

Concrete screw JC6-D-7,5

Sandwich fasteners with new high thread geometry for direct fastening of sandwich panels to concrete substructures



Sandwich fastening directly into concrete

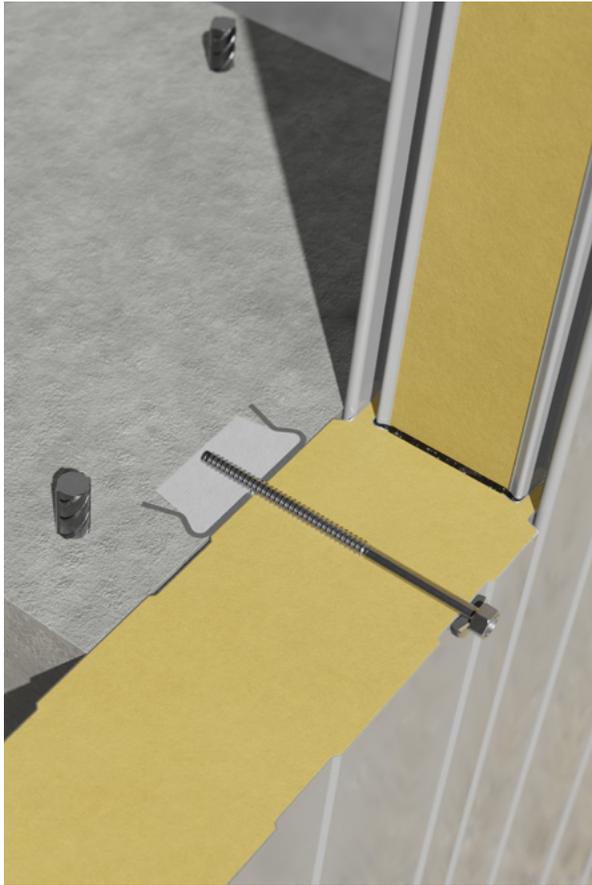
ETA-certified concrete screw for fastening without insertion rails

With the new ETA-certified JC6-D concrete screw from EJOT, sandwich panels used for industrial lightweight construction can now be fastened directly to precast concrete substructures. The insertion rails commonly used up to now are now a thing of the past. This saves time, costs and valuable resources.

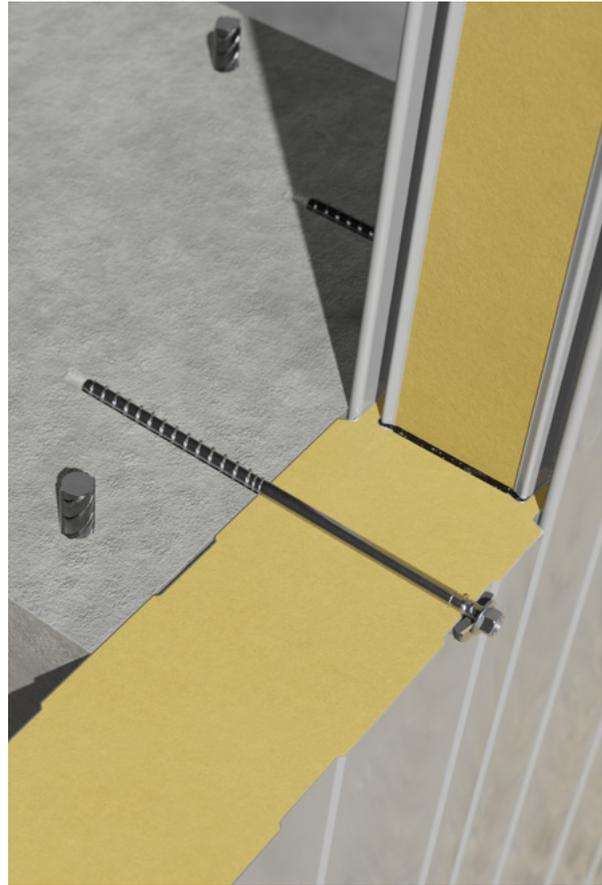
Until now, special insertion rails were used to fasten sandwich elements to concrete substructures. These are already used during the production of the precast concrete substructures so that the sandwich elements of the facade cladding can be attached to them later using self-drilling screws. In practice, this resulted in a high level of planning effort for the positioning of the rails. The rails were set in concrete, which meant there was no flexibility and subsequent changes were impossible.

The JC6-D concrete screw is made of A4 stainless steel with a hardened forming zone and can be used

in cracked and non-cracked concrete in roof and wall areas. The unique high thread geometry and the captive, pre-assembled stainless steel sealing washer provide optimum protection for the connection against rain. With the new ETA-certified JC6-D concrete screw from EJOT, sandwich elements in industrial lightweight construction can now be fastened directly to precast concrete substructures. The insertion rails are no longer needed, which saves valuable resources, as hundreds of metres of insertion rails will no longer have to be produced, transported and installed for construction projects in future. This also results in a time advantage, as the precast concrete substructures can generally be produced more quickly without rails being inserted in the concrete plant. The highlight: JC6-D concrete screws are completely removable and can be recycled separately when the sandwich elements are dismantled at a later date.



Conventional fastening of sandwich elements to concrete substructures in insertion rails requires considerable planning in advance.



The new JC6-D concrete screw can be anchored directly into concrete. Precast concrete elements no longer need to be fitted with insertion rails at the factory, thus simplifying the planning and processing process.

Fully set up

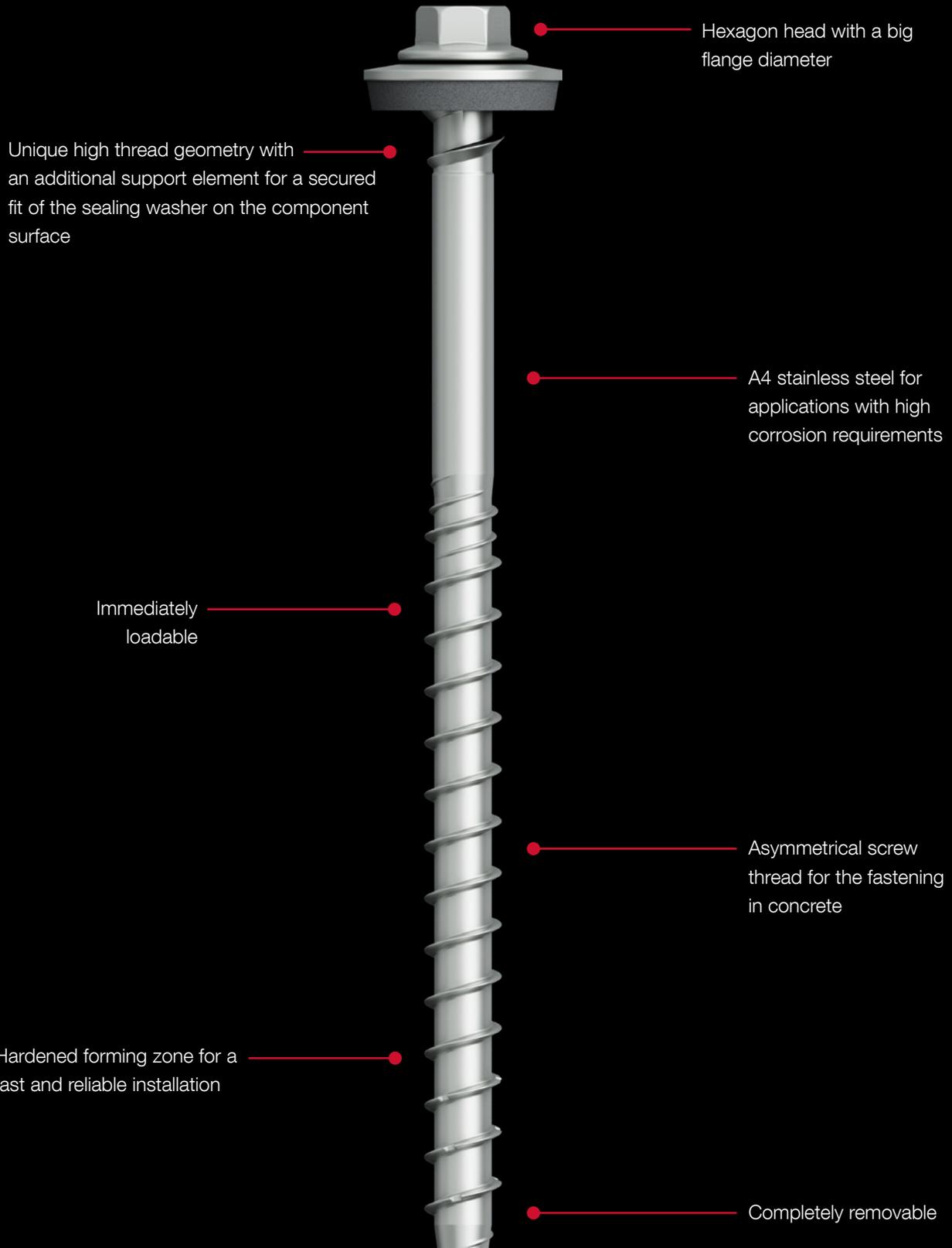
The JC6-D concrete screw completes EJOT's range for the direct fastening of sandwich elements. With the JC6-D for concrete substructures, the JT3 self-drilling screws and the JZ5 self-tapping screw for steel, as well as the JF3-Plus self-drilling screw for wood, fastening solutions are now available for all common substrates:

Anwendung	Produkt
	Bohrschraube JT3-6-5,5xL-E16 + ORKAN-Kalotte Bohrschraube JT3-18-5,5xL-E16 + ORKAN-Kalotte Bohrschraube JT3-12-5,5xL-E16 + ORKAN-Kalotte Dichtschraube JZ5-6,3xL-E16 + ORKAN-Kalotte
	EJOFAST® Bohrschraube JF3-Plus-6,8xL + ORKAN-Kalotte
	Dichtschraube JZ5-6,3xL-E16 + ORKAN-Kalotte
	Betonschraube JC6-D-7,5xL-E19 + ORKAN-Kalotte

Anwendung	Produkt
	Bohrschraube JT3-D-6H-5,5/6,3xL-E19 Bohrschraube JT3-D-12H-5,5/6,3xL-E19 Bohrschraube JT3-18-5,5xL-E19 Dichtschraube JZ5-6,3xL-E19
	EJOFAST® Bohrschraube JF3-Plus-6,8xL-E19
	Dichtschraube JZ5-6,3xL-E19
	Betonschraube JC6-D-7,5xL-E19

Concrete screw JC6-D-7.5

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Concrete screw JC6-D-7.5



Application range

- > Direct fastening of sandwich panels to concrete substructures

Properties

- > A4 stainless steel with hardened forming zone
- > Stainless steel sealing washer
- > Pre-assembled sealing washer
- > Unique high thread geometry

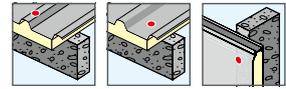
Advantages

- > Immediately loadable
- > Completely removable
- > No insertion rail necessary

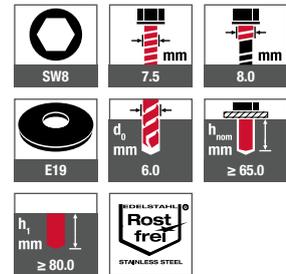
Cross references

ORKAN storm washers
Cordless impact screwdrivers
Cordless hammer drill ABH
Precision drill bit HSS
Hammer drill SDS plus
Impact socket wrench

Applications



Technical specifications



Certifications



Base materials

- Suitable for
- > Cracked concrete
 - > Non-cracked concrete

Installation process

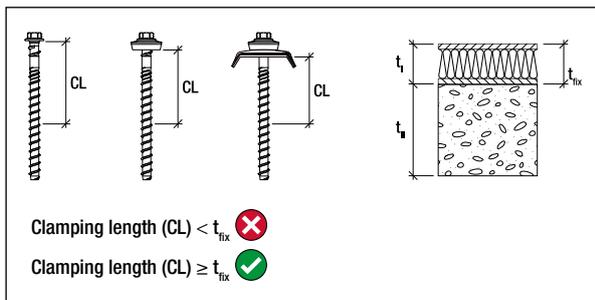
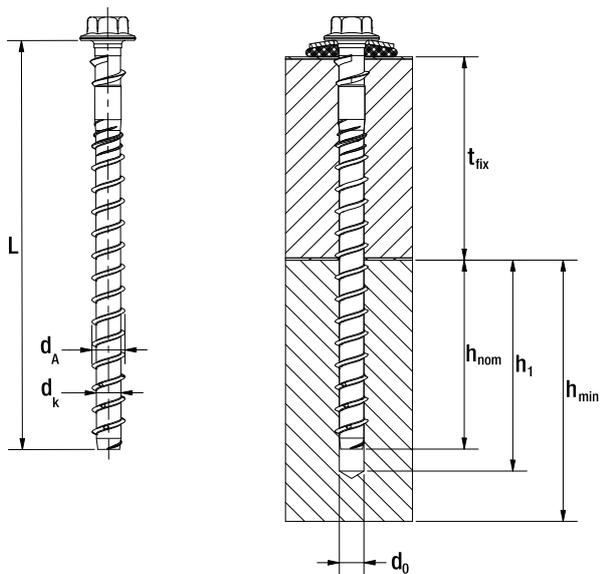


Product online



Order description	L [mm]	Height component I [mm]	PU [pieces]	Price/100 [EUR]	Article number	EAN
JC6-D-7.5x115 E19	115	37–47	100		3551082991	4061245117591
JC6-D-7.5x135 E19	135	57–67	100		3551182991	4061245117607
JC6-D-7.5x155 E19	155	77–87	50		3551282991	4061245117614
JC6-D-7.5x175 E19	175	97–107	50		3551382991	4061245117621
JC6-D-7.5x195 E19	195	117–127	50		3551482991	4061245117638
JC6-D-7.5x215 E19	215	137–147	50		3551582991	4061245117539
JC6-D-7.5x235 E19	235	157–167	50		3551682991	4061245117546
JC6-D-7.5x255 E19	255	177–187	50		3551782991	4061245117553
JC6-D-7.5x275 E19	275	197–207	50		3551882991	4061245117577
JC6-D-7.5x295 E19	295	217–227	50		3551982991	4061245117584

Concrete screw JC6-D-7.5xL



Anchoring substrate

- > Reinforced or non-reinforced normal weight concrete according to EN 206:1-2017
- > Strength class C20/25 to C50/60 according to EN 206:1-2017
- > Cracked or uncracked concrete

Technical data

Nominal embedment depth	$h_{nom} \geq$ [mm]	65.0
Predrilled hole in sandwich panel	d_{sw} [mm]	6.0–6.5
Drill hole diameter	d_0 [mm]	6.0
Drill bit cutting diameter	d_{cut} [mm]	6.05–6.40
Recommended drill bit cutting diameter	d_{cut} [mm]	6.15–6.40
Drill hole depth to deepest point	$h_1 \geq$ [mm]	80.0
Minimum thickness of base materials	h_{min} [mm]	100
Thread diameter	d_A [mm]	7.5
Core diameter	d_k [mm]	5.55
Material	1.4401 acc. EN 10088-1-2015 mit gehärteter Furchzone	

Characteristic load capacity

in cracked and non-cracked concrete C20/25-C50/60

Steel failure

Characteristic tension resistance	$N_{Rk,s}$ [kN]	15.7
Characteristic shear resistance	$V_{Rk,s}$ [kN]	9.6

Pull-out failure

Characteristic resistance in cracked concrete C20/25	$N_{Rk,p}$ [kN]	4.0	
Characteristic resistance in non-cracked concrete C20/25	$N_{Rk,p}$ [kN]	8.0	
Increasing factor for $N_{Rk,p}$	ψ_C	C25/30	1.04
		C30/37	1.07
		C35/45	1.09
		C40/50	1.12
		C45/55	1.14
		C50/60	1.16
Partial safety factor	γ_{inst} [-]	1.0	
	$\gamma_{Mp}^{1)}$ [-]	1.5	

¹⁾ In absence of other national regulations

Notes



ETA-21/1107



Rules of lightweight metal construction (IFBS)



Wear eye protection



Wear ear protection



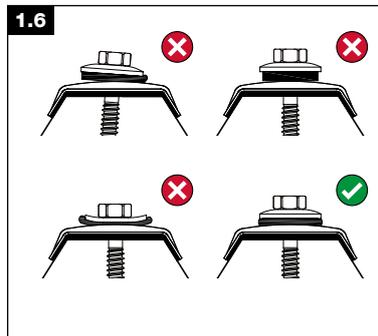
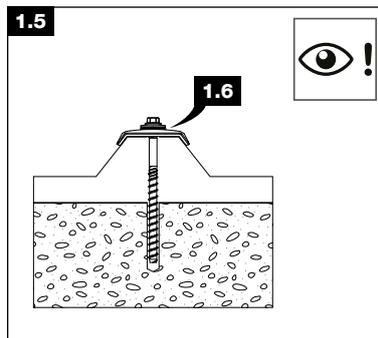
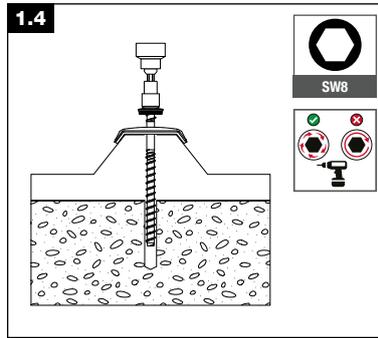
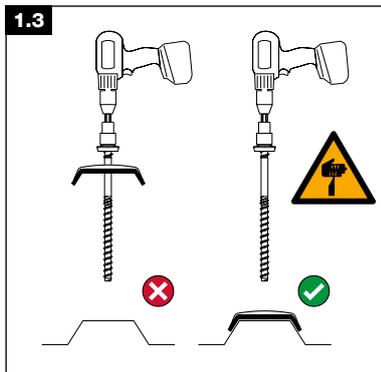
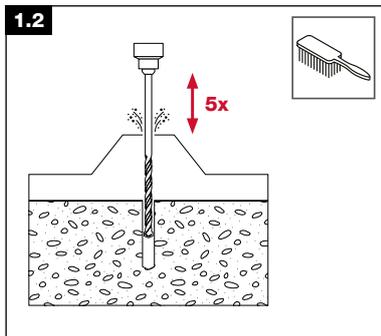
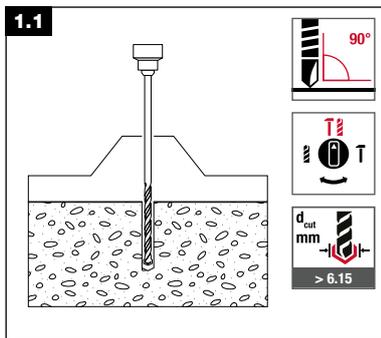
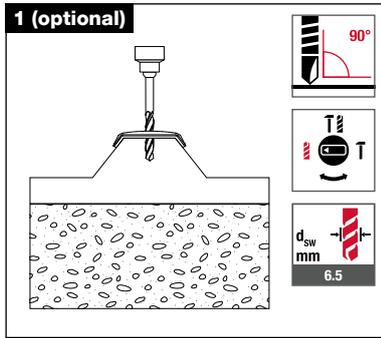
Store dry until installation



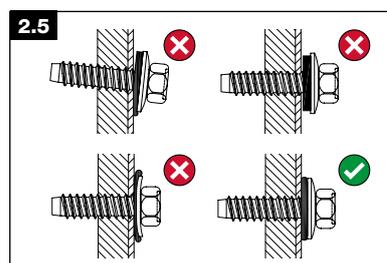
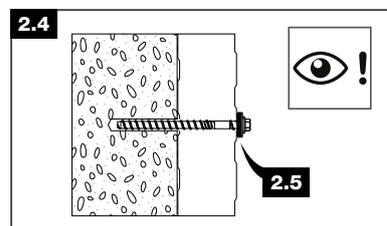
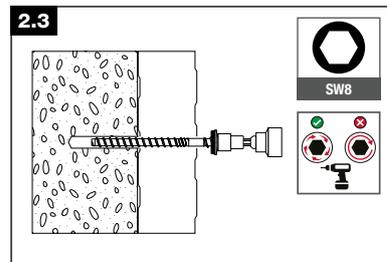
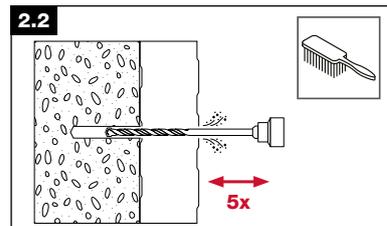
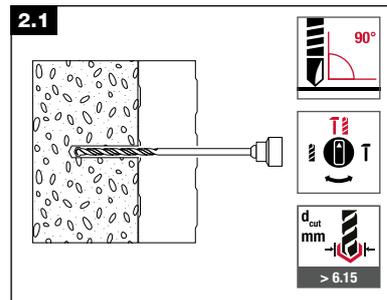
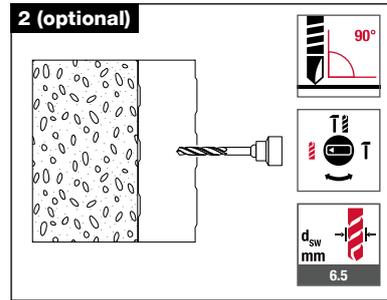
Detect reinforcement

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Assembly process (example 1)



Assembly process (example 2)





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