

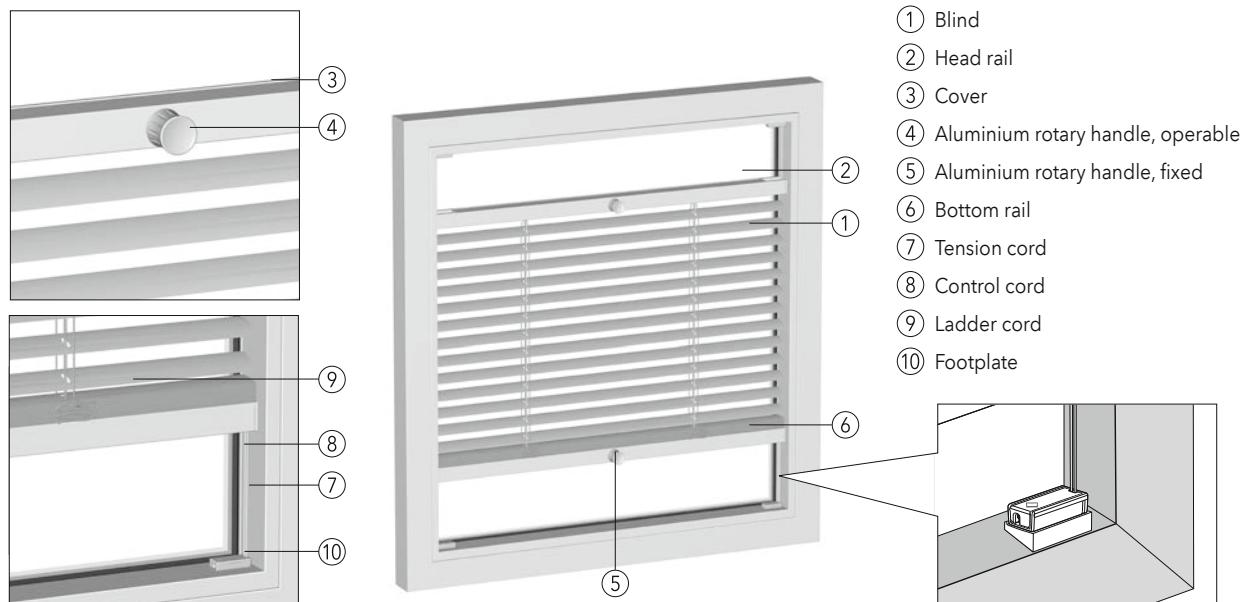
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## Technical information

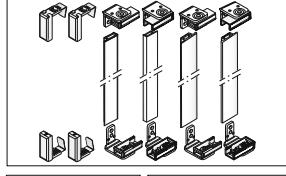
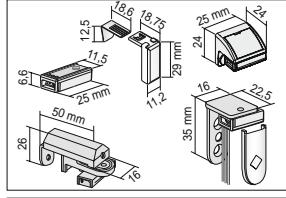
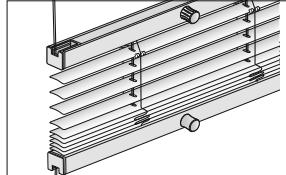
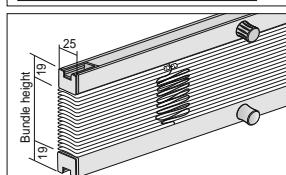
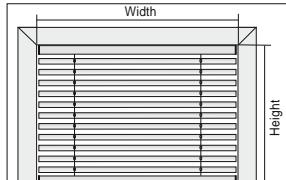
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Technical  
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## Models 09-8081, 09-8181


**Model 09-8081 with 16 mm slats**

Particularly suitable for glazing bead installation on tilt/turn windows. Blind individually adjustable by freely moveable head rail and bottom rail. Slat tilting via top aluminium rotary handle. Aluminium grip fixed at the bottom (no tilting). Head and bottom rail with inserted plastic cover. Slat colours as per MHZ collection. Colour of cords and ladder cords match the slats. Operating rod not possible.

**Model 09-8181 with 25 mm slats**

**Technical data**
**Dimensions:**

Model	Min. width	Max. width	Max. height	Max. surface
09-8081	31 cm and above	up to 160 cm	250 cm	approx. 1.6 m <sup>2</sup>
09-8181	31 cm and above	up to 180 cm	250 cm	approx. 2.0 m <sup>2</sup>

If the width/height ratio exceeds 1:4, there may be increased skewing. Please enquire in advance if necessary.

**Profiles:** Head/Bottom rail: Width 25 mm, height 19 mm

**Hardware colour:** 100 silver anodised

171 white powder-coated

372 bronze anodised

611 anthracite grey powder-coated

671 black powder-coated

**Slats:** Width 16 and 25 mm, aluminium 0.22 mm, elastic, enamelled, see the collection for surfaces and colours. Detailed information can be found in the material properties brochure. Perforated slats not available.

**Operation:** Blind height adjusted by moving the head or bottom rail.

Rails secured in desired position. Slat tilting via aluminium rotary handle on the head rail. Aluminium grip fixed at the bottom (no tilting). 1 aluminium rotary handle per head rail up to 90 cm width, 2 aluminium rotary handles per head rail from 90.1 cm width. Rotary handle can be operated from the left and right.

**Special equipment:** - Surcharges p. 120

- Cord extension (symmetrical or asymmetrical) p. 13

- Adhesive set, adhesive set with side guide for operating rail p. 120, 129

- Window clip p. 129

- Multicoloured blind p. 123

- Additional accessories p. 128

**Bundle height:**

Unit height up to (cm)	50	100	150	200	250
Bundle height 16 mm slat approx. to (cm)	5.5	6.5	8.0	9.5	11.0
Bundle height 25 mm slat approx. to (cm)	5.5	6.5	7.5	8.5	9.5

**Installation:**

- Glazing bead installation (min. glazing bead depth 17 mm) with footplates

- Bracket for window sash installation and accessories p. 128, 129

- Additional installation accessories p. 120

- Use mounting template, p. 129, 157

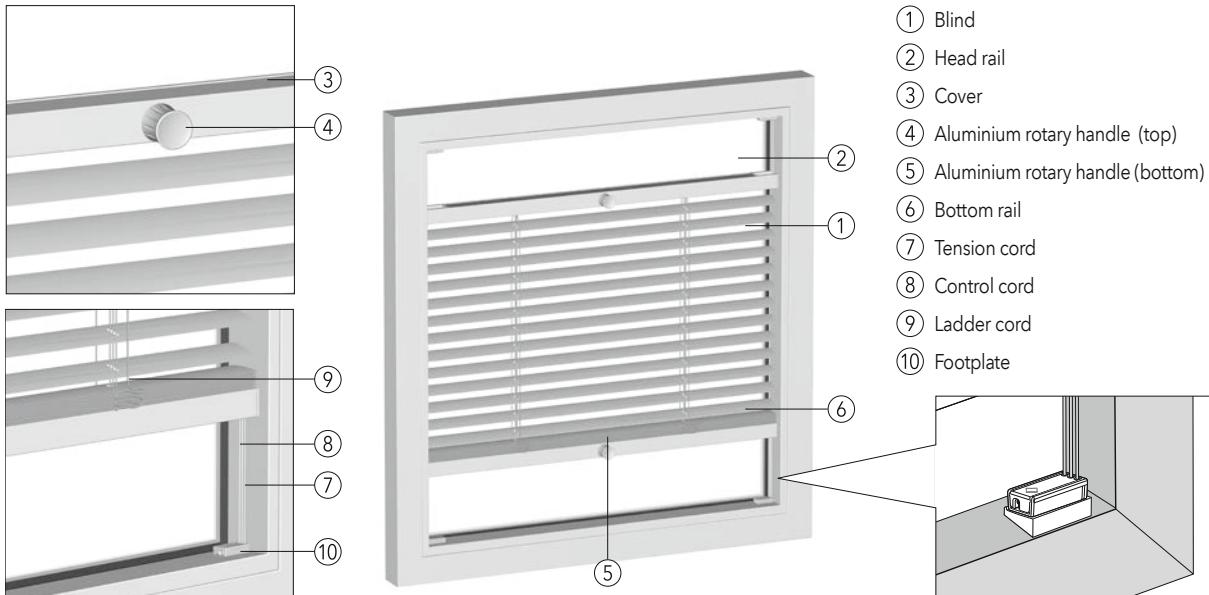
- Adhesive set, adhesive set with side guide for operating rail p. 120, 129

- Window clip p. 120, 129

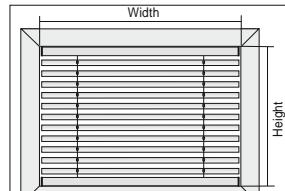
**Note:**

Levelling chocks that fit the glazing bead slope must be ordered for the blind unit to function correctly (see p. 128). For information on calculating the unit height and width (Measure + order, p. 163).

## Models 09-8080, 09-8180

**Model 09-8080 with 16 mm slats**

Particularly suitable for glazing bead installation on tilt/turn windows. Blind individually adjustable by freely moveable head rail and bottom rail. Slat tilting via top and bottom aluminium rotary handles. Head and bottom rail with inserted plastic cover. Slat colours as per MHZ collection. Colour of cords and ladder cords match the slats. Operating rod not possible.

**Model 09-8180 with 25 mm slats****Technical data****Dimensions:**

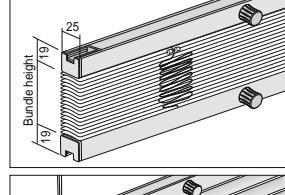
Model	Min. width	Max. width	Max. height	Max. surface
09-8080	31 cm and above	up to 160 cm	250 cm	approx. 1.6 m <sup>2</sup>
09-8180	31 cm and above	up to 180 cm	250 cm	approx. 2.0 m <sup>2</sup>

If the width/height ratio exceeds 1:4, there may be increased skewing.

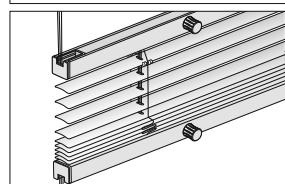
Please enquire in advance if necessary.

**Profiles:**

Head/Bottom rail: Width 25 mm, height 19 mm

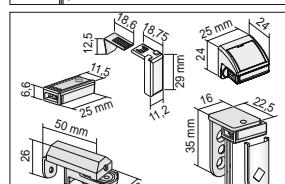
**Slats:**

Width 16 and 25 mm, aluminium 0.22 mm, elastic, enamelled, see the collection for surfaces and colours. Detailed information can be found in the material properties brochure. Perforated slats not available.

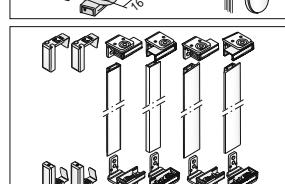
**Operation:**

Blind height adjusted by moving the head or bottom rail.

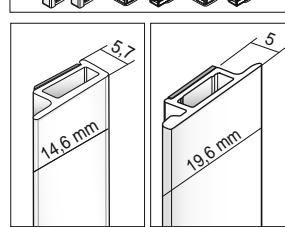
Rails secured in desired position. Slat tilting via aluminium rotary handle on the head rail and bottom rail. 1 aluminium rotary handle per rail up to 90 cm width, 2 aluminium rotary handles per rail from 90.1 cm width. Rotary handle can be operated from the left and right.

**Special equipment:**

- Surcharges p. 120
- Cord extension (symmetrical or asymmetrical) p. 17
- Adhesive set, adhesive set with side guide for operating rail p. 120, 129
- Window clip p. 120
- Multicoloured blind p. 123
- Additional accessories p. 128

**Bundle height:**

Unit height up to (cm)	50	100	150	200	250
Bundle height 16 mm slat approx. to (cm)	5.5	6.5	8.0	9.5	11.0
Bundle height 25 mm slat approx. to (cm)	5.5	6.5	7.5	8.5	9.5

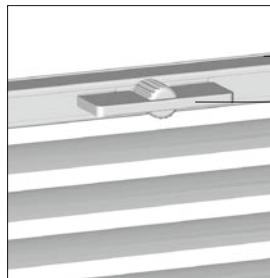
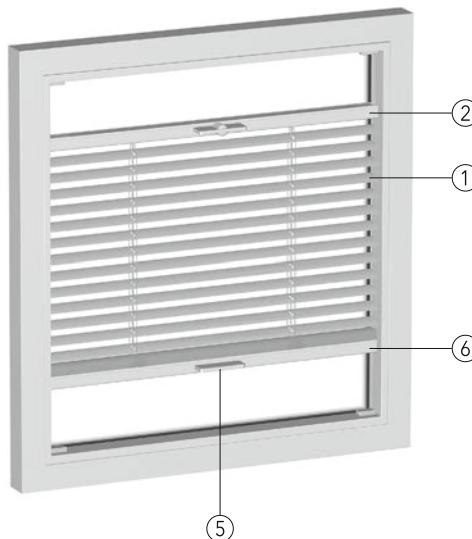
**Installation:**

- Glazing bead installation (min. glazing bead depth 17 mm) with footplates
- Bracket for window sash installation and accessories p. 128, 129
- Additional installation accessories p. 120
- Use mounting template, p. 129, 157
- Adhesive set, adhesive set with side guide for operating rail p. 120, 129
- Window clip p. 120, 129

**Note:**

**Levelling chocks that fit the glazing bead slope must be ordered for the blind unit to function correctly (see p. 128). For information on calculating the unit height and width (Measure + order, p. 163). The required operating force is slightly higher for bottom rotary handles than for top rotary handles.**

## Models 09-7070, 09-7170 incl. aluminium grip


 ③ Cover  
 ④ Aluminium operating handle with rotary wheel (slat tilting)

 ① Blind  
 ② Head rail  
 ③ Cover  
 ④ Aluminium operating handle with rotary wheel (slat tilting)  
 ⑤ Aluminium operating handle  
 ⑥ Bottom rail  
 ⑦ Tension cord  
 ⑧ Ladder cord  
 ⑨ Footplate

**Model 09-7070 with 16 mm slats**

Particularly suitable for glazing bead installation for tilt/turn windows. Blind individually adjustable by freely moveable head rail and bottom rail. Slat tilting by means of rotary wheel in the operating handle. With aluminium grip. Head and bottom rail with inserted plastic cover. Slat colours as per MHZ collection. Colour of cords and ladder cords match the slats. Operating rod not possible.

**Model 09-7170 with 25 mm slats**

If the width/height ratio exceeds 1:4, there may be increased skewing.

Please enquire in advance if necessary.

**Technical data**
**Dimensions:**

Model	Min. width	Max. width	Max. height	Max. surface
09-7070	29 cm and above	up to 150 cm	250 cm	approx. 1.6 m <sup>2</sup>
09-7170	29 cm and above	up to 150 cm	250 cm	approx. 2.0 m <sup>2</sup>

If the width/height ratio exceeds 1:4, there may be increased skewing. Please enquire in advance if necessary.

**Profiles:** Head/Bottom rail: Width 25 mm, height 19 mm

**Hardware colour:** 100 silver anodised 171 white powder-coated  
 372 bronze anodised 611 anthracite grey powder-coated  
 671 black powder-coated

**Slats:** Width 16 and 25 mm, aluminium 0.22 mm, elastic, enamelled, see the collection for surfaces and colours. Detailed information can be found in the material properties brochure. Perforated slats not available.

**Operation:** Blind height adjusted by moving the head or bottom rail. Rails secured in desired position. Slat tilting via rotary wheel in the operating handle at the head rail. 1 operating handle per rail up to 90 cm width; 2 operating handles per rail from 90.1 cm. Rotary wheel can be operated from the left and right.

**Special equipment:** - Cord extension (symmetrical or asymmetrical) p. 21  
 - Multicoloured blind p. 123  
 - Surcharge P. 120  
 - Additional accessories p. 128, 129  
 - Adhesive set, adhesive set with side guide for operating rail p. 120, 129  
 - Window clip p. 128

**Bundle height:**

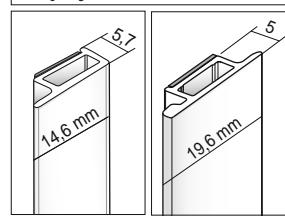
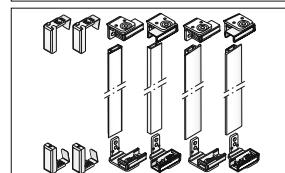
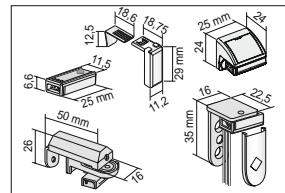
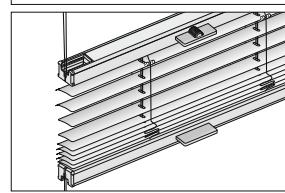
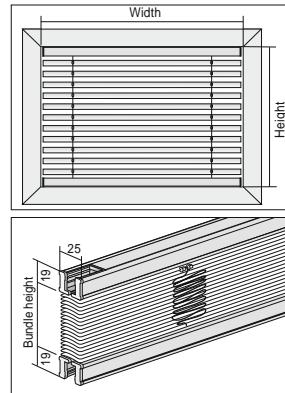
Unit height up to (cm)	50	100	150	200	250
Bundle height 16 mm slat approx. to (cm)	5.5	6.5	8.0	9.5	11.0
Bundle height 25 mm slat approx. to (cm)	5.5	6.5	7.5	8.5	9.5

**Installation:**

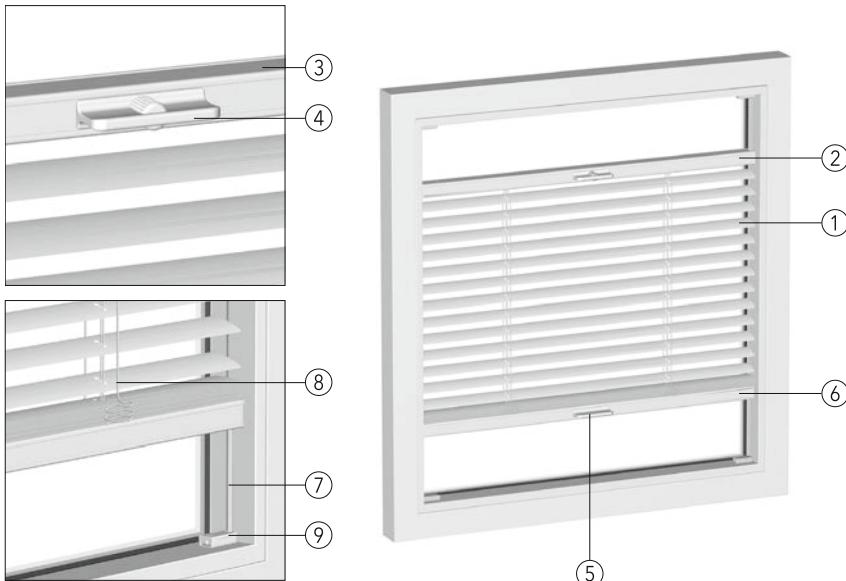
- Glazing bead installation (min. glazing bead depth 17 mm) with footplates
- Bracket for window sash installation and accessories p. 128, 129
- Additional installation accessories p. 120
- Use levelling chocks that fit the glazing bead slope, p. 128
- Use mounting template P. 129, 157
- Adhesive set, adhesive set with side guide for operating rail p. 120, 129
- Window clip p. 120, 129

**Note:**

Levelling chocks that fit the glazing bead slope must be ordered for the blind unit to function correctly (see p. 128).



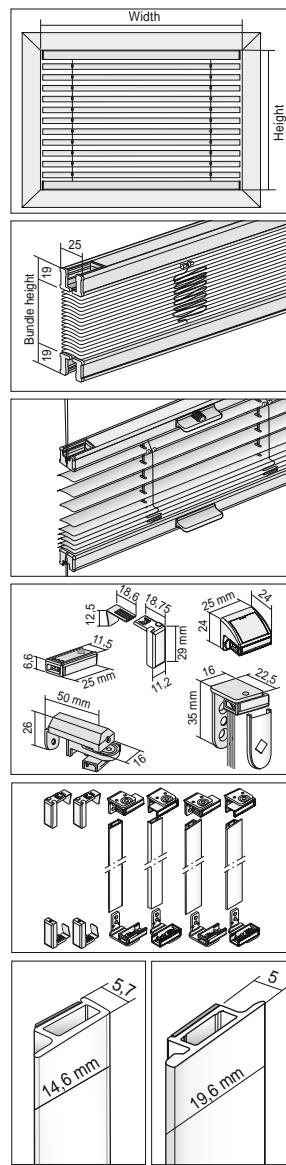
## Models 09-7080, 09-7180



- ① Blind
- ② Head rail
- ③ Cover
- ④ Operating handle with a rotary wheel (slat tilting)
- ⑤ Operating handle
- ⑥ Bottom rail
- ⑦ Tension cord
- ⑧ Ladder cord
- ⑨ Footplate

**Model 09-7080 with 16 mm slats**

Particularly suitable for glazing bead installation for tilt/turn windows. Blind individually adjustable by freely moveable head rail and bottom rail. Slat tilting by means of rotary wheel in the operating handle. Head and bottom rail with inserted plastic cover. Slat colours as per MHZ collection. Colour of cords and ladder cords match the slats. Operating rod not possible.

**Model 09-7180 with 25 mm slats****Technical data****Dimensions:**

Model	Min. width	Max. width	Max. height	Max. surface
09-7080	29 cm and above	up to 150 cm	250 cm	approx. 1.6 m <sup>2</sup>
09-7180	29 cm and above	up to 150 cm	250 cm	approx. 2.0 m <sup>2</sup>

If the width/height ratio exceeds 1:4, there may be increased skewing.

Please enquire in advance if necessary.

**Profiles:**

Head/Bottom rail: Width 25 mm, height 19 mm

**Hardware colour:**

100 silver anodised	171 white powder-coated
372 bronze anodised	611 anthracite grey powder-coated
671 black powder-coated	

**Slats:**

Width 16 and 25 mm, aluminium 0.22 mm, elastic, enamelled, see the collection for surfaces and colours. Detailed information can be found in the material properties brochure. Perforated slats not available.

**Operation:**

Blind height adjusted by moving the head or bottom rail. Rails secured in desired position. Slat tilting via rotary wheel in the operating handle at the head rail. 1 operating handle per rail up to 90 cm width; 2 operating handles per rail from 90.1 cm. Rotary wheel can be operated from the left and right.

**Special equipment:**

- Aluminium grip
- Cord extension (symmetrical or asymmetrical) p. 25
- Multicoloured blind p. 123
- Surcharges P. 120
- Additional accessories p. 128, 129
- Adhesive set, adhesive set with side guide for operating rail p. 120, 129
- Window clip p. 128

**Bundle height:**

Unit height up to (cm)	50	100	150	200	250
Bundle height 16 mm slat approx. to (cm)	5.5	6.5	8.0	9.5	11.0
Bundle height 25 mm slat approx. to (cm)	5.5	6.5	7.5	8.5	9.5

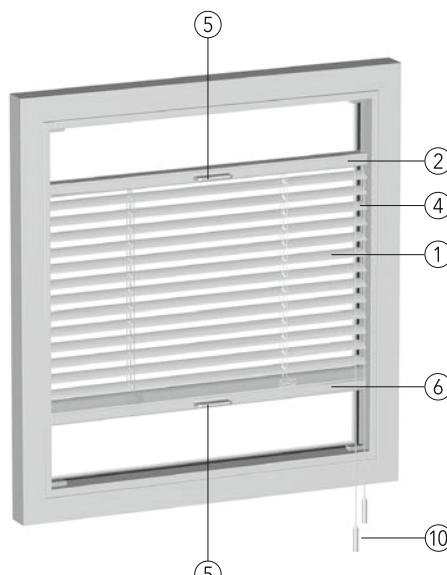
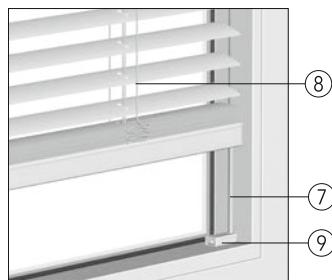
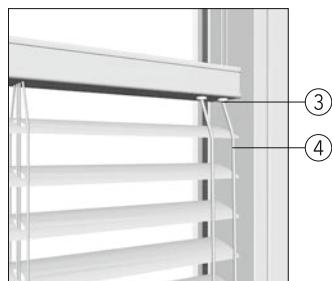
**Installation:**

- Glazing bead installation (min. glazing bead depth 17 mm) with footplates
- Bracket for window sash installation and accessories p. 128, 129
- Additional installation accessories p. 120
- Use levelling chocks that fit the glazing bead slope, p. 128
- Use mounting template P. 129, 157
- Adhesive set, adhesive set with side guide for operating rail p. 120, 129
- Window clip p. 120, 129

**Note:**

Levelling chocks that fit the glazing bead slope must be ordered for the blind unit to function correctly (see p. 128).

## Models 09-7081, 09-7181



- ① Blind
- ② Head rail
- ③ Cord exit
- ④ Cord (slat tilting)
- ⑤ Operating handle
- ⑥ Bottom rail
- ⑦ Tension cord
- ⑧ Ladder cord
- ⑨ Footplate
- ⑩ Tangle-free tassel

## Model 09-7081 with 16 mm slats

Particularly suitable for glazing bead installation for tilt/turn windows. Blind individually adjustable by freely moveable head rail and bottom rail. Operating rod not possible. Slat tilting via cord. Head and bottom rail with inserted plastic cover. Slat colours as per MHZ collection. Colour of cords and ladder cords match the slats. Tangle-free tassel p. 154.

## Model 09-7181 with 25 mm slats

Particularly suitable for glazing bead installation for tilt/turn windows. Blind individually adjustable by freely moveable head rail and bottom rail. Operating rod not possible. Slat tilting via cord. Head and bottom rail with inserted plastic cover. Slat colours as per MHZ collection. Colour of cords and ladder cords match the slats. Tangle-free tassel p. 154.

## Technical data

## Dimensions:

Model	Min. width	Max. width	Max. height	Max. surface
09-7081	33.6 cm and above	up to 150 cm	250 cm	approx. 1.6 m <sup>2</sup>
09-7181	33.6 cm and above	up to 150 cm	250 cm	approx. 2.0 m <sup>2</sup>

If the width/height ratio exceeds 1:4, there may be increased skewing. Please enquire in advance if necessary.

## Profiles:

Head/Bottom rail: Width 25 mm, height 19 mm

## Hardware colour:

100 silver anodised	171 white powder-coated
372 bronze anodised	611 anthracite grey powder-coated
671 black powder-coated	

## Slats:

Width 16 and 25 mm, aluminium 0.22 mm, elastic, enamelled, see the collection for surfaces and colours. Detailed information can be found in the material properties brochure. Perforated slats not available.

## Operation:

Blind height adjusted by moving the head or bottom rail. Rails secured in desired position. 1 operating handle per rail up to 90 cm width; 2 operating handles per rail from 90.1 cm. Slat tilting via cord at the head rail, can be operated from left or right.

Unit height (cm)	50-75	75-100	100-125	125-150	150-175	175-200	200-250
Operation length Cord (cm)	50	75	100	125	150	175	200

Other operation lengths available on request at extra cost

## Special equipment:

- Aluminium grip
- Cord extension (symmetrical or asymmetrical) p. 25
- Multicoloured blind p. 123
- Surcharges p. 120
- Additional accessories p. 128, 129
- Adhesive set, adhesive set with side guide for operating rail p. 120, 129
- Window clip p. 128

## Bundle heights:

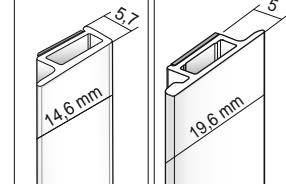
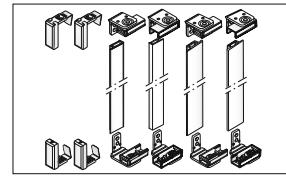
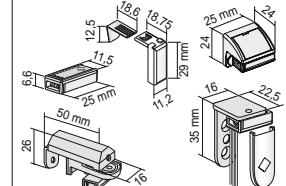
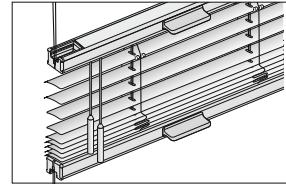
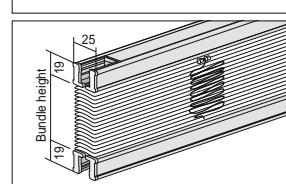
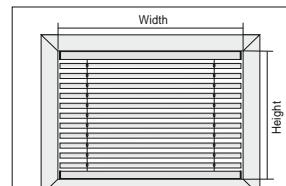
Unit height up to (cm)	50	100	150	200	250
Bundle height 16 mm slat approx. to (cm)	5.5	6.5	8.0	9.5	11.0
Bundle height 25 mm slat approx. to (cm)	5.5	6.5	7.5	8.5	9.5

## Installation:

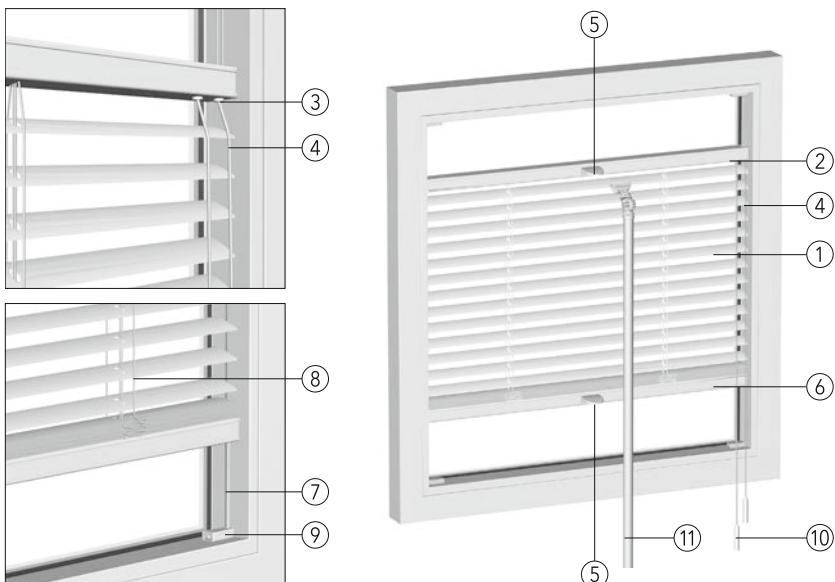
- Glazing bead installation (min. glazing bead depth 17 mm) with footplates
- Bracket for window sash installation and accessories p. 128, 129
- Additional installation accessories p. 120
- Use levelling chocks that fit the glazing bead slope, p. 128
- Use mounting template P. 129, 157
- Adhesive set, adhesive set with side guide for operating rail p. 120, 129
- Window clip p. 120, 129

## Note:

Levelling chocks that fit the glazing bead slope must be ordered for the blind unit to function correctly (see p. 128).



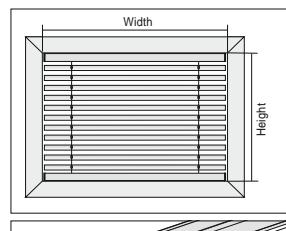
## Models 09-7082, 09-7182



- ① Blind
- ② Head rail
- ③ Cord exit
- ④ Cord (slat tilting)
- ⑤ Operating handle
- ⑥ Bottom rail
- ⑦ Tension cord
- ⑧ Ladder cord
- ⑨ Footplate
- ⑩ Tangle-free tassel
- ⑪ Operating rod (not included)

**Model 09-7082 with 16 mm slats**

Particularly suitable for glazing bead installation on tilt/turn windows. Model suitable for hard-to-reach units. Individually adjustable due to moving head and bottom rail; optional operating rod. Slat tilting via cord. Head rail and bottom rail each with inserted plastic cover. Slat colours as per MHZ collection. Cords and ladder cords colour-matched to slats. Tangle-free tassel p. 154.

**Model 09-7182 with 25 mm slats****Technical data****Dimensions:**

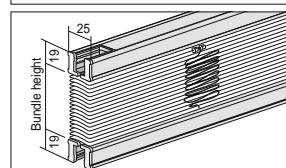
Model	Min. width	Max. width	Max. height	Max. surface
09-7082	33.6 cm and above	up to 150 cm	250 cm	approx. 1.6 m <sup>2</sup>
09-7182	33.6 cm and above	up to 150 cm	250 cm	approx. 2.0 m <sup>2</sup>

If the width/height ratio exceeds 1:4, there may be increased skewing. Please enquire in advance if necessary.

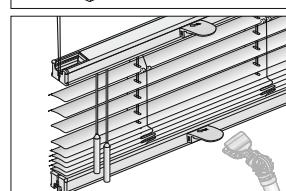
Profiles: Head/Bottom rail: Width 25 mm, height 19 mm

Hardware colour: 100 silver anodised 171 white powder-coated  
372 bronze anodised 611 anthracite grey powder-coated  
671 black powder-coated

Slats: Width 16 and 25 mm, aluminium 0.22 mm, elastic, enamelled, see the collection for surfaces and colours. Detailed information can be found in the material properties brochure. Perforated slats not available.

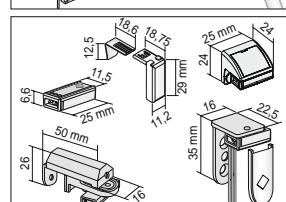


Operation: Blind height is adjusted by using the operating rod to move the head or bottom rail. Rails secured in desired position. 1 operating handle per rail up to 90 cm width; 2 operating handles per rail from 90.1 cm. Slat tilting via cord at the head rail, can be operated from left or right.

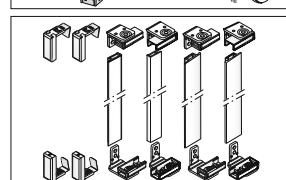


Unit height (cm)	50-75	75-100	100-125	125-150	150-175	175-200	200-250
Operation length	50	75	100	125	150	175	200
Cord (cm)							

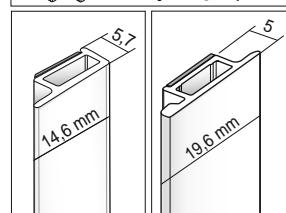
Other operation lengths available on request at extra cost



Special equipment: - Operating rod with hinged adapter possible up to unit width of 90 cm  
- Cord extension (symmetrical or asymmetrical) p. 25  
- Multicoloured blind p. 123  
- Surcharges P. 120  
- Additional accessories p. 128, 129  
- Adhesive set, adhesive set with side guide for operating rail p. 120, 129  
- Window clip p. 128



Bundle heights: Unit height up to (cm) | 50 | 100 | 150 | 200 | 250  
Bundle height 16 mm slat approx. to (cm) | 5.5 | 6.5 | 8.0 | 9.5 | 11.0  
Bundle height 25 mm slat approx. to (cm) | 5.5 | 6.5 | 7.5 | 8.5 | 9.5

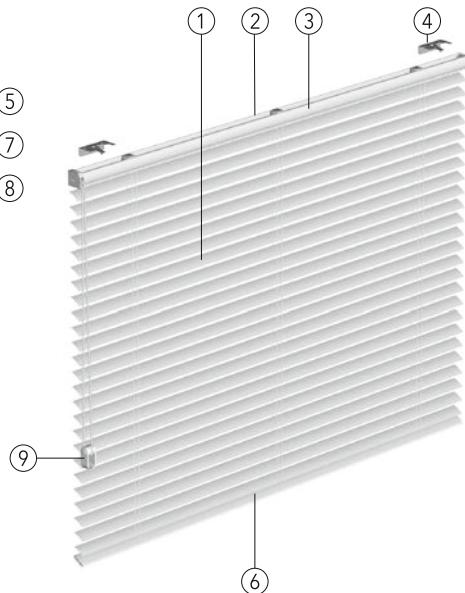
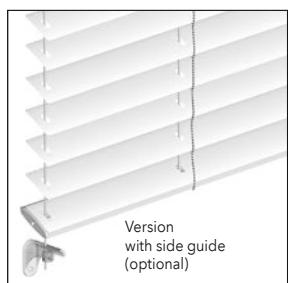
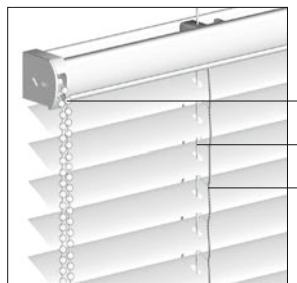


Installation: - Glazing bead installation (min. glazing bead depth 17 mm) with footplates  
- Bracket for window sash installation and accessories p. 128, 129

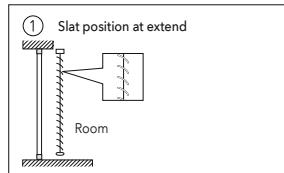
- Additional installation accessories p. 120  
- Use levelling chocks that fit the glazing bead slope, p. 128  
- Use mounting template P. 129, 157  
- Adhesive set, adhesive set with side guide for operating rail p. 120, 129  
- Window clip p. 120, 129

Note: Levelling chocks that fit the glazing bead slope must be ordered for the blind unit to function correctly (see p. 128).

## Models 09-1067, 09-1167, 09-4467\*, 09-1267



- ① Blind
- ② Head rail
- ③ Slat in the head rail
- ④ Tension lever bracket
- ⑤ Operating chain
- ⑥ Bottom rail
- ⑦ Lifting cord
- ⑧ Ladder cord
- ⑨ Tensioners safety system



**Model 09-1067** with 16 mm slats  
**Model 09-1167** with 25 mm slats

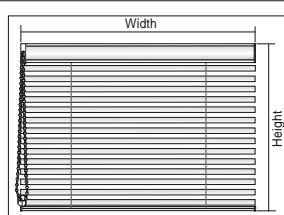
**Model 09-4467\*** with 25 mm slats, invisible punched hole  
**Model 09-1267** with 35 mm slats

Lateral gear with chain operation, chain exit at front. Extruded aluminium head rail with an inserted, colour matching 25 mm front slat. Blind width corresponds to upper rail including gear. Lower rail made of extruded aluminium with slat in colour of the blind inserted underneath. Slat colours as per MHz collection. Colour of cords and ladder cords match the slats. For safety tensioner installation see p. 154.

### Technical data

#### Dimensions:

Model	Min. width	Max. width	Max. height	Max. surface
09-1067	54 cm and above	up to 270 cm	360 cm	8 m <sup>2</sup>
09-1167	54 cm and above	up to 390 cm	360 cm	8 m <sup>2</sup>
09-4467*	54 cm and above	up to 390 cm	360 cm	6 m <sup>2</sup>
09-1267	54 cm and above	up to 450 cm	360 cm	8 m <sup>2</sup>



If the width/height ratio exceeds 1:4, there may be increased skewing.

Please enquire in advance if necessary.

#### Profiles:

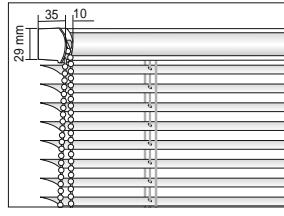
Head rail: Width 29 mm, height 29 mm

Bottom rail for 16 mm slats: Width 21 mm, height 8.5 mm

Bottom rail 25 + 35 mm slats: Width 30 mm, height 10 mm

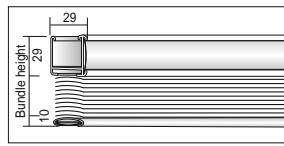
#### Hardware colour:

100 silver anodised	171 white powder-coated
611 anthracite grey powder-coated	671 black powder-coated



#### Slats:

Width 16, 25 and 35 mm, aluminium 0.22 mm, elastic, enamelled, see the collection for surfaces and colours. Detailed information can be found in the material properties brochure.



#### Operation:

Lifting, lowering and tilting via operating chain (transparent). Blind secured in position automatically. Operation side left or right. Chain secured by safety tensioner.

**Note:** Operation length from 50 cm - 150 cm in 10 cm steps, operation length from 150 cm - 300 cm in 25 cm steps

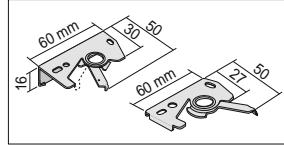
Delivery with the exact or next smaller operation length.

Other operation lengths available on request at extra cost.

Planetary gears 3:1 for larger unit dimensions P. 28-37.

#### Special equipment:

- Metal chain chrome-plated (not suitable for damp locations), bronze or black
- Side guide, steel wire ø 1 mm, plastic coated
- Multicoloured blind p. 123
- Surcharges p. 120
- Additional accessories p. 130
- \* Invisible punched hole p. 124



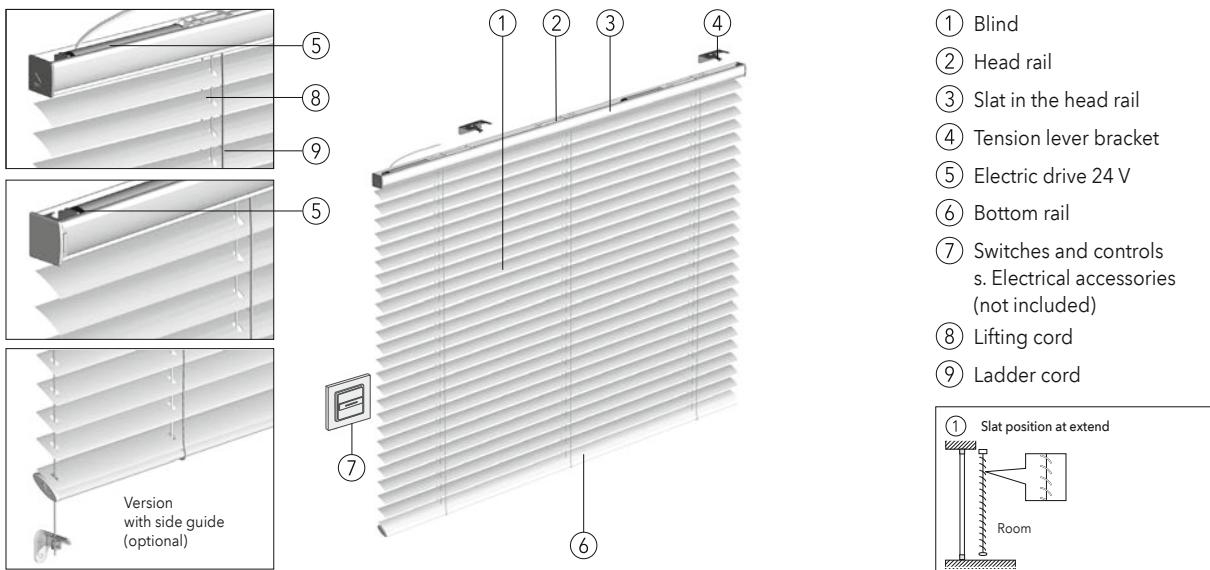
#### Bundle heights:

Unit height up to (cm)	50	100	150	200	250	300	350
Bundle height 16 mm slat approx. to (cm)	5.0	6.0	7.5	9.0	10.5	12.0	13.5
Bundle height 25 mm slat approx. to (cm)	5.0	6.0	7.0	7.5	8.5	9.5	10.5
Bundle height 25 mm slat approx. to (cm) with invisible punched holes	6.0	8.0	10.0	11.0	12.0	13.0	14.0
Bundle height 35 mm slat approx. to (cm)	5.0	6.0	7.5	8.5	9.5	10.5	11.5

#### Installation:

- Wall and ceiling installation with tension lever brackets
- Additional installation accessories p. 130
- Bracket quantity table p. 131

## Models 09-1065, 09-1165, 09-4465\*, 09-1265



Model 09-1065 with 16 mm slats

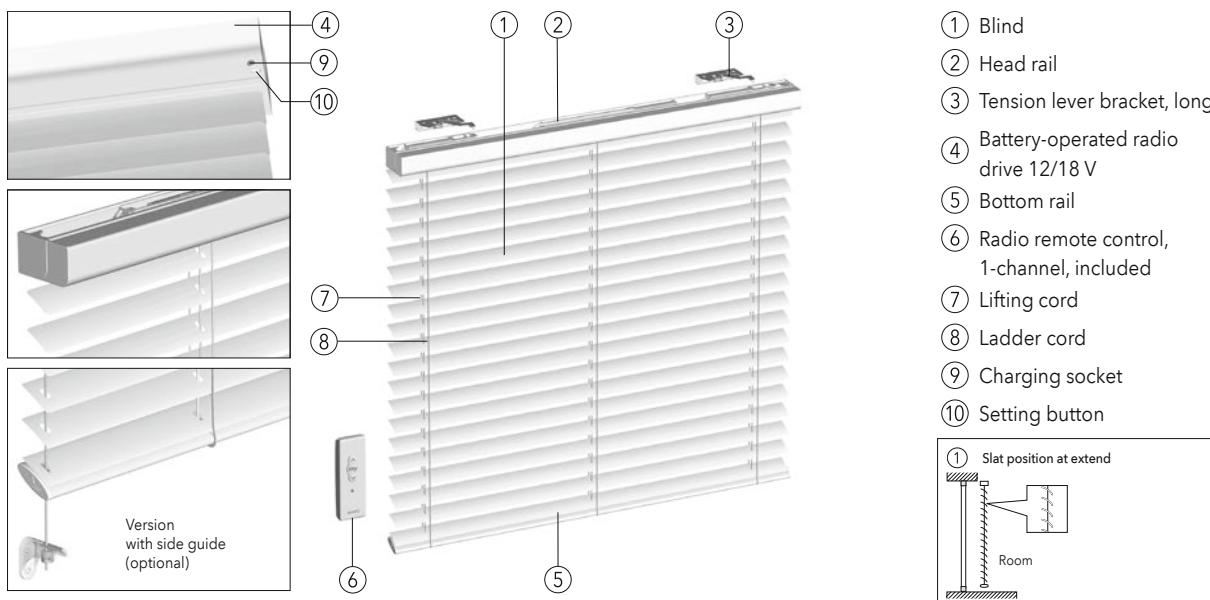
Model 09-1165 with 25 mm slats

Electric drive 24 V in the head rail, at the side or in the centre, with automatic end position switch-off. **Models are suitable for damp locations (DIN EN 13120, appendix A.2b).** Single or group operation. Extruded aluminium head rail with an inserted, colour matching 25 mm front slat. Extruded aluminium bottom rail with slat in the blind colour inserted underneath. Slat colours as per MHZ collection. Colour of cords and ladder cords match the slats.

### Technical data

Dimensions:	Model	Operation/function	Min. width	Max. width	Max. height	Max. surface																																																
	<b>09-1056</b>	Electric drive 24 V Tilt & Lift 25 WT	from 78 cm	up to 270 cm	360 cm	9 m <sup>2</sup>																																																
	<b>09-1165</b>	Electric drive 24 V Tilt & Lift 25 WT	from 78 cm	up to 380 cm	360 cm	9 m <sup>2</sup>																																																
	<b>09-4465*</b>	Electric drive 24 V Tilt & Lift 25 WT	from 78 cm	up to 450 cm	360 cm	9 m <sup>2</sup>																																																
	<b>09-1265</b>	Electric drive 24 V Tilt & Lift 25 WT	from 78 cm	up to 450 cm	360 cm	9 m <sup>2</sup>																																																
	24V Tilt & Lift 25 WT drives may be exposed to a maximum ambient temperature of 85 °C. However, slats and plastic components are not designed for higher thermal loads. For this reason, the use of motor drives in secondary glazing is generally not recommended.																																																					
	If the width/height ratio exceeds 1:4, there may be increased skewing. Please enquire in advance if necessary.																																																					
Profiles:	Head rail: Width 29 mm, height 29 mm Bottom rail for 16 mm slats: Width 21 mm, height 8.5 mm Bottom rail 25 + 35 mm slats: Width 30 mm, height 10 mm																																																					
Hardware colour:	100 silver anodised 611 anthracite grey powder-coated	171 white powder-coated 671 black powder-coated																																																				
Slats:	Width 16, 25 and 35 mm, aluminium 0.22 mm, elastic, enamelled, see the collection for surfaces and colours. Detailed information can be found in the material properties brochure.																																																					
Operation:	Lifting, lowering and tilting via electric drive 24 V (no synchronous running). Various control options due to switch, radio remote control, sun control or timer. For electrical accessories and control options, see Electrical Accessories Price List.																																																					
Special equipment:	- Side guide, steel wire ø 1 mm, plastic coated - Multicoloured blind p. 123 - Surcharges p. 120 - Additional accessories p. 130 - * Invisible punched hole p. 124																																																					
Bundle heights:	<table border="1"> <thead> <tr> <th>Unit height up to (cm)</th> <th>50</th> <th>100</th> <th>150</th> <th>200</th> <th>250</th> <th>300</th> <th>350</th> </tr> </thead> <tbody> <tr> <td>Bundle height 16 mm slat approx. to (cm)</td> <td>5.0</td> <td>6.0</td> <td>7.5</td> <td>9.0</td> <td>10.5</td> <td>11.5</td> <td>13.5</td> </tr> <tr> <td>Bundle height 25 mm slat approx. to (cm)</td> <td>5.0</td> <td>6.5</td> <td>7.5</td> <td>8.5</td> <td>9.5</td> <td>11.0</td> <td>12.0</td> </tr> <tr> <td>Bundle height 25 mm slat approx. to (cm) with punched holes</td> <td>6.0</td> <td>7.0</td> <td>8.0</td> <td>9.0</td> <td>10.0</td> <td>11.0</td> <td>12.0</td> </tr> <tr> <td>Bundle height 25 mm slat approx. to (cm) with invisible punched holes</td> <td>6.0</td> <td>8.0</td> <td>10.0</td> <td>11.0</td> <td>12.0</td> <td>13.0</td> <td>14.0</td> </tr> <tr> <td>Bundle height 35 mm slat approx. to (cm)</td> <td>5.0</td> <td>6.0</td> <td>7.5</td> <td>8.5</td> <td>9.5</td> <td>10.5</td> <td>11.5</td> </tr> </tbody> </table>						Unit height up to (cm)	50	100	150	200	250	300	350	Bundle height 16 mm slat approx. to (cm)	5.0	6.0	7.5	9.0	10.5	11.5	13.5	Bundle height 25 mm slat approx. to (cm)	5.0	6.5	7.5	8.5	9.5	11.0	12.0	Bundle height 25 mm slat approx. to (cm) with punched holes	6.0	7.0	8.0	9.0	10.0	11.0	12.0	Bundle height 25 mm slat approx. to (cm) with invisible punched holes	6.0	8.0	10.0	11.0	12.0	13.0	14.0	Bundle height 35 mm slat approx. to (cm)	5.0	6.0	7.5	8.5	9.5	10.5	11.5
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Bundle height 25 mm slat approx. to (cm) with invisible punched holes	6.0	8.0	10.0	11.0	12.0	13.0	14.0																																															
Bundle height 35 mm slat approx. to (cm)	5.0	6.0	7.5	8.5	9.5	10.5	11.5																																															
Installation:	- Wall and ceiling installation with tension lever brackets - Additional installation accessories p. 130 - Bracket quantity table p. 131																																																					

## Models 09-1085, 09-1185, 09-4485\*, 09-1285



Model 09-1085 with 16 mm slats  
Model 09-1185 with 25 mm slats

Model 09-4485\* with 25 mm slats, invisible punched hole  
Model 09-1285 with 35 mm slats

Battery-operated radio drive 12 V/18 V at the side in the head rail, with integrated radio receiver and automatic end position switch-off. Battery mounted at the front. Models are suitable for damp locations (DIN EN 13120, appendix A.2b). Head rail made of extruded aluminium. Bottom rail made of extruded aluminium. Slat colours as per MHZ collection. Colour of cords and ladder cords match the slats.

### Technical data

Dimensions:	Model	Operation/function	Min. width	Max. width	Max. height	Max. surface
09-1085	Battery-operated radio drive 12 V Tilt & Lift 25 RTS	from 61 cm	up to 270 cm	360 cm	5 m <sup>2</sup>	
	Battery-operated radio drive 18 V M25S PowerView® Gen. 3	from 61 cm	up to 270 cm	360 cm	5 m <sup>2</sup>	
09-1185	Battery-operated radio drive 12 V Tilt & Lift 25 RTS	from 61 cm	up to 380 cm	360 cm	5 m <sup>2</sup>	
	Battery-operated radio drive 18 V M25S PowerView® Gen. 3	from 61 cm	up to 380 cm	360 cm	5 m <sup>2</sup>	
09-4485*	Battery-operated radio drive 12 V Tilt & Lift 25 RTS	from 61 cm	up to 380 cm	360 cm	5 m <sup>2</sup>	
	Battery-operated radio drive 18 V M25S PowerView® Gen. 3	from 61 cm	up to 380 cm	360 cm	5 m <sup>2</sup>	
09-1285	Battery-operated radio drive 12 V Tilt & Lift 25 RTS	from 61 cm	up to 450 cm	360 cm	5 m <sup>2</sup>	
	Battery-operated radio drive 18 V M25S PowerView® Gen. 3	from 61 cm	up to 450 cm	360 cm	5 m <sup>2</sup>	

If the width/height ratio exceeds 1:4, there may be increased skewing.  
Please enquire in advance if necessary.

Hardware colour:  
100 silver anodised  
611 anthracite grey powder-coated  
171 white powder-coated  
671 black powder-coated

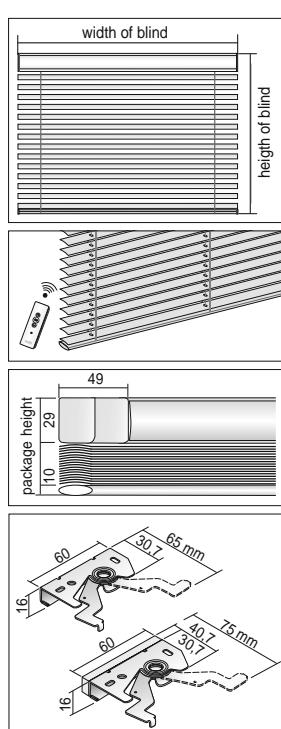
Slats:  
Width 16, 25 and 35 mm, aluminium 0.22 mm, elastic, enamelled, see the collection for surfaces and colours. Detailed information can be found in the material properties brochure.

Operation:  
Lifting and lowering via radio drive 12/18 V, incl. rechargeable battery and Situo RTS Pure radio remote control (included). No synchronous running! Charger not included in delivery. Various control options by radio remote control. 18 V smart home-compatible. For electrical accessories and control options, see Electrical Accessories Price List.

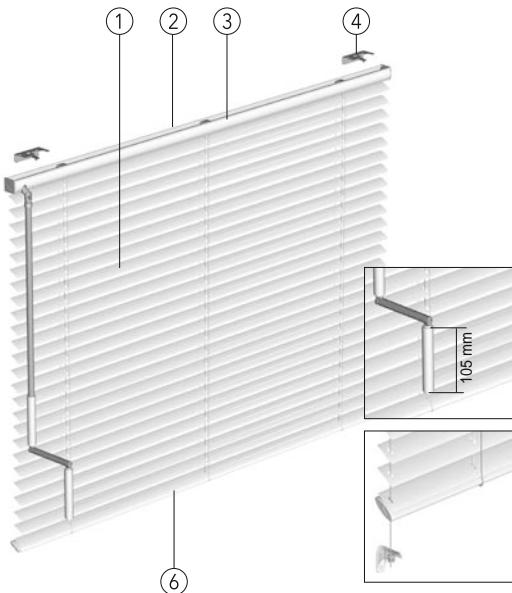
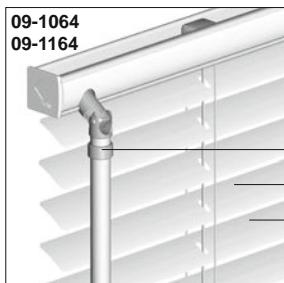
Special equipment:  
- Side guide, steel wire ø 1 mm, plastic coated  
- Multicoloured blind p. 123  
- Surcharges p. 120  
- Additional accessories p. 130  
- \* Invisible punched hole p. 124  
- Battery-operated radio drive 18 V

Bundle heights:	Unit height up to (cm)	50	100	150	200	250	300	350
	Bundle height 16 mm slat approx. to (cm)	5.0	6.0	7.5	9.0	10.5	11.5	13.5
	Bundle height 25 mm slat approx. to (cm)	5.0	6.5	7.5	8.5	9.5	11.0	12.0
	Bundle height 25 mm slat approx. to (cm) with punched holes	6.0	7.0	8.0	9.0	10.0	11.0	12.0
	Bundle height 25 mm slat approx. to (cm) with invisible punched holes	6.0	8.0	10.0	11.0	12.0	13.0	14.0
	Bundle height 35 mm slat approx. to (cm)	5.0	6.0	8.5	8.5	9.5	10.5	11.5

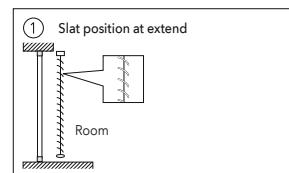
Installation:  
- Wall and ceiling installation with tension lever brackets  
- Additional installation accessories p. 130  
- Bracket quantity table p. 131



## Models 09-1064, 09-1164, 09-4464\*, 09-1294



- ① Blind
- ② Head rail
- ③ Slat in the head rail
- ④ Tension lever bracket
- ⑤ Crank operation
- ⑥ Bottom rail
- ⑦ Lifting cord
- ⑧ Ladder cord



Version with side guide (optional)

Model 09-1064 with 16 mm slats

Model 09-1164 with 25 mm slats

Model 09-4464\* with 25 mm slats, invisible punched holes

Model 09-1294 with 35 mm slats

Crank gear in the upper rail, crank exit at front in case of model 09-1064, 09-1164, blind width corresponds to upper rail including gear. In model 09-1294, the crank exit is vertical at the side hence the head rail is 4.5 cm wider than the blind. Extruded aluminium head rail with an inserted, colour matching 25 mm front slat. Lower rail made of extruded aluminium with slat in colour of the blind inserted underneath. Slat colours as per MHZ collection. Colour of cords and ladder cords match the slats.

#### Technical data

##### Dimensions:

Model	Min. width	Max. width	Max. height	Max. surface
09-1064	45 cm and above	up to 280 cm	360 cm	9 m <sup>2</sup>
09-1164	45 cm and above	up to 380 cm	360 cm	9 m <sup>2</sup>
09-4464*	63.5 cm and above	up to 380 cm	360 cm	9 m <sup>2</sup>
09-1294	40 cm and above	up to 450 cm	360 cm	9 m <sup>2</sup>

If the width/height ratio exceeds 1:4, there may be increased skewing.

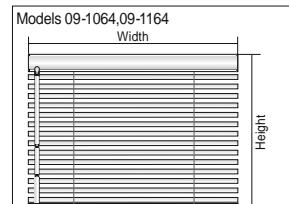
Please enquire in advance if necessary.

##### Profiles:

Head rail: Width 29 mm, height 29 mm

Bottom rail for 16 mm slats: Width 21 mm, height 8.5 mm

Bottom rail 25 + 35 mm slats: Width 30 mm, height 10 mm

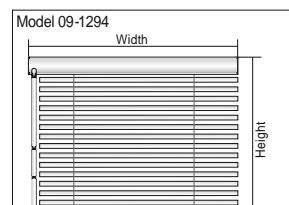


##### Hardware colour:

100 silver anodised	171 white powder-coated
611 anthracite grey powder-coated	671 black powder-coated

##### Slats:

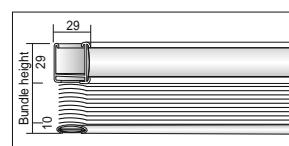
Width 16, 25 and 35 mm, aluminium 0.22 mm, elastic, enamelled, see the collection for surfaces and colours. Detailed information can be found in the material properties brochure.



##### Operation:

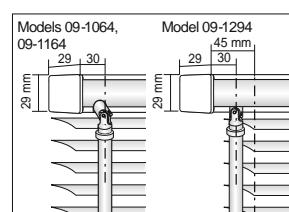
Lifting, lowering and tilting via crank operation. Blind secured in position automatically. Operation side left or right. In **model 09-1294**, the crank exit is at the side hence the head rail is 4.5 cm wider than the blind.

Unit height (cm)	50-75	75-100	100-125	125-150	150-175	175-200	200-250	250-300	> 300
Operation length** (cm)	100	120	150	170		200			



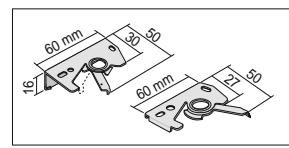
##### Special equipment:

- Side guide, steel wire Ø 1 mm, plastic coated
- Multicoloured blind p. 123
- Surcharges p. 120
- Additional accessories p. 130
- \* Invisible punched hole p. 124



##### Bundle heights:

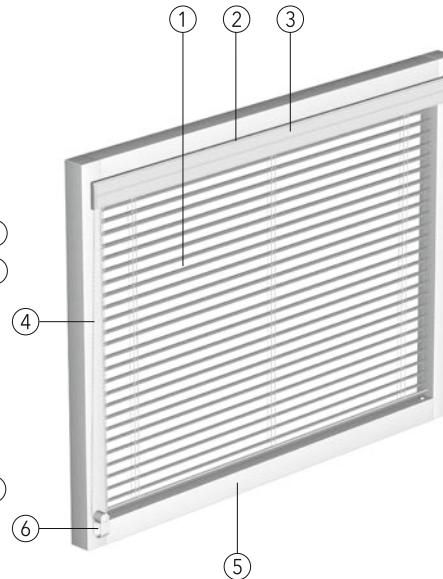
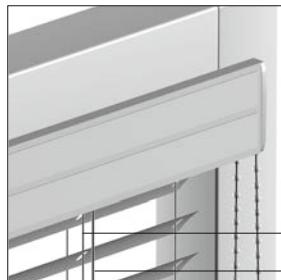
Unit height up to (cm)	50	100	150	200	250	300	350
Bundle height 16 mm slat approx. to (cm)	5.0	6.0	7.5	8.0	10.0	11.0	13.0
Bundle height 25 mm slat approx. to (cm)	5.0	6.0	7.0	7.5	8.5	9.0	10.0
Bundle height 25 mm slat approx. to (cm) with invisible punched holes	6.0	8.0	10.0	11.0	12.0	13.0	14.0
Bundle height 35 mm slat approx. to (cm)	5.0	6.0	7.5	8.5	9.0	10.0	11.5



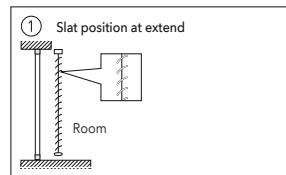
##### Installation:

- Wall and ceiling installation with tension lever brackets
- Additional installation accessories p. 130
- Bracket quantity table p. 131
- \*\* extended crank length

## Models 09-1055, 09-1056, 09-1155, 09-1156



- ① Blind
- ② Head rail
- ③ Slat in the head rail
- ④ Operating chain
- ⑤ Bottom rail
- ⑥ Safety tensioner
- ⑦ Lifting cord
- ⑧ Ladder cord
- ⑨ Side guide



**Model 09-1055** with 16 mm slats for angled glazing bead  
**Model 09-1155** with 25 mm slats for angled glazing bead

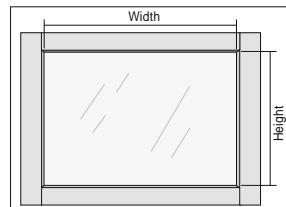
**Model 09-1056** with 16 mm slats for straight glazing bead  
**Model 09-1156** with 25 mm slats for straight glazing bead

Specific to front mounting on the window sash of tilt/turn windows. L-shaped upper rail made of extruded aluminium, with 25 mm slats in the colour of the blind inserted at the front side; hardware and blind in the glazing rebate, directly in front of the pane. Chain operation, chain exit in front of the window frame. Standard equipment with side guide (nylon cord ø 0.6 mm). Lower rail made of extruded aluminium with slat in colour of the blind inserted underneath. Slat colours as per MHZ collection. Colour of cords and ladder cords match the slats. For safety tensioner installation see P. 154.

### Technical data

#### Dimensions:

Model	Min. width	Max. width	Max. height	Max. surface
09-1055, 09-1056	50 cm and above	up to 250 cm	360 cm	4 m <sup>2</sup>
09-1155, 09-1156	50 cm and above	up to 250 cm	360 cm	4 m <sup>2</sup>
If the width/height ratio exceeds 1:4, there may be increased skewing. Please enquire in advance if necessary.				

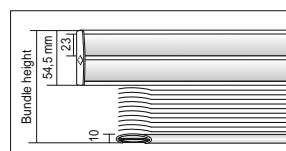


#### Profiles:

Head rail: Width 29 mm, height 29 mm  
Cover profile: Width 10 mm, height 54.5 mm  
Bottom rail: For 16 mm slats: Width 21 mm, height 8.5 mm  
Bottom rail: For 25 mm slats: Width 30 mm, height 10 mm

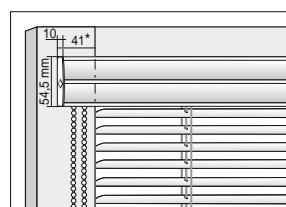
#### Hardware colour:

100 silver anodised                            171 white powder-coated  
611 anthracite grey powder-coated            671 black powder-coated



#### Slats:

Width 16 and 25 mm, aluminium 0.22 mm, elastic, enamelled,  
see the collection for surfaces and colours. Detailed information can be found  
in the material properties brochure.



#### Operation:

Lifting, lowering and tilting via operating chain (transparent). Blind secured in  
position automatically. Operation side left or right. Chain secured by chain  
retainer.

**Note:** Operation length from 50 cm - 150 cm in 10 cm steps,  
operation length from 150 cm - 300 cm in 25 cm steps

Delivery with the exact or next smaller operation length.  
Other operation lengths available on request at extra cost.

\* can be shortened to 31 mm on request.

#### Special equipment:

Use of planetary gear 3:1 for larger unit dimensions,

see highlighted section on p. 73-77.

- Multicoloured blind p. 123

- Surcharges p. 120

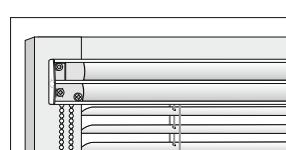
- Additional accessories p. 130

#### Bundle heights:

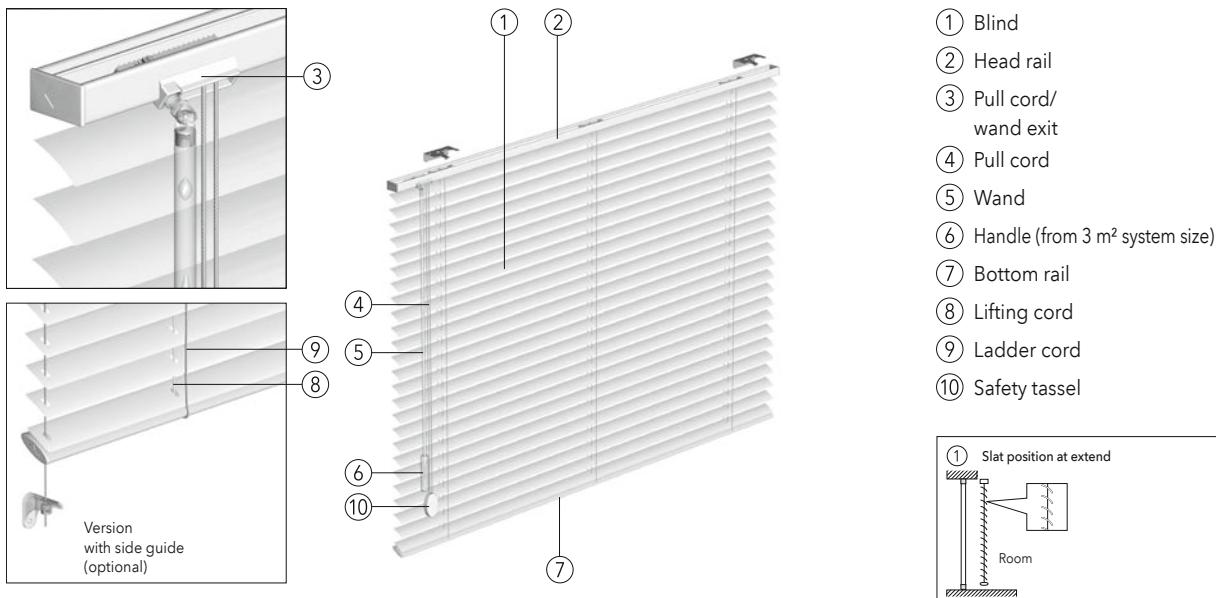
Unit height up to (cm)	50	100	150	200	250	300	350
Bundle height 16 mm slat approx. to (cm)	7.5	8.5	10.0	11.5	13.0	14.5	16.0
Bundle height 25 mm slat approx. to (cm)	7.5	8.5	9.5	10.5	11.0	12.0	13.0

#### Installation:

Front installation, directly on the window sash. For glazing bead depths of less  
than 22 mm, use 5 mm distance plate (installation kit), p. 133.



## Models 09-1091, 09-1191, 09-4491\*, 09-1291



Model 09-1091 with 16 mm slats  
 Model 09-1191 with 25 mm slats

Model 09-4491\* with 25 mm slats, invisible punched holes  
 Model 09-1291 with 35 mm slats

Slat tilting with wand, opening and the closing of the blind with pull cord. Pull cord exit and wand at the front. Flat, extruded aluminium head and bottom rail. Bottom rail with an inserted, colour matching slat. Slat colours as per MHZ collection. Colour of cords and ladder cords match the slats. With safety tassel and cord cleat P. 154.

#### Technical data

Dimensions:	Model	Min. width	Max. width	Max. height	Max. surface
	09-1091	33 cm and above	up to 180 cm	300 cm	approx. 5 m <sup>2</sup>
	09-1191	33 cm and above	up to 260 cm	300 cm	approx. 5 m <sup>2</sup>
	09-4491*	33 cm and above	up to 260 cm	300 cm	approx. 5 m <sup>2</sup>
	09-1291	45 cm and above	up to 270 cm	300 cm	approx. 5 m <sup>2</sup>

If the width/height ratio exceeds 1:4, there may be increased skewing.  
 Please enquire in advance if necessary.

Profiles: Head rail: Width 27 mm, height 16 mm

Bottom rail for 16 mm slats: Width 21 mm, height 8.5 mm

Bottom rail 25 + 35 mm slats: Width 30 mm, height 10 mm

Hardware colour: 100 silver anodised 171 white powder-coated  
 611 anthracite grey powder-coated 671 black powder-coated

Slats: Width 16, 25 and 35 mm, aluminium 0.22 mm, elastic, enamelled, see the collection for surfaces and colours. Detailed information can be found in the material properties brochure.

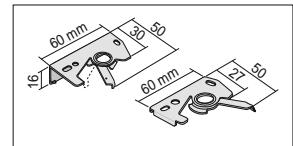
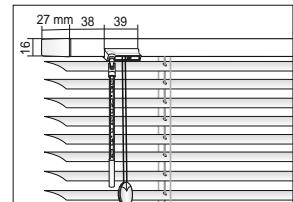
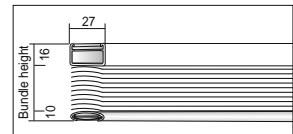
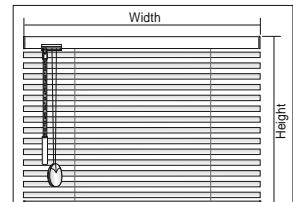
Operation: Blind is lifted and lowered with a pull cord, secured in position by the cord connector. Slat tilting with wand (acrylic). Operation side left or right. Wand up to 3 m<sup>2</sup> unit surface without handle, above 3 m<sup>2</sup> unit surface with handle.

Unit height (cm)	50-75	75-100	100-125	125-150	150-175	175-200	200-250	250-300
Pull cord/wand operation length (cm)	50	75	100	125	150	175	200	250

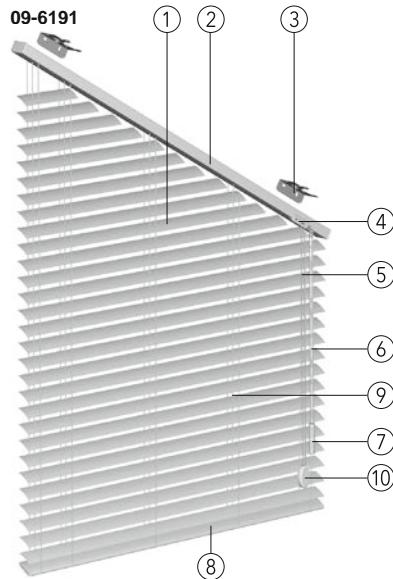
Special equipment: - Side guide, steel wire ø 1 mm, plastic coated  
 - Multicoloured blind p. 123  
 - Surcharges p. 120  
 - Additional accessories p. 130  
 - \* Invisible punched hole p. 124

Bundle heights:	Unit height up to (cm)	50	100	150	200	250	300
	Bundle height 16 mm slat approx. to (cm)	4.0	5.0	6.0	8.0	9.5	11.0
	Bundle height 25 mm slat approx. to (cm)	4.0	5.0	6.0	6.5	7.5	8.5
	Bundle height 25 mm slat approx. to (cm) with invisible punched holes	5.0	6.5	8.5	9.0	10.0	10.5
	Bundle height 35 mm slat approx. to (cm)	4.0	5.0	6.5	7.5	8.5	9.5

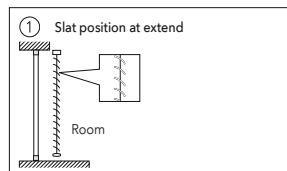
Installation: - Wall and ceiling installation with tension lever brackets  
 - Additional installation accessories p. 130  
 - Bracket quantity table p. 131



## Models 09-6191, 09-8111, 09-8112



- ① Blind
- ② Head rail
- ③ Tension lever bracket
- ④ Pull cord/wand exit
- ⑤ Pull cord
- ⑥ Wand
- ⑦ Handle (from 3 m<sup>2</sup> system size)
- ⑧ Bottom rail
- ⑨ Lifting cord
- ⑩ Safety tassel



**Model 09-6191** with 25 mm slats for sloping windows up to 45°  
**Model 09-8111** with 25 mm slats for pentagon windows up to 45°

**Model 09-8112** with 25 mm slats for triangular windows up to 30°, isosceles shape only

**Slat tilting with wand, opening and the closing of the blind with pull cord only in the rectangular area.** Pull cord exit and wand at the front. Flat, extruded aluminium head and bottom rail. Bottom rail with an inserted, colour matching slat. Slat colours as per MHZ collection. Colour of cords and ladder cords match the slats. With safety tassel and cord cleat p. 154.

## Technical data

Dimensions:	Model	Min. width	Max. width	Max. height	Max. surface
	09-6191	33 cm and above	up to 250 cm	300 cm	approx. 4 m <sup>2</sup>
	09-8111	C: 33 cm and above	up to 250 cm	300 cm	approx. 4 m <sup>2</sup>
		A: 17 cm and above	up to 250 cm	300 cm	approx. 4 m <sup>2</sup>
	09-8112	33 cm and above	up to 250 cm	300 cm	approx. 4 m <sup>2</sup>

If the width/height ratio exceeds 1:4, there may be increased skewing. Please enquire in advance if necessary.

Profiles: Head rail: Width 27 mm, height 16 mm  
Bottom rail: Width 30 mm, height 10 mm

<b>Hardware colour:</b>	100 silver anodised 611 anthracite grey powder-coated	171 white powder-coated 671 black powder-coated
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**Slats:** Width 25 mm, aluminium 0.22 mm, elastic, enamelled, see the collection for surfaces and colours. Detailed information can be found in the material properties brochure.

**Operation:** Lifting and lowering of the rectangular area with pull cord, secured in position via cord connector. Slat tilting with wand (acrylic). Wand up to 3 m<sup>2</sup> unit surface without handle, above 3 m<sup>2</sup> unit surface with handle.

**Operation side only at the lowest height.**

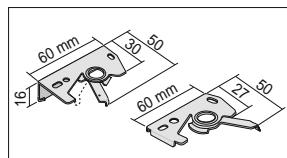
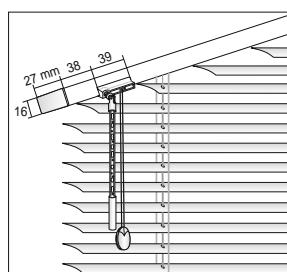
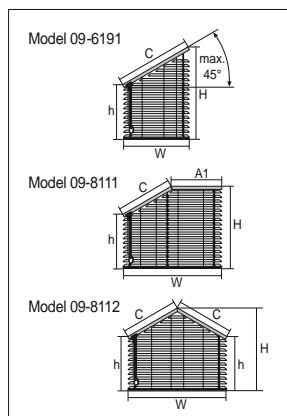
Unit height (cm)	50-75	75-100	100-125	125-150	150-175	175-200	200-250	250-300
Full cord/wand operation length (cm)	50	75	100	125	150	175	200	250

Special equipment: - Side guide, steel wire ø 1 mm, plastic coated  
- Multicoloured blind p. 123

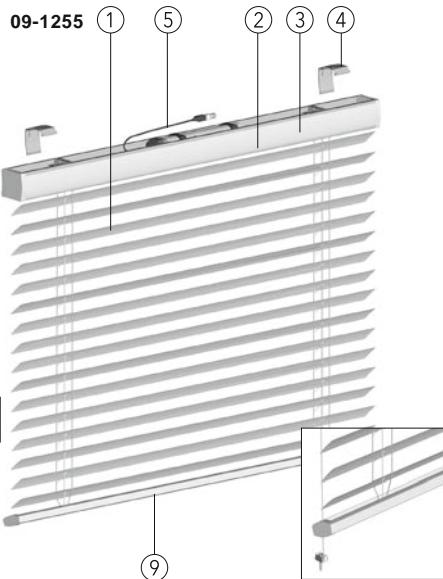
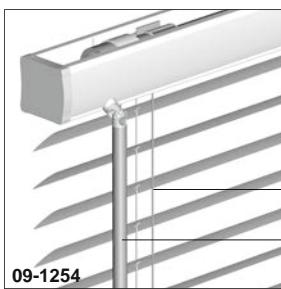
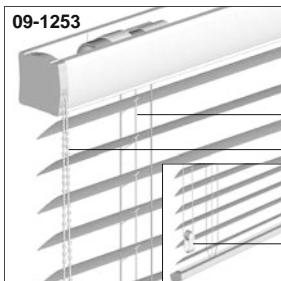
- Side guide, steel wire ø 1 mm, plastic coated
- Multicoloured blind p. 123
- Surcharges p. 120
- Additional accessories p. 127

**Installation:**

- Additional accessories p. 127
- Wall and ceiling installation with tension lever brackets
- Additional installation accessories p. 130
- Bracket quantity table p. 131

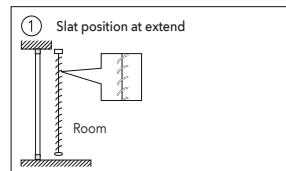


## Models 09-1253, 09-1254, 09-1255



Version with side guide (optional)

- ① Blind
- ② Head rail
- ③ Slat in the head rail
- ④ Ceiling and wall brackets
- ⑤ Electric drive 230 V
- ⑥ Chain operation
- ⑦ Crank operation
- ⑧ For switches and controls, see Electrical accessories (not included)
- ⑨ Bottom rail
- ⑩ Lifting cord
- ⑪ Ladder cord
- ⑫ Safety tensioner



**Model 09-1253** with 35 mm slats, chain operation

**Model 09-1254** with 35 mm slats, crank operation

**Model 09-1255** with 35 mm slats, electric drive 230 V

Models are suitable for damp locations (DIN EN 13120, appendix A.2b).

Upper and lower rail made of aluminium. Slat colours as per MHZ collection. Lifting cord in grey and white, ladder cords in white or grey, matched to the slat colour. With safety tensioner system (only 09-1253) p. 154.

#### Technical data

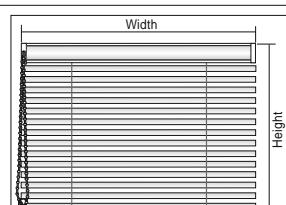
Dimensions:	Model	Min. width	Max. width	Max. height	Max. surface
	09-1253	46 cm and above	up to 500 cm	450 cm	approx. 8 m <sup>2</sup>
	09-1254	46 cm and above	up to 500 cm	450 cm	approx. 16 m <sup>2</sup>
	09-1255	68.5 cm and above	up to 500 cm	450 cm	approx. 20 m <sup>2</sup>

If the width/height ratio exceeds 1:4, there may be increased skewing.

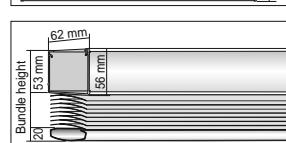
Please enquire in advance if necessary.

**Profiles:**  
Head rail: Width 59 mm, height 53/56 mm  
Bottom rail: Width 52 mm, height 20 mm

**Hardware colour:** 100 silver anodised  
171 white powder-coated  
671 black powder-coated

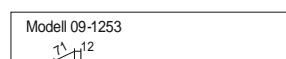


**Slats:** Width 50 mm, aluminium 0.28 mm, elastic, enamelled, see the collection for surfaces and colours. Detailed information can be found in the material properties brochure.



**Operation:** **Model 09-1253:** Lifting (front chain), lowering and tilting with operating chain (transparent). Blind secured in position automatically. Operation side left or right. Chain secured by safety tensioner.

**Note:** Operation length from 50 cm - 150 cm in 10 cm steps, operation length from 150 cm - 300 cm in 25 cm steps

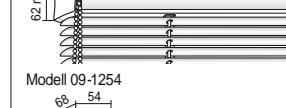


Delivery with the exact or next smaller operation length. Other operation lengths available on request at extra cost.

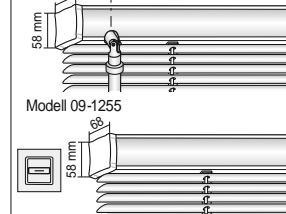
**Model 09-1254:** Lifting, lowering and tilting via crank operation (can be removed if desired, at extra cost). Crank exit at the front, 54 mm from the outside. Blind secured in position automatically. Operation side left or right. Crank operation secured via crank clip.



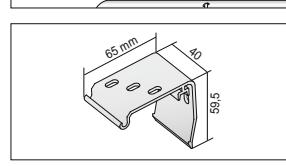
**Model 09-1255:** Lifting, lowering and tilting via electric drive 230 V (cable length approx. 90 cm) integrated on the side or in the middle of the head rail, with adjusted end position switch-off. Various control options due to switch, radio remote control, sun control or timer. For electrical accessories and control options, see Electrical Accessories Price List.



**Special equipment:**  
- Side guide, steel wire Ø 1 mm, plastic coated  
- Leader tapes  
- Multicoloured blind p. 123  
- Surcharges p. 120  
- Additional accessories p. 127



**Bundle heights:** **Unit height up to (cm)** 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450  
**Bundle height up to approx. (cm)** 10.0 | 11.0 | 12.0 | 14.0 | 15.0 | 16.0 | 17.5 | 19.0 | 20.0

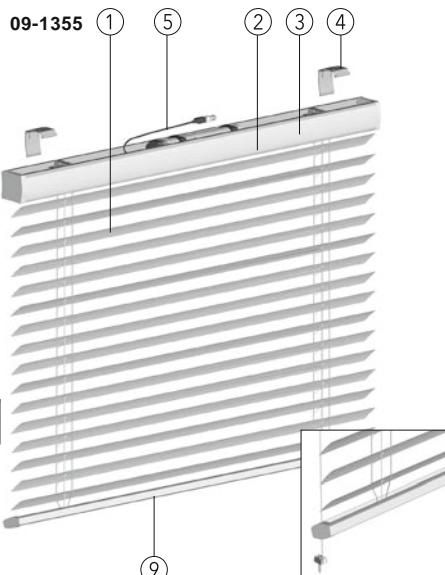
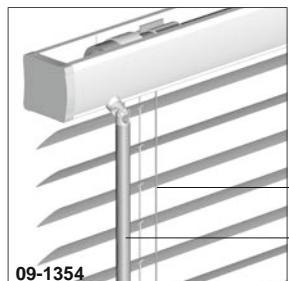
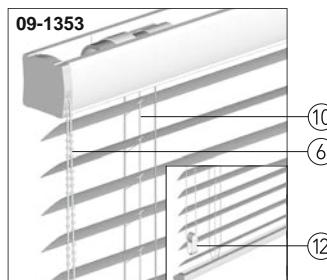


**Installation:**  
- Installation with wall and ceiling brackets.  
- Additional accessories p. 130  
- Bracket quantity table p. 131

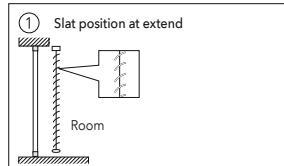
Technical information

Horizontal Blinds I 50 mm Interior Venetian blinds

## Models 09-1353, 09-1354, 09-1355



- ① Blind
- ② Head rail
- ③ Slat in the head rail
- ④ Ceiling and wall brackets
- ⑤ Electric drive 230 V
- ⑥ Chain operation
- ⑦ Crank operation
- ⑧ For switches and controls, see Electrical accessories (not included)
- ⑨ Bottom rail
- ⑩ Lifting cord
- ⑪ Ladder cord
- ⑫ Safety tensioner



**Model 09-1353** with 50 mm slats, chain operation

**Model 09-1354** with 50 mm slats, crank operation

**Model 09-1355** with 50 mm slats, electric drive 230 V

Models are suitable for damp locations (DIN EN 13120, appendix A.2b).

Upper and lower rail made of aluminium. Slat colours as per MHz collection. Lifting cord in grey and white, ladder cords in white or grey, matched to the slat colour. With safety tensioner system (only 09-1353) p. 154.

### Technical data

#### Dimensions:

Model	Min. width	Max. width	Max. height	Max. surface
09-1353	46 cm and above	up to 500 cm	450 cm	approx. 8 m <sup>2</sup>
09-1354	46 cm and above	up to 500 cm	450 cm	approx. 16 m <sup>2</sup>
09-1355	68.5 cm and above	up to 500 cm	450 cm	approx. 20 m <sup>2</sup>

If the width/height ratio exceeds 1:4, there may be increased skewing.

Please enquire in advance if necessary.

#### Profiles:

Head rail: Width 59 mm, height 53/56 mm

Bottom rail: Width 52 mm, height 20 mm

#### Hardware colour:

100 silver anodised

171 white powder-coated

671 black powder-coated

#### Slats:

Width 50 mm, aluminium 0.28 mm, elastic, enamelled, see the collection for surfaces and colours. Detailed information can be found in the material properties brochure.

#### Operation:

**Model 09-1353:** Lifting (front chain), lowering and tilting with operating chain (transparent). Blind secured in position automatically. Operation side left or right. Chain secured by safety tensioner.

Note: Operation length from 50 cm - 150 cm in 10 cm steps, operation length from 150 cm - 300 cm in 25 cm steps

Delivery with the exact or next smaller operation length. Other operation lengths available on request at extra cost.

**Model 09-1354:** Lifting, lowering and tilting via crank operation (can be removed if desired, at extra cost). Crank exit at the front, 54 mm from the outside. Blind secured in position automatically. Operation side left or right. Crank operation secured via crank clip.

Unit height (cm)	50-75	75-100	100-125	125-150	150-175	175-200	200-250	250-300	> 300
Operation length Crank (cm)		100	125	150	175	200	250	300	

**Model 09-1355:** Lifting, lowering and tilting via electric drive 230 V (cable length approx. 90 cm) integrated on the side or in the middle of the head rail, with adjusted end position switch-off. Various control options due to switch, radio remote control, sun control or timer. For electrical accessories and control options, see Electrical Accessories Price List.

#### Special equipment:

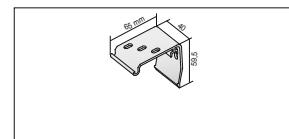
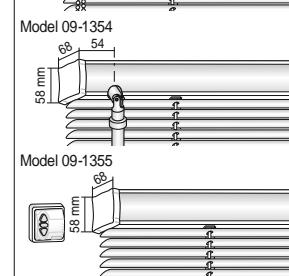
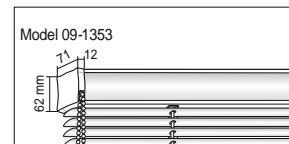
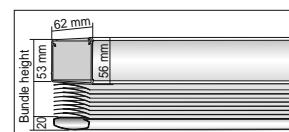
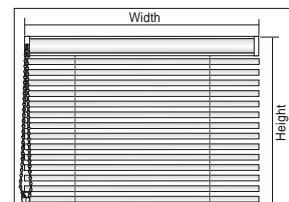
- Side guide, steel wire ø 1 mm, plastic coated
- Leader tapes
- Multicoloured blind p. 123
- Surcharges p. 120
- Additional accessories p. 127

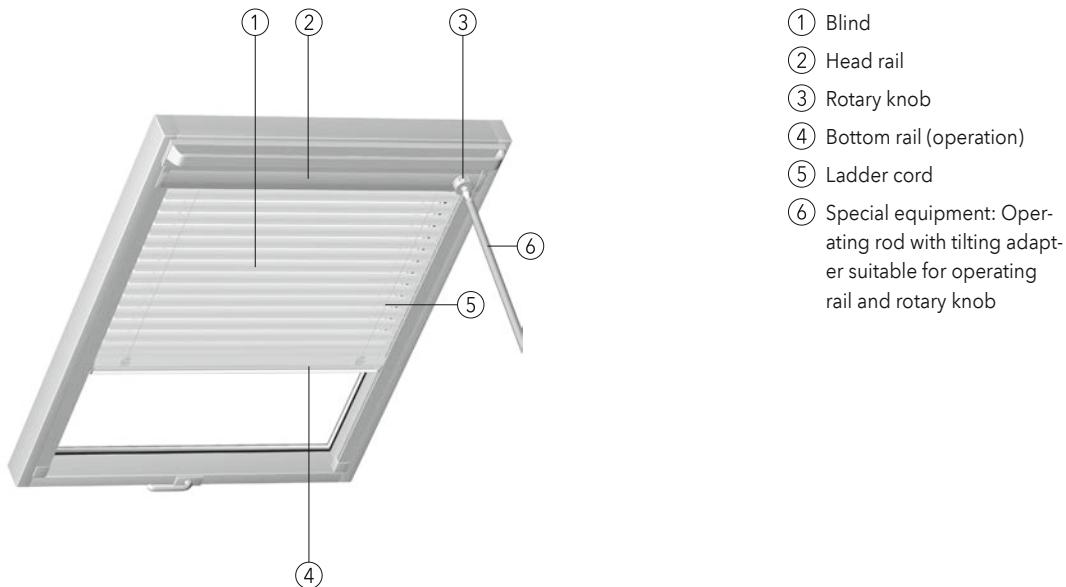
#### Bundle heights:

Unit height up to (cm)	50	100	150	200	250	300	350	400	450
Bundle height up to approx. (cm)	10.0	11.0	12.0	14.0	15.0	16.0	17.5	19.0	20.0

#### Installation:

- Installation with wall and ceiling brackets.
- Additional accessories p. 130
- Bracket quantity table p. 131





**Model 09-3118** with 25 mm slats, rotary knob for slat tilting

**Model 09-3218** with 35 mm slats, rotary knob for slat tilting

Blind movable by operable lower rail. With side guiding profiles. Slat tilting via knob. All profiles made of extruded aluminium.

Slat colours as per MHZ collection. Note: For technical reasons, the MHZ skylight blind is **not** suitable for the following window models: BRAAS Atelier, DELTA Galeria Atelier/Smart, DÖRKEN Atelier/Galeria Smart, ROTO Q.

#### Technical data

**Dimensions:**

Model	Min. width	Max. width	Max. height	Max. surface
09-3118	30 cm and above	up to 120 cm	160 cm	approx. 1.9 m <sup>2</sup>
09-3218	30 cm and above	up to 160 cm	160 cm	approx. 2.4 m <sup>2</sup>

09-3118: Middle tension cord from width of 90 cm

09-3218: Middle tension cord from width of 120 cm

If the width/height ratio exceeds 1:4, there may be increased skewing.

Please enquire in advance if necessary.

**Hardware colour:** 100 silver anodised

171 white powder-coated

**Slats:**

Width 25 and 35 mm, aluminium 0.22 mm, elastic, enamelled, see the collection for surfaces and colours. Detailed information can be found in the material properties brochure. Perforated slats not available.

**Operation:**

Blind can be adjusted via the bottom rail. Bottom rail secured in desired position.

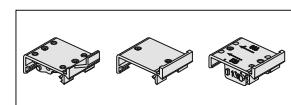
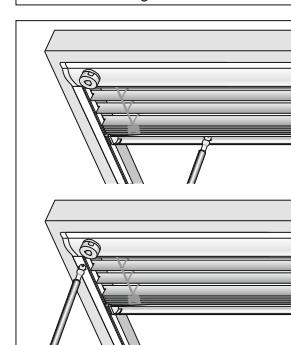
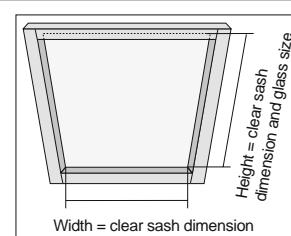
**Models 09-3118, 09-3218:**

Slat tilting via rotary knob at the head rail, on left or right. Operating rod can be used to operate rotary knob for difficult to reach units.

**Special equipment:**

- Operating rod with tilting adapter
- Multicoloured blind p. 123
- Additional accessories p. 127

**Installation:** Installation with universal plastic brackets (depending on the skylight model); p. 131.

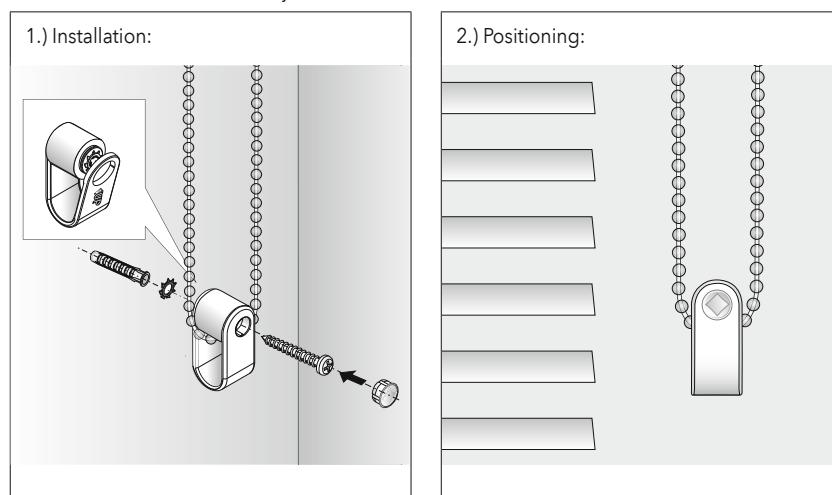


## Child safety systems

### Safety tensioner system with operation chains made of plastic and metal

The safety tensioner is supplied pre-fitted on the cord and chain.

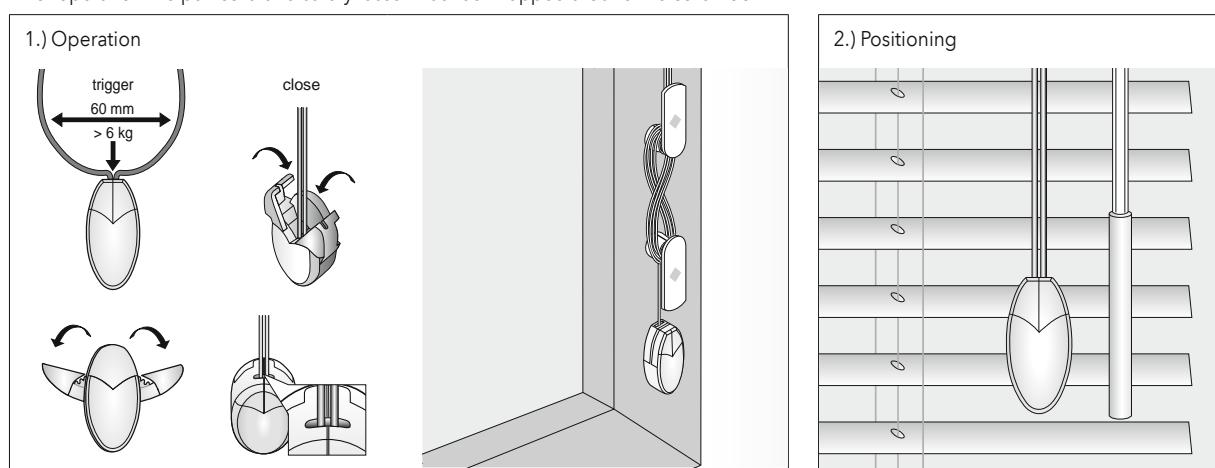
**Caution:** Be sure to fit in correct direction and to keep chain taut. Correct positioning of the safety tensioner must be checked regularly and, in the case of doubt, re-adjusted.



### Safety tassel for child safety (MINI)

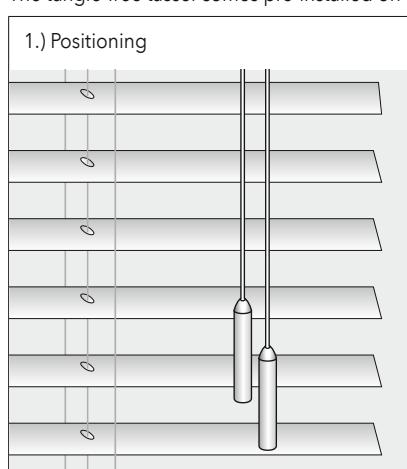
The safety tassel for child safety comes pre-installed on the cord.

After operation the pull cord and safety tassel must be wrapped around the cord hook.



### Tangle-free tassel (TwinLine with cord)

The tangle-free tassel comes pre-installed on the cord.



### Note operation length

#### ⚠ Operation length:

Unless otherwise stipulated by specialists, blind units will be made with a safety tensioner based on the ordering height:

Less than 250 cm = operation length:  
max. 100 cm

Over 250 cm = operation length:  
ordering height  
minus 150 cm

#### ⚠ Please note:

Cord and chain loops with safety tensioners must end at least 150 cm above the floor from the known installation height.