

# **UNIVERSAL** Technical brochure 2017

Patch fittings for toughened glass assemblies

dormakaba 🚧



# Content





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Accessories

### The dormakaba glass range of fittings

The dormakaba range of fittings has matured into one of the most comprehensive available today. It offers ideal options for creating all standard toughened glass assemblies in a manner which is technically sound and visually attractive. This gives the designer a wide variety of options for individual expression in creating with toughened glass – either internally or externally. All dormakaba fittings are based on a modular system, consisting of a base unit, functional inserts and clip-on covers in the widest possible range of finishes. The glass preparations that are needed can be performed quickly and easily. Quality materials and thorough workmanship guarantee a long service life and a reflection of excellence for years to come.

Applications and features		fittings AL/Arcos
For external assemblies	•	•
For internal assemblies	•	•
For standard toughened glass assembly types	•	٠
For individually designed assemblies with corner fittings, fin fittings etc.	•	•
For double-action doors	•	•
For single-action doors	•	•
Glass thickness (mm)	8, 10, 126)	8, 10, 12 <sup>6)</sup>
Glass thickness (mm), for UNIVERSAL with 15 mm pivot point	8, 10	8, 10
Max. door weight (kg)	130 <sup>2)</sup>	130 <sup>2)</sup>
Max. door weight (kg) for UNIVERSAL with 15 mm pivot point	80	80
Max. door width (mm)	1,300 <sup>2)</sup>	1,3002)
Max. door height (mm)	3,000 <sup>1)2)5)</sup>	3,0001)2)5)
Glass type	ESG	ESG
Double action / Single action door	sa/da	sa/da
Materials and finishes		
Aluminium, mill finish (100)		
Aluminium, silver anodised, EV1, CO (101)	•	
Aluminium, dark bronze anodised DB14, MC1003, C34 (108)	•	
Aluminium, sim. to satin stainl. steel anodised (113, 107)		
Aluminium EV1 Deko (114)		•
Bespoke colour anodising (199)	•	•
Aluminium, white powder coated, similar to RAL 9016 (300)		
Bespoke powder coating (399)	•	٠
Brass, polished chromed (501)	•	
Brass, polished varnished (502)	•	
Brass, polished (503)	•	
Brass, polished (503)	•	•
Stainless steel polish (701)	•	•
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Door rails and locks ideally complement the dormakaba product range for toughened glass assemblies. The door rails grant all requests for wide and heavy doors, also for side panels. They guarantee the maximum protection for the lower glass edge.

With its different types and finishes the lock programme dormakaba SG meets various requirements for function, safety and appearance.

<sup>1)</sup> For door heights up to 2500 mm For doors with a height of more than 2,500 mm we have to keep additional conditions/limits:

- Glass thickness >/= 10 mm
- + Usage of a handle bar with 3 connection points in minimum and a minimum height of 2/3 door height
- <sup>2)</sup> Use of door closers:

Doors </= 1,100 mm must be used with door closers type EN 3 (with or without out back check) and doors >/= 1,100 mm must be used with a higher type (e.g. EN 4, 5 or 6) without back check.

- <sup>3)</sup> Laminated safety glass of 2 x toughened safety glass
- <sup>4)</sup> Max. panel weight depends on product combination
- <sup>5)</sup> Further possible glass panel heights on request at our application engineering
- <sup>6)</sup> Under certain circumstances also 15 + 19 mm glass thicknesses

The glass dimension may differ due to items as follows:

- installation type,
- glass tolerance,
- generally use
- 0 Optional
- Standard
- \* Only for double action doors with door rail top and bottom

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# UNIVERSAL

### UNIVERSAL ... as the name says

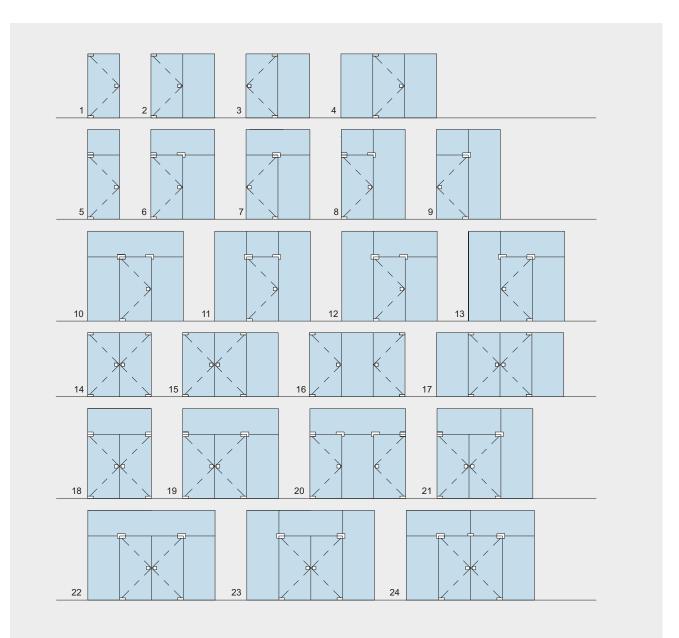
With its broad spectrum of basic types and variants, the UNIVERSAL range of patch fittings enables the realisation in toughened glass of almost any conceivable design. Toughened glass assemblies can be provided with fixed parts in widely differing arrangements – with corner fittings or fin fittings at different angles, and with double or single-action doors in single-leaf or double-leaf designs.

#### Easy glass preparation, secure fixing

dormakaba has an intimate knowledge of the special properties of glass as a building material. This has led to the design of fittings requiring only minimal glass preparation – a quick and easy cut-out with additional holes. Carefully considered and positive measures have been taken to create the maximum clamping surface with optimum clamping efficiency.

#### Suitable for common glass thicknesses

UNIVERSAL fittings are supplied as standard with gasket to suit 10 mm glass (TSG). For 8 mm and 12 mm glass, correspondingly thicker and thinner gasket is available. Some patches are even designed to fit directely with different glass thicknesses.



#### Variable pivot point

The inserts for corner and overpanel patches in the UNIVERSAL program have been designed and manufactured to give two options in the pivot point distance from the sidepanel or frame. It can be either 55 mm or 65 mm. At 65 mm pivot point and the use of a special round profile (page 21) doors can be built with a constant air gap of only 4 mm.

For information regarding patch fittings UNIVERSAL with 15 mm pivot point for pinch free doors see page 26 and following pages.

#### Reliability built in

Quality materials and thorough workmanship mean that UNIVERSAL fittings have the features necessary to meet the most demanding of specifications. The fittings are designed to cope with large and heavy doors up to a maximum weight of 130 kgs\*: for instance, a door blade 3000 mm high by 1300 mm\* wide, using 12 mm glass is quite possible. For heavier and wider doors up to a maximum of 150 kg and max. 1400 mm and for high frequented doors, rails with reinforced straps are available.

#### Matching range of locks

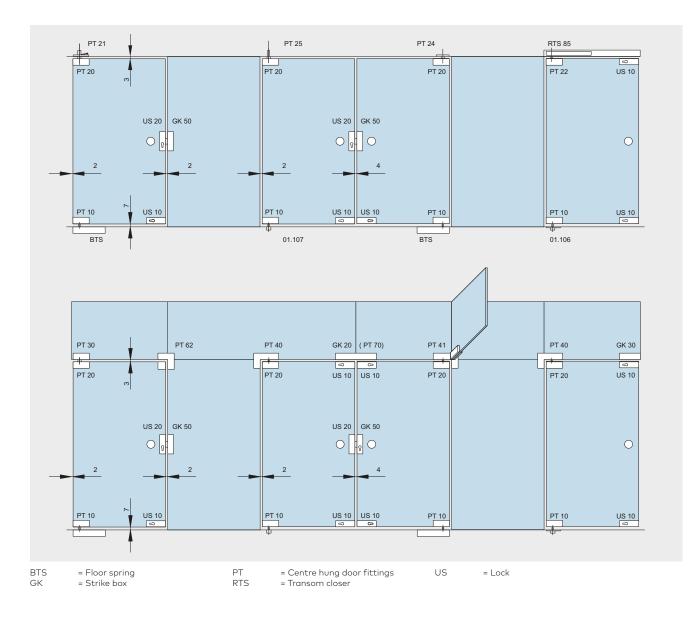
The UNIVERSAL range includes every type of accessory, and of course, a variety of locks and strike boxes in a matching design concept, giving the designer plenty of choice from the options available.

#### Short delivery times

All the common patterns and types are available exstock (factory). Specials will be prepared promptly.



#### Toughened glass assemblies with fittings (55/65 mm pivot point) and locks. All standard assembly types see page 8.



### Maximum door weight and width for UNIVERSAL fittings

max. door weight: 130 kg\* max. door width: 1300 mm\*\*

#### \* For door heights up to 2500 mm

For doors with a height of more than 2,500 mm we have to keep additional conditions/limits:

• Glass thickness >/= 10 mm

 + Usage of a handle bar with 3 connection points in minimum and a minimum height of 2/3 door height

#### \*\* Use of door closers:

Doors </= 1,100 mm must be used with door closers type EN 3 (with or without out back check) and doors >/= 1,100 mm must be used with a higher type (e.g. EN 4, 5 or 6) without back check.

For doors with higher frequency and in public areas

we would advice to use a door rail for doors above

110 kg and door width larger than 1100 mm.

1400 mm door rails should be used.

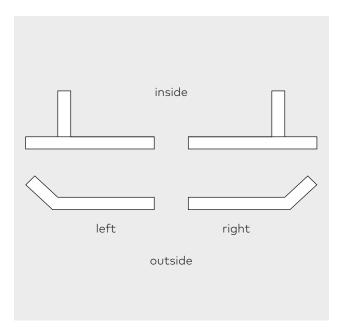
For door weights up to 150 kg and widths up to

#### Torque for fixing screws

Screws M 6: 10 Nm (4 mm)\* Screws M 6: 15 Nm (5 mm)\* Screws M 8: 20 Nm (5 mm)\* \*Allan key size

#### Please note: If angle fittings or fin fittings are used:

"Left" or "Right" have to be determined in any case by view from outside and above.



### **Patch fittings**

Shown with 10 mm glass. When used with 8 and 12 mm glass the measurements change accordingly. Accessories see page 60 and following.

	Product description	Glass thickness	ArtNo.
164	PT 10 Bottom patch with insert for DORMA floor spring spindle, or round pivot 14 mm Ø		03.100
	only in satin stainless steel	12 mm	<b>03.860</b> not illustrated
53/63	Please specify glass thickness with order. Weight in kg: aluminium 0.564 brass 0.680 stainless steel 0.662	15, 19 mm	03.280
	Floor pivot bearing for damp environments, with insert for PT 10 without floor recess, max. door weight 80 kg Weight in kg: 0.195		01.137
164	<b>PT 20</b> <b>Top patch</b> with plastic socket for top pivot 15 mm Ø		03.110
	only in satin stainless steel	12 mm	<b>03.861</b> not illustrated
	Please specify glass thickness with order. Weight in kg: aluminium 0.477 brass 0.593 stainless steel 0.575	15, 19 mm	03.281
	<b>PT 22</b> <b>Top patch</b> with insert for DORMA RTS transom closer		03.112
	only in satin stainless steel Weight in kg: aluminium 0.578 brass 0.695 stainless steel 0.677	12 mm	03.862 not illustrated

	Product description	Glass thickness	ArtNo.
	PT 29 Top patch with pivot fixing plate, to countersink into ceiling (pivot point = 55 mm)		03.114
164	max. door width: 1000 mm max. door weight: 70 kg Weight in kg:		
	aluminium 0.544 brass 0.692		
-St - 164	<b>PT 30</b> <b>Overpanel patch</b> with pivot 15 mm Ø, with M8 tapped hole at the side		03.120
<u>ل</u>	only in satin stainless steel	12 mm	<b>03.863</b> not illustrated
M8 VZZ VZZ OP	Please specify glass thickness with order.	15, 19 mm	03.282
Ø15 53/63	Weight in kg:aluminium0.528brass0.654stainless steel0.636		
	<b>PT 30</b> <b>Overpanel patch</b> with stop insert		03.420
	only in satin stainless steel	12 mm	<b>03.873</b> not illustrated
	Please specify glass thickness with order. Weight in kg: aluminium 0.528 brass 0.654 stainless steel 0.580	15, 19 mm	03.482
	<b>PT 30</b> <b>Overpanel patch</b> with blank insert		03.421
	Please specify glass thickness with order. Weight in kg: aluminium 0.519 brass 0.645 stainless steel 0.571	15, 19 mm	<b>03.484</b> not illustrated

	Product description	Glass thickness	ArtNo.
2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Fixing platefor overpanel patch PT 30Weight in kg:Aluminium0.016Brass0.038Stainless steel not available,satin chrome on brass supplied.		03.128
	Wall anchor with thread M 8 for overpanel patch PT 30 Weight in kg: 0.040		01.133
$\approx \frac{1}{1}$	<b>Threaded rod</b> M 8 with plug for overpanel patch PT 30 Weight in kg: 0.032		01.134
	PT 51 UNIVERSAL Patch for overpanel with fin fitting inside for back to back doors with two pivots 15 mm Ø Weight in kg: Aluminium 1,299 Stainless steel 1,576		03.160
218	<b>PT 40</b> <b>Patch for overpanel and sidelight</b> with pivot 15 mm Ø		03.140
	Please specify glass thickness with order. Weight in kg: Aluminium 0.755 Brass 0.958 Stainless steel 0.937	15, 19 mm	03.283 not illustrated

	Product description	Glass thickness	ArtNo.
218	<b>PT 40</b> <b>Patch for overpanel and sidelight</b> with stop insert		03.440
	Please specify glass thickness with order. Weight in kg: Aluminium 0.755 Brass 0.958 Stainless steel 0.937	15, 19 mm	03.483 not illustrated
218	<b>PT 40</b> <b>Patch for overpanel and sidelight</b> with blank insert		03.441
	Please specify glass thickness with order. Weight in kg: Aluminium 0.746 Brass 0.949 Stainless steel 0.928	15, 19 mm	<b>03.485</b> not illustrated
	<b>PT 41</b> <b>Patch for overpanel and sidelight</b> with fin fitting inside, with pivot 15 mm Ø		*03.162/03.163
	<b>PT 41</b> <b>Patch for overpanels and sidelight</b> with stop insert		<b>*03.262/03.263</b> not illustrated
	PT 41 Patch for overpanels and sidelight with stop insert Weight in kg: Aluminium 0.952 Stainless steel 1,197		*03.264/03.265 not illustrated
30	<b>PT 41</b> <b>Patch for overpanels and sidelight</b> with fin fitting on both sides, with pivot 15 mm Ø		03.161
	Weight in kg: Aluminium 1,149 Stainless steel 1,457		
	* Left hand fin (illustration shows left hand) / right ha	ind fin.	

\* Left hand fin (illustration shows left hand) / right hand fin. Left or right hand are determined by view from outside.

Product description	Glass thickness	ArtNo.
PT 41Patch for overpanel and sidelight,with fin fitting inside,with pivot 15 mm Øangle 135° - 179°Glass preparation on request, please sendyour drawing.Weight in kg:Aluminium1,200Stainless steel1,522		*03.168/03.169
<b>PT 42</b> <b>Overpanel patch for single action doors</b> with angled connector inside, pivot 15 mm, angle 90°		*03.164/03.165
PT 42 Overpanel patch for double or single action doors with angled connector inside, pivot 15 mm, angle 135° angle 105°-134° / 136°-179° (Glass preparation on request) Weight in kg: Aluminium 0.882 Stainless steel 1,059		*03.464/03.465 *03.166/03.167 not illustrated
<b>PT 60/61</b> <b>Connector</b> for overpanel and sidelight, for double or single action doors with one stop insert and two blank inserts, also suitable for 12 mm glass thickness.		03.150
Please specify glass thickness with order. Weight in kg: Aluminium 0.343 Brass 0.461 Stainless steel 0.436	15, 19 mm	03.452 not illustrated

\* Left hand fin (illustration shows left hand) / right hand fin. Left or right hand are determined by view from outside.

Consector       For overprenel and sidelight, for double or single action doors, with fin fitting inside, with one stop insert and two blank inserts       Also suitable for 12 mm glass thickness.         Wight in kg: Aluminium 0.448 Stainless steel 0.000       Notestand two blank inserts       03.11         Image: Align of the state of the stat	Product description	Glass thickness	ArtNo.
Image: Consector Sector Action of the sector of the sec	Connectorfor overpanel and sidelight, for double or single action doors, with fin fitting inside, with one stop insert and two blank insertsAlso suitable for 12 mm glass thickness.Weight in kg: Aluminium0.448		*03.158/03.157
Image: Connector       for overpanel and sidelight for single action doors, with stop inside, angle 90°         Veight in kg:       Aluminium 0.251         Stainless steel 0.344       PT 60/61         For double or single action doors, with one stop insert and two blank inserts, angle 135°       *03.450/03.44         angle 105°-134° / 136°-179°       *03.156/03.14         Weight in kg:       Aluminium 0.343         Stainless steel 0.435       Veight in kg:	Connectorfor overpanel and sidelight, for double or single action doors, with fin fitting on both sides, with one stop insert and two blank insertsAlso suitable for 12 mm glass thickness.Weight in kg: Aluminium0.645		03.159
Glass preparation on request.	Connector for overpanel and sidelight for single action doors, with stop inside, angle 90° Weight in kg: Aluminium 0.251 Stainless steel 0.344 PT 60/61 for double or single action doors, with one stop insert and two blank inserts, angle 135° angle 105°-134° / 136°-179° (specify angle with order) Weight in kg: Aluminium 0.343 Stainless steel 0.435 Also suitable for 12 mm glass thickness.		*03.454/03.455 *03.450/03.451 not illustrated *03.156/03.155

Product description	Glass thickness	ArtNo.
PT 62 Connector for overpanel and sidelight, with stop Weight in kg: Aluminium 0.475 Stainless steel 0.670		03.173
<b>PT 70</b> <b>Overpanel connector</b> with two stop inserts and two blank inserts, also suitable for 12 mm glass thickness		01.150
Please specify glass thickness with order. Weight in kg: Aluminium 0.272 Stainless steel 0.335	15, 19 mm	01.158 not illustrated
<b>Overpanel-sidelight connector</b> Weight in kg: Aluminium 0.146		12.536
<b>PT 70</b> <b>Connector</b> with two stop inserts and two blank inserts, angle 90°		01.156
angle 135°		<b>01.157</b> not illustrated
<b>angle 91° - 134° / 136° - 179°</b> (glass preparation on request) also suitable for 12 mm glass thickness		01.155
Weight in kg: Aluminium 0.272 ER 0.335		

	Product description	Glass thickness	ArtNo.
	PT 71 Overpanel connector with fin fitting Weight in kg: Aluminium 0.458 Stainless steel 0.608		01.161
106	PT 80 Connector		03.170
	Please specify glass thickness with order. Weight in kg: Aluminium 0.555 Stainless steel 0.780	15, 19 mm	<b>03.472</b> not illustrated
	PT 81 Connector with fin fitting Weight in kg: Aluminium 0.784 Stainless steel 1,065		03.175
	PT 80 Connector angle 90° Weight in kg: Aluminium 0.467 Stainless steel 0.540		03.171

	Product description	Glass thickness	ArtNo.
	PT 80 Connector, angle 135° angle 91°-134°/136°-179° (Please specify angle with order) Weight in kg: Aluminium 0.472 Stainless steel 0.541		03.172 03.178 not illustrated
	PT 80 Connector, shortened, angle 90° angle 91°-134°/136°-179° (Please specify angle with order) Weight in kg: Aluminium 0.236 Stainless steel 0.270		03.470 03.179 not illustrated
	Three way box corner connector angle 90° Without approval for assemblies with glass cover, showcase fitting Weight in kg: Aluminium 0.099 Stainless steel 0.131		03.198
28	PT 90 Screw on fitting Weight in kg: Aluminium 0.120 Brass 0.160 Stainless steel 0.155	13.5–19 mm	07.021 07.210
18 53	PT 91 Corner fitting Weight in kg: Aluminium 0.120 Brass 0.160 Stainless steel 0.155	13.5–19 mm	07.023 07.211

	Product description	Glass thickness	ArtNo.
52 3 9 9 9	Side connectorwith fixing plateAlso suitable for 12 mm glass thickness.Weight in kg:Aluminium0.313Stainless steel0.376	10, 12 mm	01.153
85	Gasket	8 mm	<b>01.900</b> not illustrated
	Please indicate glass thickness and Art. No. of fitting.	12 mm	01.901
	<ul> <li>Aluminium round profile for pinch free doors with 65 mm pivot point, consisting of 2 halves, prepared for UNIVERSAL fittings or door rails (76.5 mm or 100 mm).</li> <li>Please indicate:         <ul> <li>Panel height (max. 2500 mm, higher dimension on request)</li> <li>Required preparation of the profile for top and bottom fittings</li> </ul> </li> </ul>		03.380
	<b>Aluminium round profile,</b> as above, stock lenght 6,000 mm (unprepared)		03.381
	<b>Aluminium round profile,</b> as above, stock lenght 3,000 mm (unprepared)		03.382
	<b>Aluminium round profile,</b> as above, stock lenght 2,800 mm (unprepared)		03.383
	Weight in kg/m: Aluminium 4,744		

### Locks, complete for 10 mm glass thickness

	Product description	Glass thickness	ArtNo.
	US 10 corner lock, prepared for Europrofile cylinder, single throw, bolt projection 20 mm, with security rosettes on both sides, 14 mm thick. Lock insert: • high corrosion resistance according to EN 1670, class 4 • with regard to type-test according to DIN 18251, class 3**	10 mm	03.206
	only in satin stainless steel	12 mm	<b>03.867</b> not illustrated
	Please specify glass thickness with order.	15, 19 mm	03.285
	prepared for KABA		03.340
	For half profile cylinder Left hand top/ right hand bottom		03.288
	Left hand bottom/right hand top		03.287
	Weight in kg: Aluminium 0.942 Brass 1,061 Stainless steel 1,053		
	<b>Lock keeper plate, stainless steel,</b> two parts, adjustable ± 5 mm		05.190
94 Ø15.5	Weight in kg: 0.048		
	Alternative (not illustrated): <b>Floor sockets</b>		05.192 05.193 05.194
	<b>GK 30</b> <b>Single overpanel</b> strike box with threaded hole at side, to suit US 10 corner lock		03.230
31-164	only in satin stainless steel	12 mm	<b>03.870</b> not illustrated
	Weight in kg: Aluminium 0.418 Brass 0.555 Stainless steel 0.536		not mostratea
	GK 30 with stop		<b>*03.234/03.235</b> not illustrated
	Weight in kg: Aluminium 0.463 Stainless steel 0.597		
	<ul> <li>Left or right hand are determined by view from a</li> <li>Extract from DIN 18251, class 3: Type-test with 5</li> <li>Eurthermore the lock was tested successfully by</li> </ul>	50,000 locking b	

\*\* Extract from DIN 18251, class 3: Type-test with 50,000 locking bolt operating cycles. Furthermore the lock was tested successfully by a neutral testing institute with 100,000 locking bolt operating cycles.

	Product description	Glass thickness	ArtNo.
	GK 20 Double overpanel strike box to suit US 10 corner lock, consisting of two GK 30 with threaded connecting bolt		03.245
	only in satin stainless steel	12 mm	<b>03.871</b> not illustrated
	Weight in kg: Aluminium 0.844 Brass 1,096 Stainless steel 0.948		
	GK 20 with stop		<b>03.247</b> not illustrated
	Weight in kg: Aluminium 1,490 Brass 4,465		
	only in satin stainless steel	12 mm	<b>03.872</b> not illustrated
	Weight in kg: Aluminium 0.709 Brass 1,035 Stainless steel 1,010		
218	<b>GK 40</b> <b>Corner overpanel strike box</b> to suit US 10 corner lock		03.250
	GK 40 with stop		<b>*03.254/03.255</b> not illustrated
32	Weight in kg: Aluminium 0.754 Brass 1,035 Stainless steel 1,010		
32	<b>GK 41</b> <b>Strike box</b> to suit US 10 corner lock, with fin fitting		*03.194/03.193
	Weight in kg: Aluminium 0.906 Stainless steel 1,270		

\* Order of Art. No.: left hand fin / right hand fin – determined by view from outside. (Illustration shows left hand)

	Product description	Glass thickness	ArtNo.
	GK 41 Strike box with fin fitting on both sides Weight in kg: Aluminium 1,103 Stainless steel 1,411		03.195
	GK 42 Strike box to suit US 10 corner lock, angle 90°, with stop inside angle 135°, without stop (Glass preparation on request) Weight in kg: Aluminium 0.910 Stainless steel 1,247		*03.274/03.275 *03.276/03.277 not illustrated
164 15 77	US 20 Centre lock, prepared for Europrofile cylinder, single throw, bolt projection 20 mm, with security rosettes 14 mm thick. Lock insert: • high corrosion resistance according to EN 1670, class 4 • with regard to type-test according to DIN 18251, class 3**	10 mm	3.215
	only in satin stainless steel Prepared for KABA Prepared for half profile cylinder	12 mm	03.868 not illustrated 03.345 *03.290/03.289
	Weight in kg: Aluminium 0.942 Brass 1,061 Stainless steel 1,053 * Left or right hand are determined by view from ou	tside.	

 Left or right hand are determined by view from outside.
 \*\* Extract from DIN 18251, class 3: Type-test with 50,000 locking bolt operating cycles. Furthermore the lock was tested successfully by a neutral testing institute with 100,000 locking bolt operating cycles.

	Product description	Glass thickness	ArtNo.
307	GK 50 Strike box to suit US 20 centre lock	10 mm	03.224
	only in satin stainless steel (700)	12 mm	03.869
164	Weight in kg:		
	Aluminium 0.602		
	Brass 0.730		
_ 51	Stainless steel 0.727		

### **UNIVERSAL** pinch free

#### Completely pinch free double swing doors

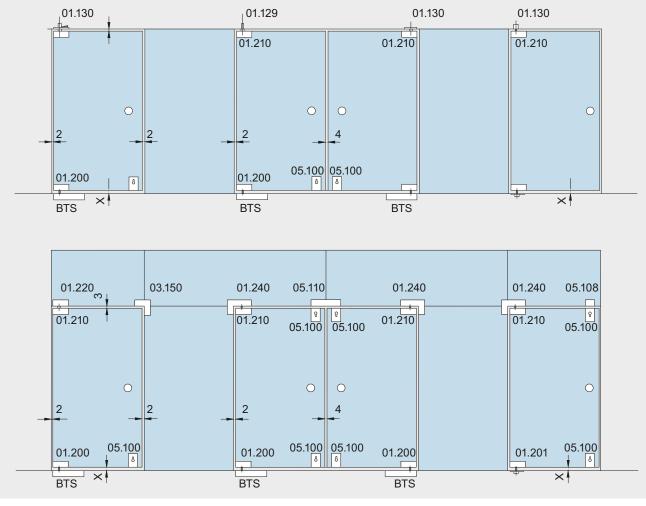
UNIVERSAL pinch free patch fittings with their 15 mm pivot point help to resolve this problem by means of the closeness of the pivot point to the frame. In order to eliminate finger traps completely, the special radiused edging strip should be used.

#### Suitable for 10 mm and 8 mm glass thicknesses

UNIVERSAL pinch free corner patches are supplied as standard with gasket to suit 10 mm glass. For 8 mm glass, correspondingly thicker gasket is available.

### Type selection

Toughened glass assemblies with patches for pinch free centre hung doors. All standard assembly types see page 8.



BTS = Floor spring

X = 10 mm with Art.-No. 01.200

X = see page 40 for Art.-No. 01.201

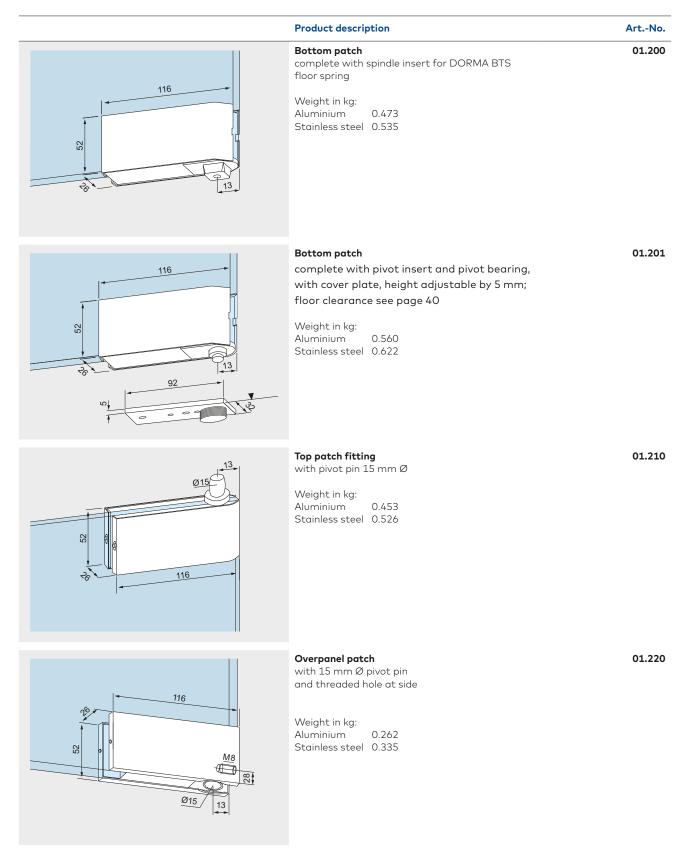
#### Maximum door weight and width for patch fittings

max. door weight: 80 kg max. door width: 1100 mm For door weights up to 150 kg and widths up to 1400 mm, door rails should be used.

#### Torque for fixing screws

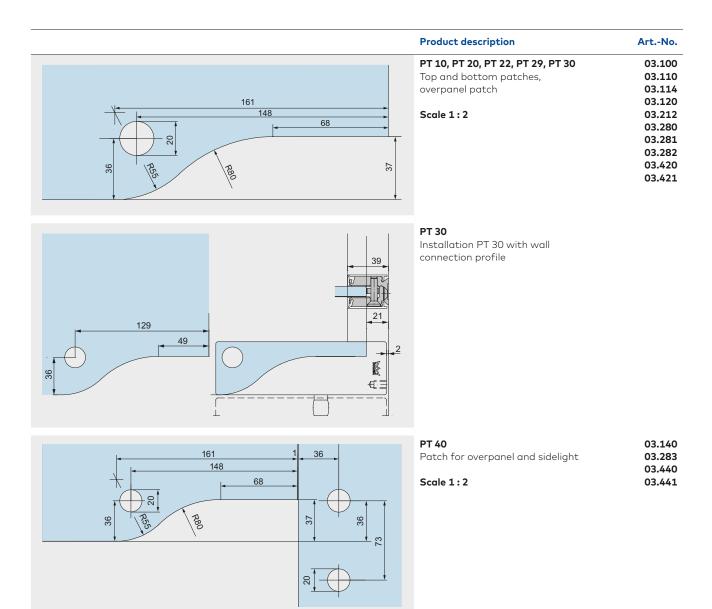
Screws M 6: 10 Nm (4 mm)\* Screws M 6: 15 Nm (5 mm)\* Screws M 8: 20 Nm (5 mm)\*

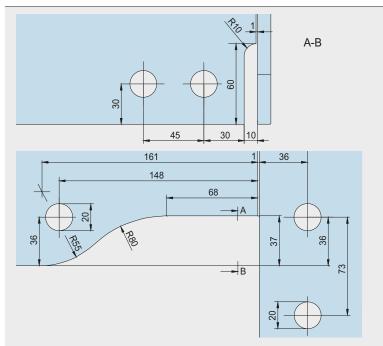
#### Pinch free patch fittings with 15 mm pivot point, complete, for 10 mm glass thickness Accessories see page 60.



	Product description	ArtNo.
e 8.5	Fixing plate         for overpanel patch EP         Weight in kg:         Aluminium       0.019         Brass       0.045         Stainless steel not available, satin chrome on brass supplied.	01.127
	<b>Wall anchor</b> with thread M 8 for overpanel patch Weight in kg: 0.040	01.133
	<b>Threaded rod</b> M 8 with plug for overpanel patch Weight in kg: 0.032	01.134
	Patch for overpanel and sidelight with plastic socket for 15 mm Ø pivot pin, pivot point 15 mm in combination with patch fittings Weight in kg:	01.240
	Aluminium 0.542 Stainless steel 0.547	not illustrated
	Radiused edging strip* for pinch free doors, (strip is clamped onto free glass edge), acrylic. Length: up to 4500 mm (please specify height)	01.231
	Lenght: 2,250 mm Weight in kg/m: 0.408	01.230
	* Important information: If radiused edging strip is used, special glass preparation is necessary (see page 41).	

### **Glass preparation fittings**





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37

B

161 148

P180

А

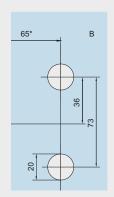
Product description	ArtNo.
PT 41, GK 41	03.162
Patch for overpanel and	03.163
sidelight with fin fitting inside	03.193
	03.194
Scale 1:2	

PT 42, GK 42	03.164
Overpanel patch with	03.165
angled connector	03.274
	03.275

#### Scale 1:2

Angle	Distance
179° – 105°	46 mm
104° – 91°	65 mm

Glass preparation examples	03.166
for overpanel patch with	03.167
angled connector	03.464
available on request.	03.465



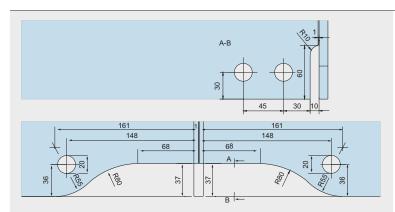
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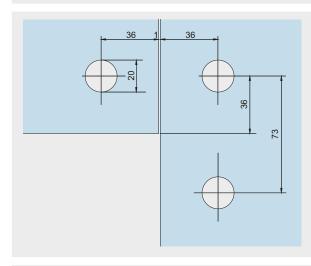
20

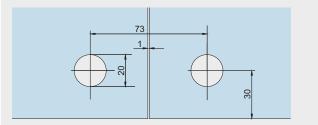
36

Art.-No.

03.160







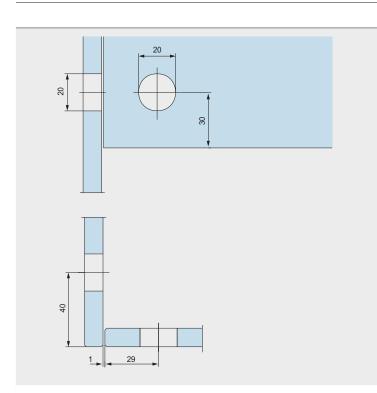
Product description	
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**PT 51** Overpanel fin fitting for back to back doors

Scale 1:2.5

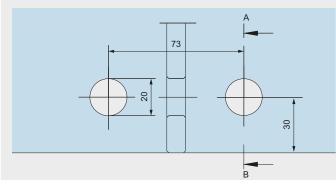
PT 60/61, PT 62 Winkelverbindung Connectors for overpanels	03.150
and sidelights Scale 1:2	03.173
Glass preparation for fin	03.157
fitting see PT 81	03.158
Glass preparation for fin	03.159
fitting both sides see PT 81	03.452

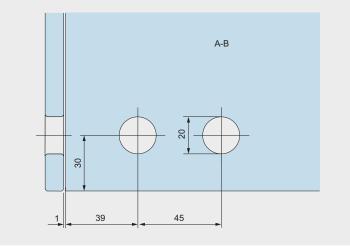
PT 70	01.150
Overpanel connector	01.158



Product description	ArtNo.
<b>PT 70</b> Connectors for overpanels and sidelights, 90°	01.156
Glass preparation examples for angles between 91° – 179° available on request.	

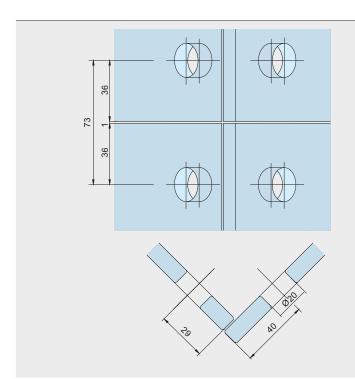
Scale 1:2





**PT 71** Overpanel connector with fin fitting 01.161

	Product description	ArtNo.
Tension cut	<b>Overpanel-sidelight connector</b> <b>W</b> eight in kg: Aluminium 0.146	12.536
Sidelight Overpanel		
	PT 80 Connector Scale 1 : 2	03.170 03.472
$A \rightarrow \begin{pmatrix} 10 \\ +1 \\ +1 \\ +1 \\ +1 \\ +1 \\ +1 \\ +1 \\$	PT 81 Connector with fin fitting Scale 1:2	03.175

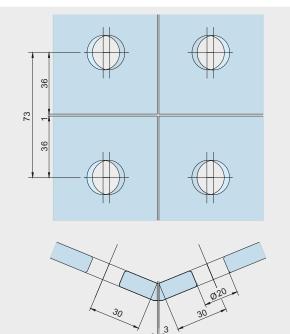


Product description	ArtNo.	
PT 80	03.171	

Angled connector, 90°

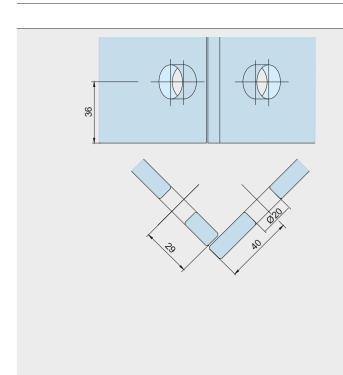
Glass preparation examples for angles between 91° - 134° / 136° - 179° available on request.

Scale 1:2



**PT 80** Angled connector, 135° 03.172

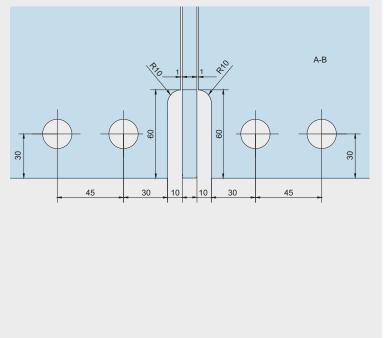
Glass preparation examples for angles between 91° - 134° / 136° - 179° available on request.



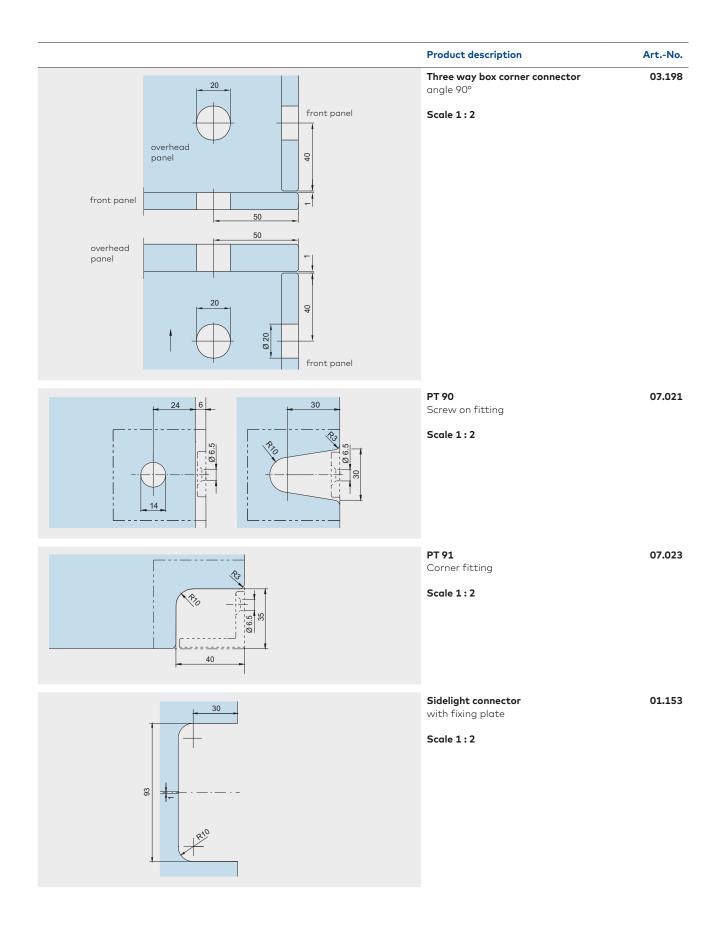
Product description	ArtNo.
<b>PT 80 shortened</b> Angled connector, 90° shortened	03.470

Glass preparation examples for angles between 91° – 134° / 136° – 179° available on request.

Scale 1:2

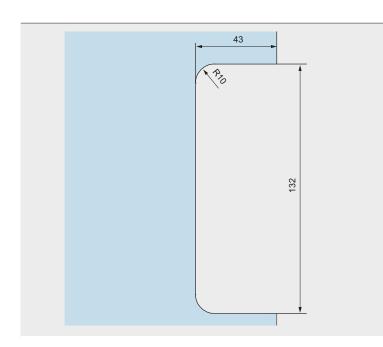


**PT 41, GK 41** Patch for overpanel and sidelight with fin fitting on both sides 03.161 03.195



### **Glass preparation locks**

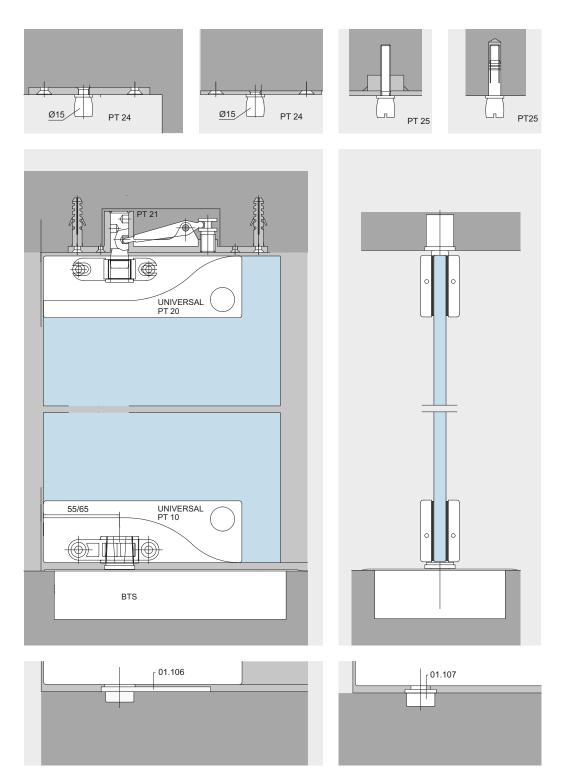
	Product description	ArtNo.
94 148	US 10 Corner locks Scale 1 : 2	03.206 03.285 03.287 03.288 03.340
$\begin{array}{c} 161 \\ 148 \\ 68 \\ 8 \\ 8 \\ 8 \\ 8 \\ 8 \\ 8 \\ 8 \\ 8 \\$	GK 30 (PT 30) Single overpanel strike box Scale 1 : 2	03.230 03.234 03.235
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	GK 20 Double overpanel strike box Scale 1 : 2	03.245 03.247
$161 \\ 148 \\ 68 \\ 07 \\ R_{1}$	GK 40 (PT 40) Corner overpanel strike box Scale 1 : 2	03.250 03.254 03.255



Product	description	ArtNo.
US 20. G	к 50	03.215
Centre la	ock	03.345
		03.289
		03.290
and strik	e box to suit	03.224
centre lo	ocks	

Scale 1:2

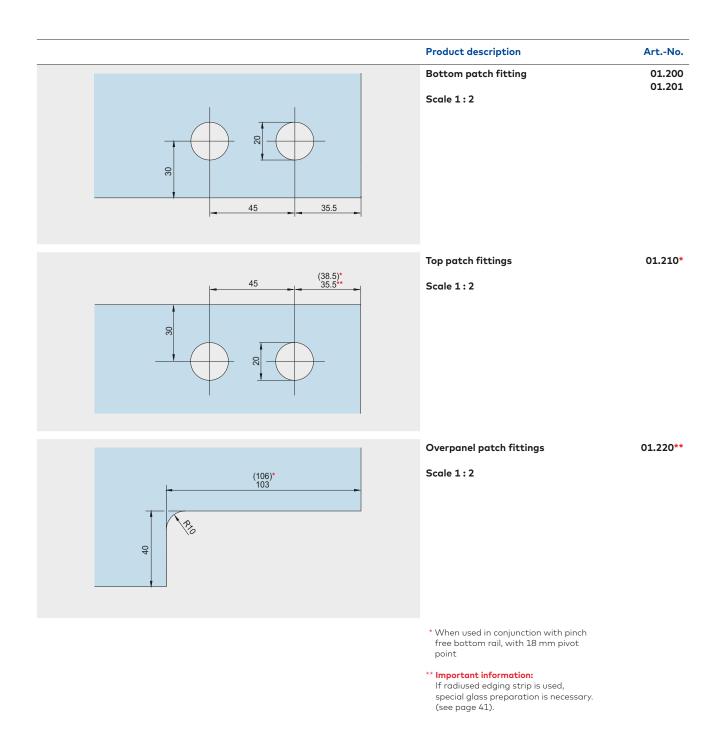
### Fixing of pivots and top centres



Fixing of top pivots and top centres for PT 20.

Fixing of floor springs, pivot bearings for PT 10.

### **Glass preparation**

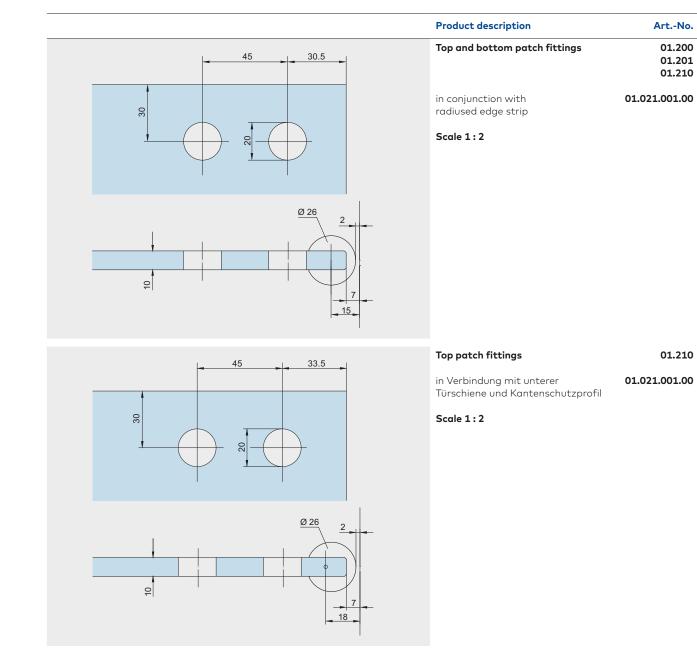


40

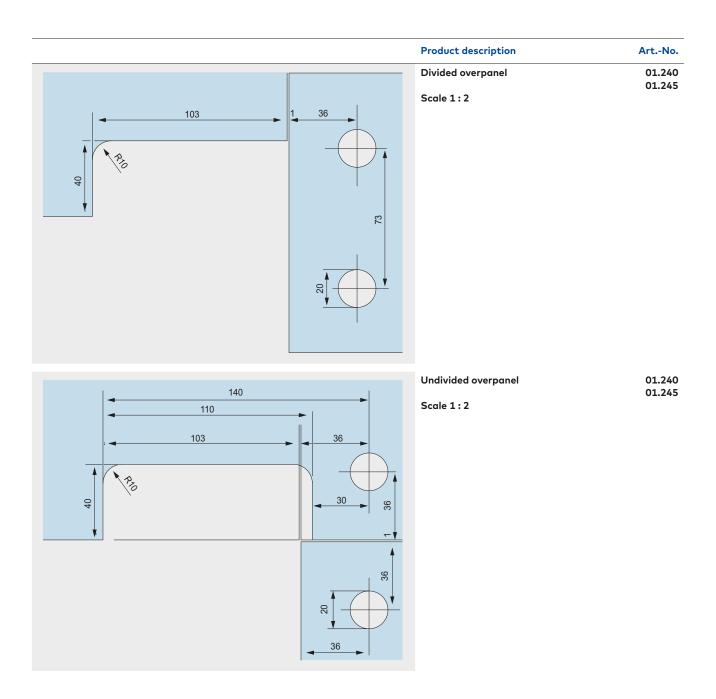
01.200

01.201 01.210

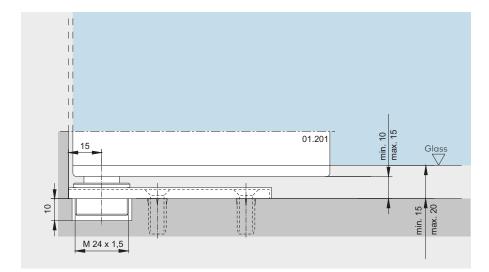
01.210



## **Overpanel and sidelight**



#### **Construction details**



Using the bottom patch on pivot bearing with cover plate (Art. No. 01.201) the air gap between floor and glass is 15–20 mm (by height adjustability).

To reduce the air gap to 10 mm: Embed base plate into the floor.

# Content

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# UNIVERSAL Arcos



### Versatility plus multiplicity

Patch fittings and connector hardware for overpanels and side panels, fin fittings for particularly large systems – with the curved arc motif of the Arcos design always incorporated in each component. Gentle reflections that change with the planes give both the glass and its fittings the appearance of a harmonious whole.



#### Easy glass preparation, secure fixing

dormakaba-Glas has an intimate knowledge of the special properties of glass as a building material. This has led to the design of fittings requiring only minimal glass preparation – a quick and easy cut-out with additional holes. Carefully considered and positive measures have been taken to create the maximum clamping surface with optimum clamping efficiency.

#### Suitable for common glass thicknesses

UNIVERSAL Arcos fittings are supplied as standard with gasket to suit 10 mm glass. For 8 mm and 12 mm glass, correspondingly thicker and thinner gasket is available. Some patches are even designed to fit directely with different glass thicknesses.

#### Variable pivot point

All the inserts for corner and overpanel patches in the UNIVERSAL Arcos program have been designed and manufactured to give two options in the pivot point distance from the sidepanel or frame. It can be either 55 mm or 65 mm.

#### Reliability built in

Quality materials and thorough workmanship mean that UNIVERSAL Arcos fittings have the features necessary to meet the most demanding of specifications. The fittings are designed to cope with large and heavy doors up to a maximum weight of 130 kg: for instance, a door blade 3,000 mm high by 1,300 mm wide, using 12 mm glass is quite possible.

#### Clip-on technique

The innovative clip-on technique incorporated in the hardware ensures that the cover caps can be secured to the basic components so that the fixing is virtually invisible.

#### Matching range of locks

The UNIVERSAL Arcos range includes every type of accessory, and of course,  $\ensuremath{\mathsf{a}}$ 

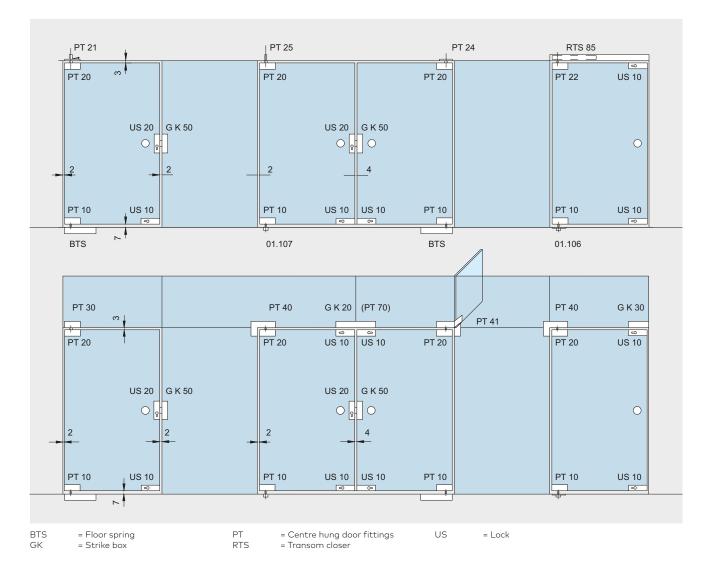
variety of locks and strike boxes in a matching design concept, giving the designer plenty of choice from the options available.

#### Short delivery times

All the common patterns and types are available ex-stock (factory). Specials will be prepared promptly.



#### Toughened glass assemblies with fittings and locks. All standard assembly types see page 8.



### Maximum door weight and width for UNIVERSAL fittings

max. door weight: 130 kg\* max. door width: 1300 mm\*\* For doors with higher frequency and in public areas we would advice to use a door rail for doors above 110 kg and door width larger than 1100 mm. For door weights up to 150 kg and widths up to 1400 mm door rails should be used.

#### \* For door heights up to 2500 mm

For doors with a height of more than 2,500 mm we have to keep additional conditions/limits:

• Glass thickness >/= 10 mm

 + Usage of a handle bar with 3 connection points in minimum and a minimum height of 2/3 door height

#### \*\* Use of door closers

Doors </= 1,100 mm must be used with door closers type EN 3 (with or without out back check) and doors >/= 1,100 mm must be used with a higher type (e.g. EN 4, 5 or 6) without back check.

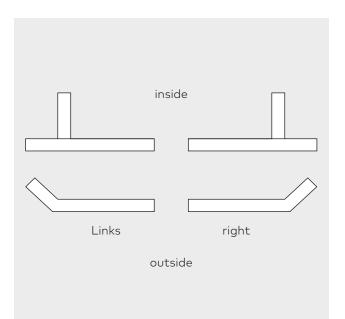
**Torque for fixing screws** Screws M 6: 10 Nm (4 mm)\* Screws M 6: 15 Nm (5 mm)\*

Screws M 8: 20 Nm (5 mm)\*

\*Allan key size

#### Please note: If angle fittings or fin fittings are used:

"Left" or "Right" have to be determined in any case by view from outside and above.



### **Patch fittings**

Shown with 10 mm glass. When used with 8 and 12 mm glass measurements change accordingly. Accessories see page 60.

 Product description	ArtNo.
Arcos PT 10 Bottom patch with insert for DORMA floor spring spindle, or round pivot 14 mm Ø Weight in kg: Aluminium 0.564 Stainless steel 0.662	26.100
Floor pivot bearing for damp environments, with insert for PT 10, without floor recess max. door weight 80 kg Weight in kg: 0.195	01.137
Arcos PT 20 Top patch with plastic socket for top pivot 15 mm Ø Weight in kg: Aluminium 0.477 Stainless steel 0.575	26.100
Arcos PT 22 Top patch with insert for DORMA RTS transom closer Weight in kg: Aluminium 0.578 Stainless steel 0.677	26.112
Arcos PT 30 Overpanel patch with pivot 15 mm Ø, with M 8 tapped hole at side Weight in kg: Aluminium 0.528 Stainless steel 0.636	26.120

	Product description	ArtNo.
	Arcos PT 30 Overpanel patch with stop insert Weight in kg: Aluminium 0.528 Stainless steel 0.580	26.420
	Arcos PT 30 Overpanel patch with blanking insert Weight in kg: Aluminium 0.519 Stainless steel 0.571	26.421
45 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Fixing plate         for overpanel patch PT 30         Weight in kg:         Aluminium       0.016         Brass       0.038         Stainless steel not available,         satin chrome on brass supplied.	03.128
	Wall anchor with thread M 8 for overpanel patch PT 30 Weight in kg: 0.040	01.133
	<b>Threaded rod</b> with thread M 8 for overpanel patch PT 30 Weight in kg: 0.032	01.134
	Arcos PT 40 Patch for overpanel and side panel M 8 with plug for overpanel patch PT 30 Weight in kg: Aluminium 0.755 Stainless steel 0.937	26.140

### **Patch fittings**

	Product description	ArtNo.
	Arcos PT 40 patch for overpanel and side panel with stop insert Weight in kg: Aluminium 0.755 Stainless steel 0.937	26.440
	Arcos PT 40 patch for overpanel and side panel with blank insert Weight in kg: Aluminium 0.746 Stainless steel 0.928	26.441
	Arcos PT 41 patch for overpanel and side panel	*26.162/26.163
	do. with blanking insert	*26.262/26.263 not illustrated *26.264/26.265 not illustrated
249	Weight in kg: Aluminium 0.952 Stainless steel 1,197	
	<b>Overpanel-sidelight connector</b> Weight in kg: Aluminium 0.146	12.536

\* Left hand fin (illustration shows left hand) / Right hand fin Left or right hand are determined by view from outside.

### Locks, complete

#### For 10 mm glass thickness.

Accessories are shown from page 56 on.

	Product description	Glass thickness	ArtNo.
	Arcos US 10 corner lock, prepared for Europrofile cylinder, single throw, bolt projection 20 mm, with security rosettes on both sides, 14 mm high. Lock insert: • high corrosion resistance according to EN 1670, class 4 • with regard to type-test according to DIN 18251, class 3* for 10 mm glass thickness Attention: Modified position of locking bolt in comparison to standard US 10 Weight in kg: Aluminium 0.942 Stainless steel 1,053	10 mm	26.206
94 Ø 15.5	Lock keeper plate, stainless steel, two parts, adjustable ± 5 mm Weight in kg: 0.048 alternative: Floor sockets		05.190 05.192 not illustrated 05.193 not illustrated 05.194
	* Extract from DIN 18251, class 3: Type-test with 50, Furthermore the lock was tested successfully by a n 100,000 locking bolt operating cycles.		not illustrated

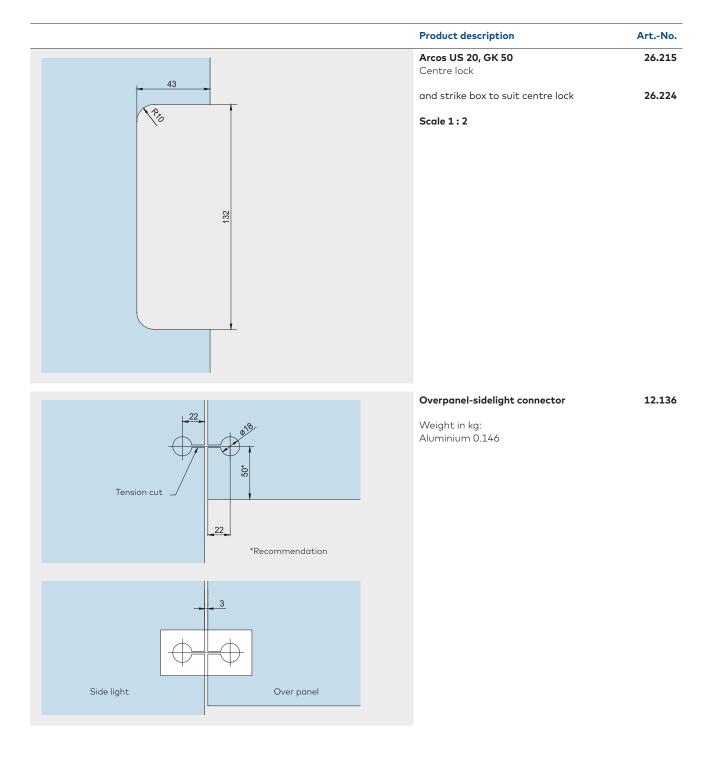
	Product description	ArtNo.
	Arcos GK 30 Single overpanel strike box with threaded hole at side, to suit Arcos US 10 corner lock Weight in kg: Aluminium 0.418 Stainless steel 0.536	26.230
179.5 179.5 179.5 20 87.5 87.5 20	Arcos GK 20 Double overpanel strike box to suit Arcos US 10 corner lock, consisting of two Arcos GK 30 with threaded connecting bolt Weight in kg: Aluminium 0.844 Stainless steel 0.948	26.245
	Arcos GK 40 Overpanel strike box to suit Arcos US 10 corner lock Weight in kg: Aluminium 0.709 Stainless steel 1,010	26.250
	Arcos GK 41 Strike box to suit Arcos US 10 corner lock, with fin fitting Weight in kg: Aluminium 0.906 Stainless steel 1,270	*26.194/26.193
	* Loft hand fin (illustration chows loft hand) / Pight hand fin	

\* Left hand fin (illustration shows left hand) / Right hand fin Left or right hand are determined by view from outside.

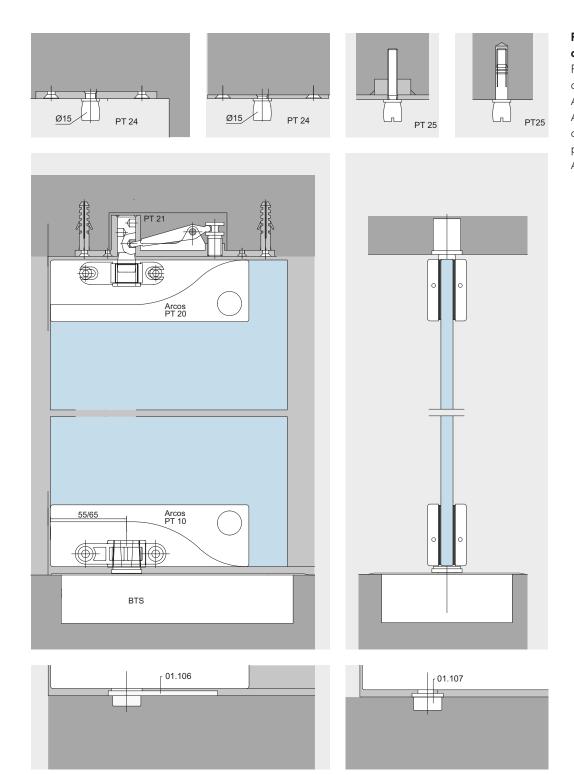
	Product description	Glass thickness	ArtNo.
State	US 20 centre lock, prepared for Europrofile cylinder, single throw, bolt projection 20 mm, with security rosettes 14 mm thick. Lock insert: • high corrosion resistance according to EN 1670, class 4 • with regard to type-test according to DIN 18251, class 3* Attention: Modified position of locking bolt in comparison to standard US 20 for 10 mm glass thickness Weight in kg: Aluminium 0.942 Stainless steel 1,053	10 mm	26.215
Store 25	Arcos GK 50 Strike box to suit Arcos US 20 centre lock Weight in kg: Aluminium 0.602 Stainless steel 0.727		26.224

\* Extract from DIN 18251, class 3: Type-test with 50,000 locking bolt operating cycles. Furthermore the lock was tested successfully by a neutral testing institute with 100,000 locking bolt operating cycles.

### **Glass preparation**

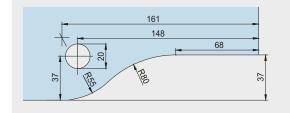


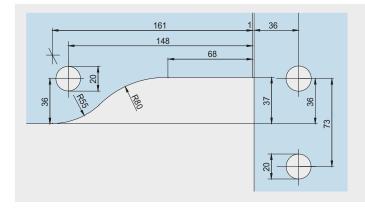
### **Construction details**



### Fixing of pivots and top centres

Fixing of top pivots and top centres for Arcos PT 20 and Arcos PT 22. Fixing of floor springs, pivot bearings for Arcos PT 10





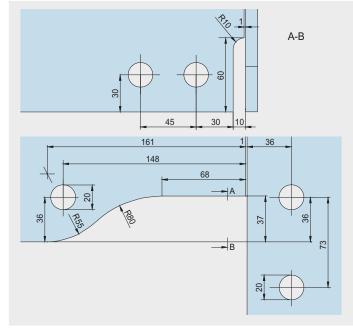
ArtNo.	
26.100	
26.110	
26.112	
26.120	
26.420	
26.421	

Arcos PT 40	26.140
Patch for overpanel and side panel	26.440
	26.441

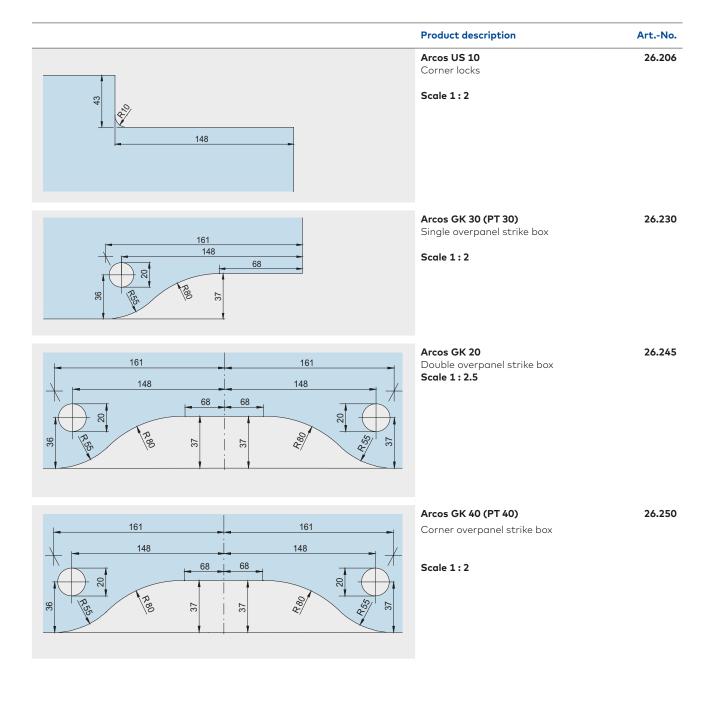
Scale 1:2

Arcos PT 41, GK 41	26.162
Patch for overpanel and	26.163
side panel with fin fitting inside	26.193
	26.194





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# Content

- 63 Top bearings, pivots, cylinders
- 65 Profiles
- 66 Gasket sets
- 67 Safety-related information





### **Perfection in detail**

Original accessories for patch fittings, door rails and locks, matched to the dormakaba-Glas product range, are available.

They ideally complement the range of dormakaba-Glas hardware to optimise the technical excellence and cost effectiveness of toughened glass systems of all types. Aside from functional components such as special floor pivots – including models for wet rooms – dormakaba also offers a choice of security-relevant options. Their installation further enhances the exceptional functional efficiency, reliability and long service life expected of dormakaba Glas systems.

### Top bearing, pivots

 Product description	ArtNo.
<b>PT 21 frame portion</b> top centre with removable pin 15 mm Ø Weight in kg: 0.335	01.117
<b>PT 21 frame portion</b> top centre with removable pin 15 mm Ø, with cover plate Weight in kg: 0.345	01.118
<b>PT 24 Pivot</b> 15 mm Ø, with fixing plate, material thickness 6 mm, <b>to let</b> into ceiling Weight in kg: Aluminium 0.058	01.116
PT 24 Pivot 15 mm Ø, with fixing plate, material thickness 3 mm, <b>to screw</b> on the ceiling Weight in kg: Aluminium 0.042 Stainless steel 0.074	01.123
<b>PT 25 Pivot</b> 15 mm Ø with plug Weight in kg: 0.044	01.115

Product description	ArtNo.
<b>Top pivot bearing,</b> brass, nickel plated, for installation in frame or ceiling for 15 mm Ø pivot pin Weight in kg: 0.065	01.129
<b>Top pivot bearing</b> aluminium, for installation in frame or ceiling for 15 mm Ø pivot pin Weight in kg: 0.018	01.130
<b>Top pivot bearing</b> with steel fixing plate, for 15 mm Ø pivot pin Weight in kg: 0.160	01.131
<b>Top pivot bearing</b> with aluminium fixing plate, for 15 mm Ø pivot pin Weight in kg: 0.099	01.132

### **Profiles**

Product description	ArtNo.
Aluminium round profile for pinch free doors with 65 mm pivot point, consisting of 2 halves, prepared for UNIVERSAL fittings or door rails (76.5 mm or 100 mm). Please indicate: • Panel height (max. 2500 mm, higher dim. on request) • Required preparation of the profile for top and bottom fittings Fixed length Stock length 6,000 mm Stock length 3,000 mm Weight in kg/m: Aluminium 4,744	03.380 03.381 03.382
Radiused edging strip for fittings with 15 mm/18 mm pivot point. For pinch free doors, (strip is clamped onto free glass edge), Acrylic. Length: up to 4,500 mm (specify height) Lenght: 2,250 mm Weight in kg/m: 0.408	01.230 01.231

### Gasket sets

Product description	ArtNo.	Product description	ArtNo.
Gasket sets for 12 mm glass thickness		Gasket sets for 8 mm glass thickness	
for PT10/20/22/29/30/GK30	03.900	for PT10/20/22/29/30/GK30	03.920
for US 10/20/GK50	03.901	for US 10/20/GK50	03.921
for PT40/41/42/GK40/41/42	03.902	for PT40/41/42/GK40/41/42	03.922
for PT51	03.903	for PT51	03.923
for PT60/61/62	03.904	for PT60/61/62	03.924
for PT70/71	03.905	for PT70/71	03.925
for PT80/81	03.906	for PT80/81	03.926
for PT80 semi-high	03.907	for PT80 semi-high	03.927
for PT90/91	03.908	for PT90/91	03.928
for sidelight connector 01.153	03.909	for sidelight connector 01.153	03.929
for patch fitting 03.198, for patch fittings with 15 mm pivot point 01.200/01.201, 01.210/01.220	03.910	for patch fitting 03.198	03.930
for patch fittings for overpanels with 15 mm pivot point 01.240/01.245	03.911		

### Safety-related information

### Important safety-related information for the mounting and use of dormakaba glass fittings

(Follow these instructions in addition to the mounting and operating instructions in order to avoid damage of product and damage to person or property.) **Important:** All users have to be informed about relevant points mentioned in these safety-related information and the mounting and operating instructions!

#### **General information**

- 1. dormakaba recommends using TSG-H (heat soaked toughened safety glass) to DIN EN 12150-1.
- 2. dormakaba glass fittings are not suitable for application in rooms where chemicals (e. g. chlorine) are used such as indoor swimming pools, saunas or salt-water pools.
- 3. Never move sliding panels faster than walking speed and always stop the door manually before it reaches end position.
- 4. Do not shut swing doors with excessive force. Install door stop to prevent door from opening too far.

#### Mounting

- 1. Only properly qualified and specially trained staff is authorised to mount dormakaba glass fittings.
- 2. Never use glass with conchoidal fractures and/or damaged edges.
- 3. Due to crushing hazards among others in the area of the secondary closing edge – and possible injury caused by breakage of glass during mounting, corresponding protective clothing (especially gloves and protective goggles) is required.
- 4. Clean clamping area with fat solvent (standard commercial cleaning agent) before mounting the glass fitting.
- 5. Never use clamping shoes on structured glass surfaces (except on satined glass) or glass of heavily varying thick-
- ness unless with a corresponding levelling layer. 6. Never use clamping shoes on self-cleaning coatings.
- 7. When adjusting glass elements, always stick to the
- required clearance for the respective fitting. Adjust clearance so that the glass does not touch hart components such as glass, metal or concrete.
- 8. Make sure not to use excessive force when installing the glass (avoid local stress resulting from very tight screws).

#### Maintenance

Check fittings at regular intervals for proper positioning and smooth running and door for correct adjustment. Especially highly-frequented door systems require inspection by properly qualified staff (specialised companies or installation firms). Immediately replace damaged class elements (no glass flaking and/or conchoidal fractures)!

#### **General care instructions**

The surface finishes of the fittings are not maintenance-free and should be cleaned according to their material and design.

- For metallic surfaces (anodised finishes, stainless steel) please use appropriate cleaning agents without abrasive additives only.
- For varnished surfaces please use appropriate solvent-free cleaning agents only.
- Brass surfaces (without surface protection) have to be treated with an appropriate maintenance agent on occasion, to avoid tarnishing.



The printed colours indicating the surface finishes are not 100% true, but do provide a useful quide.

Statements made with regard to the nature or use of the products are for the purposes of descriptions. Assent with regard to the existence of particular properties or particular uses always requires special written agreement. Pictures may show special designs which are different to the standard scope of delivery.

Subject to change without notice.

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