

MonoLock-screw connection

The MonoLock-connection has been developed to ensure a strong and durable screw connection of MonoPan® with load carrying members in aluminium and steel. The connection consists of a self-drilling screw in a clamp sleeve.

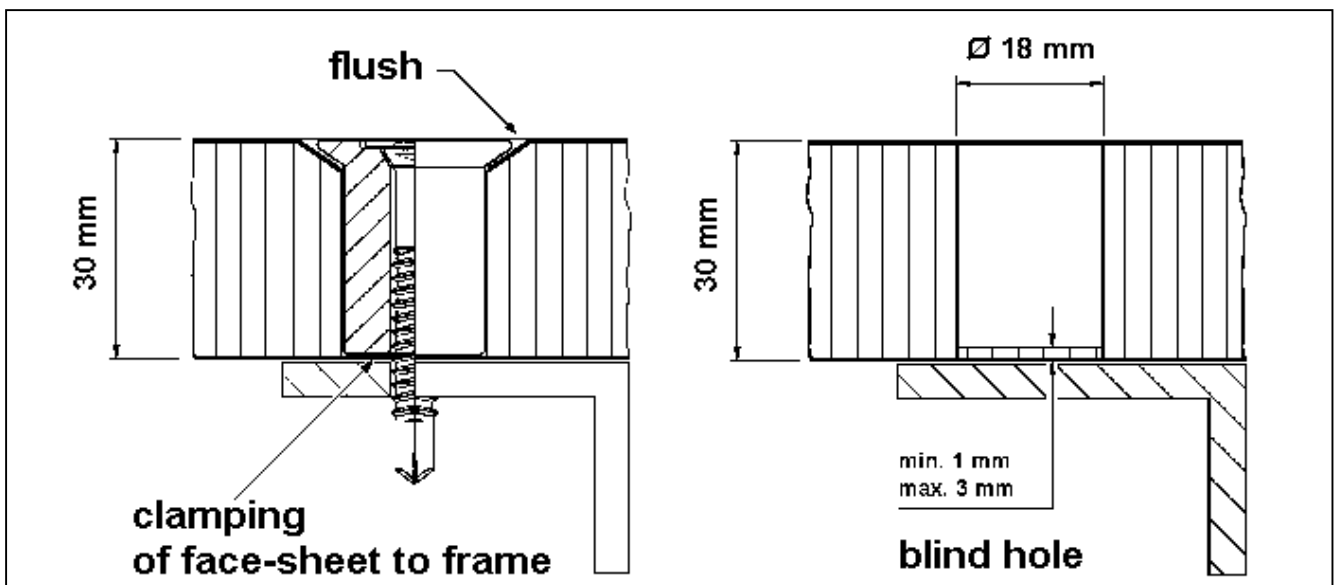
First a blind hole must be drilled into MonoPan®. The self-drilling screw is screwed into the metal member together with the clamp. The clamping of the lower face sheet and the metal member is carrying the main load. Additionally, the flange of the sleeve clamps the upper face sheet and provides a flat surface.

Assembly instruction: MonoLock-sleeve and drill screw: EJOT Saphir JT2-STS-6-6.3x60

Forstner-drill diameter 18 mm

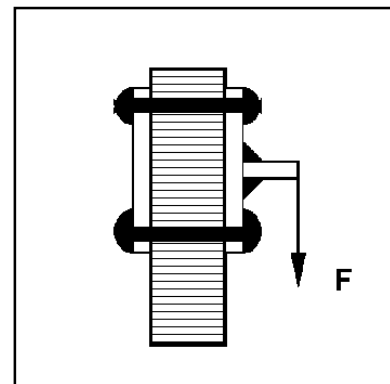
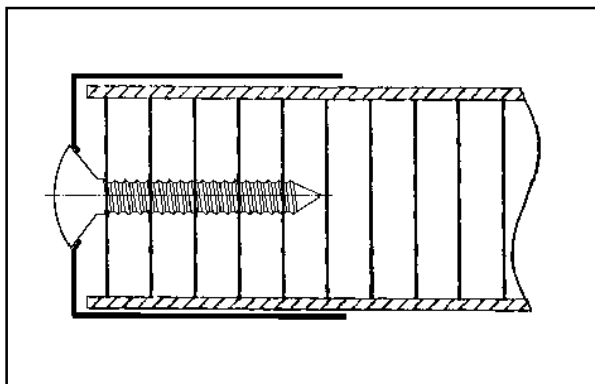
Torque: 6 - 10 Nm.

Frame: Aluminium 3 - 5 mm, Steel 2 - 4 mm.



Other connections using screws or bolts

Edge closings and other non-load bearing connections can be achieved by assembling a profile to the edge with woodscrews in sideward direction (s. left figure). Through bolting can be done, possibly by the use of load distribution plates to enable a higher loading capacity. The core should not be crushed. (s. right figure)



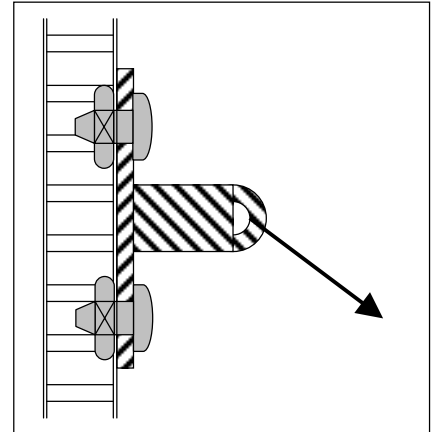
Fasteners: blind rivets

Fasteners, especially with a flange counter head, are very well suited for connections to MonoPan®.

The high elongation-to-break of PP and the high strength of the glass fibres yield a high load capacity. Because of the welding process of the face sheets to the core no delamination caused by rivets will occur.

With load distribution plates an even higher load can be introduced (s. right figure)

Rivets do not only offer high load capacity, but can also be processed easily. The table below shows various types of rivets. Use this table to chose the best rivet for your application.



Selection table blind rivets

	Manufacturer	Rivet type	Pull-out strength [N]	Shear-strength [N]	Remarks
<div style="writing-mode: vertical-rl; transform: rotate(180deg);">Load capacity</div> <div style="text-align: center;"> <div style="width: 100%; height: 100%; background: linear-gradient(to bottom, #f0f0f0, #ffcccc, #ff9999, #ff6666, #ff3333);"></div> <div style="position: absolute; bottom: 0; left: 0; right: 0; text-align: center;">High</div> </div>	Avdel-Textron	Bulbex® BF01 (bulge counter head)	-	-	- Glass fibre failure + low price
		Avex® BE1692-0613 (bulge counter head)	-	~800	+ low price
	Avdel-Textron	Avibulb® BN01-0614 (bulge counter head)	300-500	650-900	+ cost efficient
		Avibulb® BN01-6013 (bulge counter head)			
		Hemlok® 2221-0812 (bulge counter head)	~400	~750	± medium costs
		Eurosert® 39006-28035 (blind rivet nut)	350-450	1100-1200	bulge counter head ± medium costs
		Eurosert® 09406-02822 (blind rivet nut)			
	Titgemeyer	Plusnut® SM06P0751 (blind rivet nut, flange)	200-250	~100	± medium costs
		Plusnut® SM08P0751 (blind rivet nut, flange)			
		Plusnut® SM10P0801 (blind rivet nut, flange)	~350	~150	
	Avdel-Textron	TLR® 3904-0623 (aluminium, Ø 5,5 mm)	650-800	1100-1200	All: Flange counter head + suitable for vibrations + best results in applications ± relatively high costs
		TLR® 3904-0832 (aluminium, Ø 6,5 mm)			
	KVT-König	POP SCD 608 BS (galv. steel, Ø 5,0 mm)			
		POP SCD 612 BS (galv. steel, Ø 5,0 mm)			
	Titgemeyer	Olympic Bulb-tite® RV 6604 6-4 (aluminium, Ø 5,0 mm)			
		Olympic Bulb-tite® RV 6606 8-4 (aluminium, Ø 6,5 mm)			
		Olympic Bulb-tite® RV 6676 8-4 (galv. steel, Ø 6,5 mm)			
	Gesipa	Bulb-tite® RV 6604-6-4 (aluminium, Ø 5,5 mm)			
		Bulb-tite® RV 6604-8-4 (aluminium, Ø 6,5 mm)			
		Bulb-tite® RV 6676-8-4 (galv. steel, Ø 6,5 mm)			
		Bulb-tite® RV 6696-8-4 (stainless steel, Ø 6,5 mm)			
	Avdel-Textron	Fab-Lok® FAC-10-4 (Flange counter head)	1400	1800	+ disassembly possible - no metric head

For applications, treatment and storage please pay attention to the „Technical Data Sheet“ of the manufacturer.

The specifications in this data sheet represent the current state of our technical knowledge and its purpose is to inform about MonoPan® and its applications. The specifications therefore do not guarantee particular properties or suitability for a specific application. We reserve the right to make changes in accordance with technological processes and other developments. We guarantee faultless quality in accordance with our conditions of sale.