



LAMILUX Glass Skylight FE0°/FE3°

Assembly instruction

General comments

The content of this assembly instruction manual has been established to the best of our knowledge. All notes, technical and visual information reflect the current state of technology and are based on our experiences.

Legal claims cannot be derived from the content of this installation manual. LAMILUX reserves the right to change technical specifications.

Every work has to be done in accordance with the current state of technology, the regulations and guidelines of authorities, trade associations, accident prevention regulations and professional associations of the Federal Republic of Germany, the European Union and the country of destination. As far as standards, technical regulations or guidelines (e.g. EN or equal standards) exist, the work has to be done in compliance with those directives.

Revision index:

This version replaces previous editions completely.



The assembly instruction manual must be read before installation
Particularly the safety and operating instructions



Do not step on glass - RISK OF BREAKING THROUGH



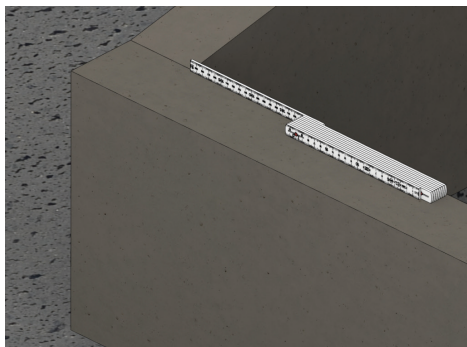
All sizes and glazing are accessible for maintenance measures
according to DIN 18008-6.



Always use fall arrest equipment and follow national regulations for fall-through
protection



Check all materials are complete on delivery



Check and prepare for installation

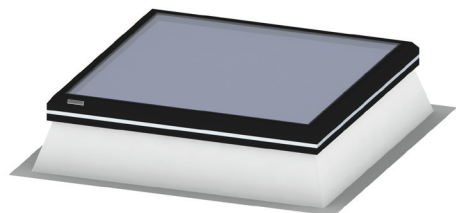
In general, the building tolerances apply which can
be given on request

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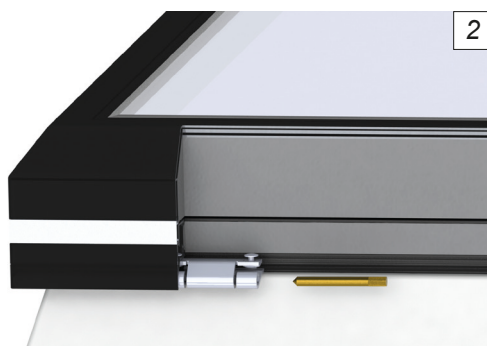
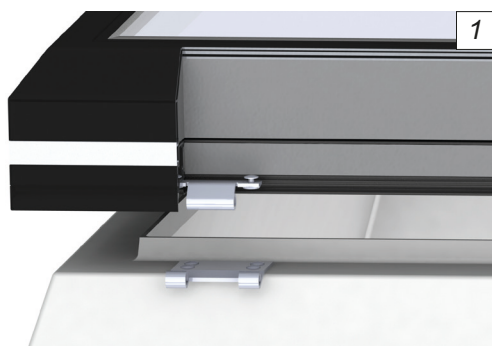
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Transport | Assembly



Glass skylights are usually delivered completely pre-assembled on its upstand. The overall element is mounted on a wooden pallet.

If upper part and upstand are transported separately, the upper part and hinge bolts of the element needs to be mounted after installation of the upstand.

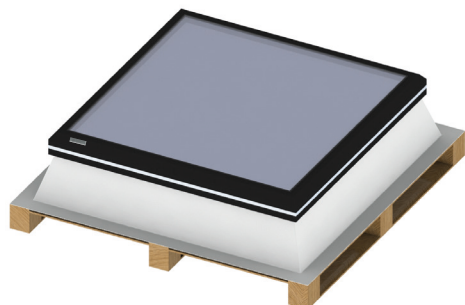


Lifting up the skylights to the roof should be done including the wooden crate.

For safety reasons, the skylights should be kept inside the wooden crate for as long as possible.



Avoid overheating!



ATTENTION

Always store aerated
NEVER lift the upper part of the glass as well as the entire element with a glass sucker.
 Never lift at cover stripes!
Risk of glass breakage

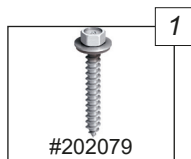
Net weight **FE0°** in kg without upstand and accessories, with a snow load of 0.75 N/m² and wind dynamic pressure of 0.8 N/m².

structural roof opening size (mm)			double glazed	triple glazed										
500	x	1000	26 kg	29 kg	1000	x	2000	85 kg	101 kg	1500	x	1500	94 kg	112 kg
500	x	1500	37 kg	42 kg	1000	x	2400	101 kg	120 kg	1500	x	1800	111 kg	133 kg
600	x	600	20 kg	22 kg	1000	x	2500	105 kg	125 kg	1500	x	2000	123 kg	147 kg
600	x	900	27 kg	31 kg	1000	x	3000	125 kg	149 kg	1500	x	2100	128 kg	154 kg
600	x	1200	35 kg	40 kg	1200	x	1200	63 kg	74 kg	1500	x	2400	145 kg	176 kg
700	x	1350	44 kg	51 kg	1200	x	1500	77 kg	91 kg	1500	x	2500	151 kg	183 kg
800	x	800	31 kg	36 kg	1200	x	1800	91 kg	108 kg	1500	x	2700	162 kg	197 kg
800	x	1500	54 kg	63 kg	1200	x	2400	119 kg	142 kg	1500	x	3000	180 kg	218 kg
900	x	900	38 kg	44 kg	1200	x	2500	123 kg	148 kg	1800	x	1800	131 kg	159 kg
900	x	1200	49 kg	57 kg	1200	x	2700	133 kg	159 kg	1800	x	2400	172 kg	209 kg
900	x	1450	58 kg	68 kg	1250	x	1250	68 kg	80 kg	1800	x	2500	179 kg	217 kg
1000	x	1000	46 kg	53 kg	1250	x	2500	128 kg	154 kg	1800	x	2700	192 kg	234 kg
1000	x	1500	66 kg	77 kg	1400	x	1400	83 kg	99 kg	2000	x	2000	160 kg	194 kg

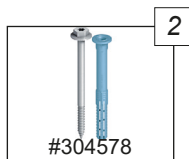
Net weight **FE3°** in kg without upstand and accessories, with a snow load of 0.75 N/m² and wind dynamic pressure of 0.8 N/m².

structural roof opening size (mm)			double glazed	triple glazed										
500	x	1000	29 kg	33 kg	1000	x	2000	94 kg	113 kg	1500	x	1500	101 kg	122 kg
500	x	1500	42 kg	49 kg	1000	x	2400	113 kg	136 kg	1500	x	1800	120 kg	146 kg
600	x	600	21 kg	24 kg	1000	x	2500	118 kg	141 kg	1500	x	2000	133 kg	161 kg
600	x	900	30 kg	35 kg	1000	x	3000	142 kg	170 kg	1500	x	2100	139 kg	169 kg
600	x	1200	39 kg	45 kg	1200	x	1200	68 kg	81 kg	1500	x	2400	159 kg	193 kg
700	x	1350	49 kg	57 kg	1200	x	1500	84 kg	100 kg	1500	x	2500	165 kg	201 kg
800	x	800	34 kg	39 kg	1200	x	1800	99 kg	119 kg	1500	x	2700	178 kg	217 kg
800	x	1500	60 kg	71 kg	1200	x	2400	131 kg	158 kg	1500	x	3000	198 kg	241 kg
900	x	900	41 kg	48 kg	1200	x	2500	137 kg	165 kg	1800	x	1800	141 kg	172 kg
900	x	1200	53 kg	63 kg	1200	x	2700	148 kg	178 kg	1800	x	2400	186 kg	227 kg
900	x	1450	64 kg	76 kg	1250	x	1250	73 kg	87 kg	1800	x	2500	194 kg	237 kg
1000	x	1000	49 kg	58 kg	1250	x	2500	142 kg	171 kg	1800	x	2700	209 kg	255 kg
1000	x	1500	72 kg	85 kg	1400	x	1400	89 kg	108 kg	2000	x	2000	172 kg	210 kg

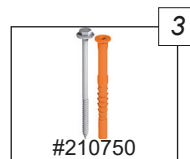
Structural attachment



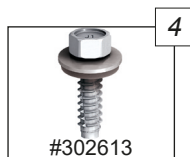
Wood screw
JA3-6,5x50-E16/2



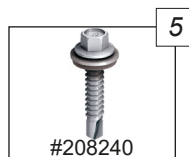
Screw-in wall plug
SDF-KB-10Vx50-V



Screw-in wall plug
SDP-KB-10Gx80-V



Sealing screw
JA3-6,5x32-E16/2



Drilling screw
JT3-6-5,5x30 E16/2

Substructure	Item number	Drill hole in upstand
Wood	1	Ø 7mm
Reinforced concrete	2	Ø 10,5mm
Aerated concrete	3	Ø 10,5mm
Steel 0,63 - 1,5mm	4	Ø 7mm
Steel 1,5 - 3mm	5	Ø 6mm

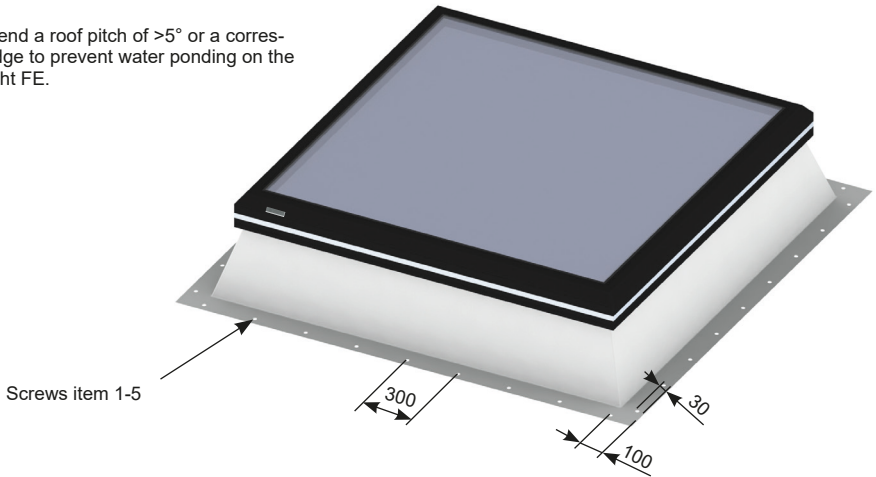


Fixings are not included in scope of delivery. Please contact our sales office if you wish to add these to your order.
Equivalent screws and plugs with technical approval can be procured from most DIY stores or your local builders merchants and can also be used.

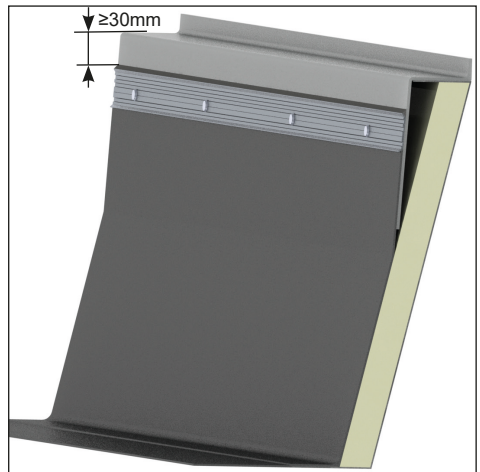
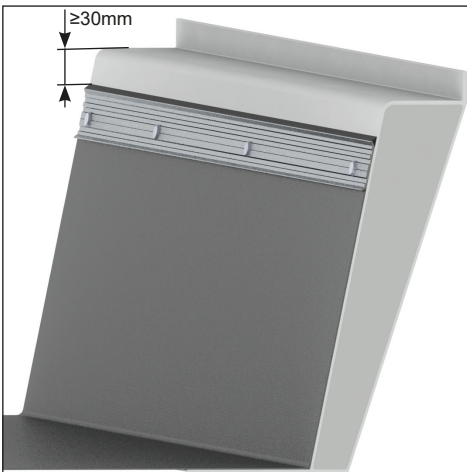
Starting at one point, evenly space your fixings at 300mm centres along the edge, and 100mm centres at corner points. Please refer to fixing details table (page 7) depending on substructure.

Note:

We recommend a roof pitch of $>5^\circ$ or a corresponding wedge to prevent water ponding on the Glass Skylight FE.



Do not use screws to fasten the clamping profiles to the upstand, instead use splash-proof special rivets.
For plastic sheeting: Press plate blind rivet with neoprene disk 5.2x19.1 Al/Al (#216043)
For bituminous welding sheeting: press plate blind rivet with neoprene disc 5.2x28.6 Al/Al (#216044)



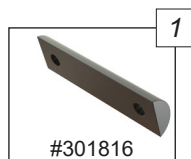
The drawn connection only serves as a schematic for orientation!

Please note! Waterproofing is to be carried out by an approved roofer after installation. The LAMILUX Glass Skylight FE 0° and 3° is supplied with a FIT 10 - PVC cap flashing as standard. Detailed drawings can be downloaded from www.lamiluxskylights.co.uk

Ventilated locked (laminated spring lock)

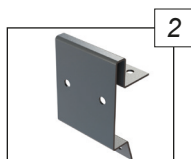
Components:

for a later installation of the drive



#301816

thread clamp plate



metal fitting blank



#210006

closing part leaf
spring



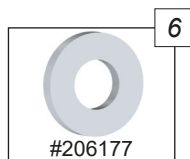
#210007

laminated spring



#215613

wing bent RAL
9016



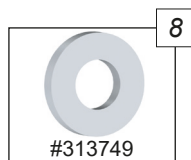
#206177

washer



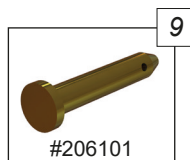
#209940

socket screw
M6x12



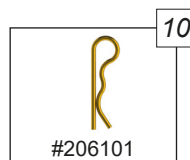
#313749

lock washer Ø=6,4



#206101

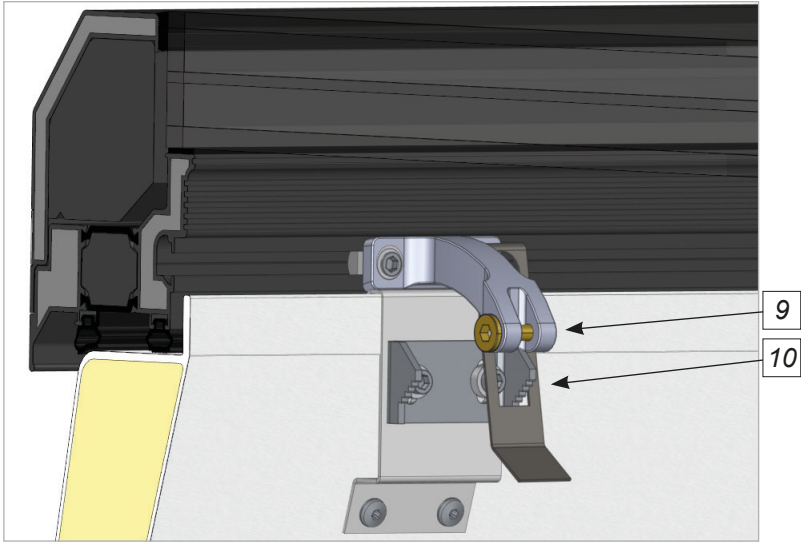
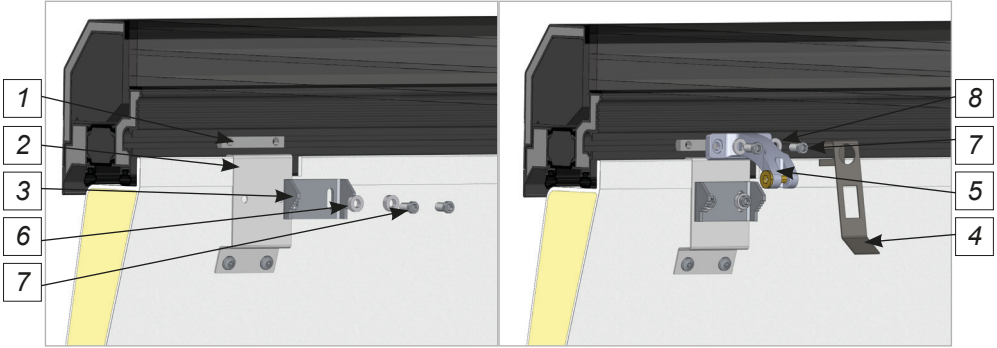
locating bolt



#206101

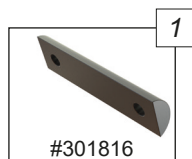
lock splint

Assembly:

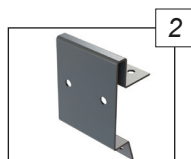


Rigidly bolted (Z sheet without drive)

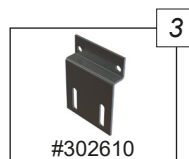
Components:



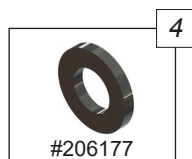
thread clamp plate



metal fitting blank



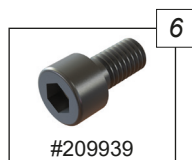
locking plate
Z-sheet



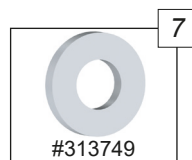
washer thick $\text{Ø}=6,4$



socket screw
M6x12

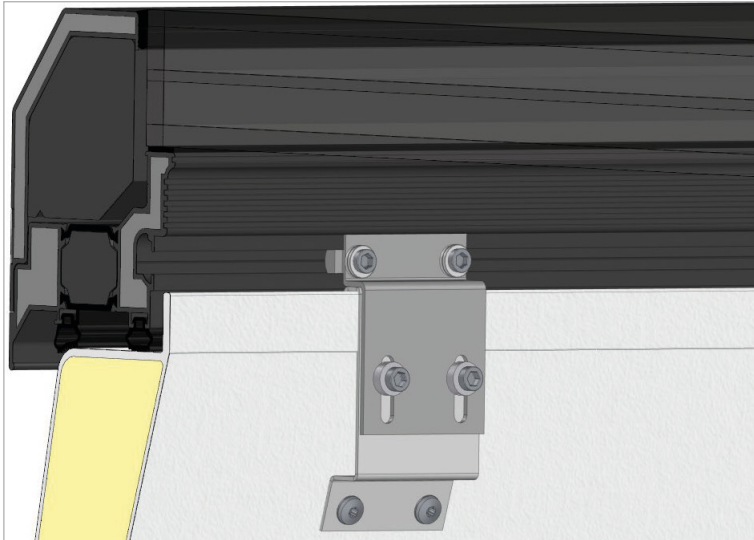
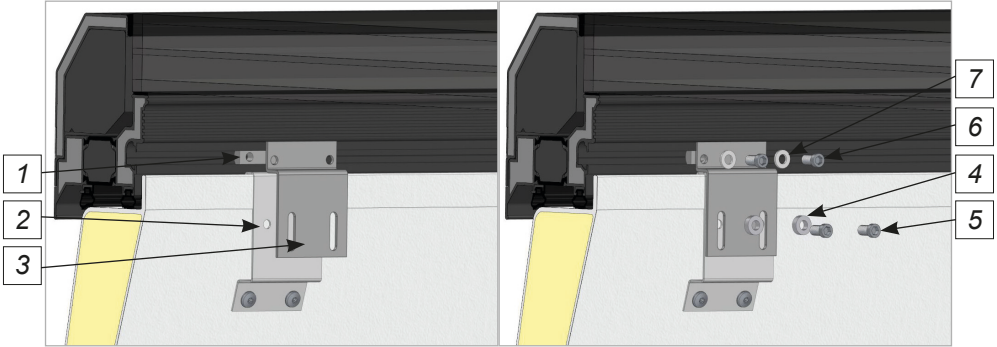


socket screw
M6x10



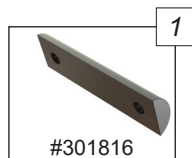
lock washer $\text{Ø}=6,4$

Assembly:

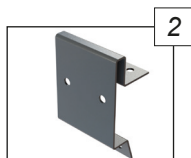


Rack and pinion drive "type ZA"

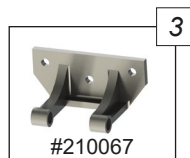
Components:



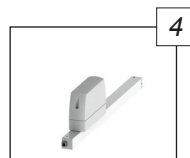
thread clamp plate



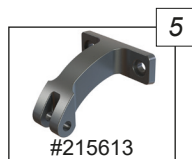
metal fitting blank



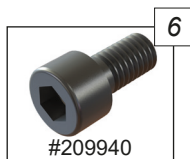
angle bracket WK6



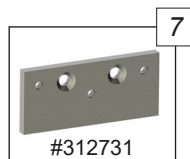
motor ZA



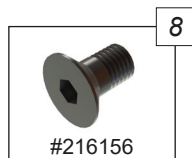
wing bent RAL
9016



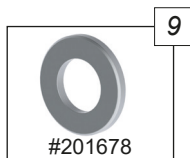
socket screw
M6x12



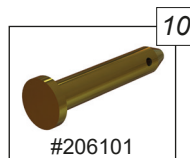
adapter plate WK6



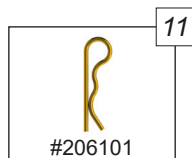
countersunk M6x10



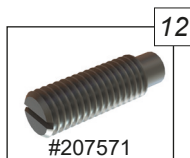
washer DIN 125 6,4



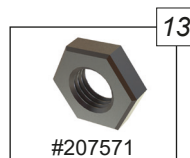
locating bolt



lock splint

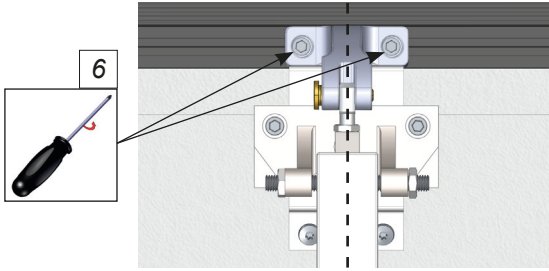


threaded pin M8

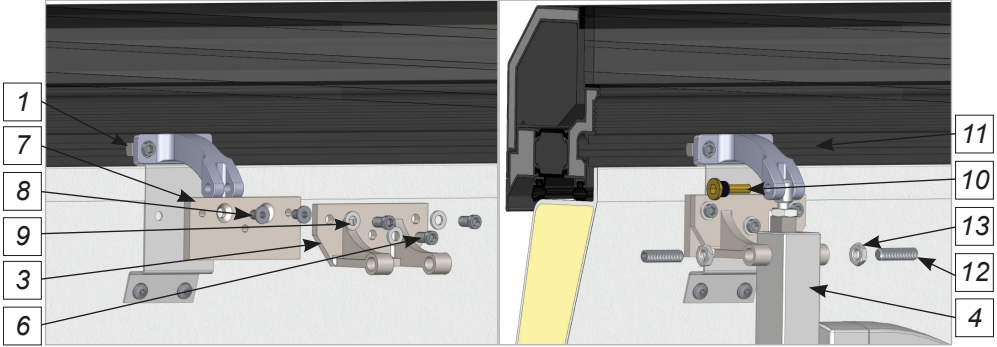


hexagonal nut M8

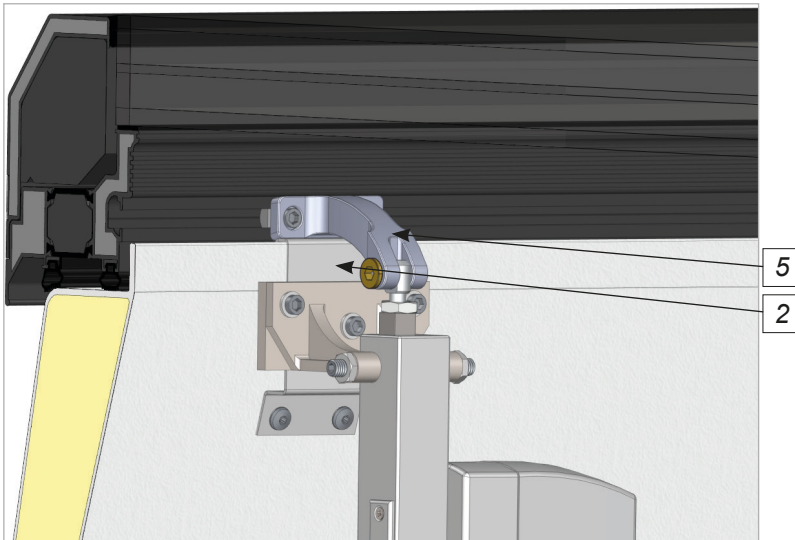
Assembly:



Align hinge bracket and connecting sleeve centred to the eyebolt of the motor. Remove position 6 for alignment.

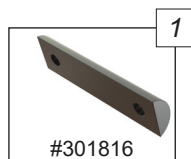


The motor should be smoothly mounted into the bracket.

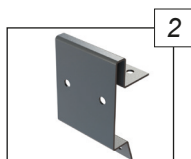


Telescope spindle drive (hand spindle)

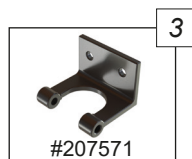
Components:



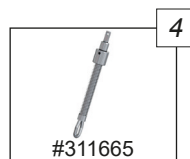
thread clamp plate



metal fitting blank



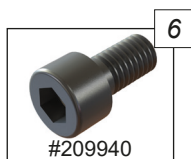
spindle bracket



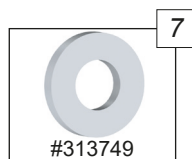
telescope spindle



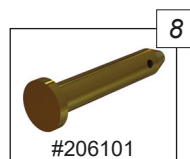
wing bent RAL
9016



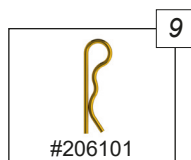
socket screw
M6x12



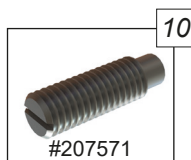
lock washer $\text{Ø}=6,4$



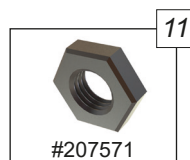
locating bolt



lock splint

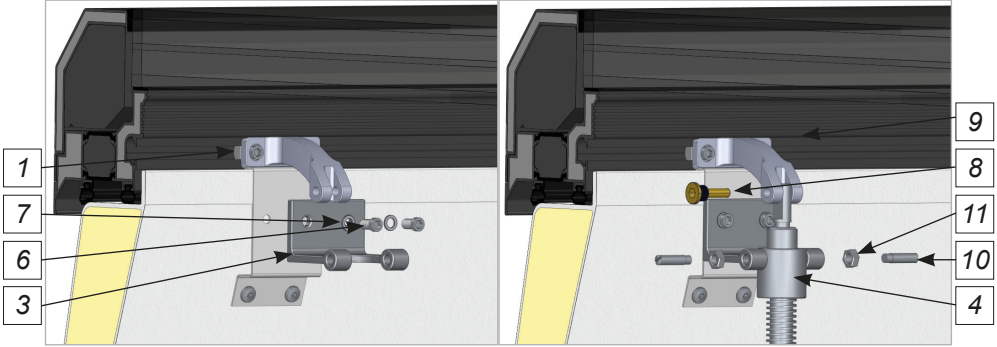
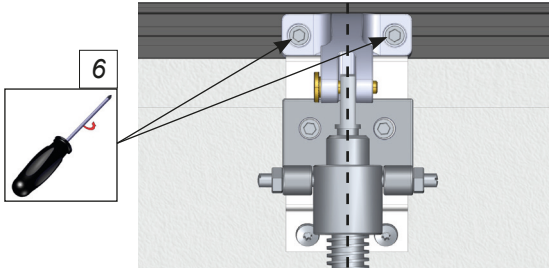


threaded pin M8

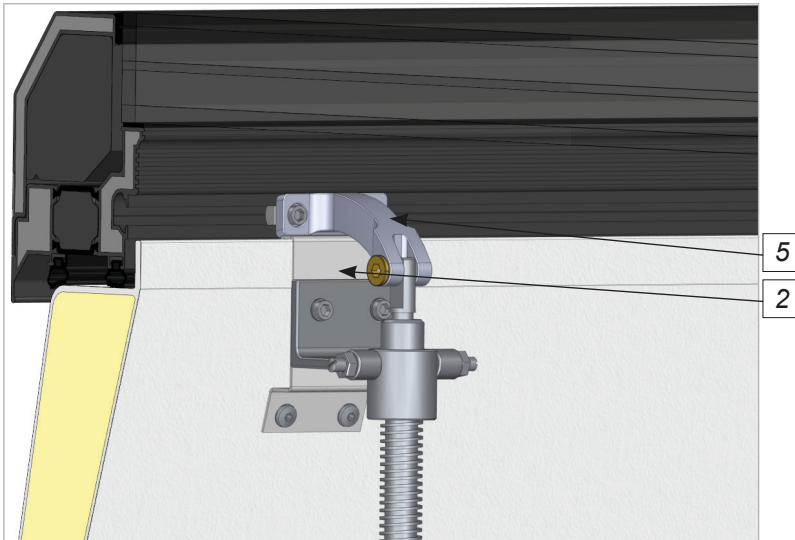


hexagonal nut M8

Assembly:

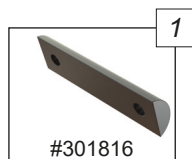


The opener motor should be smoothly mounted into the bracket.

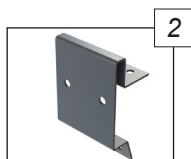


230V drive type "JMB"

Components:



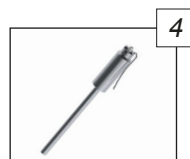
thread clamp plate



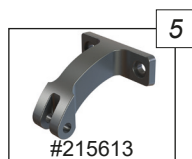
metal fitting blank



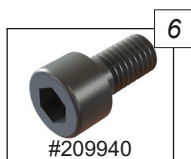
motor bracket



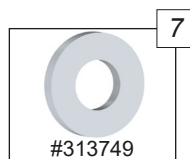
motor 230V JMB



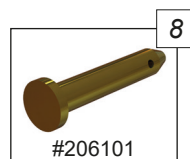
wing bent RAL
9016



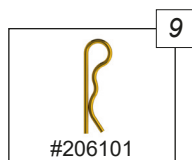
socket screw
M6x12



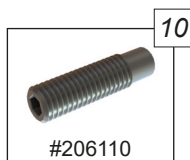
lock washer $\text{Ø}=6,4$



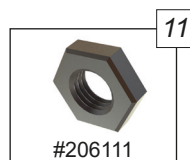
locating bolt



lock splint

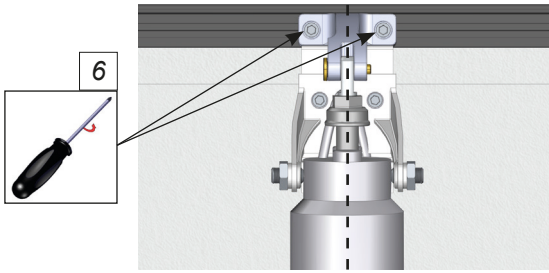


threaded pin
M10x25

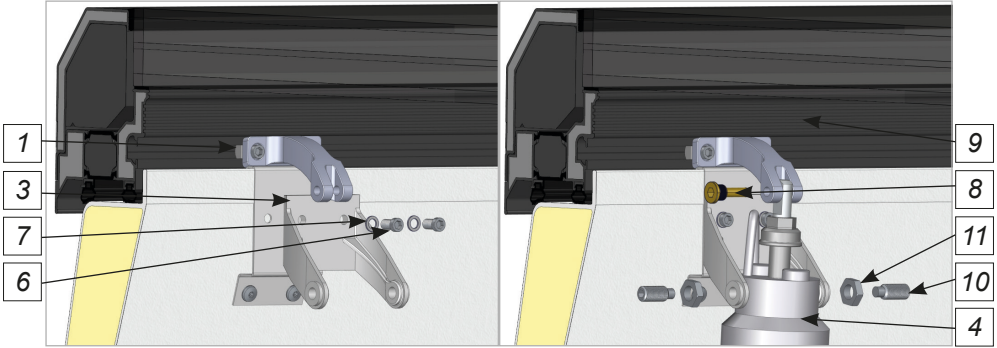


hexagonal nut M10

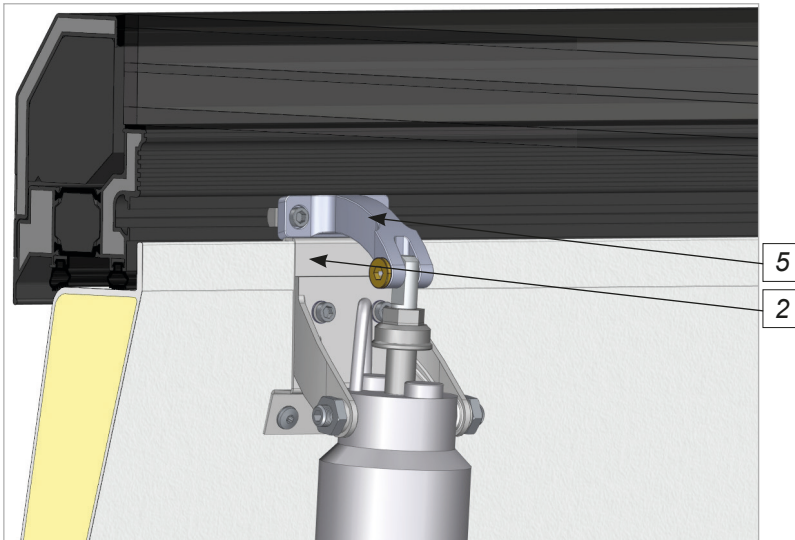
Assembly:



Align hinge bracket and connecting sleeve centred to the eyebolt of the motor. Remove position 6 for alignment.

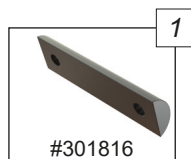


The opener motor should be smoothly mounted into the bracket.

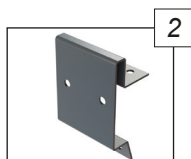


230V drive Type "JMBB"

Components:



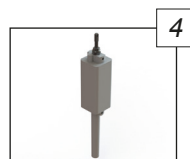
thread clamp plate



metal fitting blank



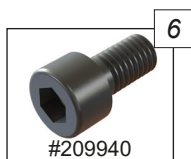
motor bracket



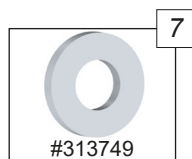
motor 230V JMBB



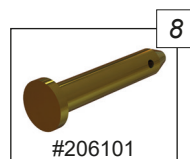
wing bent RAL
9016



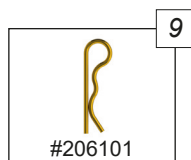
socket screw
M6x12



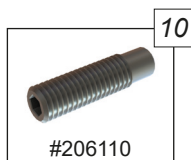
lock washer $\text{\O} = 6,4$



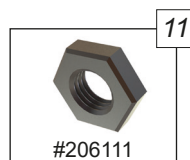
locating bolt



lock splint

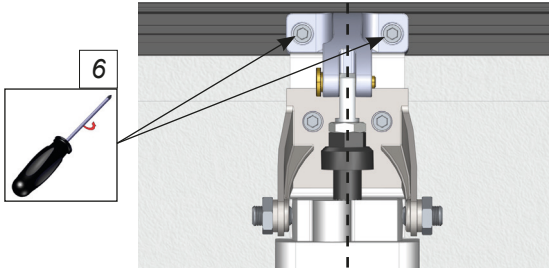


threaded pin
M10x25

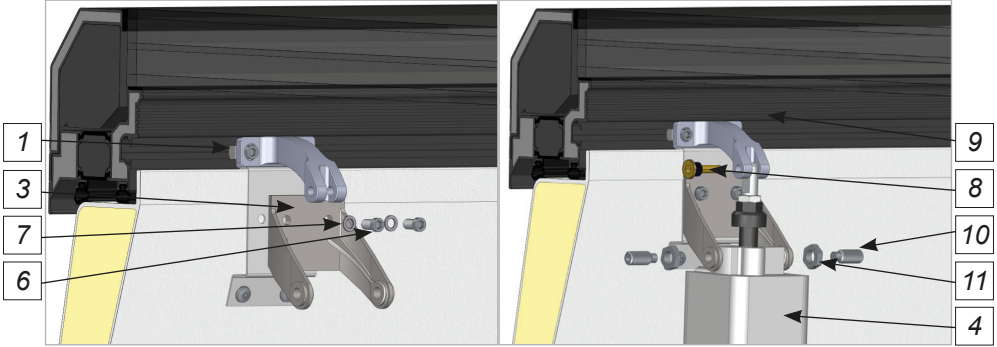


hexagonal nut M10

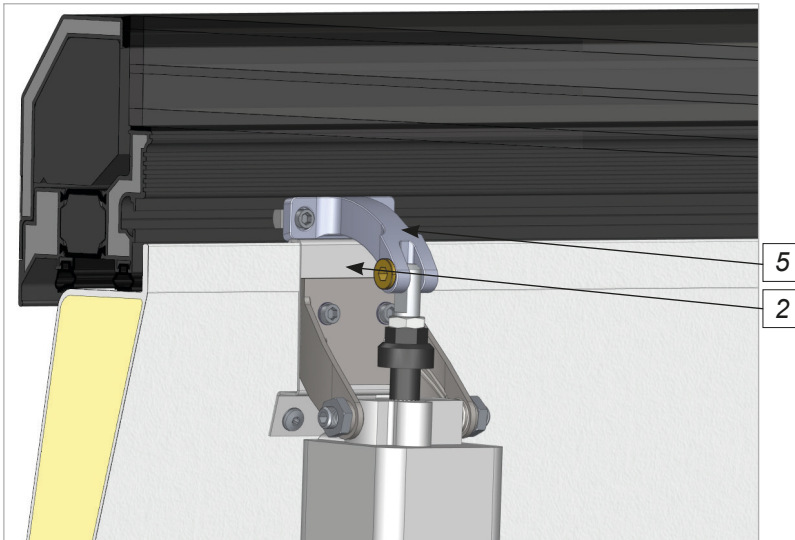
Assembly:



Align hinge bracket and connecting sleeve centred to the eyebolt of the motor. Remove position 6 for alignment.

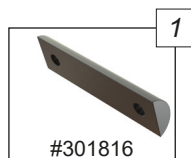


The opener motor should be smoothly mounted into the bracket.

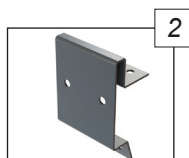


24V drive tandem Type "JM-DC"

Components:



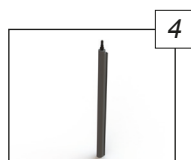
thread clamp plate



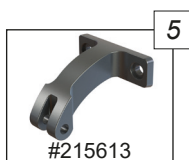
metal fitting blank



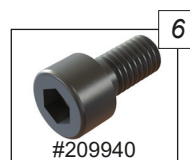
motor bracket



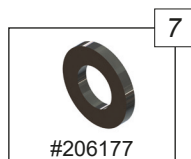
motor 24V



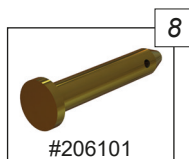
wing bent RAL
9016



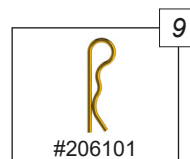
socket screw
M6x12



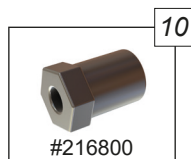
flat washer thick,
Ø=6,4



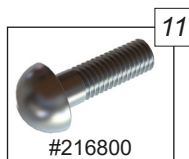
locating bolt



lock splint



threaded bush M5

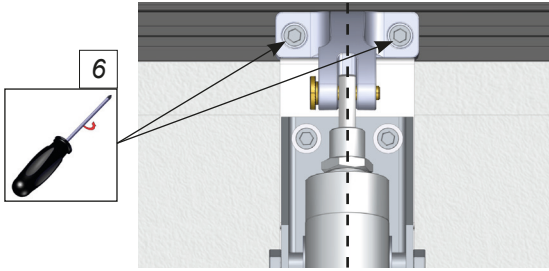


stud screw M5

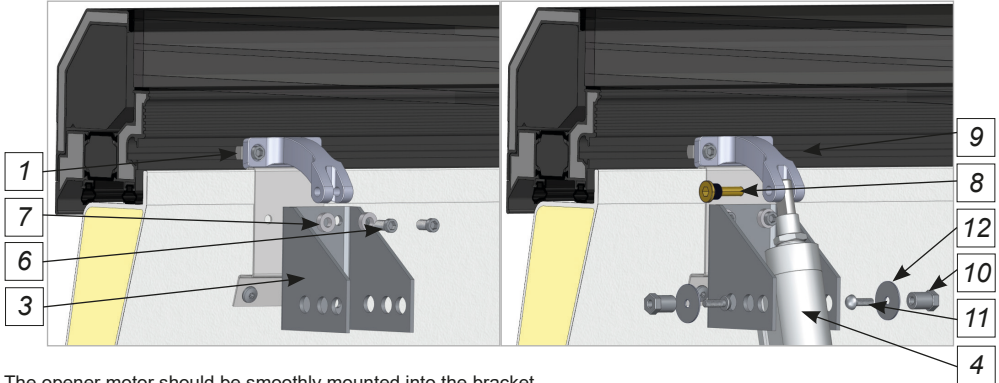


flat washer Ø=5,2

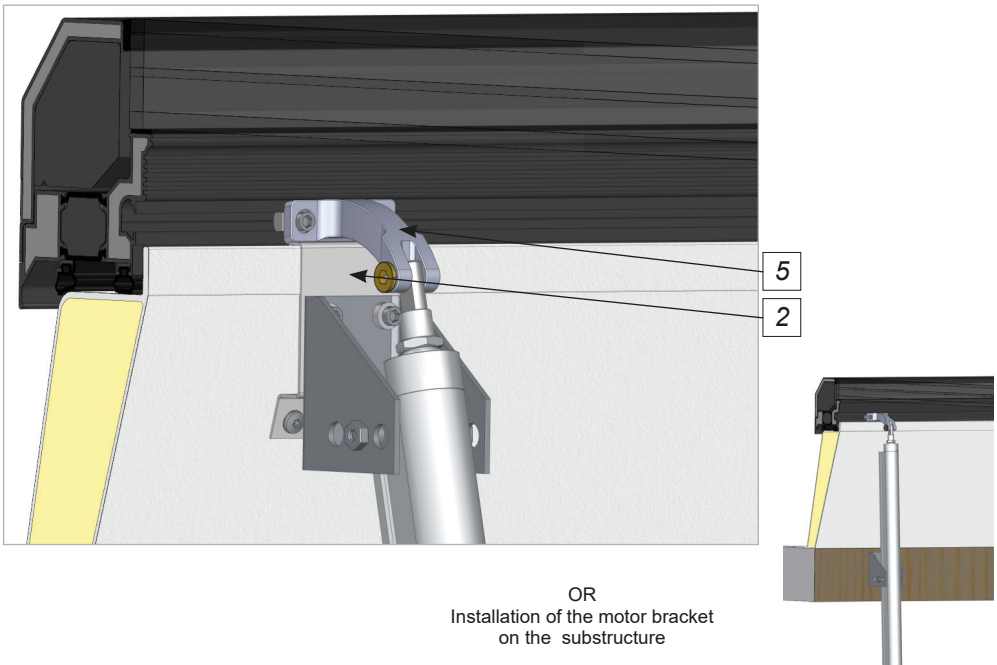
Assembly:



Align hinge bracket and connecting sleeve centred to the eyebolt of the motor. Remove position 6 for alignment.

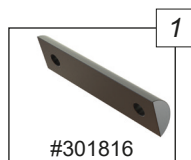


The opener motor should be smoothly mounted into the bracket.

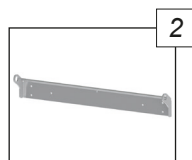


Chain drive type "KSA"

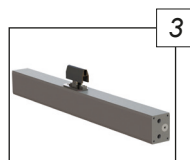
Components:



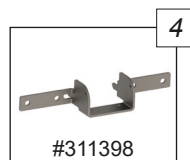
thread clamp plate



motor bracket



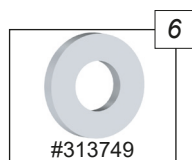
motor KSA



wing bent bracket



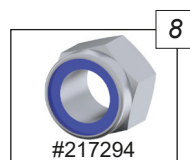
drilling screw
4,8x25 AW20



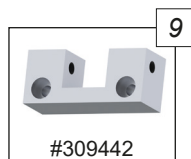
lock washer $\varnothing=6,4$



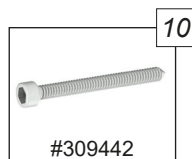
socket screw
M6x12



nut M5



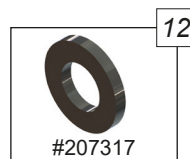
wing bent F16



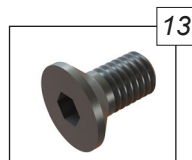
cylinder head screw
M6x50



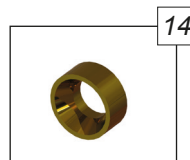
cylinder head screw
M5x25



flat washer
thin $\varnothing=5,3$

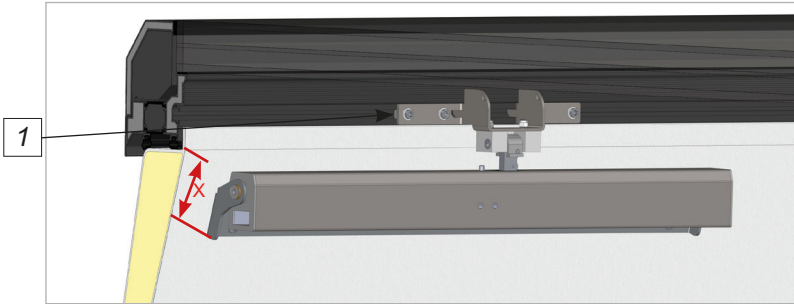
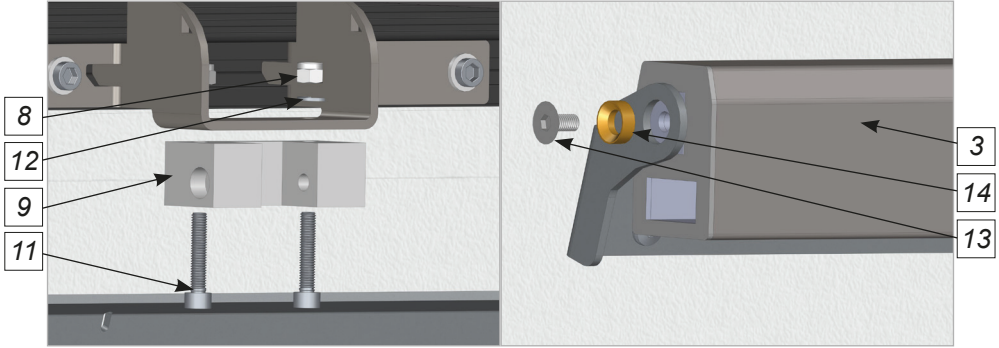
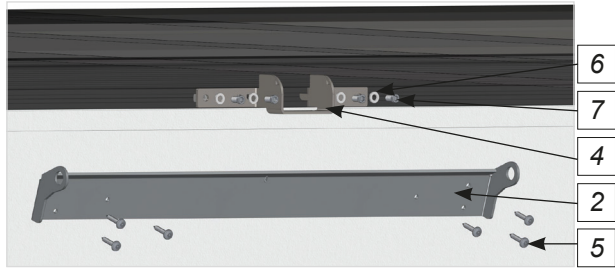


countersunk screw



distance bush

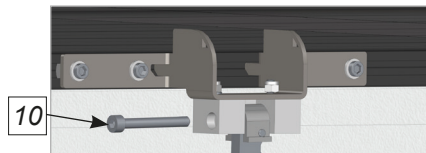
Assembly:



upstand	dimension X (mm)
150mm high	72
300mm high	80
400mm high	82
400mm high – 5°	84
500mm high	84
GRP extension element	89
vertical	89

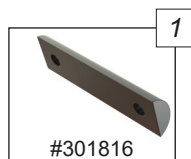
Attention:
The measure applies from the contact surface of the seal.

The motor should be smoothly mounted into the bracket.

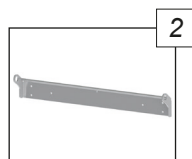


Chain drive type "Ne-Ka"

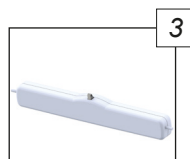
Components:



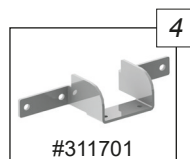
thread clamp plate



motor bracket



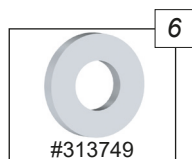
motor Neka



wing bent bracket



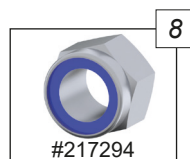
flat washer
thin $\varnothing=5,3$



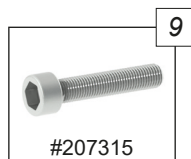
lock washer $\varnothing=6,4$



socket screw
M6x12



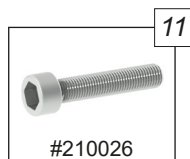
nut M5



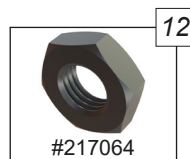
cylinder head screw
M5x12



drilling screw
4,8x25 AW20

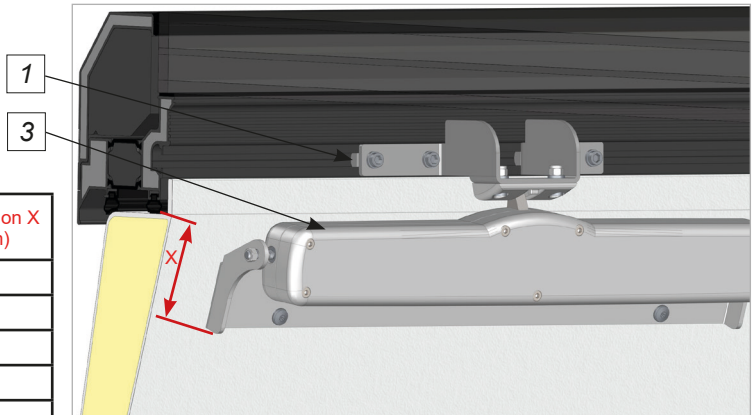
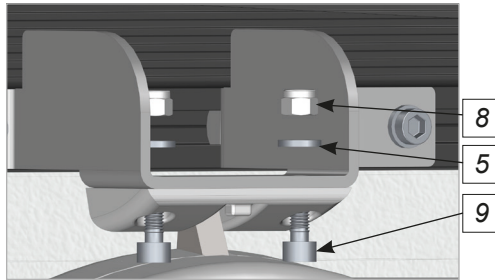
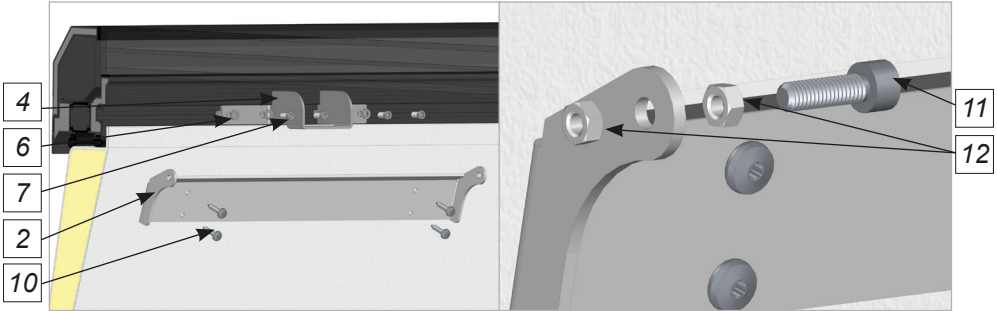


cylinder head screw
M6x20



hexagon nut M5

Assembly:



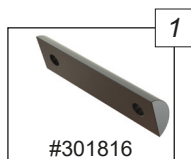
upstand	dimension X (mm)
150mm high	68
300mm high	80
400mm high	85
400mm high – 5°	84
500mm high	86
GRP extension element	91
PVC extension element	94
vertical	95

Attention:
The measure applies from the contact surface of the seal.

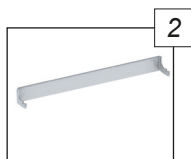
The motor should be smoothly mounted into the bracket.

Chain drive type "Windowmaster"

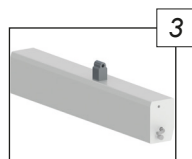
Components:



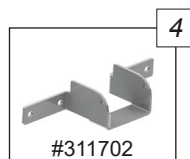
thread clamp plate



WMU bracket



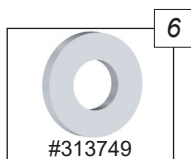
chain drive WMU
24V



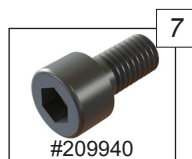
wing bracket for
WMU 8xx



drilling screw
4,8x25 AW20



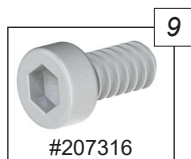
lock washer $\text{\O}=6,4$



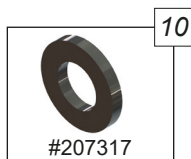
socket screw
M6x12



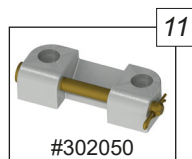
nut M5



cylinder head screw
M5x16



flat washer
thin $\text{\O}=5,3$

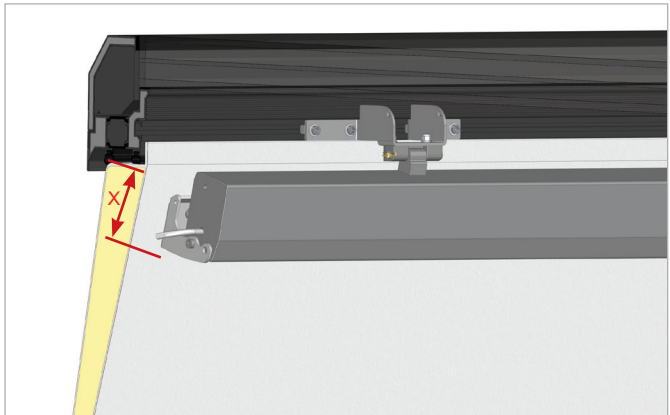
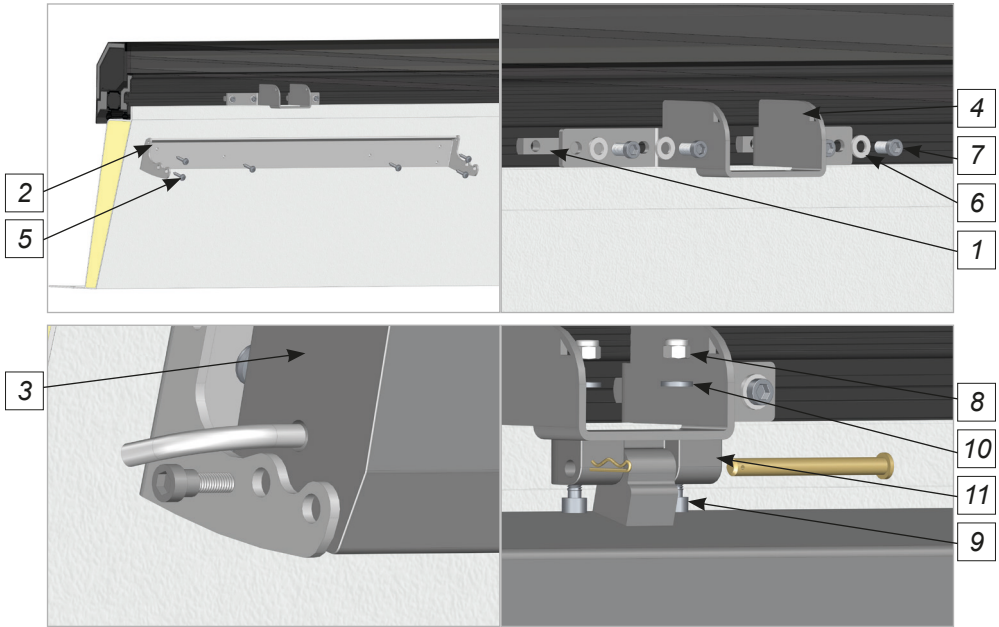


wing trestle



distance plate between
wing bracket
and wing trestle - if
required

Assembly:



upstand	dimension X (mm)
1500mm high	55
300mm high	81
400mm high	84
400mm high – 5°	82
500mm high	86
GRP extension element	94
PVC extension element	97
vertical	96

Attention:
The measure applies from the contact surface of the seal.

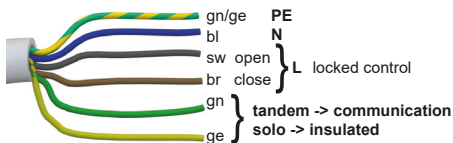
The motor should be smoothly mounted into the bracket.

Wiring diagrams of electric drives

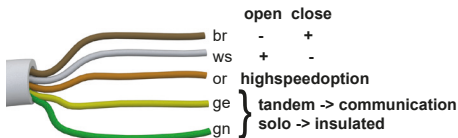
rack and pinion drive type "ZA"

technical details	230V	24V
driving force	rack and pinion drive	
maintenance	230V AC, 50Hz	24V DC
rated current	27W / 30VA	1A
nominal force	1000N	800N
run-time	ca. 10s/100mm	ca. 10s/71mm
case	aluminium/plastic	
safety class	IP65	
cable length	2,5m	

Solo/Tandem 230V



Solo/Tandem 24V



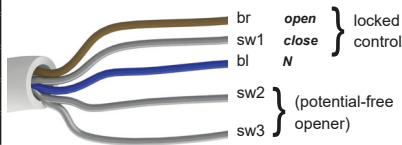
Attention with tandem circuit:

To synchronise, the communication wires of the drives need to be connected with each other.

230V driver type "JMB" and type "JMBB"

technical details	
driving force	spindle drive
maintenance	230V AC, 50Hz
rated current	0,6A / 140W
nominal force	550N
run-time	ca. 10s/100mm
case	plastic case
safety class	IP54
load breaking	integrated
cable length	1,4m

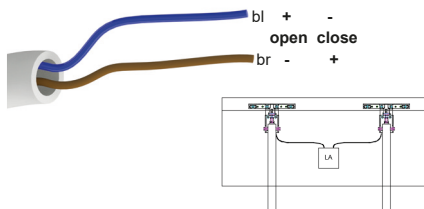
Solo 230V



24V driver type "JM-DC"

technical details	Jo65	Jo100
driving force	spindle drive	
maintenance	24V DC, +4/-2V	
rated current	0,8A / 19,2W	
nominal force	650N	1000N
run-time	ca. 375mm/min	ca. 200mm/min
case	aluminium	
safety class	IP65	
load breaking	integrated	
cable length	1,7m - 2,4m	

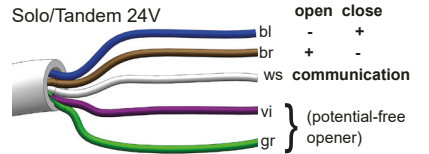
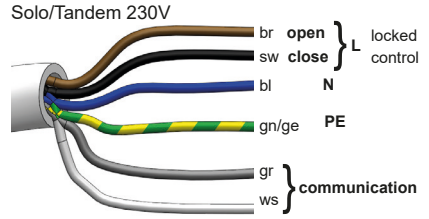
Solo/Tandem 24V



To ensure a smooth operation, the drives need to be synchronised via an external control panel!

chain drive type "KSA"

technical details	230V	24V
driving force	chain drive	
maintenance	230V AC, 50Hz	24V DC, +4/-2V
rated current	0,2A	1,2A
dimension	B 40mm x H 56mm	
nominal force	600N	
run-time	ca. 8mm/s	ca. 12mm/s
case	aluminium	
safety class	IP32	
load breaking	integrated	
cable length	5m	

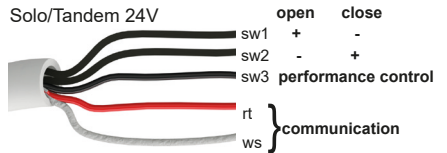
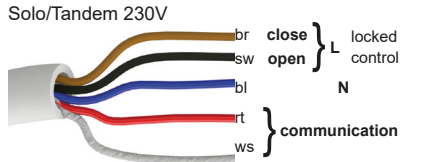


Attention with tandem circuit:

To synchronise, the communication wires of the drives need to be connected with each other.

chain drive type "Ne-Ka"

technical details	230V	24V
driving force	chain drive	
maintenance	230V	24V
current drain	0,115A	0,88A
dimension	L approx. 386,5mm	
maximum thrust/ tractive force	250N	
run-time	ca. 12,5mm/s	ca. 12,5mm/s
case	aluminium	
safety class	IP30	
load breaking	integrated	
cable length	2m	

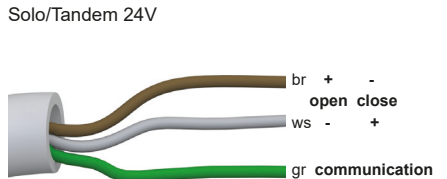


Attention with tandem circuit:

To synchronise, the communication wires of the drives need to be connected with each other.

chain drive type "Windowmaster"

technical details	
driving force	chain drive
maintenance	24V DC
current drain	1 - 5A
nominal force	600N oder 1000N 600N or 1000N
run-time	depending on the drive
case	aluminium
safety class	IP54
load breaking	integrated
cable length	5m





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The technical data listed in this brochure correspond to the current status at the time of printing and are subject to change. Our technical specifications are based on calculations and supplier specifications, or have been determined by independent testing authorities within the scope of applicable standards. Thermal transmission coefficients for our plastic glazing were calculated using the finite element method with reference values in accordance with DIN EN 673 for insulated glass. Taking into account practical experience and the specific characteristics of plastic, the temperature difference between the outer surfaces of the material was defined as 15 K. Functional values refer to test specimens and the dimensions used in testing only. We cannot provide any further guarantees of technical values. This particularly applies to changed installation conditions or if dimensions are re-measured on site.



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