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**SIDE HUNG WINDOWS**

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**C13.11**  
**HANDLES AND**  
**CONNECTION PIECES**

01.04.2015



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## HANDLES AND CONNECTION PIECES

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## 1. General

### Limitations and conditions

- Sobinco can also provide you a solution for side hung open out windows. This chapter only provides you an overview of all possibilities regarding handles, connection pieces and hinges.
- Please may we ask you to send us always your profile drawings as well as all necessary additional information so that we can provide you the best solution. The following information is very important:
  - vent dimensions
  - vent weight
  - wind pressure
  - type of building
  - frequency of use
  - number of windows
- In most cases the net opening must be limited to 200 mm with a window stay to prevent that:
  - the windows would be blown over
  - the fittings, more exactly the hinges, would get damaged
  - persons would fall through the window when operating the window
  - persons at the outside would get hurt when opening the window
- Generally we don't recommend to fabricate windows with a vent width of more than 1200 mm because operation becomes very difficult. The handle is difficult to reach when the window must be opened completely.
- Hinges:
  - Special visible hinges which can be used on side hung open out windows. These hinges are secured by means of a security pin to prevent removal of the hinge pin.
  - The Invision hinges (clampable) can be used on side hung open out windows, but only after a detailed study of the project and provided that Sobinco has given its approval.
  - The Invisi hinges (screwable) may under no circumstances be used for side hung open out windows.

### Possibilities

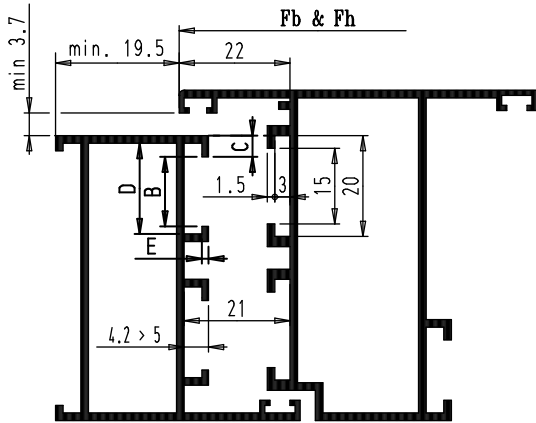
- The profiles can be designed in several ways:
  1. With eurogroove on both internal and external side of the profiles
    - Possibility to fit hinges.
    - Distance between handle and locking system is small: short fork, simple connection piece.
  2. With eurogroove on the external side of the profiles
    - Possibility to fit hinges.
    - Distance between handle and locking system is big: long fork (disadvantage), special connection piece may be necessary.
  3. With eurogroove on the internal side of the profiles
    - Hinges are not possible, only friction hinges.
    - Distance between handle and locking system is small: short fork, simple connection piece.
  4. Without frame groove, only vent groove
    - Hinges are not possible, only friction hinges.
    - Clampable keeps are not possible: screwed keeps.



## HANDLES AND CONNECTION PIECES

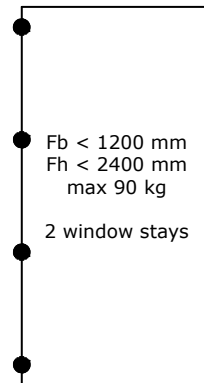
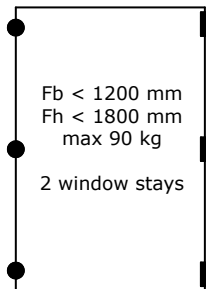
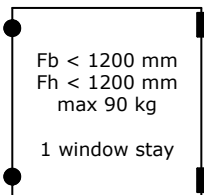
### Size range

- Dimensions:
  - vent width: max. 1200 mm.
  - vent height: max. 2400 mm.
  - vent weight: max. 90 kg.
- Vent and frame groove:



B (mm)	C (mm)	D (mm)	E (mm)
13.8	4.2	18	1.5
12.5	3.9	16.8	1.5
12.1	2.9	15.3	1.5
10	4.2	14.8	1.5
14.1	4.2	18.5	2.5
13.5	3.5	17.5	2.5

- The available fixing surface for the handle is limited due to the configuration of profiles for side hung open out windows.
- Applications:

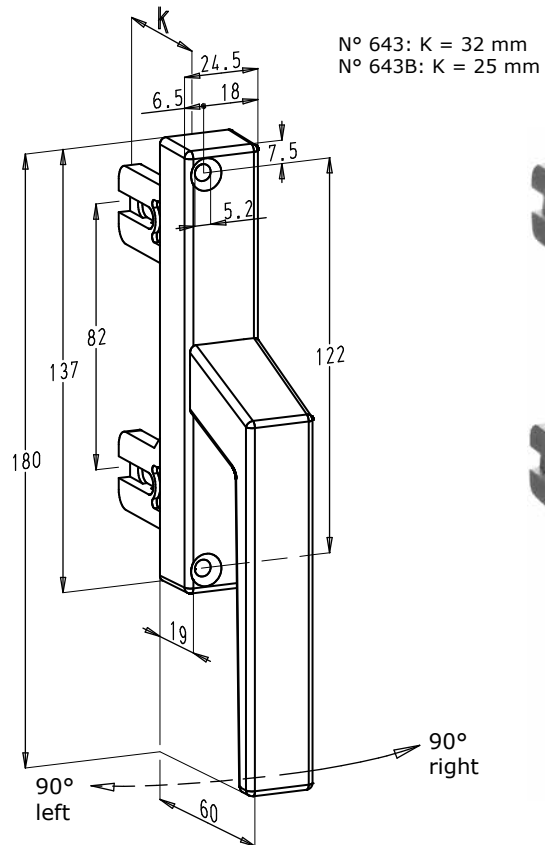


Windows should be provided with 1 or 2 window stays.

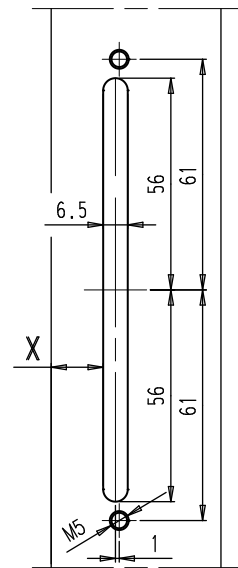


## 2. Handles

### 2.1. Handles series 643



- For more information regarding these handles, see chapter C14.11.
- X is profile-related.

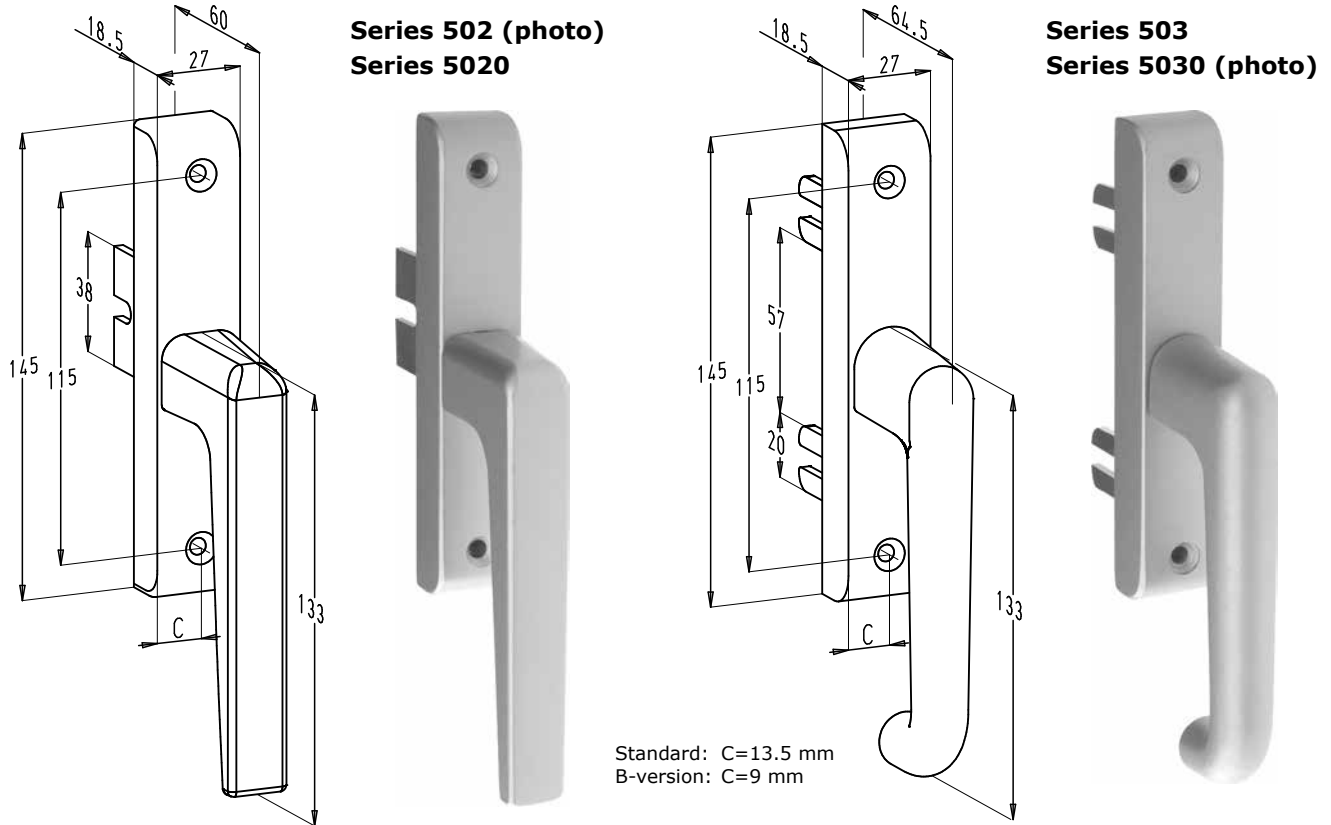




HANDLES AND CONNECTION PIECES

2.2. Handles series 502, 5020, 503 and 5030

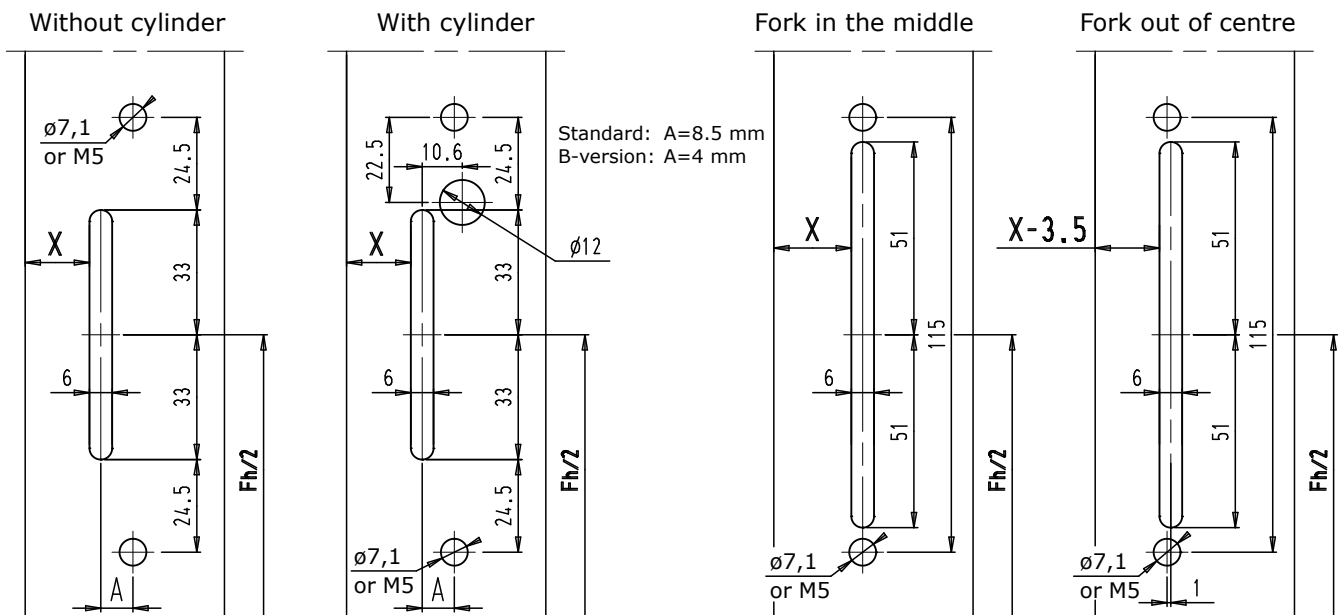
- For more information regarding these handles, see chapter H13.11.



- Preparations:

Handles with 1 fork (502 and 5020)

Handles with 2 forks (503 and 5030)

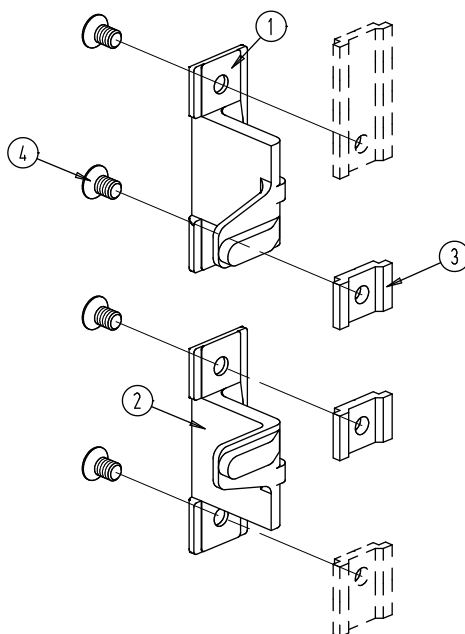
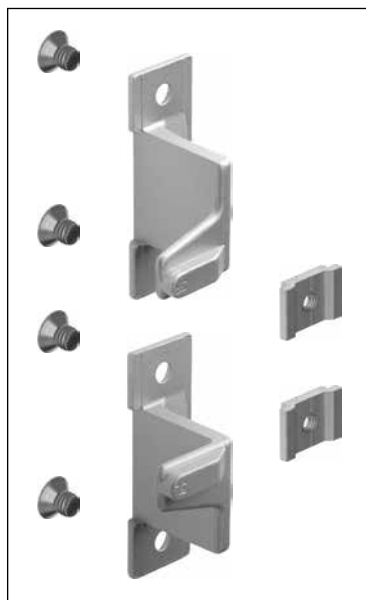


- Only the handles with 1 fork are possible with cylinder.
- Dimension X is profile-related.
- The handles are preferably fixed with blind rivnuts. Therefore you must drill holes with diameter  $\varnothing 7.1$  mm. Fixing holes M5 when you fix directly in the profile.

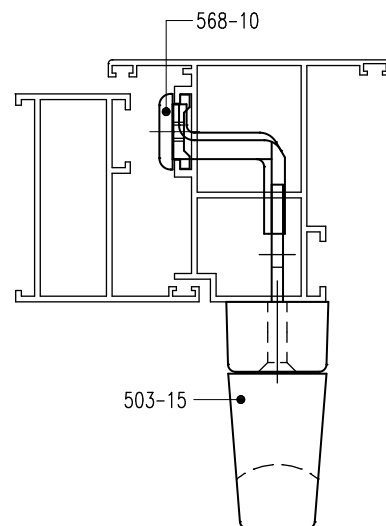


### 3. Connection pieces

#### 3.1. Connection piece set n° 568-10

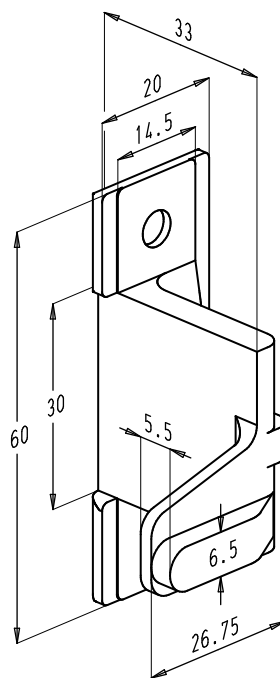


Installation example

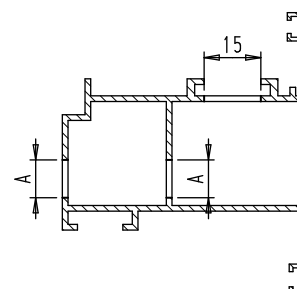
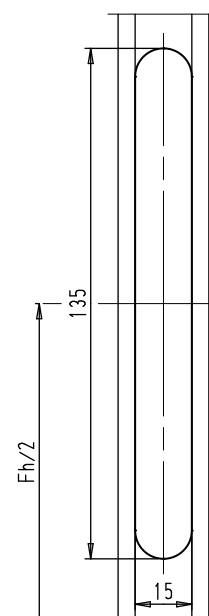


Connection piece set n° 568-10		
1	568-3R	right hand connection piece (1)
1	568-3L	left hand connection piece (2)
2	568-2	clamping piece (3)
4	M5x6 DIN 965	screw (4)

- The set is used in combination with handles series 503 or 5030.
- When you want to apply handles 502 or 5020 you only need half of the set (single fork). These parts are ordered separately.
- This set is required when the profiles are deeper and at the same time the groove is close to the external face of the profiles.
- The cut-out for the handle may be different from the ones on the previous pages because the connection pieces must be turned in the profiles while mounting them resulting in a wider cut-out: see dimension A.



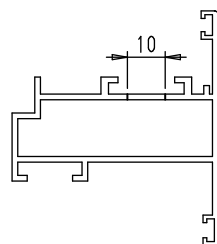
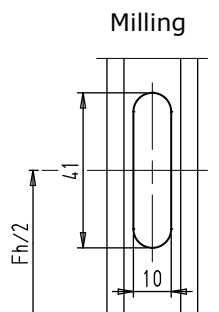
Milling



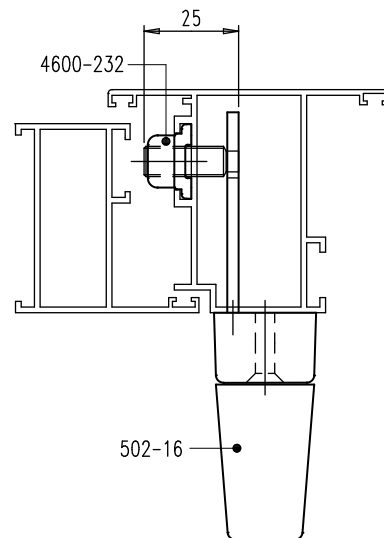


## HANDLES AND CONNECTION PIECES

## 3.2. Connection piece n° 4600-...

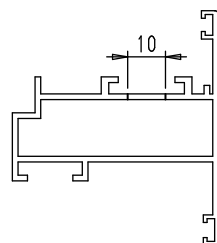
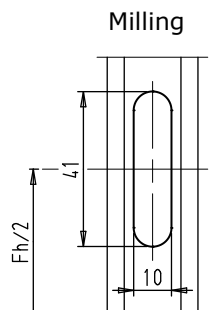
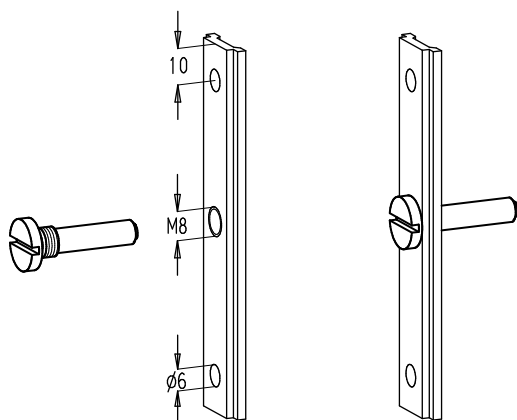


Installation example

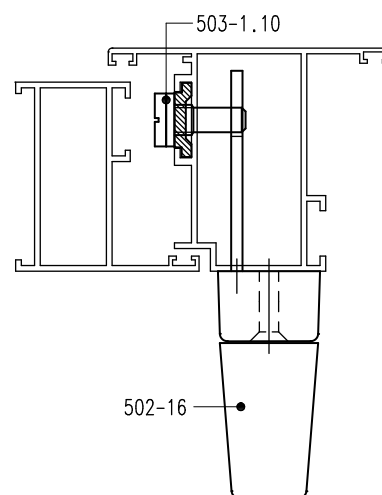


Connection piece	Pin length L	Vent groove
4600-232	25 mm	15/20 mm
4600-232C	30 mm	15/20 mm
4600-432	25 mm	14/18 mm
4600-432C	30 mm	14/18 mm

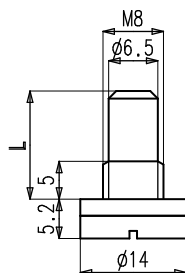
## 3.3. Drive pin



Installation example



Order code	L mm
503-1.10B	13
503-7.10	14.5
503-1.10	19
503-1.10C	22
504V-1.10	23
503-2.10	28
502-16.10	31



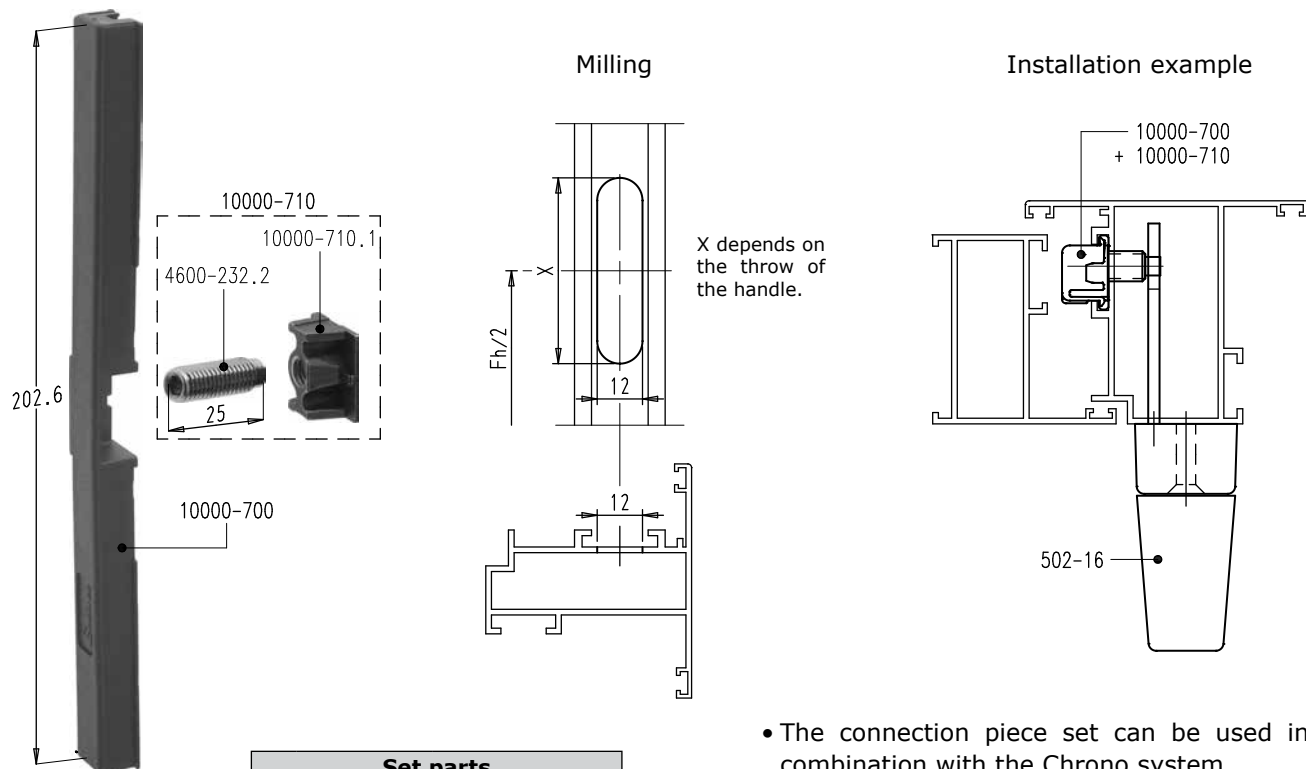
- The stainless steel drive pin which fits in the slotted fork, must be ordered separately.





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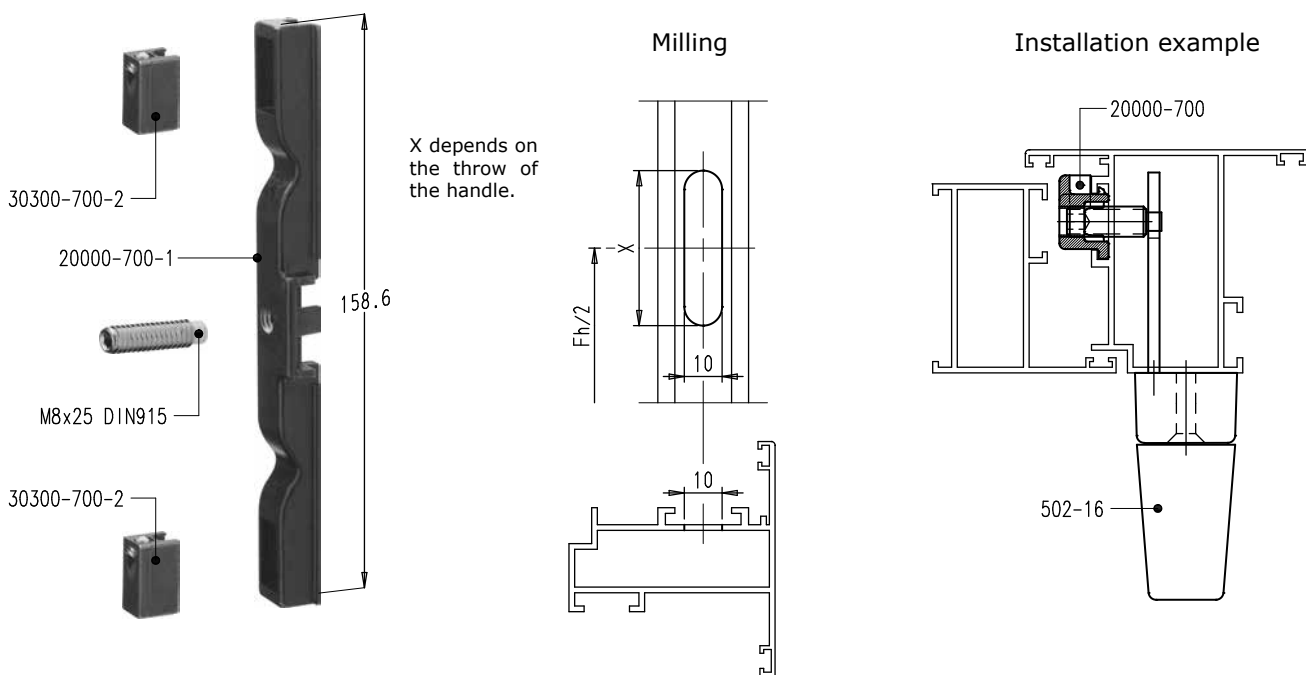
**3.4. Set with connection piece in synthetic material**



Set parts		
1	10000-700	connection piece
1	10000-710	coupling block

- The connection piece set can be used in combination with the Chrono system.
- The parts are to be ordered separately.
- The connection piece is 44 mm longer than the standard connection piece n° 30000-700.

**3.5. Set n° 20000-700 with zinc alloy connection piece**



Set n° 20000-700		
1	M8x25 DIN 915	screw
1	20000-700-1	connection piece
2	30300-700-2	fixing block

- The connection piece set can be used in combination with the Chrono system.



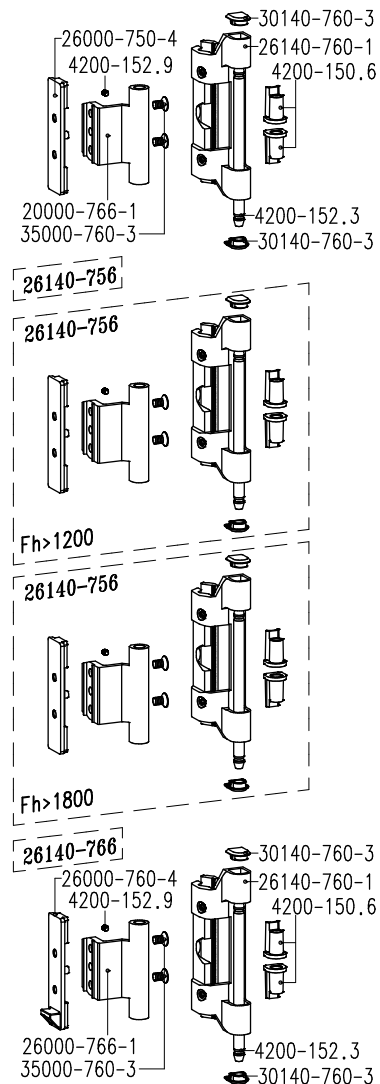
## HANDLES AND CONNECTION PIECES

**4. Hinges****4.1. Visible hinges****N° 26140-756 and 26140-766**

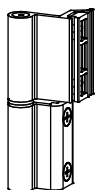
- Vent dimensions:
  - Fb = max. 1200 mm
  - Vent weight < 90 kg
- The hinges n° 26140-756 and -766 are secured by means of a security pin to prevent removal of the hinge pin and are suitable for side hung open out windows.
- Finish: aluminium anodised or polyester powder coated (more than 450 RAL colours).

Top hinge n° 26140-756		
2	4200-150.6	bush
1	4200-152.3	hinge pin
1	4200-152.9	security pin
1	26000-750-4	clamping plate vent part
1	26000-766-1	vent part
1	26140-760-1	frame part
2	30140-760-3	cap
2	35000-760-3	screw for vent part

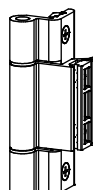
Bottom hinge n° 26140-766		
2	4200-150.6	bush
1	4200-152.3	hinge pin
1	4200-152.9	security pin
1	26000-760-4	clamping plate vent part
1	26000-766-1	vent part
1	26140-760-1	frame part
2	30140-760-3	cap
2	35000-760-3	screw for vent part

**N° 4208-220  
N° 4208-221**

- Fb = max. 1000 mm
- Vent weight < 75 kg

**N° 4208-320  
N° 4208-321**

- Fb = max. 1200 mm
- Vent weight < 80 kg

G = 4.5 mm : **4208-220 and -320**G = 5 mm : **4208-221 and -321**

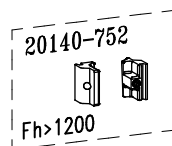
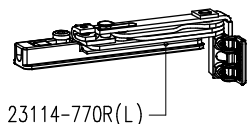
- The hinges are not secured to prevent removal of the hinge pin.
- Finish: aluminium anodised or polyester powder coated (more than 450 RAL colours).



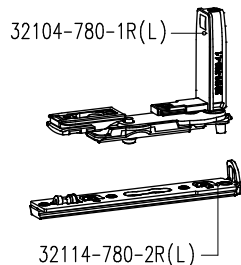
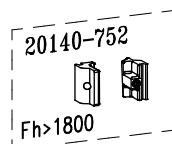
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4.2. Concealed hinges INVISION

Hinge set for frame groove 14/18 mm



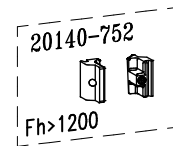
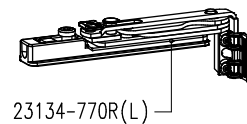
Right = illustrated  
Left = opposite view



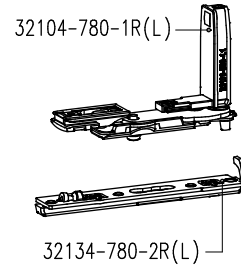
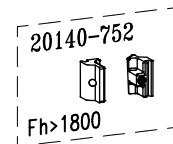
Hinge set n° 23114-10R(L)		
1	23114-770R(L)	top hinge
1	32104-780-1R(L)	vent part bottom hinge
1	32114-780-2R(L)	frame part bottom hinge

Hinge wedge n° 20140-752	
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Hinge set for frame groove 10/14 mm



Right = illustrated  
Left = opposite view



Hinge set n° 23134-10R(L)		
1	23134-770R(L)	top hinge
1	32104-780-1R(L)	vent part bottom hinge
1	32134-780-2R(L)	frame part bottom hinge

Hinge wedge n° 20140-752	
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- Windows with a vent height  $F_h > 1200$  mm require an additional hinge wedge n° 20140-752 at the hinge side.
- Windows with a vent height  $F_h > 1800$  mm, require two additional hinge wedges n° 20140-752 at the hinge side.

