Layher Info
Information about products and technology for clients and partners.

Layher
More Possibilities. The Scaffolding System.

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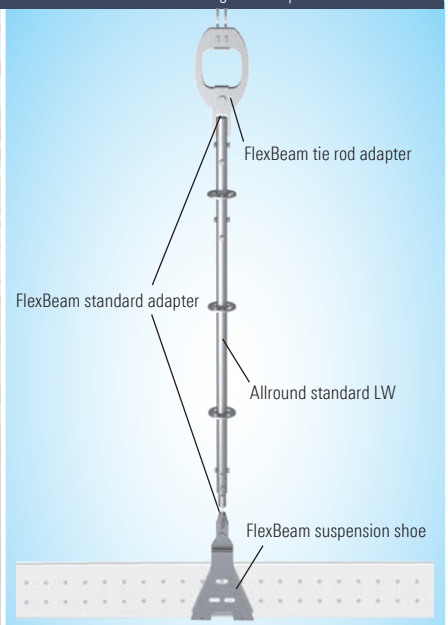
The aluminium FlexBeam from Layher for surface scaffolding at bridge caps and the like, within the system.



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 capacity for the suspension is 59.5 kN.

HIGH LOAD CAPACITY YET LOW HEIGHT

THE ALUMINIUM FLEXBEAM

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 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 17 cm lower** – the headroom, e.g. on motorways, is retained.
- there is as a rule **no compression chord bracing** required.
- **U-system decks can be directly hooked into the U-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.

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

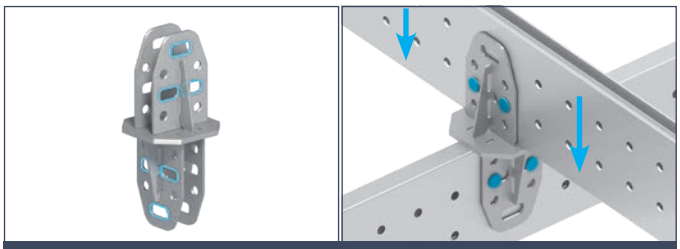
Lift-off preventers fix in place the system decks inserted into the U-section of the beam. Added lift-off-preventers are the lengths 0.26 m and 0.76 m when the guardrail adapter is used. The previous 1.00 m lift-off preventer can be fitted at any point on the FlexBeam, since it passes underneath the suspension shoe or standard connector and there is no collision between the components.

THE TIMBER BEAM SUPPORT

The timber beam support permits lateral fitting of an extra timber beam, for example to act as a basis for providing fitted bays in curved sections.

CROSS-CONNECTOR – two functions in one component

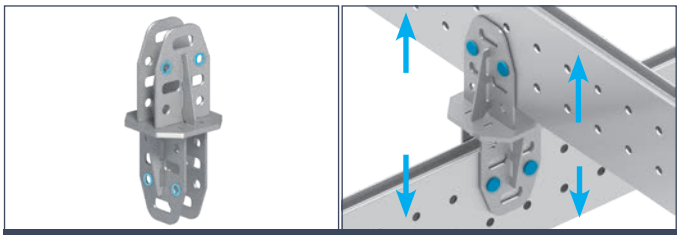
The cross-connector allows FlexBeams, positioned one above the other and at right angles, to be turned into a grid structure. Bracing structures for facades or birdcage scaffolding, or even platforms, can be easily built using system components, regardless of the bay lengths of the scaffolding or the 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.



Securing positions of beams

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 possible in Layher system dimension.
- More flexibility in grid platforms.



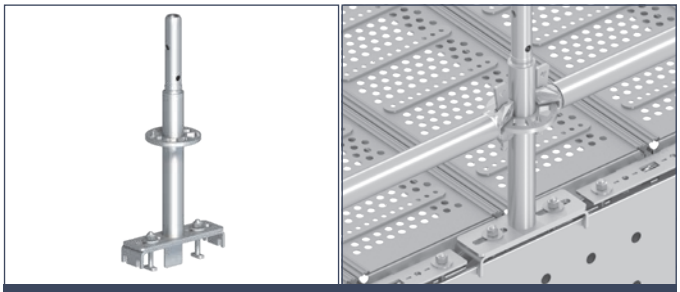
Suspended beams

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 only possible in a metric configuration.

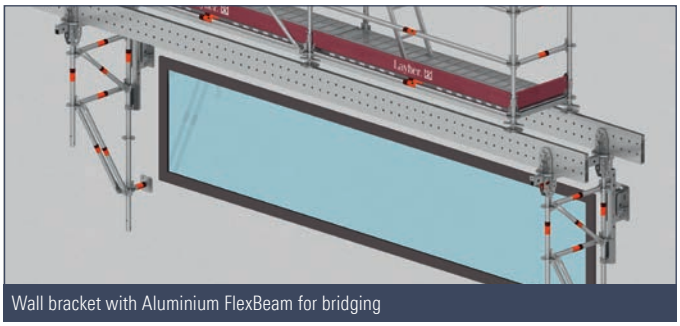
GUARDRAIL ADAPTER

Using existing Allround system components to provide side protection on the FlexBeam permits economical system solutions without the need for costly improvisation. Where necessary the guardrail adapter can also be used as a connecting piece for elevated scaffolding.



Guardrail adapter permits the fitting of guardrails in the longitudinal direction of the FlexBeam

- The guardrail adapter is placed on the top of the FlexBeam and secured using grooved bolts and nuts.
- The guardrail adapter is positioned regardless of the scaffolding decks and can if required be fitted offset.
- Length equalisation is achieved with the elongated holes in the standard plate.
- Fitting of the ledgers is easily possible in the lengths 0.73 m to 3.07 m – both in the Layher system dimension and in metric.
- Guardrails follow the beam axis.
- Increased safety.



Wall bracket with Aluminium FlexBeam for bridging

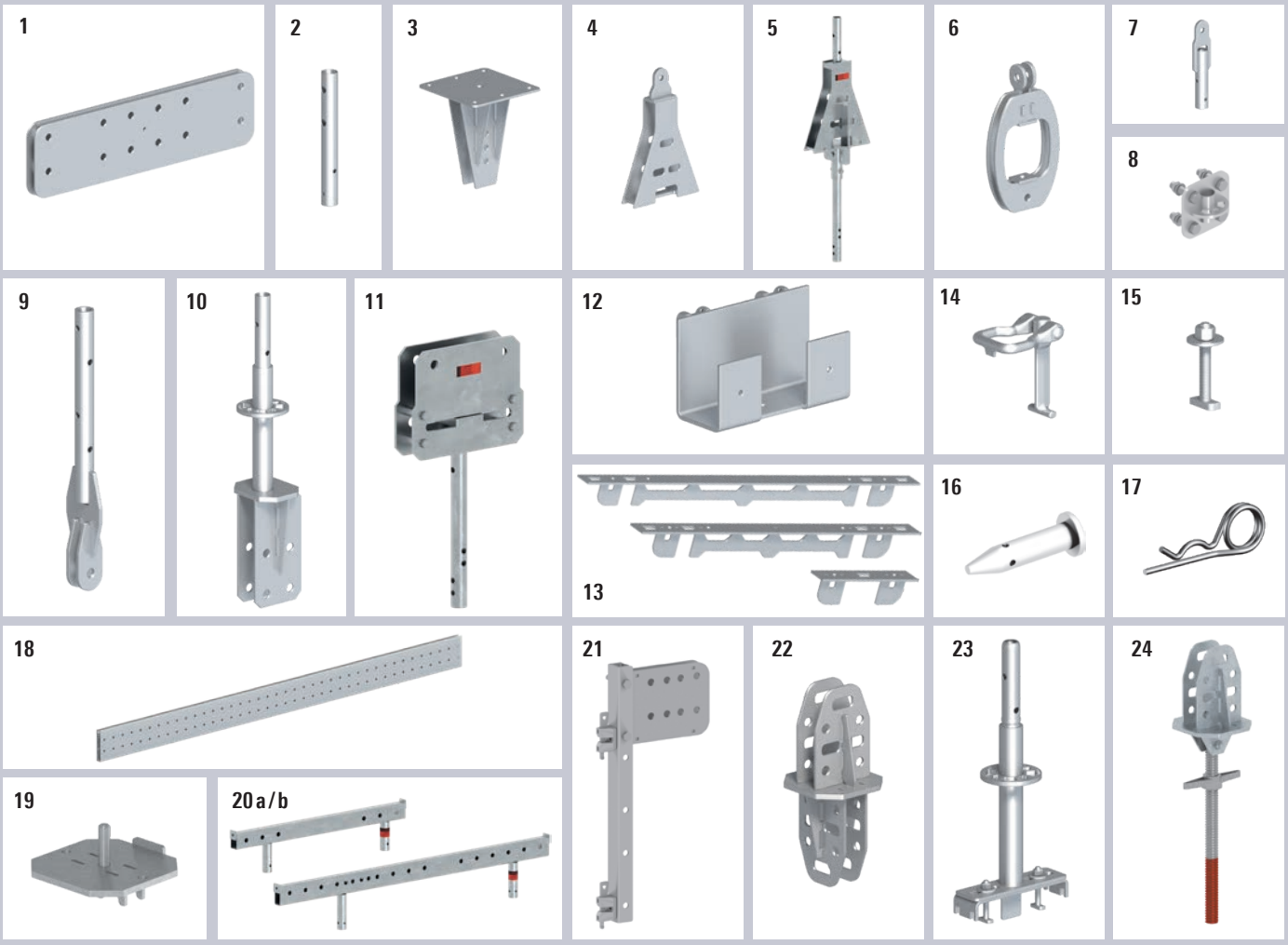
COMBINATION WITH ALLROUND WALL BRACKET

If one or more wall brackets cannot be arranged on the wall in the axis dimension of the scaffolding structure (e.g. in the case of window openings), or to further reduce the assembly effort, the Aluminium FlexBeam can be used to absorb the loads.

- The transition between the wall bracket and the Aluminium FlexBeam is created with a FlexBeam crosspiece and the cross-connector.
- The scaffolding is mounted on the Aluminium FlexBeam, using the base plate support.

THE BENEFITS FOR YOU:

- Reduction of the assembly effort thanks to high load capacity, fewer suspension points, and dispensing with compression chord bracing.
- Faster assembly due to U-shaped upper side of the section, for direct suspension of system decks and an easy-to-fit lift-off preventer.
- System-integrated solution – combinable with Allround Scaffolding and SpeedyScaf.
- Increase in the number of possible uses with just a few additional components.
- Small and compact components for good handling.
- More flexibility in grid platforms.
- Technical support from information sheets with structural analysis details and from detailed instructions for assembly and use.



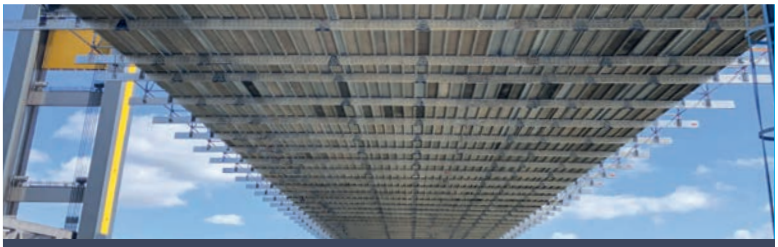
Pos.	Description	Dimensions L/H x W [m]	Weight approx. [kg]	PU [pcs.]	Ref. No.
1	FlexBeam beam spigot		16.4	50	2657.010
2	FlexBeam anchor plate tube		1.3	200	2657.020
3	FlexBeam anchor plate		12.0	50	2657.030
4	FlexBeam suspension shoe		9.3	50	2657.040
5	FlexBeam anchor plate for standard		13.0	15	2657.045
6	FlexBeam tie rod adapter		5.7	100	2657.050
7	FlexBeam standard adapter male		1.7	300	2657.060
8	FlexBeam rosette adapter		2.7	150	2657.130
9	FlexBeam standard adapter female		2.9	250	2657.070
10	FlexBeam standard connector		6.6	100	2657.080
11	FlexBeam length adapter		12.6	50	2657.180
12	FlexBeam timber beam support		3.4	150	2657.090
13	FlexBeam lift-off preventer	0.26	0.7	250	2657.026
		0.76	2.2	150	2657.076
		1.00	3.3	50	2657.100
14	FlexBeam lift-off preventer lock		8.1	50	2657.111
15	FlexBeam lift-off preventer bolt		2.8	20	2657.121
16	Bolt 20 x 113 mm		3.0	10	2646.281
17	Securing pin D=4 mm		1.5	50	5905.002
18	FlexBeam aluminium U-beam	3.00	30.0	12	2657.300
		4.00	40.0	12	2657.400
		5.00	50.0	12	2657.500
		6.00	60.0	12	2657.600
		7.00	70.0	12	2657.700
19	Base plate support		1.8	100	2657.150
20 a	FlexBeam crosspiece	0.73	7.1	50	2657.073
20 b	FlexBeam crosspiece	1.09	22.7	50	2657.109
21	FlexBeam end bracket adapter		11.8	20	2657.015
22	FlexBeam cross-connector		10.4	30	2657.140
23	FlexBeam guardrail adapter		3.8	72	2657.085
24	FlexBeam head jack 60, swivelling		11.2	50	2657.160

PU = packaging unit available ex plant warehouse only available in this packaging unit

VERSATILE IN USE OF THE FLEXBEAM

FlexBeam as birdcage scaffolding

FlexBeam as surface scaffolding at a shipping pier



Bridge underside scaffolding – easy work thanks to less anchoriung points

Work platform with material-saving scaffolding structure

Support for cassette roof – to open the grid dimensions of roof and support structure

FlexBeam in combination with Protect System as walkway with more than 1.50 m width

FlexBeam dimensionally and structurally integrated into Allround Scaffolding

Subject to technical modification. Component weights are subject to fluctuations due to tolerances and may therefore diverge from what is specified.
Deliveries shall be made exclusively in accordance with our currently valid General Terms of Sale. Some of the scaffolding structures shown may still be undergoing assembly.

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