

LAYHER INFO

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Information about products and
technology for clients and partners



The O-aluminium FlexBeam

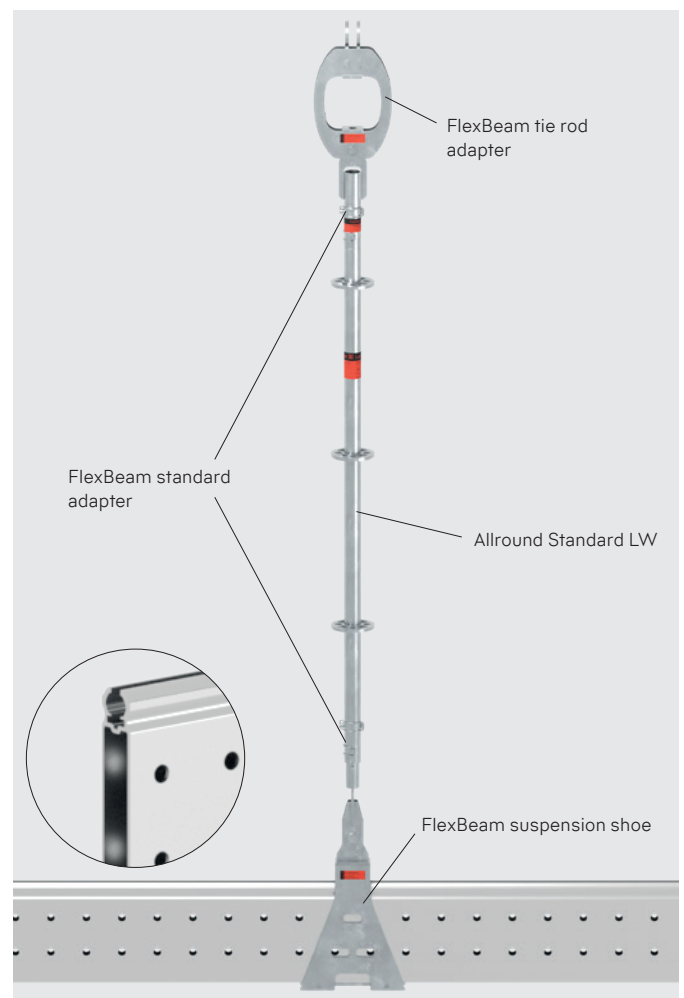
High load-bearing capacity yet low height.

Rapid assembly and optimum use of materials ensure economical scaffolding structures. The aluminium FlexBeam provides what it promises. Thanks to its higher load capacity, the suspension configuration can be enlarged. That saves time during assembly and protects the structure – less drilling, less assembly, less dismantling.

In comparison with the proven Steel Lattice Beam 450:

- the bending load capacity is up to 2.5 times higher, meaning that larger support and suspension configurations are possible – maximum permissible bending moment $M = 34.1 \text{ kNm}$
- the shear load capacity is up to 7 times higher – regardless of the position where the load is introduced Maximum permissible shear force 127 kN
- the structural height is 16 cm lower – the headroom, e.g. on motorways, is retained
- as a rule no compression chord bracing is required
- O-system decks can be directly hooked into the O-section. The position is secured by the easy-to-fit lift-off preventer

The integrated system enables continued easy assembly using standard Allround components. In the case of use as suspended scaffolding, the anchor plate and the suspension shoe are available for receiving the beam. The anchor plate is intended for direct wall-plug connection to the structure – e.g. to the underside of a bridge or to sloping surfaces.



Suspended scaffolding can be built without any problems thanks to matching expansion parts like a suspension shoe, standard adapter or tie rod adapter. The permissible load-bearing capacity for the suspension is 59.5 kN.

Suspension shoe

The suspension shoe can be directly connected to the tie rod adapter. Optionally, the suspension can be extended in length using the standard adapter with Allround standards. The tie rod adapter is used for connection to a tie rod firmly anchored in the structure and suitable for this purpose. Easy expansion within the Layher system dimensions is done using the standard connector.



Lift-off preventer

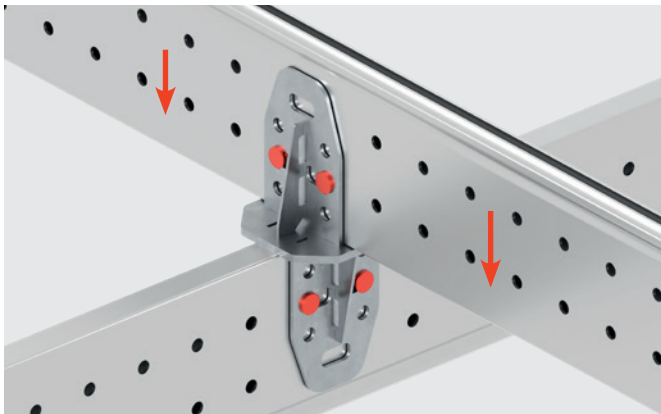
To secure the O-system decks from being inadvertently lifted out or tilted, the O-lift-off preventer for the O-FlexBeam is used. It is placed onto the suspension claws and fastened using the lift-off preventer bolt. To do so, the bolt is inserted into the groove provided for that purpose and then fastened with a nut.

The red safety bars provided at the O-system decks are not used when O-FlexBeams are used instead.



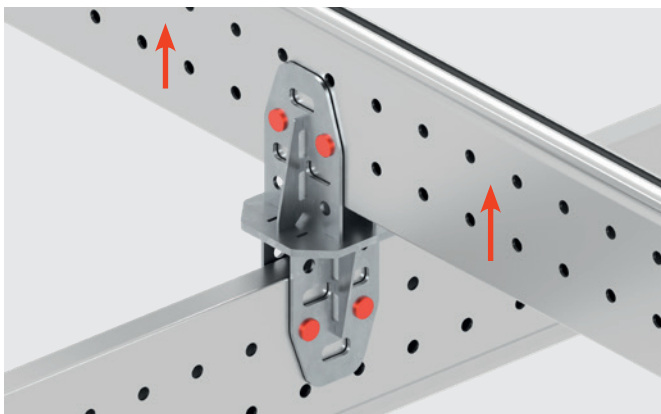
Cross-connector – two functions in one component

The cross-connector allows FlexBeams, positioned one above the other and at right angles, to be turned into a grid structure. Bracing structures for facades or birdcage scaffolding, or even platforms, can be easily built using system components, regardless of the bay lengths of the scaffolding or the distances between beams. Special structures produced specifically for projects – e.g. welded steel structures – can simply be replaced by them, not only resulting in economic benefits but also saving on raw material resources.



Cross-connectors for securing positions when beams rest on one another

- For securing only of the positions of the beams in the crossover area, the beams are only pinned in the elongated holes.
- Depending on the congruence of the holes, pinning can be in either the upper or the lower elongated hole.
- Beam arrangements are possible in the Layher system dimensions.
- More flexibility in grid platforms.

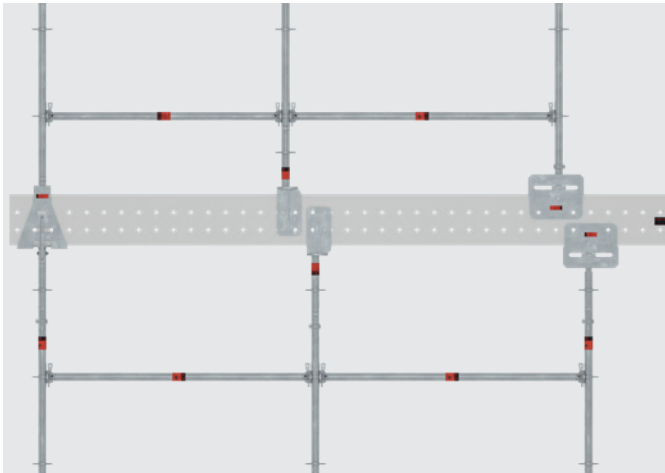


Cross-connectors as pull-resistant connectors for suspended beams

- If the design requires that beams be suspended, tensile forces can also be transmitted with the cross-connector.
- Pinning is done using the round holes.
- Beam arrangement is only possible in a metric configuration.

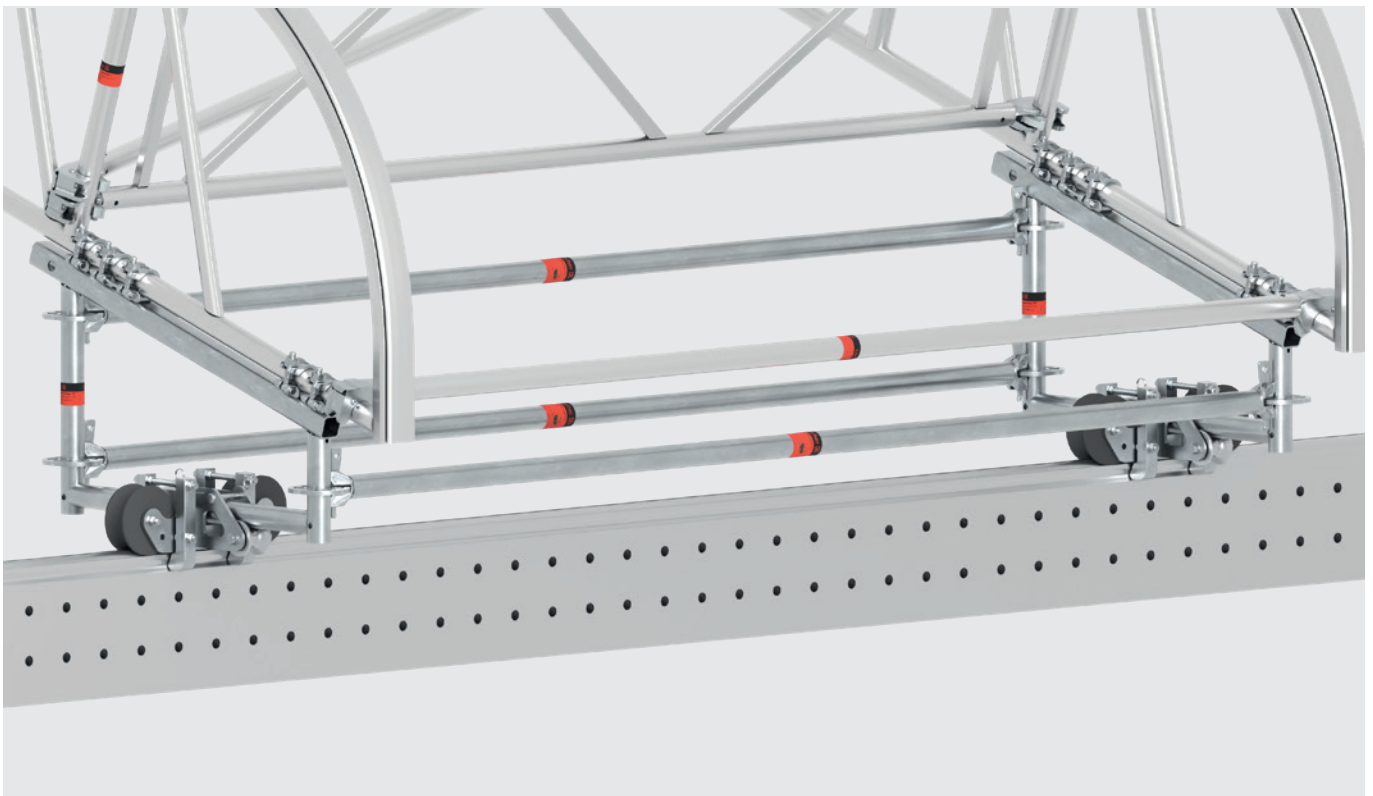
Length adapter

The length adapter has a horizontal adjustment range of 148 mm and permits the adaption of the metric hole configuration of the aluminium FlexBeam with the Layer system dimensions.



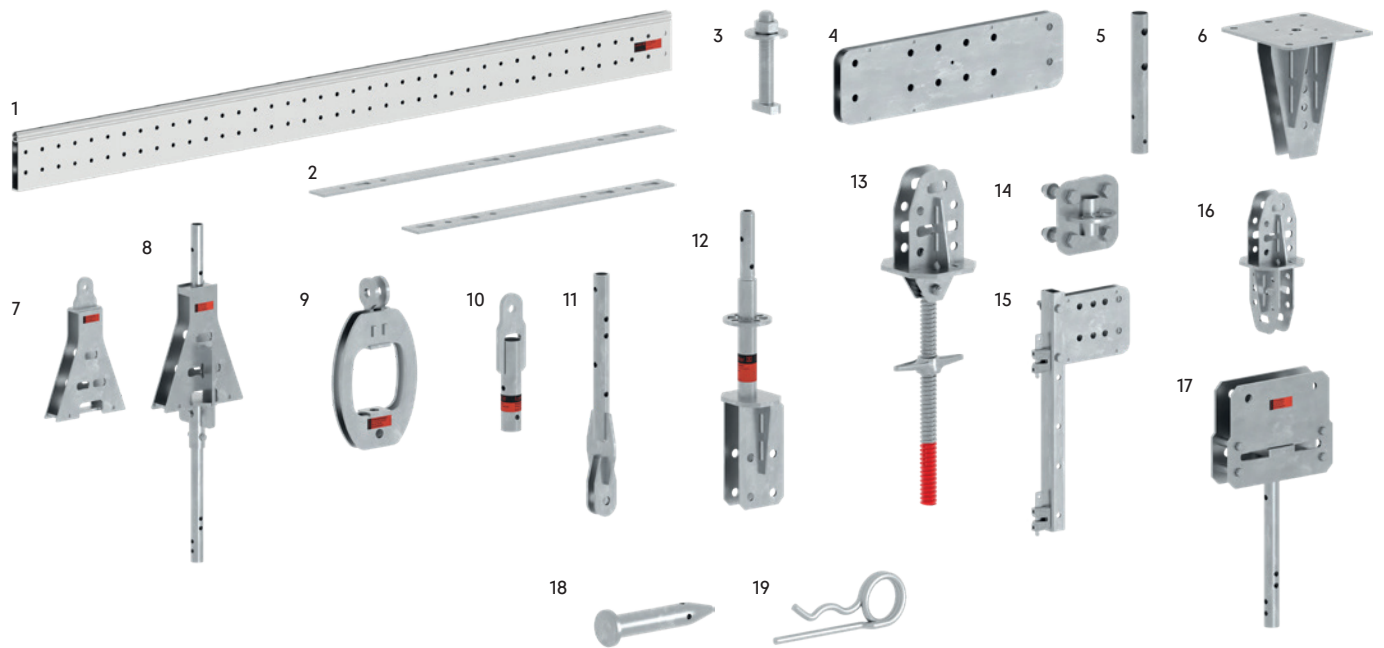
Use as a rail

The O-aluminium FlexBeam is also suitable as a high-strength rail for temporary weather protection roofs or movable scaffolding structures. The trolley T17, known from the mobile Keder Roof XL, is also put to use here. The lift-off preventer jaws of this trolley run inside the recess, provided for that purpose, in the profile of the O-FlexBeam.



The Benefits for You

- Reduction of the assembly work thanks to high load-bearing capacity, fewer suspension points and dispensing with compression chord bracing
- Faster assembly due to direct suspension of O-system decks and an easy-to-assemble lift-off preventer
- System-integrated solution – combinable with Allround Scaffolding and SpeedyScaf
- Additional possibility for use as a rail for weather protection roofs and other mobile scaffolding structures
- Increase in the number of possible uses with just a few additional components
- Small and compact components for easier handling
- More flexibility in grid platforms
- Technical support from information sheets with structural analysis details and from detailed instructions for assembly and use



Pos.	Description	WS [mm]	Dimensions L / H x W [m]	Weight approx. [kg]	PU [pcs.]	Ref. No.
1	Aluminium O-FlexBeam		3.00	30.6	12	2657.301
			4.00	40.8	12	2657.401
			5.00	51.0	12	2657.501
			6.00	61.2	12	2657.601
			7.00	71.4	12	2657.701
2	FlexBeam O-lift-off preventer		0.61	1.1	225	2657.061
			0.92	1.8	225	2657.092
3	FlexBeam lift-off preventer bolt for U- and O-FlexBeams			2.8	20	2657.121
4	FlexBeam beam connector for bending-resistant connections of FlexBeam aluminium U-beam		0.80	16.4	50	2657.010
5	FlexBeam anchor plate tube			1.3	200	2657.020
6	FlexBeam anchor plate			12.0	50	2657.030
7	FlexBeam suspension shoe vertical support for the FlexBeam			9.3	50	2657.040
8	FlexBeam suspension shoe for standard vertical support for the FlexBeam			13.0	15	2657.045
9	FlexBeam tie rod adapter as transition from Allround standards (without spigot) to diagonal rod			5.7	100	2657.050
10	FlexBeam standard adapter male for further expansion / connection of Allround standards (without spigot)			1.7	300	2657.060
11	FlexBeam standard adapter female for connection between Allround standards (without spigot) and suspension shoe			2.9	250	2657.070
12	FlexBeam standard connector for construction of protective walls, for example			6.6	100	2657.080
13	FlexBeam head jack 60, swivelling			11.2	50	2657.160
14	FlexBeam rosette adapter for lateral connection of Allround O-ledgers and horizontal diagonal braces to the beam, including four bolts and nuts	30		2.7	150	2657.130
15	FlexBeam front beam adapter for connection to an Allround standard in at the system level at the beam end	24		11.8	20	2657.015
16	FlexBeam cross-connector			10.4	30	2657.140
17	FlexBeam length adapter			12.6	30	2657.180
18	Bolt d=20 x 113 mm			3.0	10	2646.281
19	Safety clip d=4 mm			1.5	50	5905.002

PU = packaging unit Min.Qty. = minimum quantity = available ex plant warehouse = only in this packaging unit

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Subject to technical modification. Component weights are subject to fluctuations due to tolerances and may therefore diverge from what is specified. Some of the scaffolding structures shown may still be undergoing assembly. Our currently valid terms and conditions of delivery, payment, rental and repair shall apply exclusively. We would be happy to send you these on request. They may be accessed gtc.layher.com.