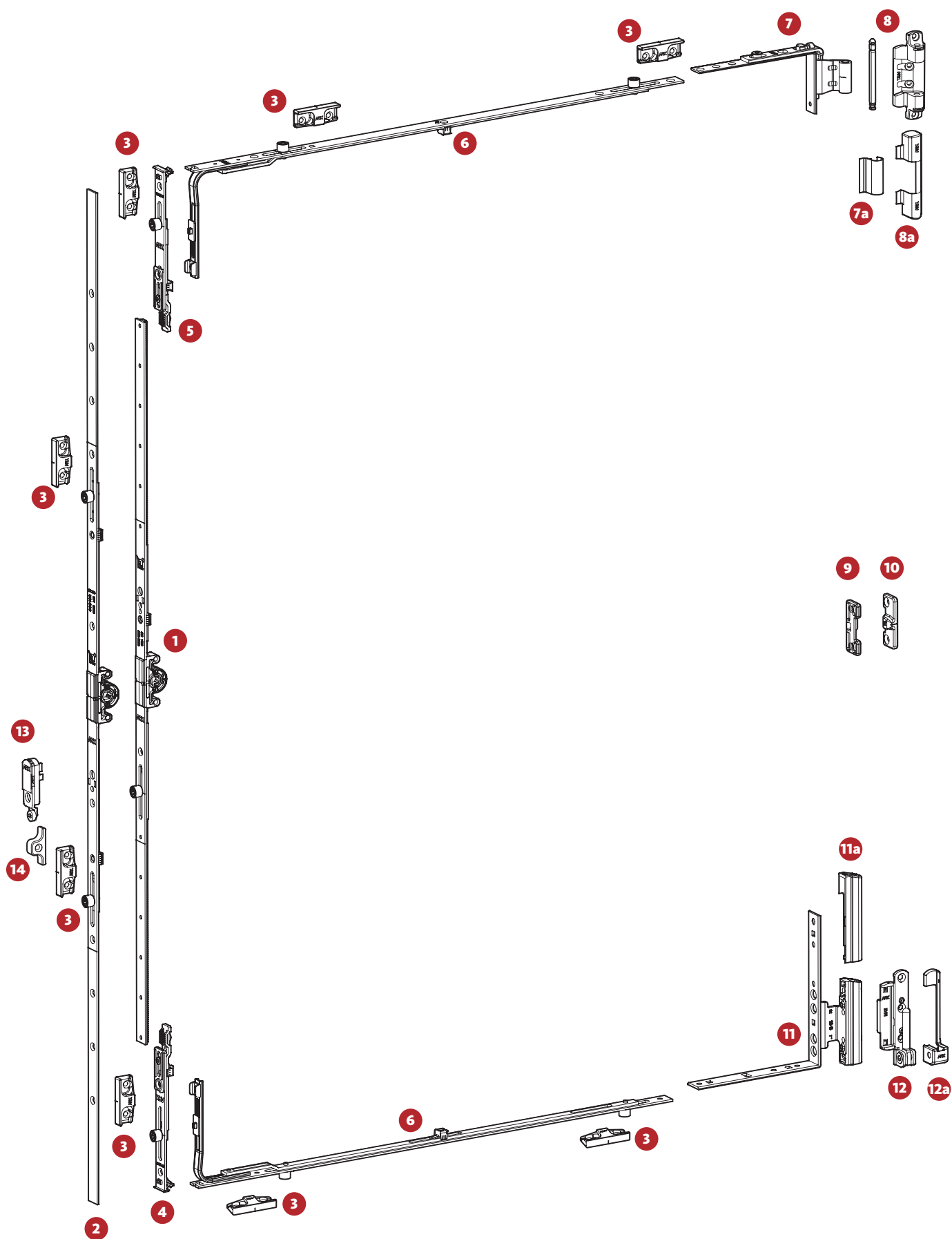
1093907

14 MISHANDLING DEVICE - frame

SEE PAGE 40

¹⁾ Mishandling device not available

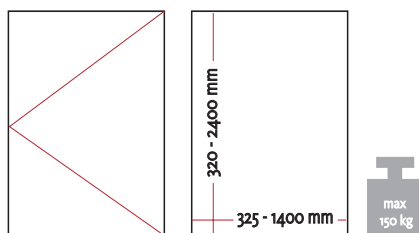
Parts review



TURN Hardware - wood Fixed / variable Handle Height

1 T&T ESPAGNOLETTE BS 14,5 mm

Sash rebate height	Handle height	Lenght	Material Nr.
320 - 460 ¹⁾	120	320	1083081
461 - 600	170	460	1083082
601 - 800	263	660	1083083
801 - 1000	413	860	1083084
801 - 1000	413	860	1 R 1083085
1001 - 1200	513	1060	1 R 1083086
1201 - 1400	563	1260	1 R 1083087
1401 - 1600	563	1460	1 R 1083088
1601 - 1800	563	1660	1 R 1083089
1601 - 1800	1000	1660	1 R 1083090
1801 - 2000	1000	1860	2 R 1083091
2001 - 2200	1000	2060	2 R 1083092
2201 - 2400	1000	2260	2 R 1083093



7a COVER CAP STAY ARM

SEE PAGE 39

8 STAY BEARING WITH PIN

SYSTEM 12/18-9 + SYSTEM 12/18-13	L&R	1083251
SYSTEM 12/20-9 + SYSTEM 12/20-13	L&R	1093888

8a COVER CAP STAY BEARING

SEE PAGE 39

9 CONNCEALED STRIKER CLOSER - sash

1093911

10 CONNCEALED STRIKER CLOSER - frame

SEE PAGE 41

11 CORNER HINGE,

SYSTEM 12/18-9	L	1083245
	R	1083246
SYSTEM 12/20-9	L	1093883
	R	1093884
SYSTEM 12/18-13	L	1096619
	R	1096621
SYSTEM 12/20-13	L	1096622
	R	1096623

11a COVER CAP CORNER HINGE

SEE PAGE 39

12 CORNER PIVOT REST,

SYSTEM 12/18-9 + SYSTEM 12/18-13	L	1083248
	R	1083249
SYSTEM 12/20-9 + SYSTEM 12/20-13	L	1093886
	R	1093887

12a COVER CAP CORNER PIVOT REST

SEE PAGE 39

13 STRIKER

SEE PAGE 40

3 MISHANDLING DEVICE - sash

1093907

4 MISHANDLING DEVICE - frame

SEE PAGE 40

5 TILT LOCK BOLT 140/90

1 R 1083260

6 CENTRE LOCK

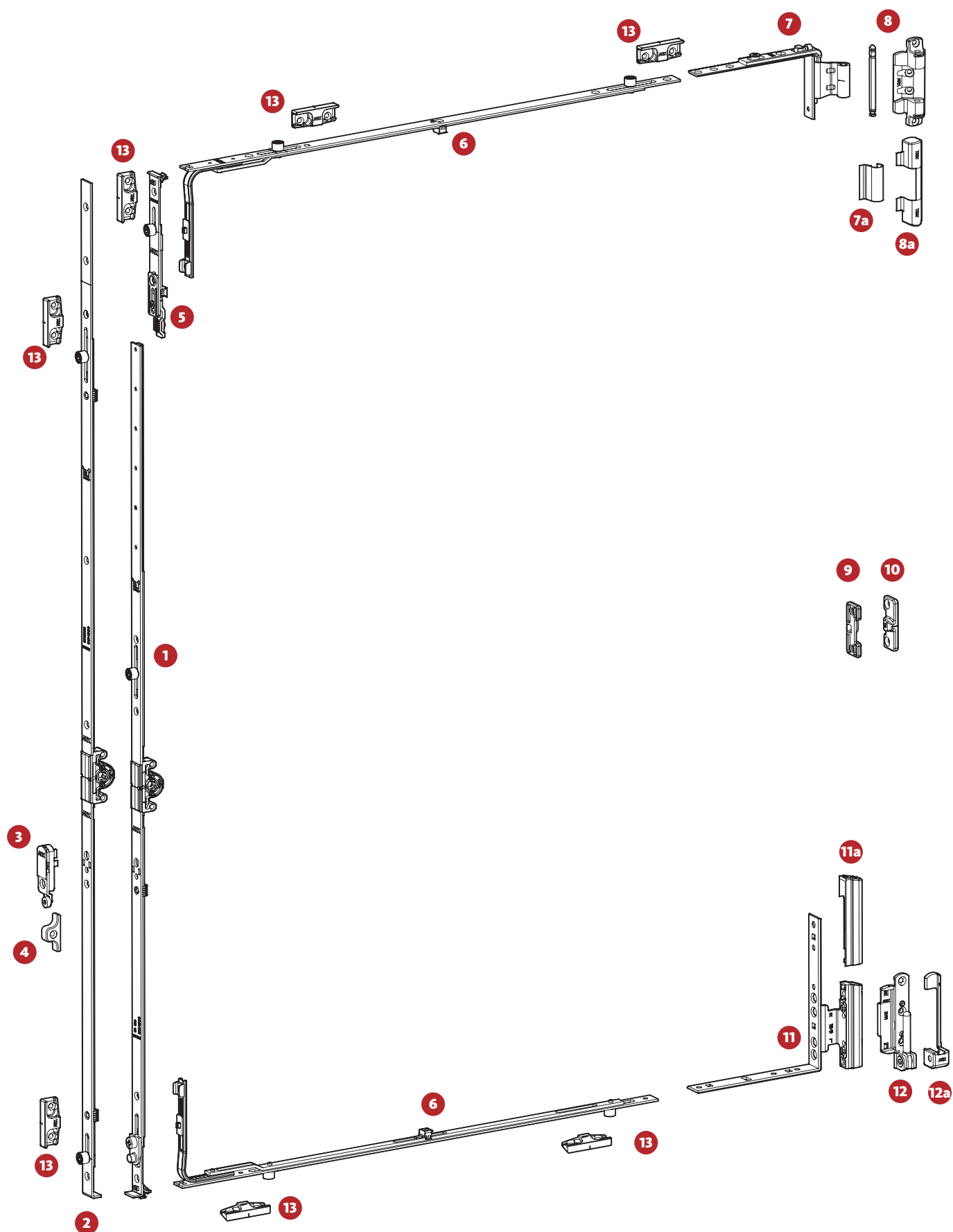
Sash rebate width	Type/Lenght	Material Nr.
811 - 1210	500 - 550	2 R 1083058
1211 - 1600	800 - 850	2 R 1083059

7 REBATE STAY ARM

SYSTEM 12/18-9	L	1093892
	R	1093893
SYSTEM 12/20-9	L	1093894
	R	1093895
SYSTEM 12/18-13	L	1096113
	R	1096114
SYSTEM 12/20-13	L	1096115
	R	1096116

¹⁾ Mishandling device not available

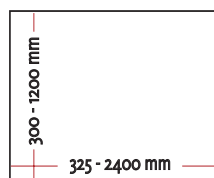
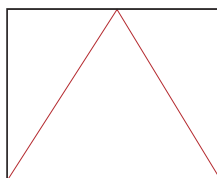
Parts review



TILT Hardware - wood Centered / variable Handle Height

1 ESPAGNOLETTE M BS 14,5 mm

Sash rebate width	Handle width	Lenght	Material Nr.
180 - 250 ¹⁾	90 - 125	180 1R	1083163
251 - 500 ¹⁾	126 - 250	500 1R	1083164
501 - 900	251 - 450	900 2R	1083165
901 - 1400	451 - 700	1400 3R	1083166
1401 - 1900	701 - 950	1900 4R	1083167
1901 - 2400	951 - 1200	2400 4R	1083168



2 T&T ESPAGNOLETTE M BS 14,5 mm

Sash rebate width	Handle height	Lenght	Material Nr.
420 - 620 ¹⁾	210 - 310	340	1083117
600 - 1000	300 - 500	720 1 R	1088473
900 - 1400	450 - 700	1120 1 R	1088474
1401 - 1800	701 - 900	1520 1 R	1088475
1601 - 2000	801 - 1000	1720 2 R	1088476
2001 - 2400	1001 - 1200	2120 2 R	1088477

3 TILT LOCK BOLT 140 1 R 1083257

4 TILT LOCK BOLT 140/90 1 R 1083260

5 CENTRE LOCK

Sash rebate height	Type/Lenght	Material Nr.
801 - 1200	500 - 550 2 R	1083058

6 REBATE CENTRE HINGE 12/18-9 adjustable 1093896 REBATE CENTRE HINGE 12/20-9 adjustable 1093897 REBATE CENTRE HINGE 12/18-13 adjustable 1096617 REBATE CENTRE HINGE 12/20-13 adjustable 1096618

6a COVER CAP STAY ARM SEE PAGE 39

6b SPACER 1094661

7 STAY BEARING WITH PIN

SYSTEM 12/18-9 L&R + SYSTEM 12/18-13 L&R	1083251
SYSTEM 12/20-9 L&R + SYSTEM 12/20-13 L&R	1093888

7a COVER CAP STAY BEARING SEE PAGE 39

8 STRIKER SEE PAGE 40

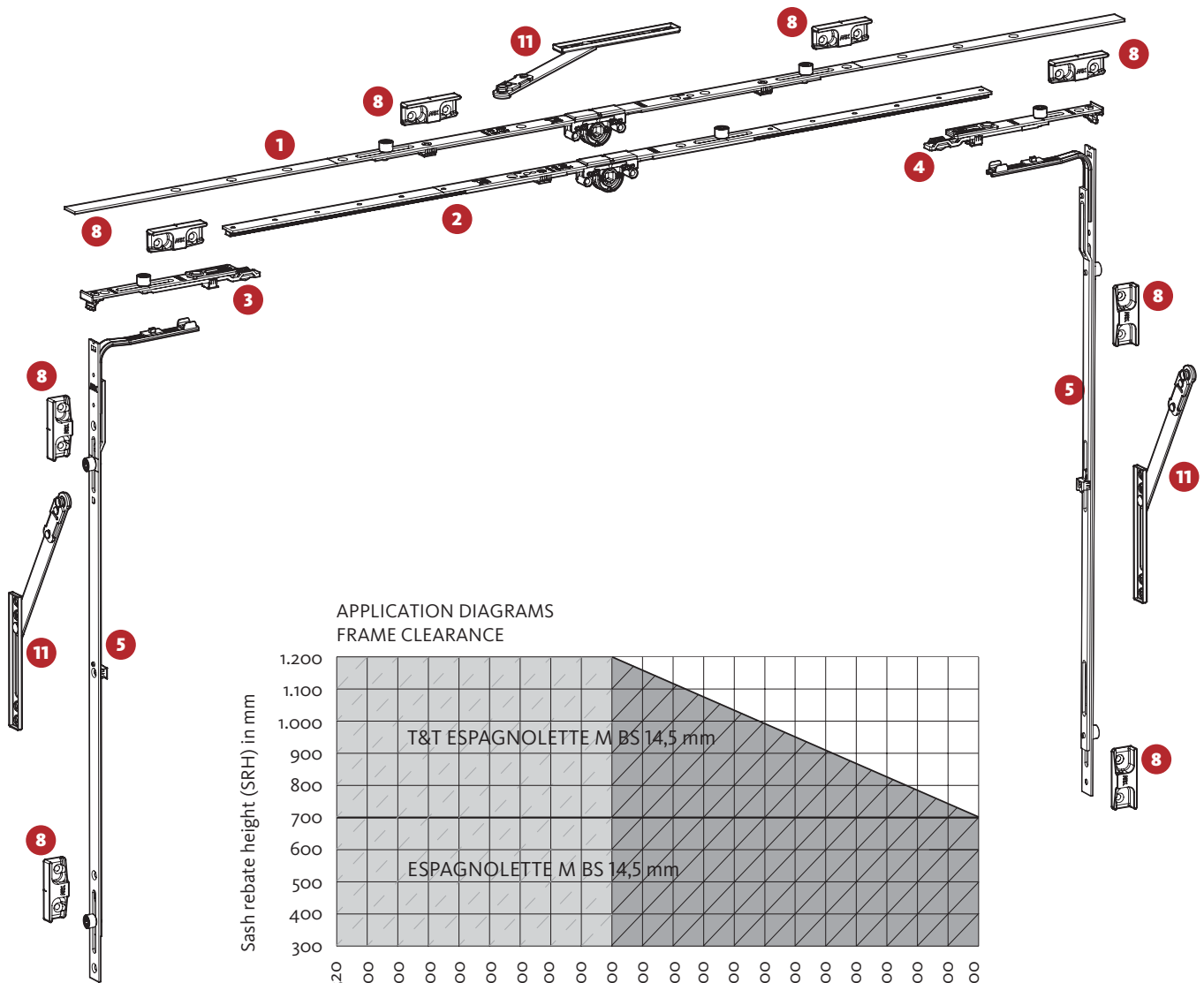
9 CONNCEALED CENTRE CLOSER - sash 1093911

10 CONNCEALED CENTRE CLOSER - frame SEE PAGE 41

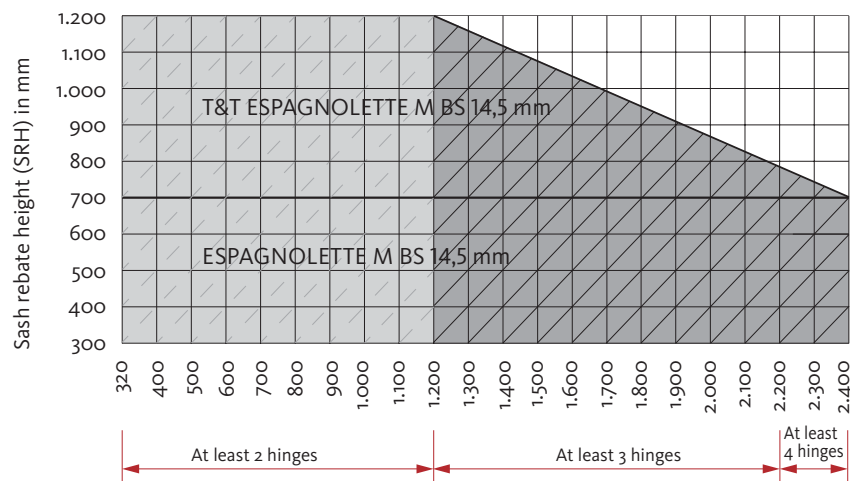
11 TILT STAY 1083314 TILT STAY NUT 1083315

¹⁾ Mishandling device not available

Parts review



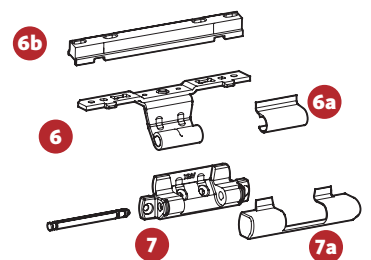
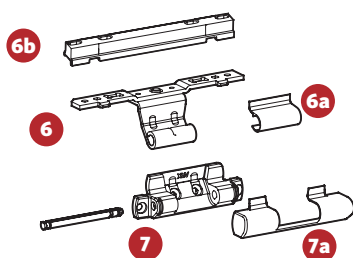
APPLICATION DIAGRAMS
FRAME CLEARANCE



Sash rebate width (SRW) in mm

1 mm/m² of glass thickness = 2,5 kg

-  Tilt stay on both side recommended by directive FPKF
-  One tilt stay up required
-  Two tilt stay up required

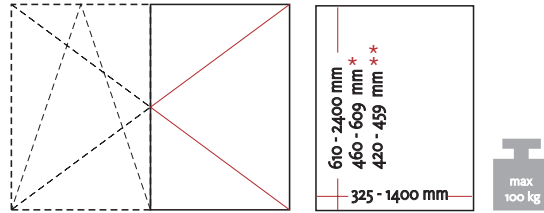


TURN Hardware - wood Second Sash - Fixed Handle Height

1a T&T SHOOTBOLT 1083252

1b SHOOTBOLT WITH STRIKER 1083253

1c SHOOTBOLT WITHOUT STRIKER 1083254



2 Fixed handle-height lever operated ESPAGNOLETTE

Sash rebate height	Handle height	Lenght	Material Nr.
610 - 800	335	660	1083174
801 - 1000	490	860	1 R 1083175
1001 - 1200	335	1060	1 R 1083176
1201 - 1400	335	1260	1 R 1083177
1401 - 1600	335	1460	2 R 1083178
1601 - 1800	335	1660	2 R 1083179
1801 - 2000	640	1860	2 R 1083180
2001 - 2200	640	2060	2 R 1083181
2201 - 2400	640	2260	2 R 1083182

3 CORNER DRIVE 1 R 1083044

4 STRIKER [SEE PAGE 40](#)

5 STRIKER 2 SASH 18mm
STRIKER 2 SASH 20mm
STRIKER 2 SASH 7/8

6 STRIKER groove 1083207

REBATE STAY ARM	
SYSTEM 12/18-9	L 1093892 R 1093893
SYSTEM 12/20-9	L 1093894 R 1093895
SYSTEM 12/18-13	L 1096113 R 1096114
SYSTEM 12/20-13	L 1096115 R 1096116

7a COVER CAP STAY ARM [SEE PAGE 39](#)

8 STAY BEARING WITH PIN
SYSTEM 12/18-9 + SYSTEM 12/18-13 L&R 1083251
SYSTEM 12/20-9 + SYSTEM 12/20-13 L&R 1093888

8a COVER CAP STAY BEARING [SEE PAGE 39](#)

9 CONNCEALED STRIKER CLOSER - sash 1093911

10 CONNCEALED STRIKER CLOSER - frame [SEE PAGE 41](#)

CORNER HINGE,	
SYSTEM 12/18-9	L 1083245 R 1083246
SYSTEM 12/20-9	L 1093883 R 1093884
SYSTEM 12/18-13	L 1096619 R 1096621
SYSTEM 12/20-13	L 1096622 R 1096623

11a COVER CAP CORNER HINGE [SEE PAGE 39](#)

CORNER PIVOT REST,	
SYSTEM 12/18-9 + SYSTEM 12/18-13	L 1083248 R 1083249
SYSTEM 12/20-9 + SYSTEM 12/20-13	L 1093886 R 1093887

12a COVER CAP CORNER PIVOT REST [SEE PAGE 39](#)

MISHANDLING DEVICE FRAME - OHG	
MISHANDLING DEVICE FRAME- OHG FOR ESPAGNOLETTE	1083293 1083295

14 CENTRE LOCK

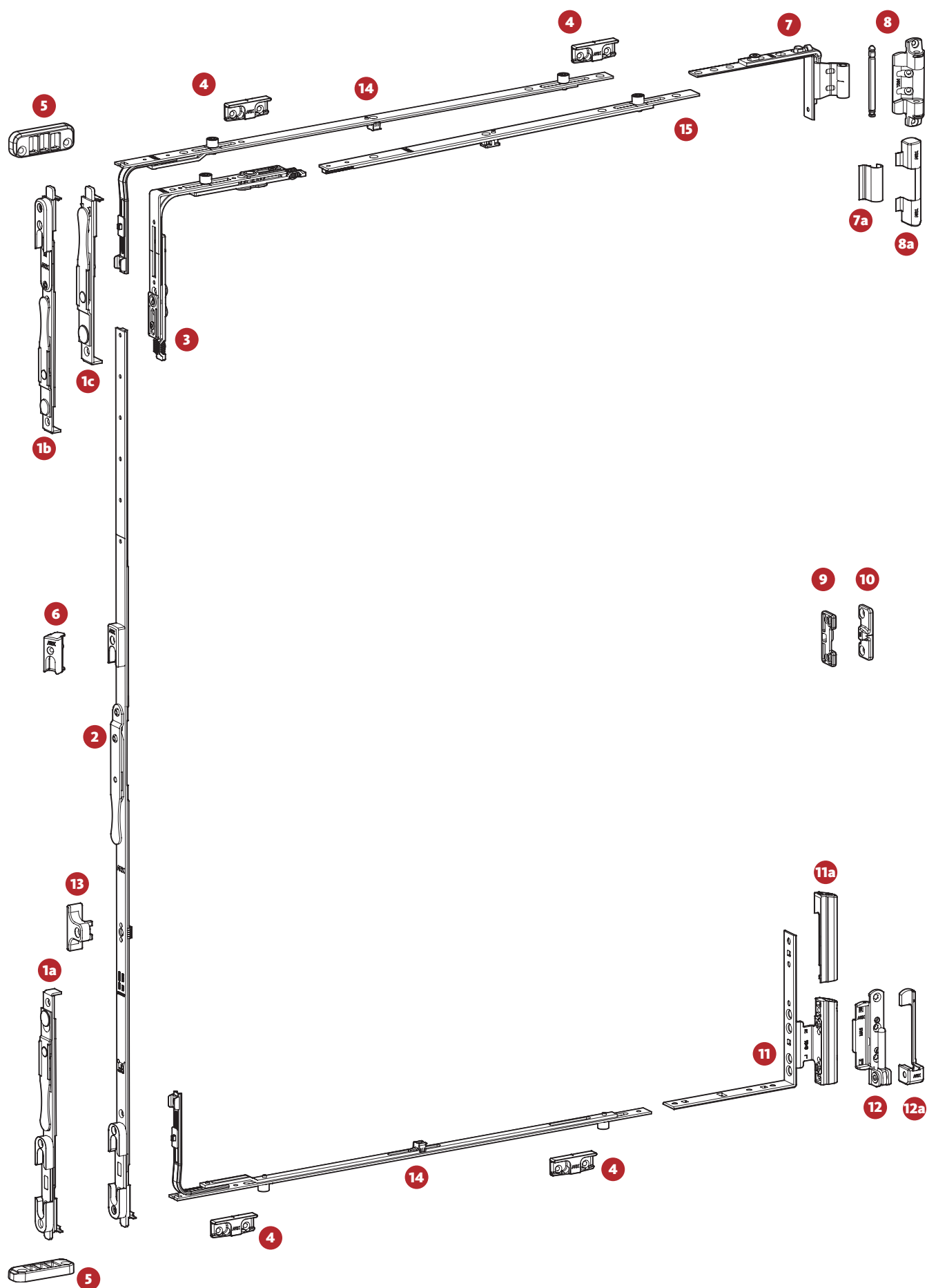
Sash rebate width	Type/Lenght	Material Nr.
800 - 1200	500/550	2 R 1083058
1201 - 1400	800/850	2 R 1083059

15 CENTRE LOCK

Sash rebate width	Type/Lenght	Material Nr.
800 - 1200	400	1 R 1083061
1200 - 1400	600	1 R 1083062

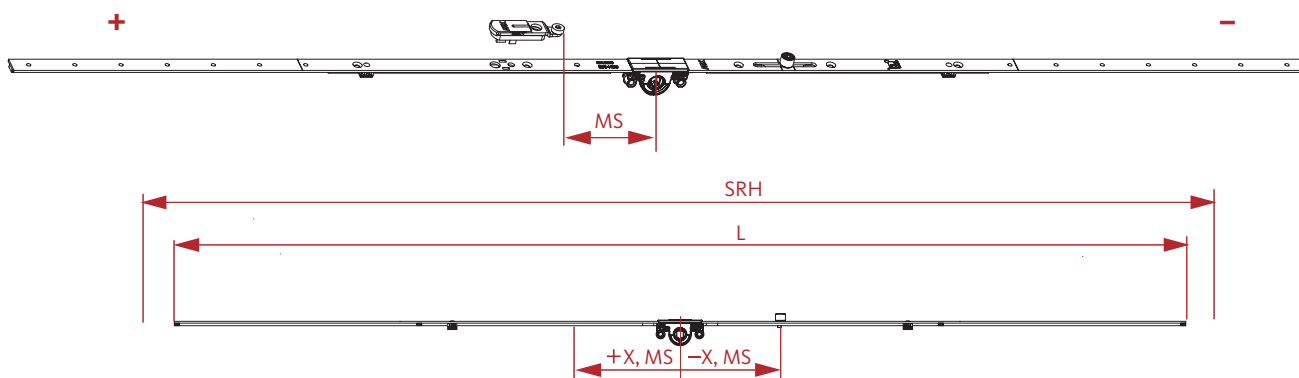
1) * = with 1A (T&T Shootbolt) and 1B (Shootbolt with striker)
2) ** = with 1A (T&T Shootbolt) and 1C (Shootbolt without striker)
3) 1a, 1b, is possible to conect with centre lock **14**

Parts review



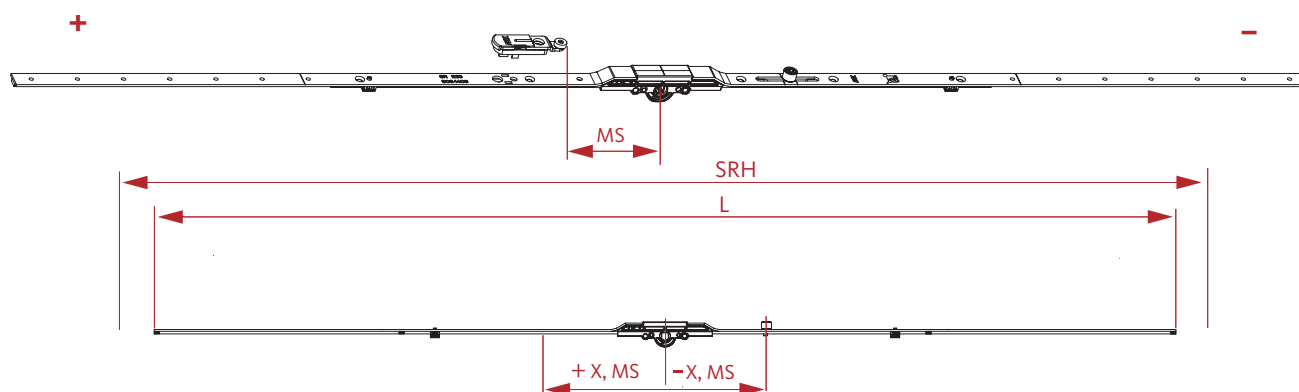
T&T ESPAGNOLETTE M Centered / variable Handle Height

BS 14,5 mm



		L (mm)	x (mm)	x (mm)	MS (mm)			Pack	Material Nr.
420 - 620	210 - 310	340	•	•	•	•	•	10	1083117
600 - 1000	300 - 500	720	-110	•	+ 39,5	1	2	10	1088473
900 - 1400	450 - 700	1120	-110	•	+ 90,5	1	5	10	1088474
1410 - 1800	701 - 900	1520	- 110	•	+ 90,5	1	7	10	1088475
1601 - 2000	801 - 1000	1720	- 310	+ 310	+ 90,5	2	8	10	1088476
2001 - 2400	1001 - 1200	2120	- 310	+ 310	+ 90,5	2	10	10	1088477

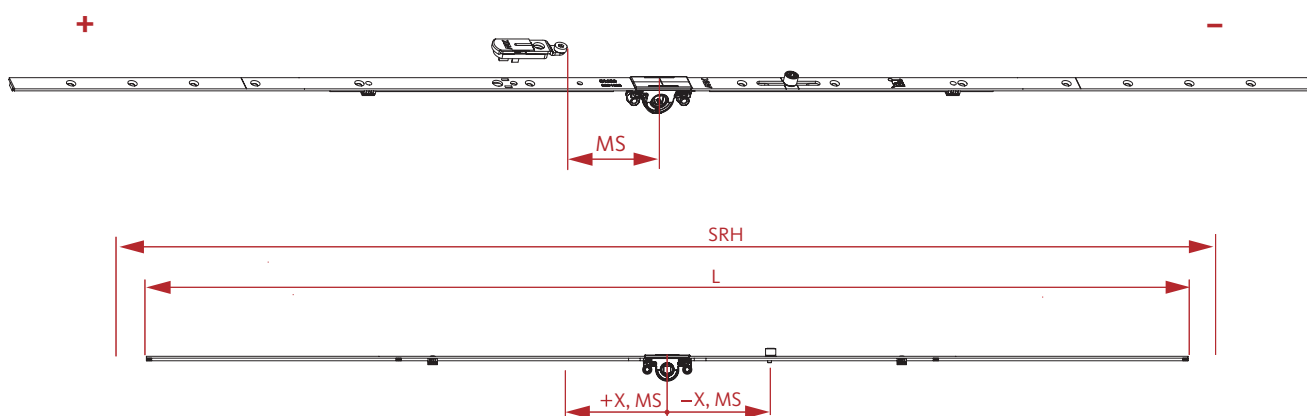
BS 7,5 mm



(mm)	(mm)	L (mm)	x (mm)	x (mm)	MS (mm)			Pack	Material Nr.
420 - 820	210 - 410	540	•	•	•	•	•	10	1083123
600 - 1000	300 - 500	720	-110	•	•	1	2	10	1083124
900 - 1400	450 - 700	1120	-110	•	+ 90,5	1	5	10	1083125
1410 - 1800	701 - 900	1520	- 110	•	+ 90,5	1	7	10	1083126
1601 - 2000	801 - 1000	1720	- 310	+ 310	+ 90,5	2	8	10	1083127
2001 - 2400	1001 - 1200	2120	- 310	+ 310	+ 90,5	2	10	10	1083128

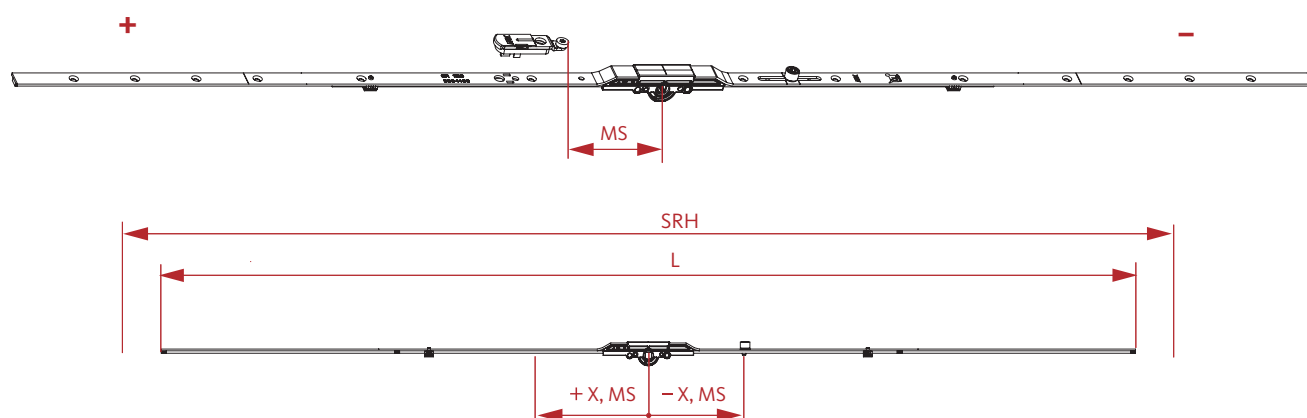
ESPAGNOLETTE M Centered / variable Handle Height

M BS 14,5mm



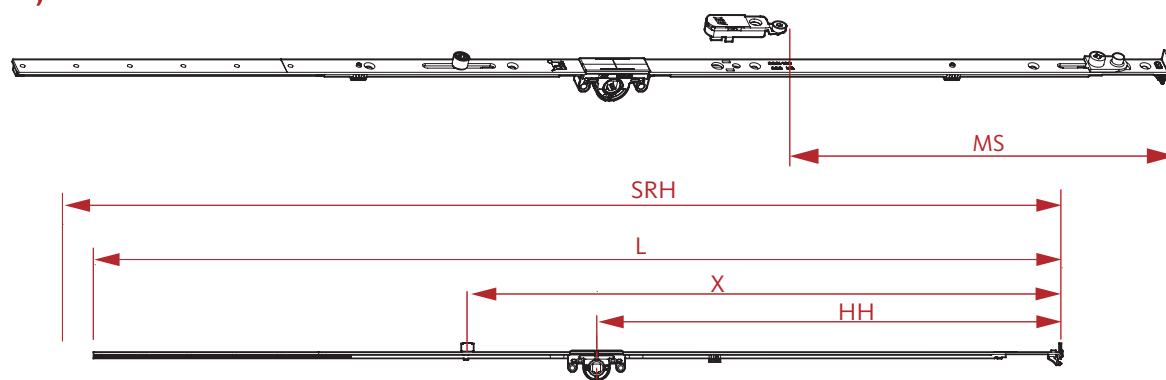
(mm)	(mm)	L (mm)	x (mm)	x (mm)	x (mm)	x (mm)	MS (mm)			Pack	Material Nr.
180 - 250	90 - 125	180	- 63,7	•	•	•	•	1	2	20	1083163
251 - 500	126 - 250	500	-75	•	•	•	•	1	6	10	1083164
501 - 900	251 - 450	900	-200	+ 200	•	•	- 127,5	2	12	10	1083165
901 - 1400	451 - 700	1400	- 400	+ 113	+ 400	•	- 127,5	3	16	10	1083166
1401 - 1900	701 - 950	1900	- 250	+ 250	+ 650	- 650	+ 90,5	4	20	10	1083167
1901 - 2400	951 - 1200	2400	- 350	+ 350	+ 900	- 900	+ 90,5	4	20	10	1083168

M BS 7,5mm



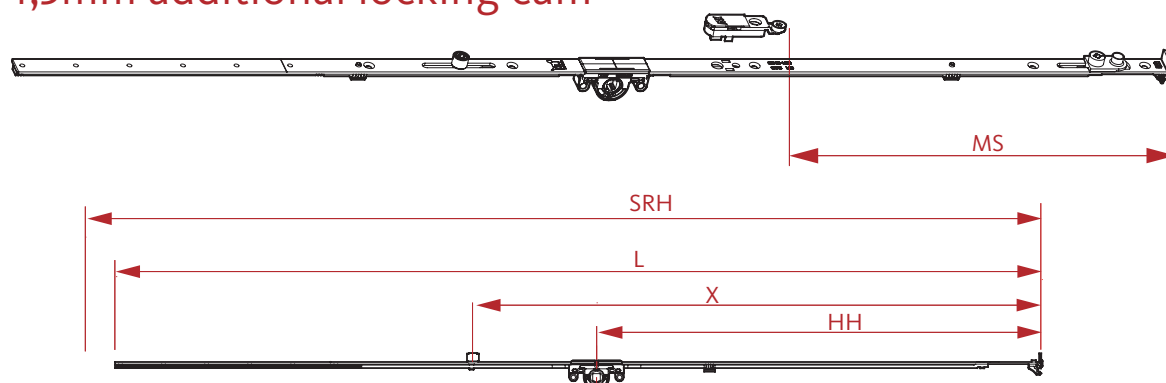
(mm)	(mm)	L (mm)	x (mm)	x (mm)	x (mm)	x (mm)	MS (mm)			Pack	Material Nr.
251 - 500	126 - 250	500	-75	•	•	•	•	1	6	10	1083169
501 - 900	251 - 450	900	- 200	+ 200	•	•	- 127,5	2	12	10	1083170
901 - 1400	451 - 700	1400	- 400	+ 113	+ 400	•	- 127,5	3	16	10	1083171
1401 - 1900	701 - 950	1900	- 250	+ 250	+ 650	- 650	+ 90,5	4	20	10	1083172
1901 - 2400	951 - 1200	2400	- 350	+ 350	+ 900	- 900	+ 90,5	4	20	10	1083173

BS 14,5mm



(mm)	(mm)	L (mm)	x (mm)	x (mm)	MS (mm)			Pack	Material Nr.
320 - 460	120	320	•	•	•	•	1* (0)	10	1083081
461 - 600	170	460	•	•	220,5	•	3* (2)	10	1083082
601 - 800	263	660	•	•	135,5	•	4* (3)	10	1083083
801 - 1000	413	860	•	•	285,5	•	5* (4)	10	1083084
801 - 1000	413	860	530	•	285,5	1	5* (4)	10	1083085
1001 - 1200	513	1060	680	•	385,5	1	6* (5)	10	1083086
1201 - 1400	563	1260	680	•	385,5	1	8* (7)	10	1083087
1401 - 1600	563	1460	680	•	385,5	1	10* (9)	10	1083088
1601 - 1800	563	1660	680	•	385,5	1	11* (10)	10	1083089
1601 - 1800	1000	1660	680	•	385,5	1	10* (9)	10	1083090
1801 - 2000	1000	1860	1350	680	1118,5	2	13* (12)	10	1083091
2001 - 2200	1000	2060	1350	680	1118,5	2	14* (13)	10	1083092
2201 - 2400	1000	2260	1350	680	1118,5	2	15* (14)	10	1083093

BS 14,5mm additional locking cam



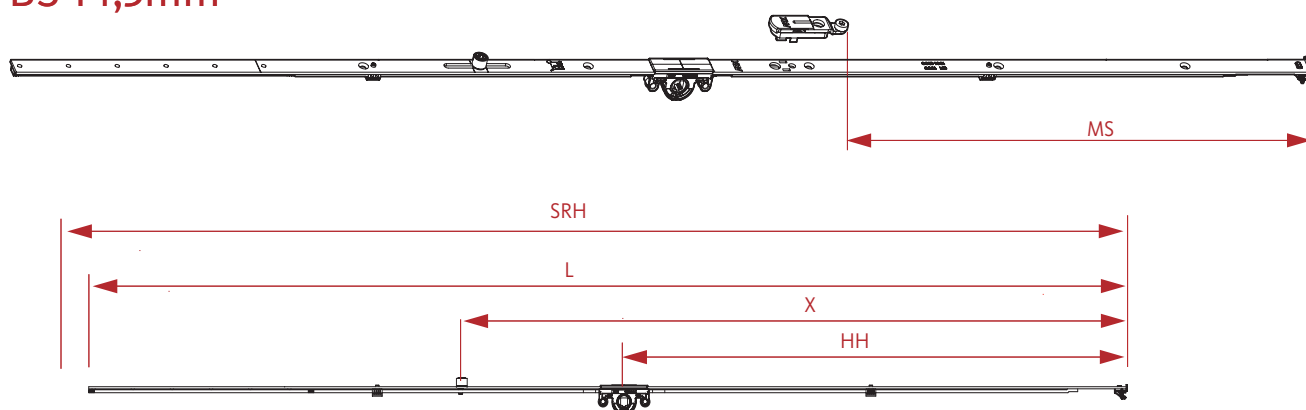
(mm)	(mm)	L (mm)	x (mm)	x (mm)	x (mm)	MS (mm)			Pack	Material Nr.
1201 - 1400	563	1260	911	680	•	385,5	2	9* (8)	10	1093878
1401 - 1600	563	1460	1111	680	•	385,5	2	10* (9)	10	1093877
1601 - 1800	563	1660	1111	680	•	385,3	2	11* (10)	10	1093874
1801 - 2000	1000	1860	•	1350	680	1118,5	2	12* (11)	10	1083091
2001 - 2200	1000	2060	1711	1350	680	1118,5	3	13* (12)	10	1093873
2201 - 2400	1000	1460	1711	1350	680	1118,5	3	14* (13)	10	1093872

* without the use of centre lock

(x) number of screws with the use of
centre lock/T&T cornerdrive

T&Ti ESPAGNOLETTE Fixed Handle Height

BS 14,5mm



(mm)	(mm)	L (mm)	x (mm)	x (mm)	MS (mm)			Pack	Material Nr.
320 - 460 ^{1) 2)}	120	320	•	•	•	•	10	10	1095620
461 - 600	170	460	•	•	220,5	•	2	10	1083094
601 - 800	263	660	•	•	135,5	•	2	10	1083095
801 - 1000	413	860	530	•	285,5	1	4	10	1083096
1001 - 1200	513	1060	680	•	385,5	1	5	10	1083097
1201 - 1400	563	1260	680	•	385,5	1	7	10	1083098
1401 - 1600	563	1460	680	•	385,5	1	8	10	1083099
1601 - 1800	563	1660	680	•	385,5	1	9	10	1083100
1801 - 2000	1000	1860	1350	680	1118,5	2	11	10	1083101
2001 - 2200	1000	2060	1350	680	1118,5	2	12	10	1083102
2201 - 2400	1000	2260	1350	680	1118,5	2	13	10	1083103

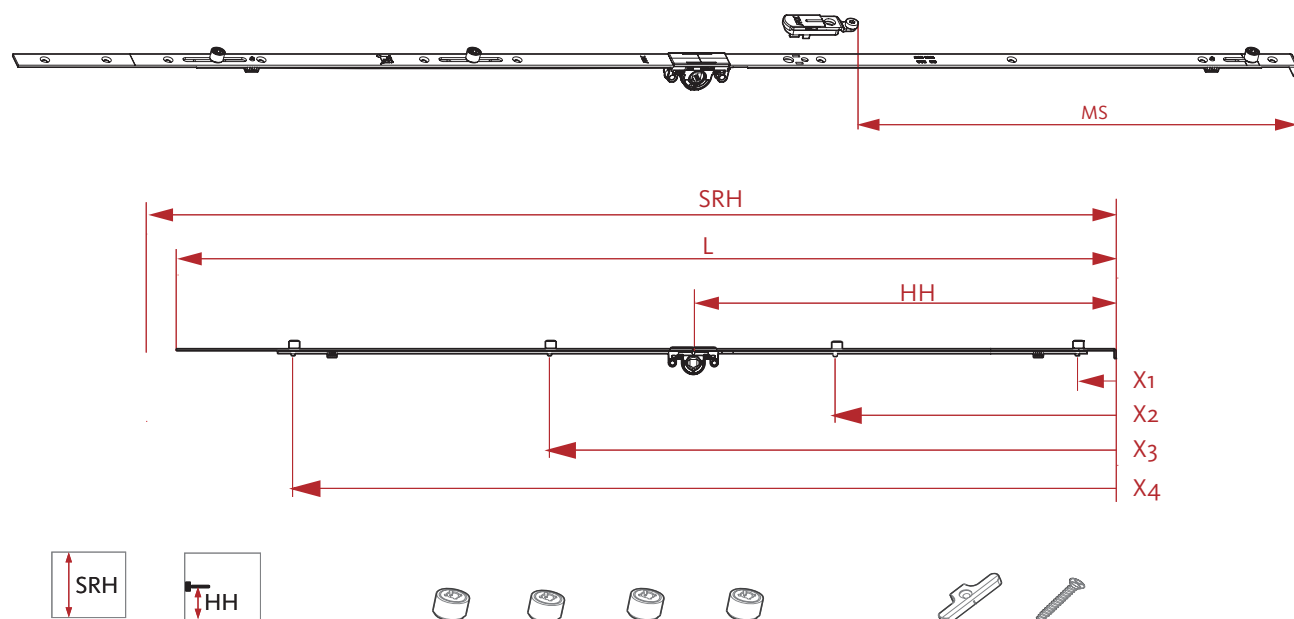
¹⁾ With integrated T&T corner drive 1P

²⁾ Mishandling device not available

* without the use of centre lock

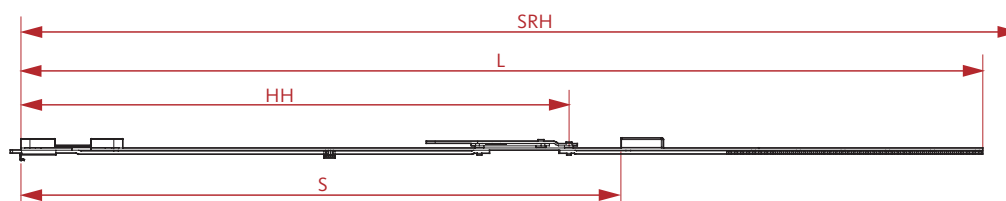
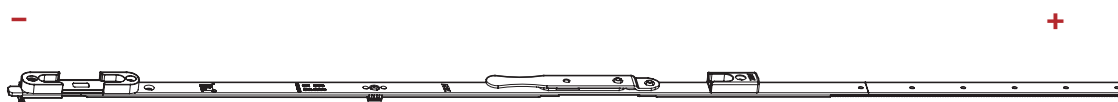
(x) number of screws with the use of centre lock

ESPAGNOLETTE BS 14,5mm Fixed Handle Height



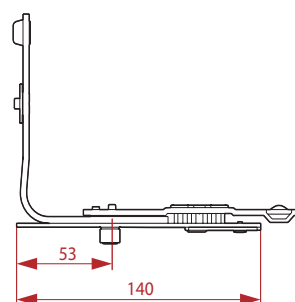
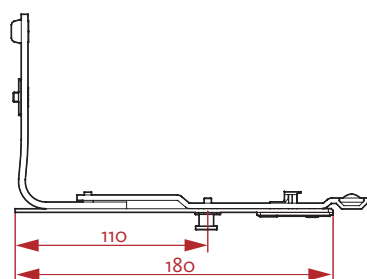
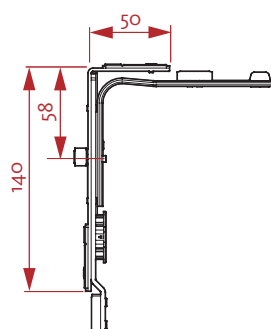
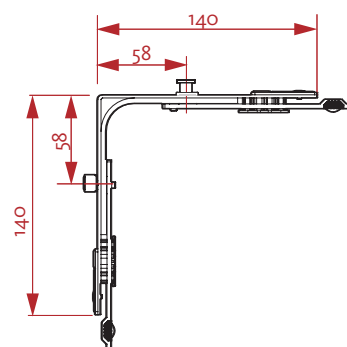
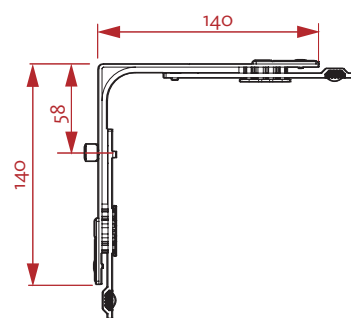
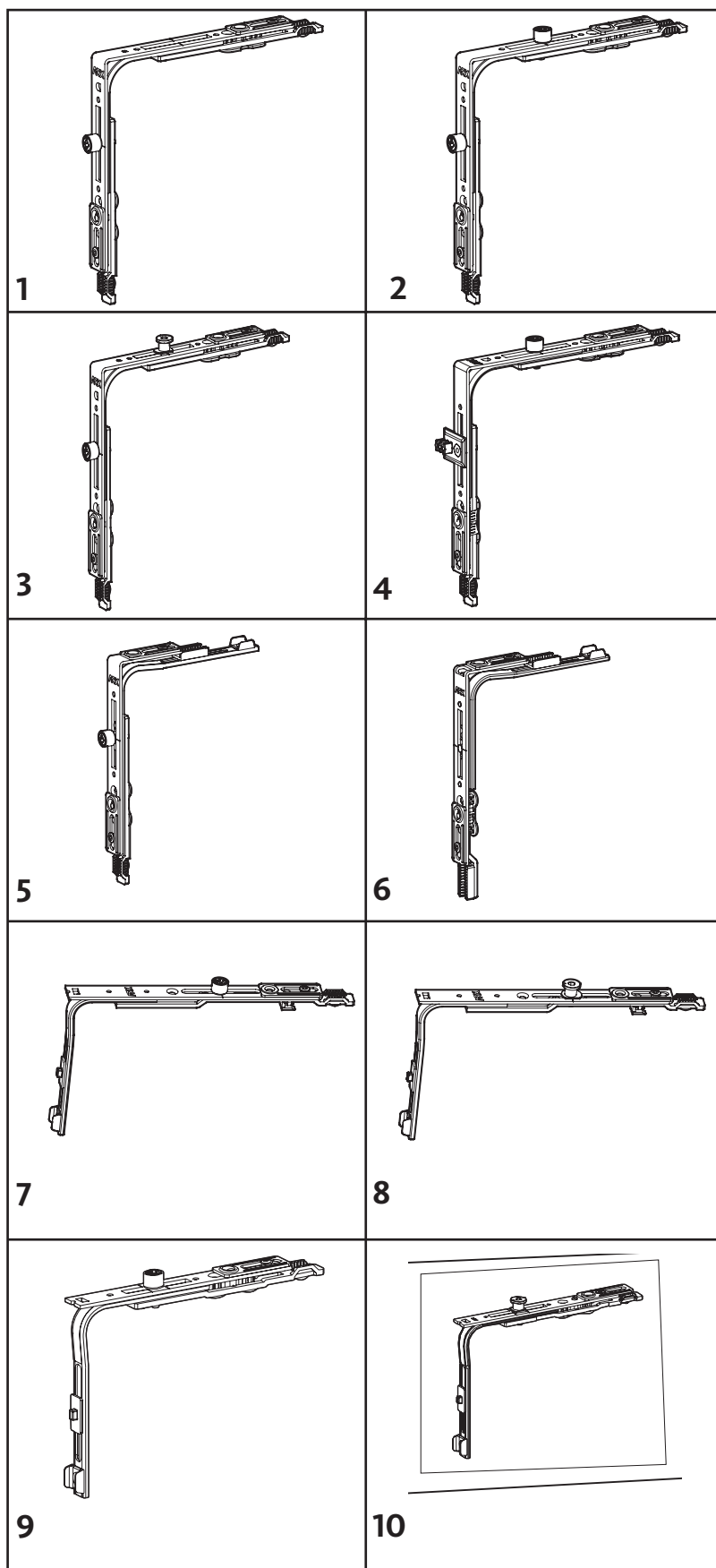
(mm)	(mm)	L (mm)	x1 (mm)	x2 (mm)	x3 (mm)	x4 (mm)	MS (mm)			Pack	Material Nr.
400 - 500	170	500	40	•	•	329	•	2	6	10	1083129
501 - 600	170	600	40	•	•	429	220,5	2	7	10	1083130
601 - 700	263	700	40	•	•	529	135,5	2	8	10	1083131
701 - 800	263	800	40	•	•	629	135,5	2	9	10	1083132
801 - 900	413	900	40	•	•	729	285,5	2	9	10	1083133
901 - 1000	413	1000	40	•	•	829	285,5	2	9	10	1083134
1001 - 1100	513	1100	40	•	709	929	385,5	2	10	10	1083135
1101 - 1200	513	1200	40	•	709	1029	385,5	3	10	10	1083136
1201 - 1300	563	1300	40	•	709	1129	385,5	3	11	10	1083137
1301 - 1400	563	1400	40	•	709	1229	385,5	3	11	10	1083138
1401 - 1500	563	1500	40	•	709	1329	385,5	3	11	10	1083139
1501 - 1600	563	1600	40	•	709	1429	385,5	3	12	10	1083140
1601 - 1700	563	1700	40	•	709	1529	385,5	3	12	10	1083141
1701 - 1800	563	1800	40	685	709	1629	385,5	4	14	10	1083142
1801 - 2000	1000	2000	40	685	1279	1729	1118,5	4	15	10	1083143
2001 - 2200	1000	2200	40	685	1329	1929	1118,5	4	15	10	1083144
2201 - 2400	1000	2400	40	685	1529	2129	1118,5	4	17	10	1083145

FIXED HANDLE-HEIGHT LEVER OPERATED ESPAGNOLETTE



(mm)	(mm)	L (mm)	S (mm)	S (mm)		Pack	Material Nr.
600 - 800	335	660	•	•	4	10	1083174
801 - 1000	490	860	537	•	4	10	1083175
1001 - 1200	335	1060	688	•	5	10	1083176
1201 - 1400	335	1260	688	•	8	10	1083177
1401 - 1600	335	1460	688	•	8	10	1083178
1601 - 1800	335	1660	688	•	9	10	1083179
1801 - 2000	640	1860	688	1358	10	10	1083180
2001 - 2200	640	2060	688	1358	11	10	1083181
2201 - 2400	640	2260	688	1358	12	10	1083182

CORNER DRIVE

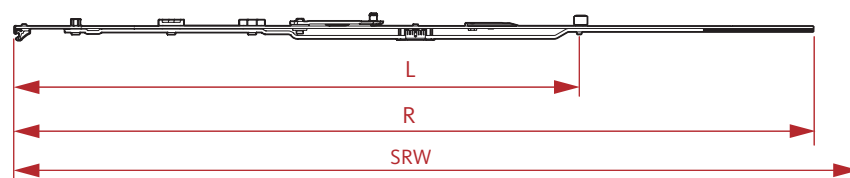


CORNER DRIVE



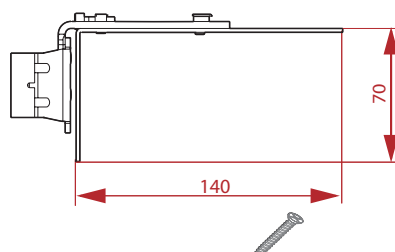
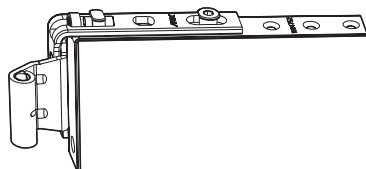
Type	(mm)	(mm)	Description				Pack	Material Nr.
1	320 - 2400	410 - 1600	Corner drive 1R	1	•	4	10	1083044
2	320 - 2400	410 - 1600	Corner drive 2R	2	•	4	10	1083045
3	320 - 2400	410 - 1600	Corner drive 1R + 1P	1	•	4	10	1083046
4a	320 - 2400	410 - 1600	Corner drive 1R + NV R	1	1	4	10	1083047
4b	320 - 2400	410 - 1600	Corner drive 1R + NV L	1	1	4	10	1083054
5	290 - 320	320 - 410	Short corner drive 1R	1	•	3	10	1083049
6	320 - 2400	320 - 410	Short corner drive w. shootbolt	1	•	3	10	1083048
7	320 - 2400	410 - 1600	Corner lock 180 1R	1	•	2	10	1083053
8	320 - 2400	410 - 1600	T&T Corner drive 180 1P	1	•	4	10	1083057
9	320 - 2400	410 - 1600	T&T Corner drive 140 1R	1	•	2	10	1084512
10	320 - 2400	410 - 1600	T&T Corner drive 140 1P SECURITY	1	•	2	10	1087801

SASH-STAY GUIDE



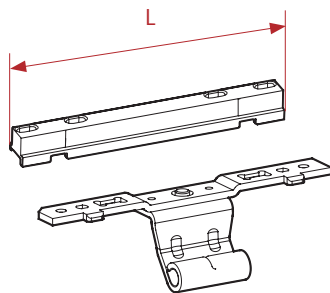
(mm)	L (mm)	R (mm)			Pack	Material Nr.
325 - 610	470	•	•	3	10	1083038
611 - 810	670	•	•	5	10	1083039
811 - 1010	870	+ 546	1	6	10	1083040
1011 - 1210	1070	+ 607	1	8	10	1083041
1211 - 1410	1270	+ 807	1	9	10	1083042
1411 - 1600	1470	+ 807	1	10	10	1083043

REBATE STAY ARM



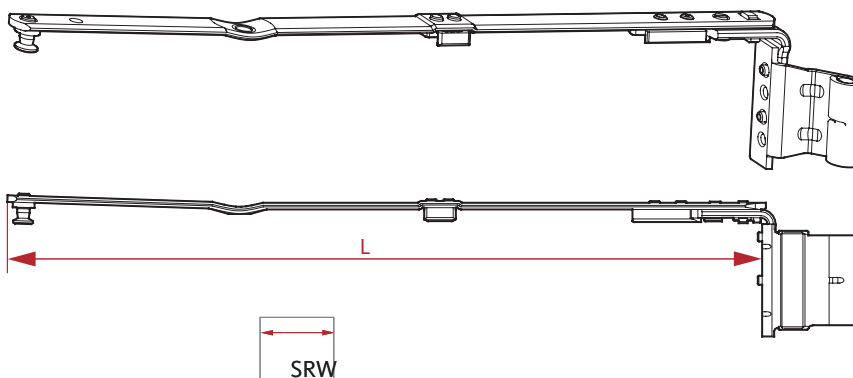
Description	Position		Pack	Material Nr.
SYSTEM 12/18-9	left	5	40	1093892
	right	5	40	1093893
SYSTEM 12/20-9	left	5	40	1093894
	right	5	40	1093895
SYSTEM 12/18-13	left	5	40	1096113
	right	5	40	1096114
SYSTEM 12/20-13	left	5	40	1096115
	right	5	40	1096116

REBATE CENTRE HINGE



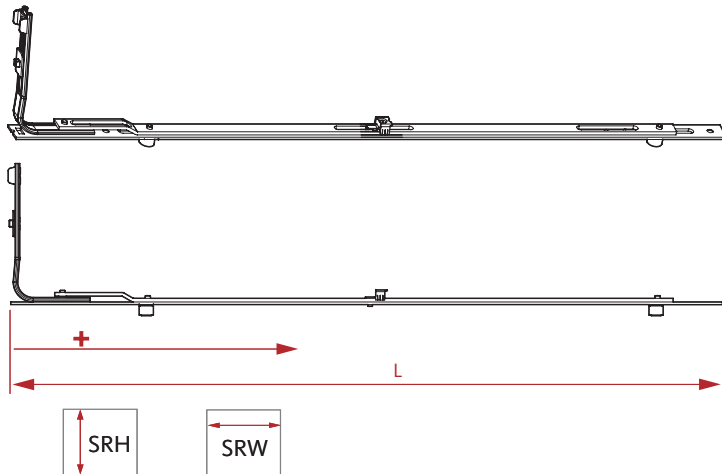
Description	L (mm)	Pack	Material Nr.	(mm)	
SYSTEM 12/18-9 adjustable	136	50	1093896	350 - 1200	2
SYSTEM 12/20-9 adjustable	136	50	1093897		
SYSTEM 12/18-13 adjustable	136	50	1096617	1201 - 2200	3
SYSTEM 12/20-13 adjustable	136	50	1096618	2201 - 2400	4
SPACER	136	100	1094661		

STAY ARM



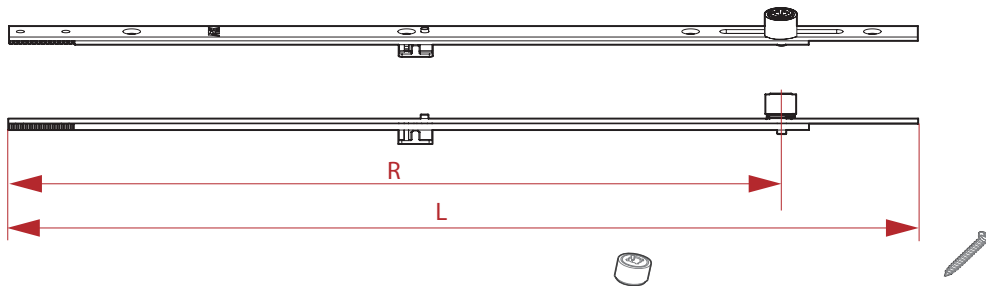
Description	(mm)	L (mm)	Position	Pack	Material Nr.
SYSTEM 12/18-9	325 - 610	250	left	10	1083002
	325 - 610	250	right	10	1083003
	611 - 810	350	left	10	1083004
	611 - 810	350	right	10	1083005
	811 - 1600	500	left	10	1083006
	811 - 1600	500	right	10	1083007
	811 - 1600	500	right	10	1083007
SYSTEM 12/20-9	325 - 610	250	left	10	1094045
	325 - 610	250	right	10	1094046
	611 - 810	350	left	10	1094047
	611 - 810	350	right	10	1094048
	811 - 1600	500	left	10	1094049
	811 - 1600	500	right	10	1094050
	811 - 1600	500	right	10	1094050
SYSTEM 12/18-13	325 - 610	250	left	10	1096075
	325 - 610	250	right	10	1096076
	611 - 810	350	left	10	1096077
	611 - 810	350	right	10	1096078
	811 - 1600	500	left	10	1096079
	811 - 1600	500	right	10	1096080
	811 - 1600	500	right	10	1096080
SYSTEM 12/20-13	325 - 610	250	left	10	1096081
	325 - 610	250	right	10	1096082
	611 - 810	350	left	10	1096083
	611 - 810	350	right	10	1096084
	811 - 1600	500	left	10	1096085
	811 - 1600	500	right	10	1096086
	811 - 1600	500	right	10	1096086

CENTRE LOCK



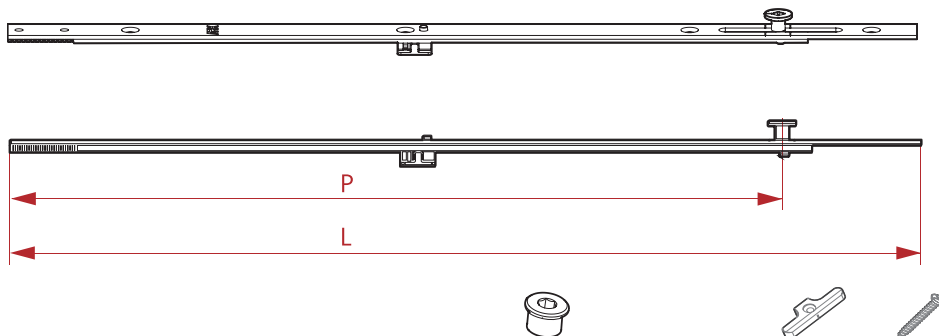
(mm)	(mm)	L (mm)	(mm)	(mm)	(mm)	(mm)			Pack	Material Nr.
600 - 800	600 - 810	350	+300	•	•	•	1	4	10	1093871
801 - 1200	811 - 1210	550	+ 106	+ 500	•	•	2	4	10	1083058
1201 - 1600	1211 - 1600	850	+ 106	+ 800	•	•	2	6	10	1083059
1601 - 2200	DOOR	1550	+ 106	+ 800	+ 1500	•	3	10	10	1083060
2201 - 2400	DOOR	2000	+ 106	+ 800	+ 1500	+ 1950	4	11	10	1083064

CENTRE LOCK



Description	R (mm)		Pack	Material Nr.
400	340	4	10	1083061
600	540	4	10	1083062
600 Clamping	540	4	10	1083063

CENTRE LOCK - security



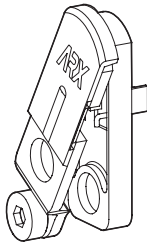
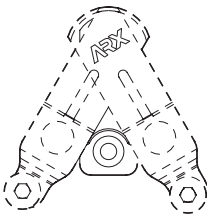
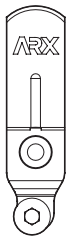
Description	L (mm)	P (mm)			Pack	Material Nr.
200	200	140	1	2	100	1083065
400	400	340	1	4	10	1083066
600	600	540	1	4	10	1083067
200 Clamping	200	140	1	2	10	1083068
400 Clamping	400	340	1	4	10	1083069
600 Clamping	600	540	1	4	10	1083070

ESPAGNOLETTE EXTENTION



(mm)	L (mm)	R (mm)		Pack	Material Nr.
200 - 400	400	80	3	10	1083258
401 - 600	600	80	4	10	1083259
601 - 800	800	80	5	10	1083261

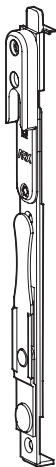
MISHANDLING DEVICE-SASH



Description		Pack	Material Nr.
MISHANDLING DEVICE - SASH	1	200	1093907



1



2

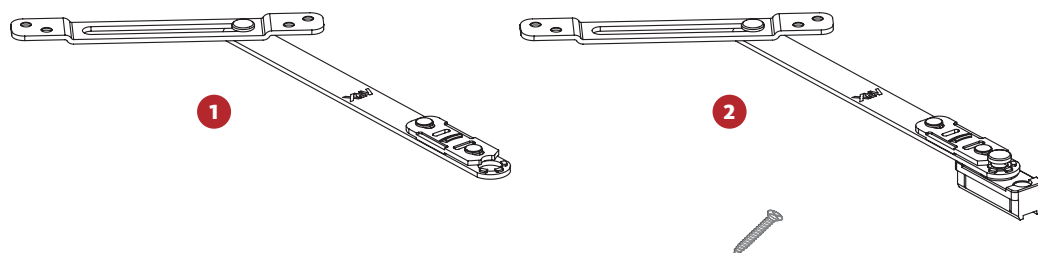


3



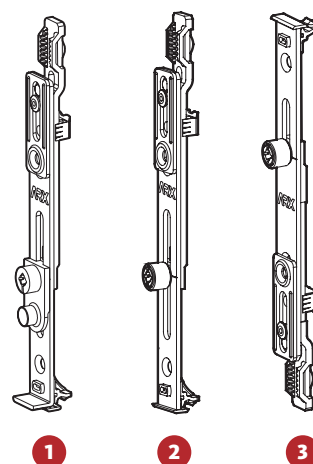
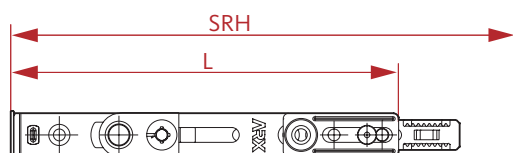
Type	Description	L(mm)		Pack	Material Nr.
1	T&T SHOOTBOLT	230	3	50	1083252
2	SHOOTBOLT WITH STRIKER	230	3	50	1083253
3	SHOOTBOLT WITHOUT STRIKER	140	3	100	1083254

TILT STAY



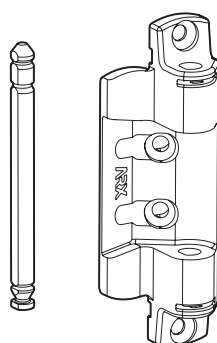
Description	Pack	Material Nr.
1 - TILT STAY	5	100
2 - TILT STAY GROOVE	7	100

LOCK BOLT



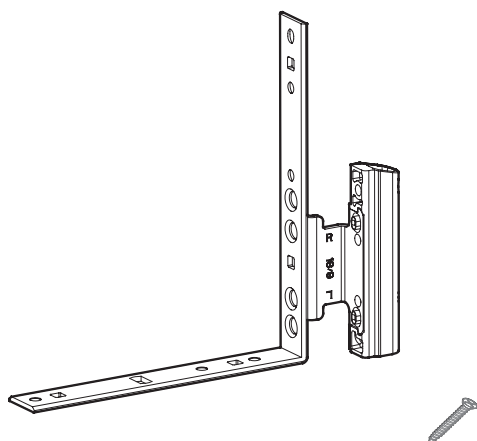
Type	Description	(mm)	L(mm)		(mm)	Pack	Material Nr
1	TILT LOCK BOLT	<1000	140	1	•	3	100
	TILT LOCK BOLT	>1000	140	1	•	3	100
2	TILT LOCK BOLT 140 1R		140	•	1	55	100
3	TILT LOCK BOLT 140/90 1R		140	•	1	55	100

STAY BEARING



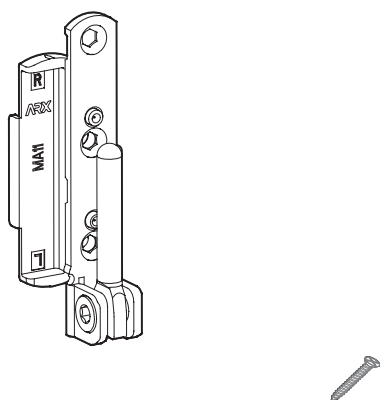
System	Description	Pack	Material Nr.
SYSTEM 12/18-9 + SYSTEM 12/18-13 L&R	Stay bearing with pin	4	100
SYSTEM 12/20-9 + SYSTEM 12/20-9 L&R	Stay bearing with pin	4	100

CORNER HINGE



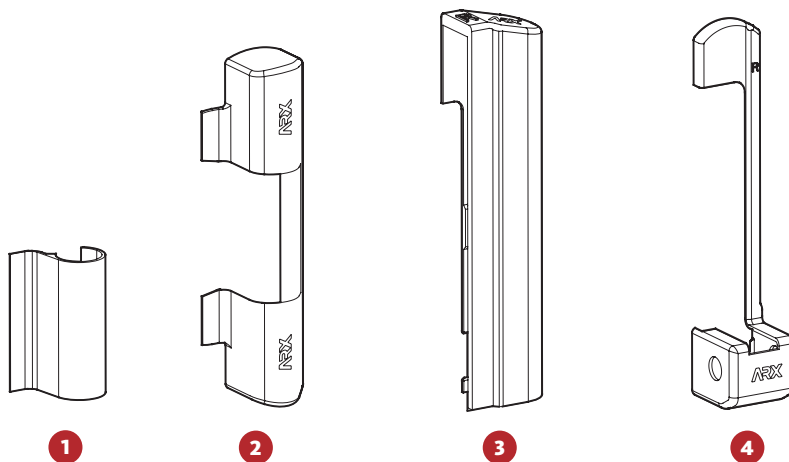
Description	Position		Pack	Material Nr.
SYSTEM 12/18-9	left	8	40	1083245
	right	8	40	1083246
SYSTEM 12/20-9	left	8	40	1093883
	right	8	40	1093884
SYSTEM 12/18-13	left	8	40	1096619
	right	8	40	1096621
SYSTEM 12/20-13	left	8	40	1096622
	right	8	40	1096623

CORNER PIVOT REST



Description	Position		Pack	Material Nr.
SYSTEM 12/18-9 + SYSTEM 12/18-13	left	3	100	1083248
	right	3	100	1083249
SYSTEM 12/20-9 + SYSTEM 12/20-13	left	3	100	1093886
	right	3	100	1093887

COVER CAP



Type	Description	RAL	Pack	Material Nr.
1	COVER CAP STAY ARM	RAL 9016 - white	500	1086967
		RAL 8019 - grey brown	500	1093903
		RAL 1004 - gold matt	500	1095448
		RAL 8017 - bronze	500	1095450
		RAL 9006 - silver	500	1093929
2	COVER CAP STAY BEARING	RAL 9016 - white	100	1086966
		RAL 8019 - grey brown	100	1093902
		RAL 1004 - gold matt	100	1095445
		RAL 8017 - bronze	100	1095447
		RAL 9006 - silver	100	1093927
3	COVER CAP CORNER HINGE	RAL 9016 - white	150	L 1086970 R 1086971
		RAL 8019 - grey brown	150	L 1093898 R 1093899
		RAL 1004 - gold matt	150	L 1095433 R 1095434
		RAL 8017 - bronze	150	L 1095437 R 1095438
		RAL 9006 - silver	150	L 1093920 L 1093921
4	COVER CAP CORNER PIVOT REST	RAL 9016 - white	200	L 1086968 R 1086969
		RAL 8019 - grey brown	200	L 1093900 R 1093901
		RAL 1004 - gold matt	200	L 1095439 R 1095440
		RAL 8017 - bronze	200	L 1095443 R 1095444
		RAL 9006 - silver	200	L 1093924 R 1093925

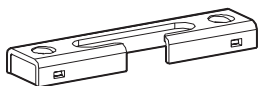
STRIKERS

T&T STRIKER



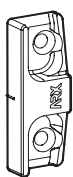
T&T STRIKER	Pack	Material Nr.
T&T STRIKER 18 mm	250	1083200
T&T STRIKER 20 mm	250	1083199
T&T STRIKER 24 mm	250	1096660
T&T STRIKER 7/8	250	1083201

T&Ti STRIKER SECURITY



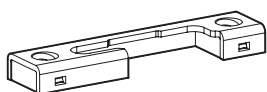
T&Ti STRIKER	Pack	Material Nr.
T&Ti STRIKER SECURITY 20 mm	250	1095426
T&Ti STRIKER SECURITY 24 mm	250	1096661

STRIKER



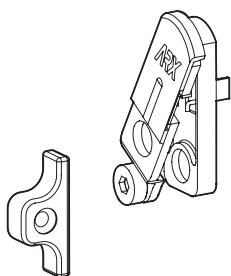
STRIKER	Pack	Material Nr.
STRIKER 18 mm	300	1083212
STRIKER 20 mm	300	1083211
STRIKER 24 mm	300	1096662
STRIKER 7/8	300	1083213

SECURITY STRIKER



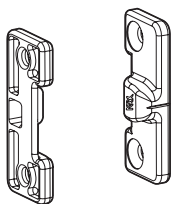
SECURITY STRIKER	Pack	Material Nr.
SECURITY STRIKER 18 mm L	250	1085745
SECURITY STRIKER 18 mm R	250	1083222
SECURITY STRIKER 20 mm L	250	1085744
SECURITY STRIKER 20 mm R	250	1083221
SECURITY STRIKER 24 mm L	250	1096663
SECURITY STRIKER 24 mm R	250	1096664
SECURITY STRIKER 7/8 L	250	1085746
SECURITY STRIKER 7/8 R	250	1083223

MISHANDLING DEVICE



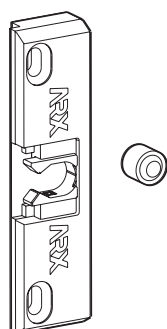
MISHANDLING DEVICE - SASH	Pack	Material Nr.
MISHANDLING DEVICE - SASH	300	1093907
MISHANDLING DEVICE - FRAME	Pack	Material Nr.
MISHANDLING DEVICE - FRAME 18 mm	300	1093905
MISHANDLING DEVICE - FRAME 20 mm	300	1093904
MISHANDLING DEVICE - FRAME 24 mm	300	1096665
MISHANDLING DEVICE - FRAME 7/8	300	1093906
OPOSING HARDWARE GROOVE	Pack	Material Nr.
MISHANDLING DEVICE - FRAME OHG	300	1083293
MISHANDLING DEVICE - FRAME OHG FOR ESPAGNOLETTE	300	1083295

CONCEALED CENTRE CLOSER



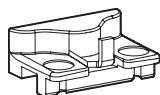
CONCEALED CENTRE CLOSER - SASH	Pack	Material Nr.
CONCEALED CENTRE CLOSER - SASH	300	1093911
CONCEALED CENTRE CLOSER - FRAME		
CONCEALED CENTRE CLOSER - FRAME 18 mm	300	1093908
CONCEALED CENTRE CLOSER - FRAME 20 mm	300	1093909
CONCEALED CENTRE CLOSER - FRAME 24 mm	300	1096687
CONCEALED CENTRE CLOSER - FRAME 7/8	500	1093910

BULLET CATCH



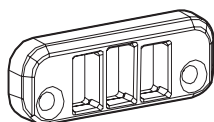
BULLET CATCH - FRAME	Pack	Material Nr.
BULLET CATCH - FRAME 18 mm	100	1093912
BULLET CATCH - FRAME 20 mm	100	1093913
BULLET CATCH - FRAME 24 mm	100	1096666
BULLET CATCH - FRAME 7/8 mm	100	1093914
BULLET CATCH - HEIGHT LEVEL OPERATED ESPAGNOLETTE	100	1093200
BULLET CATCH CAM - SASH	Pack	Material Nr.
BULLET CATCH CAM - SASH	100	1083305

NIGHT VENT STRIKER - FRAME



NIGHT VENT STRIKER - FRAME	Pack	Material Nr.
NIGHT VENT STRIKER - FRAME 18 mm	100	1096667
NIGHT VENT STRIKER - FRAME 20 mm	100	1096668
NIGHT VENT STRIKER - FRAME 24 mm	100	1096669
NIGHT VENT STRIKER - FRAME 7/8	100	1096670

STRIKER 2-SASH

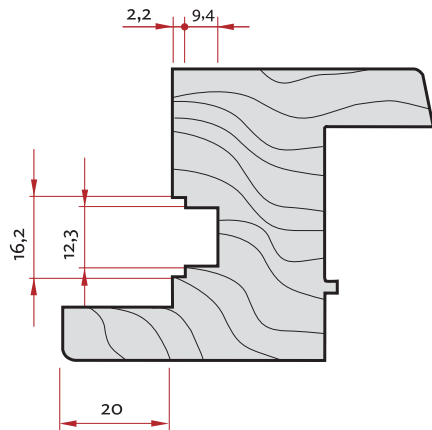


STRIKER 2-SASH	Pack	Material Nr.
STRIKER 2 - SASH 18 mm	300	1083233
STRIKER 2 - SASH 20 mm	300	1083231
STRIKER 2 - SASH 24 mm	300	1096671
STRIKER 2 - SASH 7/8	300	1083232

SASH - SASH PROFILE, WINDOW HANDLE, DRILL HOLES AND INSTALATION

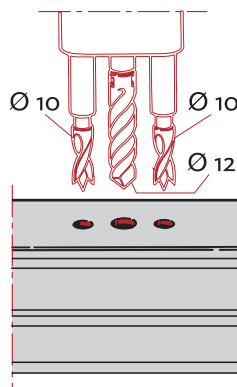
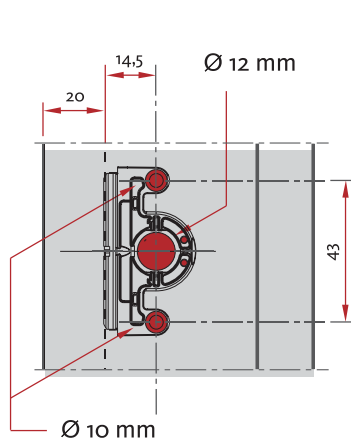
SASH CROSS SECTION

DIMENSION FOR HARDWARE



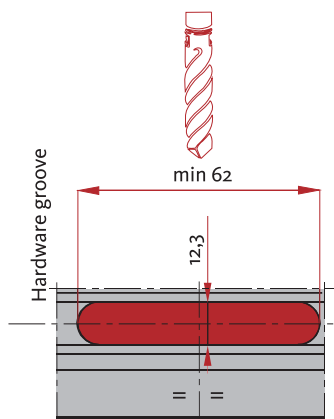
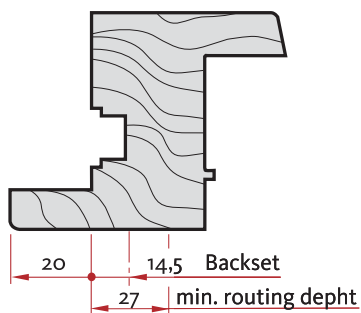
WINDOW-HANDLE DRILLING

GEAR-CASE SPROCTEK AND LUGS' DRILL HOLES FOR THE WINDOW-HANDLE



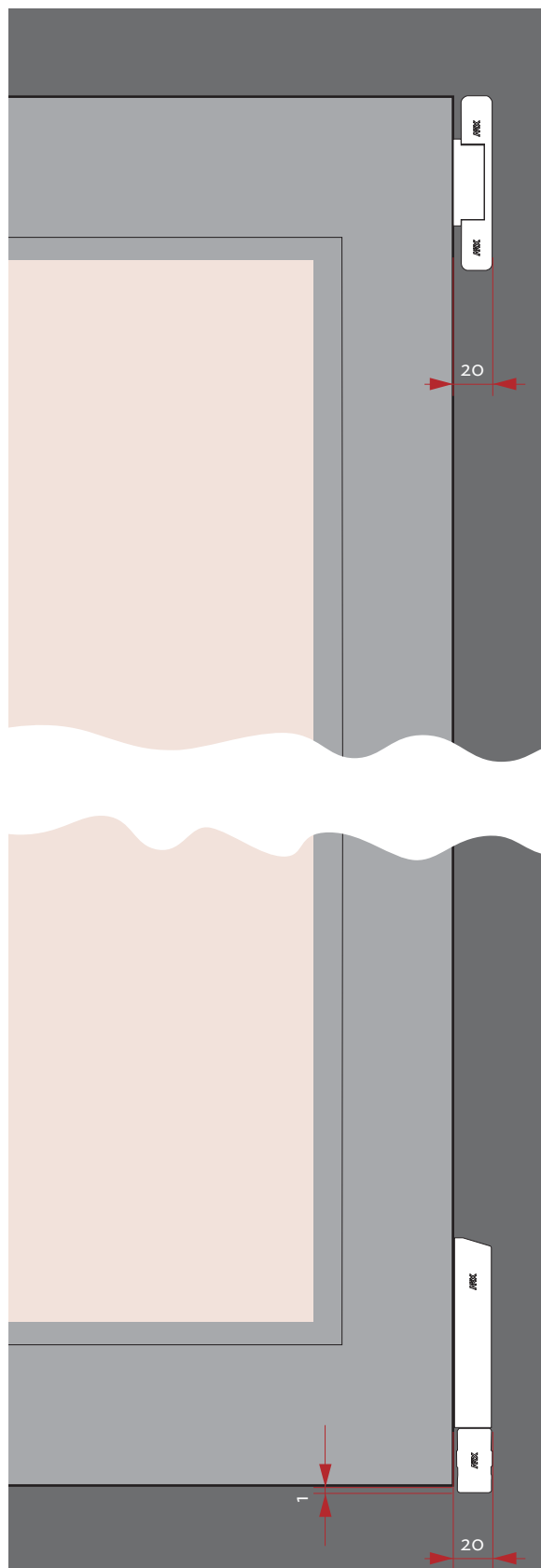
ROUTING

ESPAGNOLETTE GEAR-CASING



FRAME CLEARANCES (incl. cover cap)

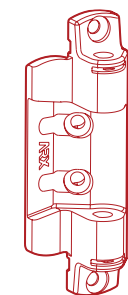
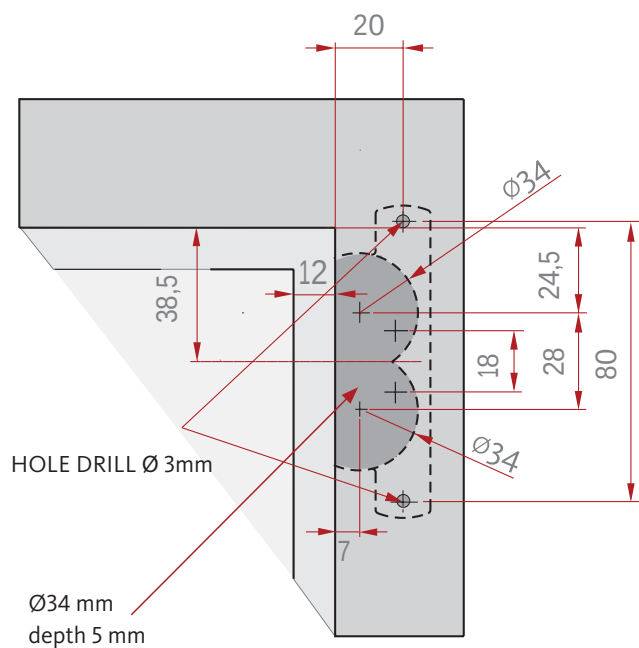
SASH WEIGHT 150 KG



DRILLING DIMENSIONS - FRAME 12/18-9 12/18-13

SASH STAY BEARING
150 KG

DRILLING JIG - FRAME
SASH STAY BEARING/CORNER PIVOT REST



MAT. NR. 1083251

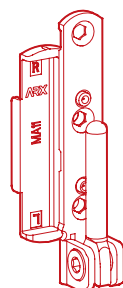
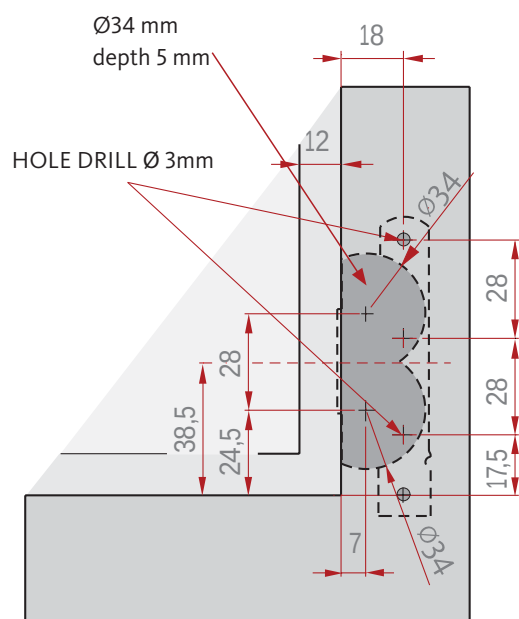


DRILLING JIGS-FRAME
MAT. NR. 1094660

DRILLING DIMENSIONS - FRAME 12/18-9 12/18-13

CORNER PIVOT REST
150 KG

DRILLING JIG - FRAME
SASH STAY BEARING/CORNER PIVOT REST



MAT. NR.
L: 1083248
R: 1083249

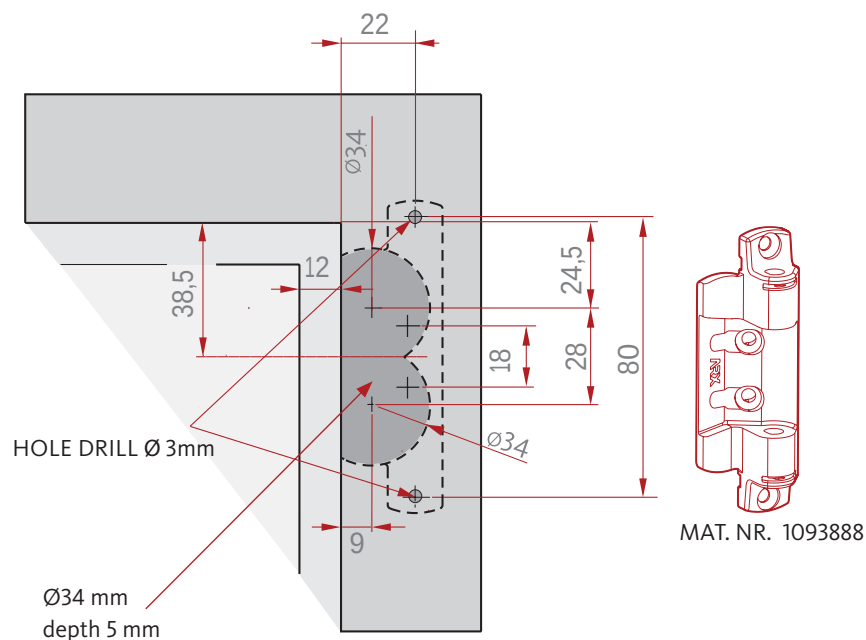


DRILLING JIG-FRAME
MAT. NR. 1094660

DRILLING DIMENSIONS - FRAME 12/20-9 12/20-13

SASH STAY BEARING
150 KG

DRILLING JIG - FRAME
SASH STAY BEARING/CORNER PIVOT REST

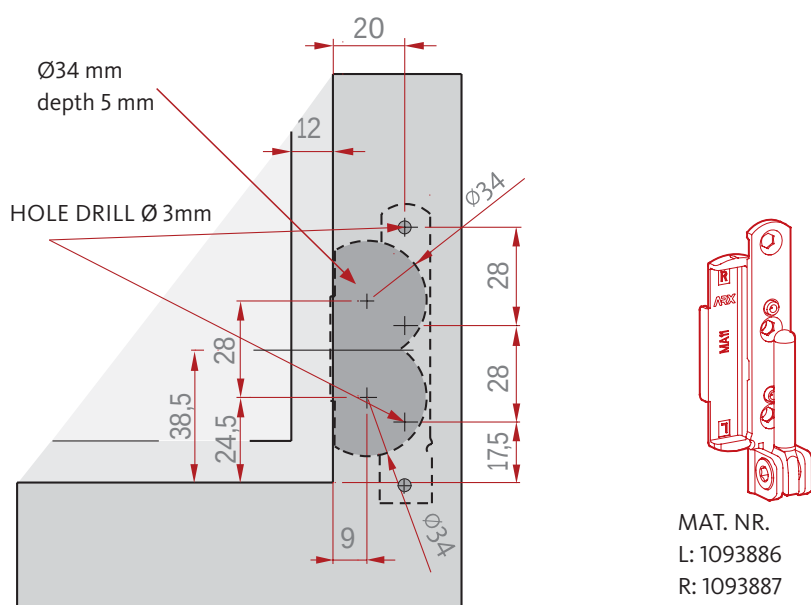


DRILING JIGS-FRAME
MAT. NR. 1094660

DRILLING DIMENSIONS - FRAME 12/20-9 12/20-13

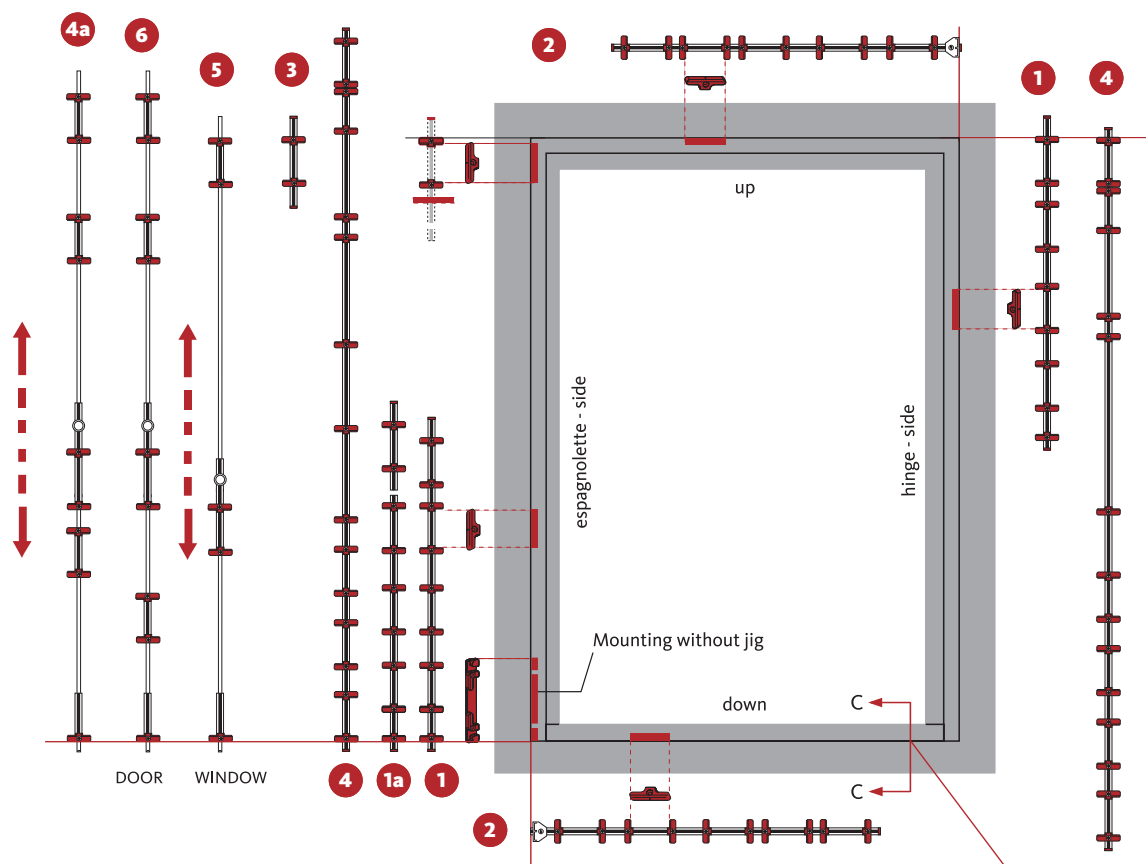
CORNER PIVOT REST
150 KG

DRILLING JIG - FRAME
SASH STAY BEARING/CORNER PIVOT REST

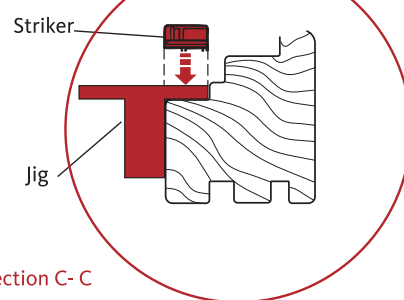


DRILING JIG-FRAME
MAT. NR. 1094660

STRIKER POSITIONING JIGS



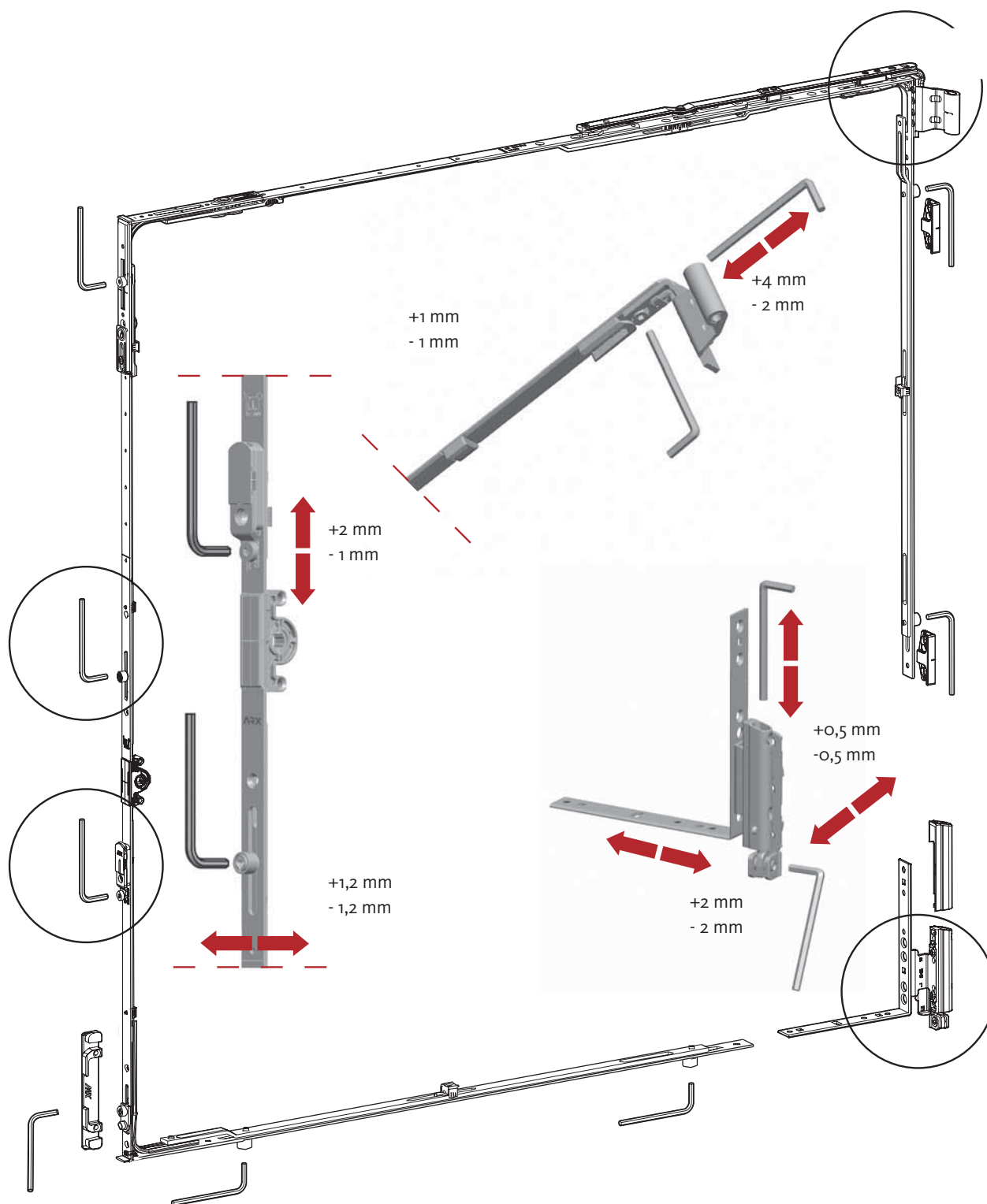
EXAMPLE OF JIG SETTING



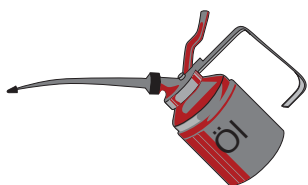
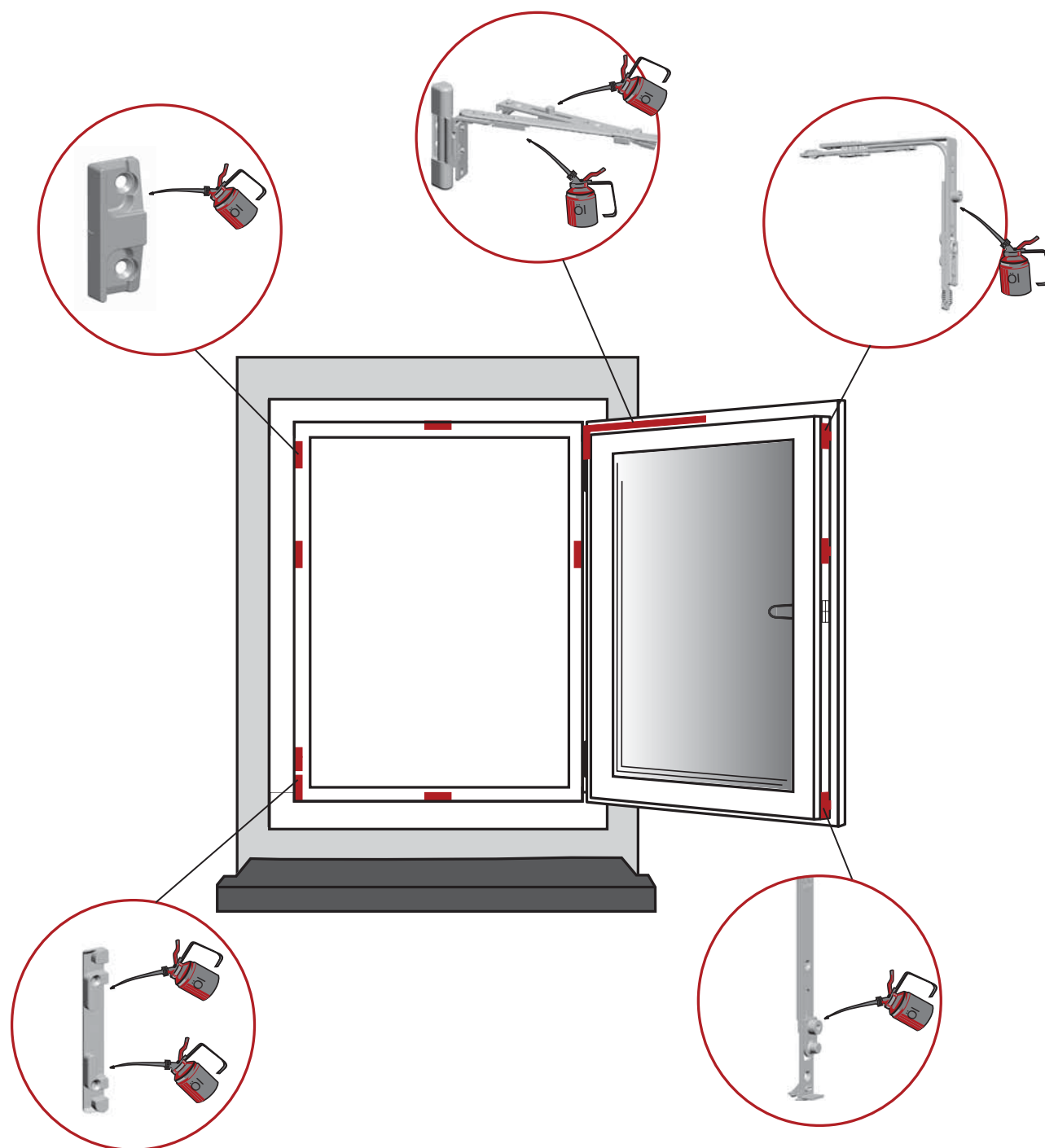
Cross section C - C

Type	Description	Material Nr.
1	Jig - constant handle height/hinge side FFH < 1600	1083316
1a	Teleskopic jig - constant handle height - add pin	1093917
2	Jig for strikers up/down	1083317
3	Jig for corner drive	1083318
4	Jig for strikers door FFH 1601 - 2400	1083319
4a	Teleskopic jig - constant handle height - add pin FFH 1601 - 2400	1093916
5	Teleskopic jig - variable handle height - window/door	1083320
6	Teleskopic jig - variable handle height with add pin window/door	1093918

ADJUSTMENT INSTRUCTIONS



MAINTENANCE RECOMMENDATIONS



Regular greasing and oiling of operation-relevant components in the sash and frame is recommended at least once a year. In case of frequent use as in schools, hotels the oiling is recommended once in six month.

Has to be used acid free and non-resinous grease and/or oil from a specialized dealer.

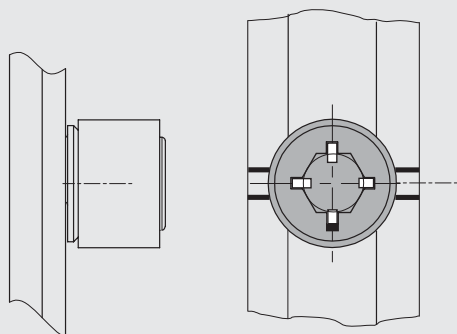
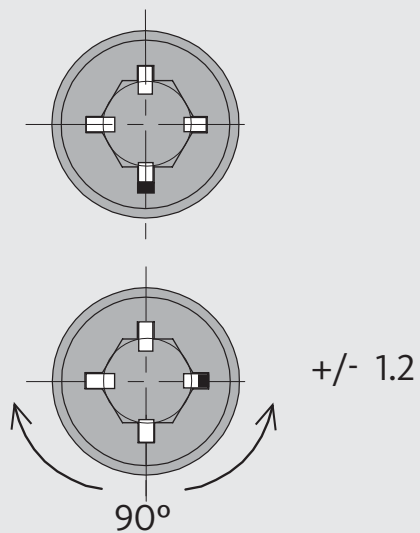


● ARX GREASE

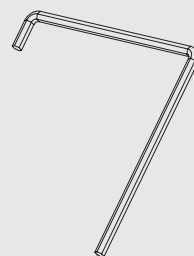
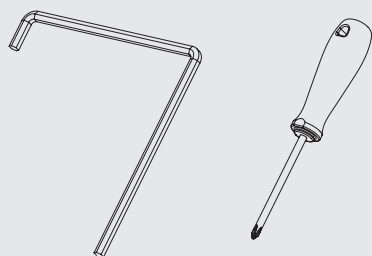
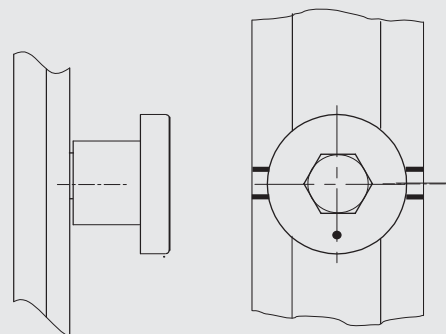
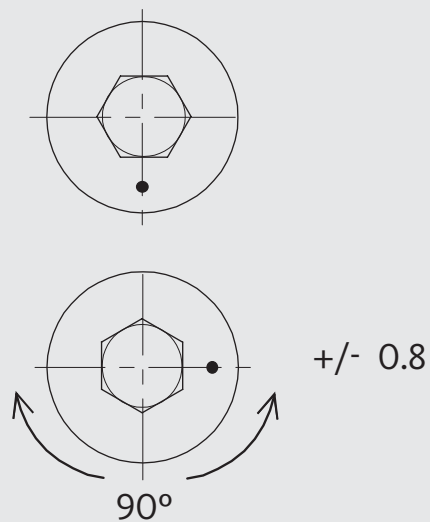
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LOCKING PIN ADJUSTMENT INSTRUCTIONS

Locking pin R



Locking pin P

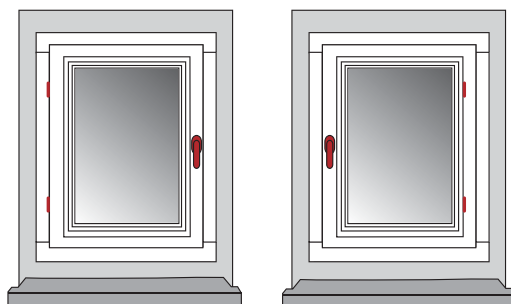
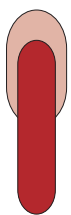


● ALEN KEY 4mm
SCREW DRIVER PH3

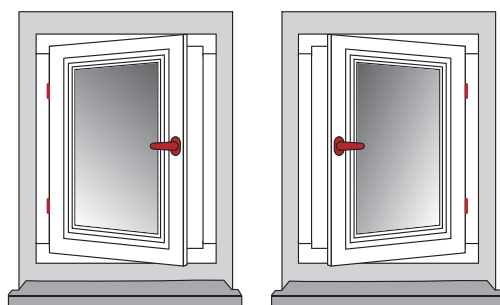
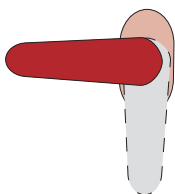
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1080695

OPERATING AND SYSTEM INSTRUCTIONS

OPERATION

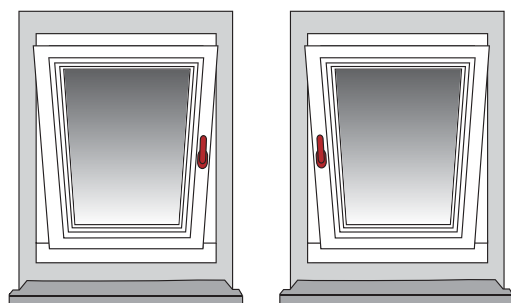
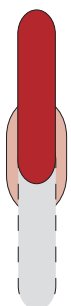


CLOSED POSITION OF THE SASH

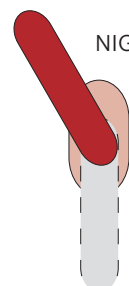


OPENED TURN POSITION OF THE SASH

TILT POSITION



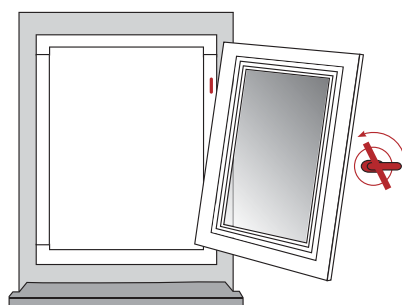
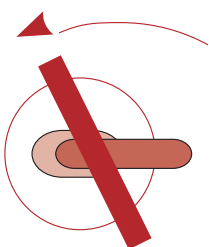
OPENED TILT POSITION AND NIGHT VENT OF THE SASH



NIGHT VENT

* Figure shows handel of left opening window

AVOID MISHANDLING

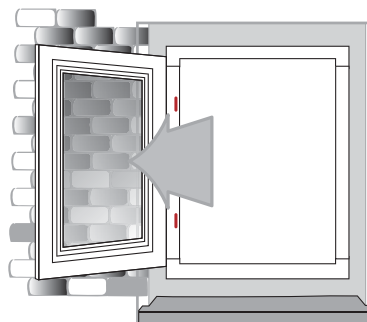
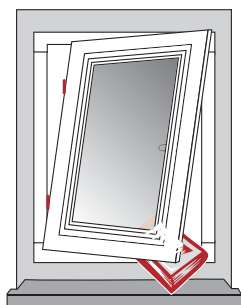


MALPOSITIONING OF THE SASH

OPERATING AND SYSTEM INSTRUCTIONS

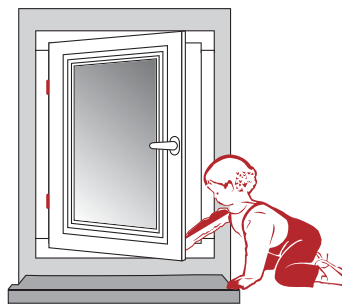
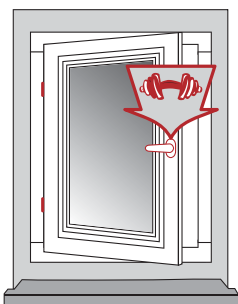
IN ORDER TO PRESERVE THE LONG OPERATIVENESS OF YOUR WINDOW AND TO GUARANTEE SECURITY, IT IS IMPERATIVE TO OBSERVE THE DIRECTIVES LISTED BELOW.

DO NOT PLACE ANY OBJECTS
BETWEEN THE SASH AND
FRAME.



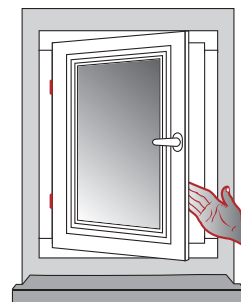
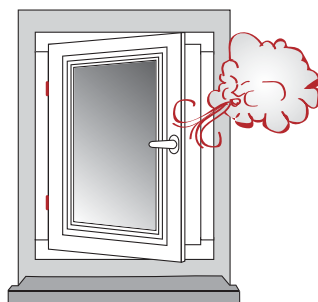
DO NOT ALLOW THE
SASH TO
HIT OR PRESS UP
AGAINST THE
WINDOW REVEAL.

THE WINDOW SASH
MAY NOT BE BURDENED
WITH ADDITIONAL WEIGHT.



WHERE SMALL CHILDREN OR
MENTALLY HANDICAPPED
PERSONS HAVE ACCESS TO
THE WINDOW, THE SASH
IS TO BE SAFEGUARDED
AGAINST TURNING, FOR EX-
AMPLE WITH A CHILD-SAFETY
LOCK (INHIBITS TURN-MO-
DUS, PERMITS TILT-MODUS)
OR KEY-LOCKABLE HANDLES.

DO NOT LEAVE SASHES
OPEN IN THE
TURN-MODUS DURING
STRONG WINDS.



CAUTION! A SLAMMING
SASH CAN LEAD TO INJURIES.
WHILE CLOSING, DO NOT
GRASP BETWEEN THE SASH
AND FRAME.



ARX IS REGISTERED TRADEMARK
OF KOVINOPLASTIKA LOŽ INC.

Kovinoplastika Lož d.d.
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