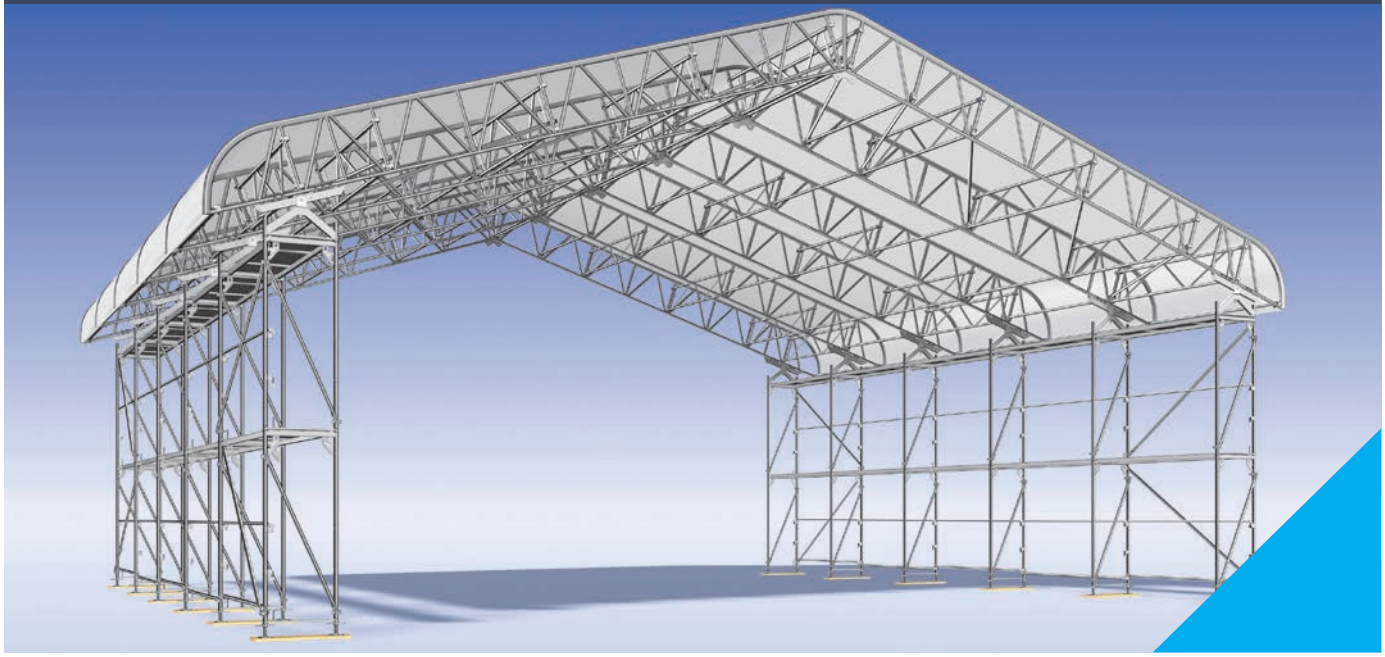
Layher Info

Information about products and technology for clients and partners.

Layher®

More Possibilities. The Scaffolding System.

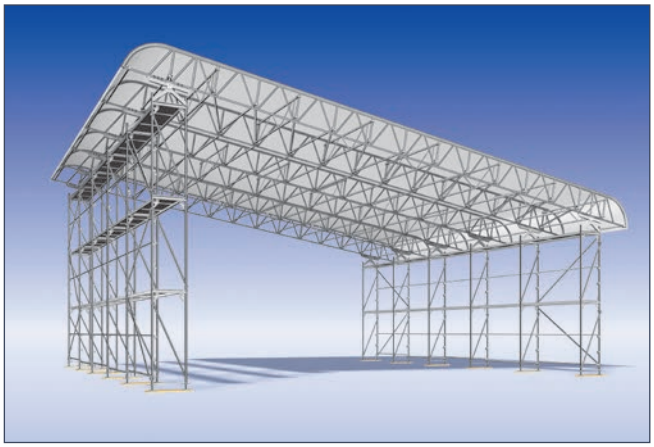
April 2017

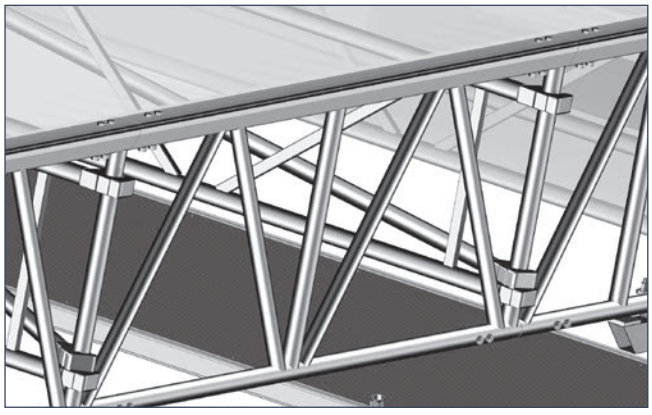


ROOF WIDTHS UP TO 40 METRES

THE KEDER ROOF XL

The Keder Roof XL sets the standards for temporary roofing over construction sites or stages. The Keder Roof XL really comes into its own when roofs are often limited to a 20 metre span for structural strength reasons. Its range extends, taking into account local weather conditions, to **roof widths of up to 40 metres!** The Layher Keder Roof XL is based on 75 cm-high Aluminium Lattice Beams 750 with integrated keder section in the top chord. The Layher Keder Roof XL has many areas of application, ranging from the **roofing during the addition of storeys** and **repairs of timber roofs and coverings, weather protection** for new structures, **refurbishment work on motorways** and bridges, and numerous applications for **events and festivals**.





THE BENEFITS FOR YOU AT A GLANCE

- Roof widths of up to 40 m.
- High snow loads (up to about 1.0 kN/m²) with medium spans.
- Faster and easier insertion of the keder tarpaulins
- Material and loading capacity tables make planning easier.
- Double-pitch, mono-pitch and polygonal barrel roofs are possible.
- Can be combined with all Layer scaffolding systems.

Note: Stabilising and stability-enhancing measures that might be required are not dealt with in this document.

BIGGER – STRONGER – WIDER

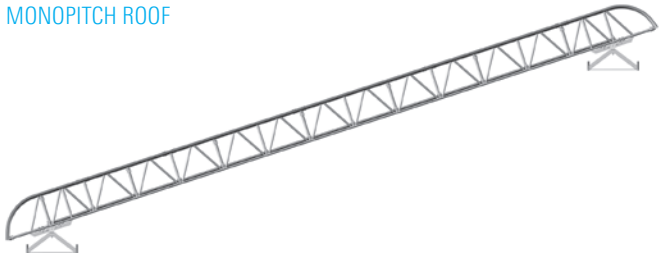
VARIOUS ROOF SHAPES

The new Keder Roof XL has a standard roof angle of 18°. A version with a 20° roof angle is also available.

The Layher Keder Roof XL enables you to assemble roofs in the following forms:

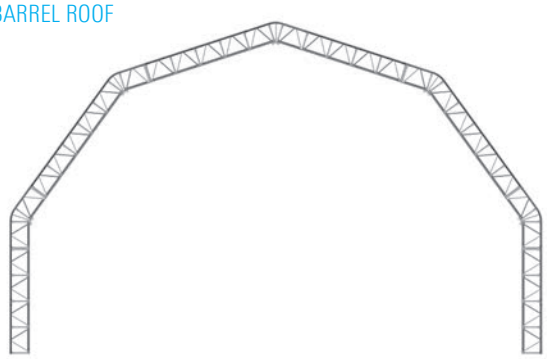
DOUBLE-PITCH ROOF WITH OR WITHOUT TIE

MONOPITCH ROOF



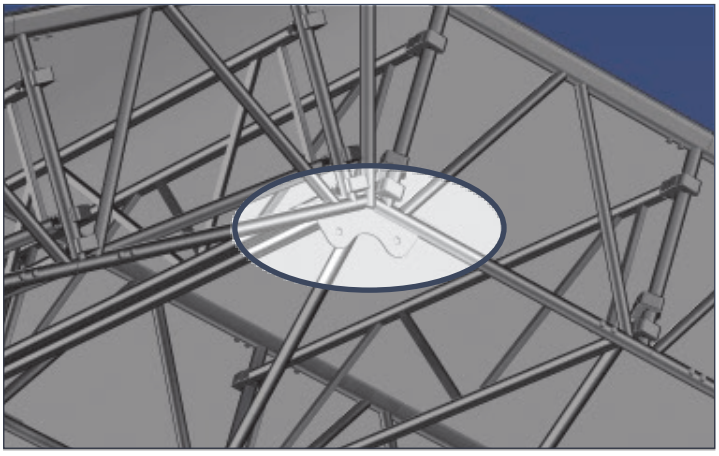
With the 18° roof angle, the Layher Keder Roof XL can be used for even more different roof types. For example, assembly of a polygonal barrel roof is possible.

POLYGONAL BARREL ROOF



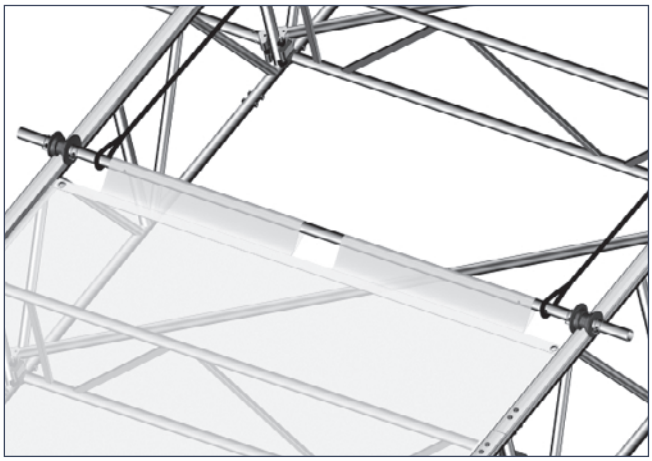
SIMPLE CABLE BRACING

The ridge section is designed for the connection of cables which might be necessary for bracing against wind suction, for example in the case of wide spans.



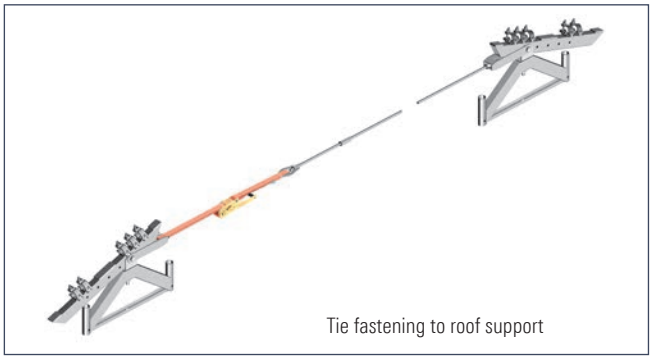
FASTER AND EASIER FITTING OF TARPAULINS

The eaves section of the Keder Roof XL has a larger radius when compared with the proven Layher Keder Roof. Thanks to this, and also to the innovative set for pulling in the tarpaulins, the latter can be fitted with the greatest of ease. The integrated rollers of the set are simply placed on the keder section of the beam. The tarpaulins can then be pulled without much resistance and without skewing into the keder rail – even in the case of large spans.

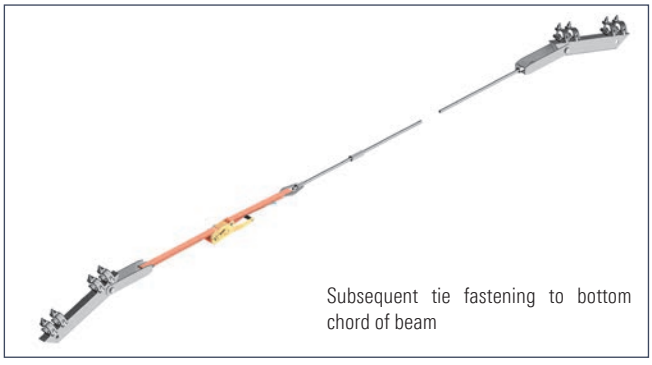


ROOF SUPPORT

The Keder Roof XL support can absorb higher roof loads, and its sliding rocker simplifies assembly. Depending on the design and on the load applied to the roof, between two and five half-couplers of the roof support must be connected to the beam. If needed, a tie can be connected to the rocker of the roof support. If the tie has to be connected at another height level, for example because parts of the structure are in the way, there is a tie fastening that is simply fastened to four half-couplers on the lower chord of the roof beam.



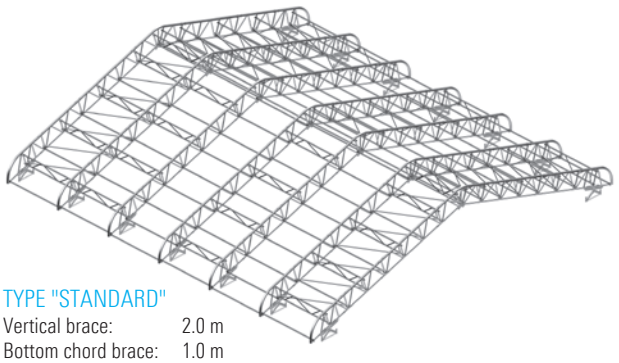
Tie fastening to roof support



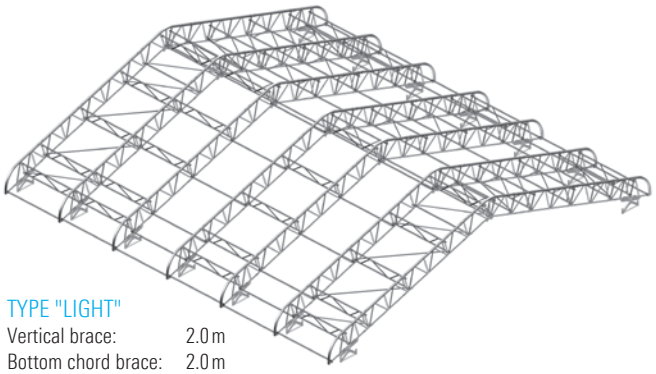
Subsequent tie fastening to bottom chord of beam

BRACING VARIANTS

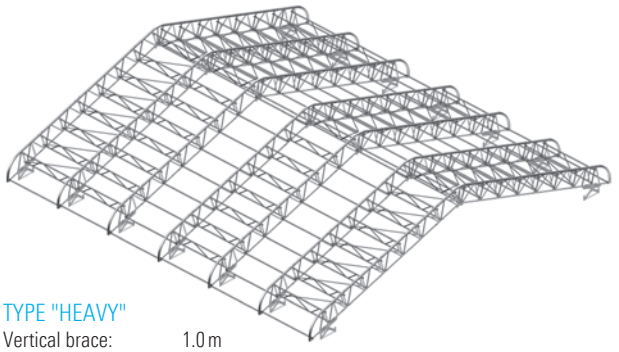
The new Keder Roof XL permits, thanks to differing configurations of the bracing components, three different bracing variants that are used depending on the span, the snow load or the wind load requirements. The lattice beam parts are identical in all three bracing variants! Material tables and load-bearing capacity tables are available for these variants. That saves you real money when planning temporary weather protection roofs.



TYPE "STANDARD"
Vertical brace: 2.0 m
Bottom chord brace: 1.0 m



TYPE "LIGHT"
Vertical brace: 2.0 m
Bottom chord brace: 2.0 m



TYPE "HEAVY"
Vertical brace: 1.0 m
Bottom chord brace: 1.0 m

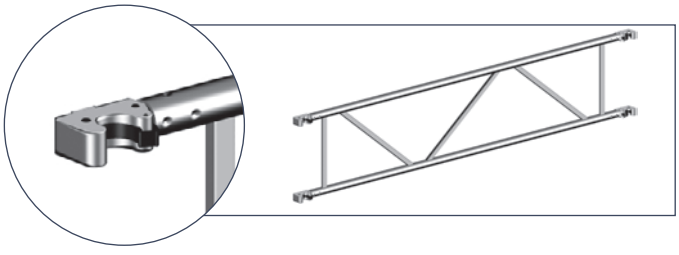
In the case of a building closed on all sides and with an effective dynamic pressure of q_{eff} = 0.56 kN/m² (wind zone 2, ridge height < 18 m, service life < 2 years), the result for the double-pitch roof version, taking into account DIN EN 16508, is the following maximum spans:

Snow load class as per DIN EN 16508		Bracing variant	maximum span L \m]	
			without tie	with tie
SL 1 (summer operation)	0.10 kN/m²	Light	19,1*	19,1*
		Standard	21.0	30,5*
		Heavy	22.9	40,0*
SL2a (reduced snow load)	0.25 kN/m²	Light	15,3*	17,2*
		Standard	15.3	24,8*
		Heavy	19.1	36,2*
SL3 (Eurocode 1, Zone	0.68 kN/m²	Light	9.6	9.6
		Standard	9.6	17.2
		Heavy	11.5	24,8*

*with bracing in centre of ridge against wind suction

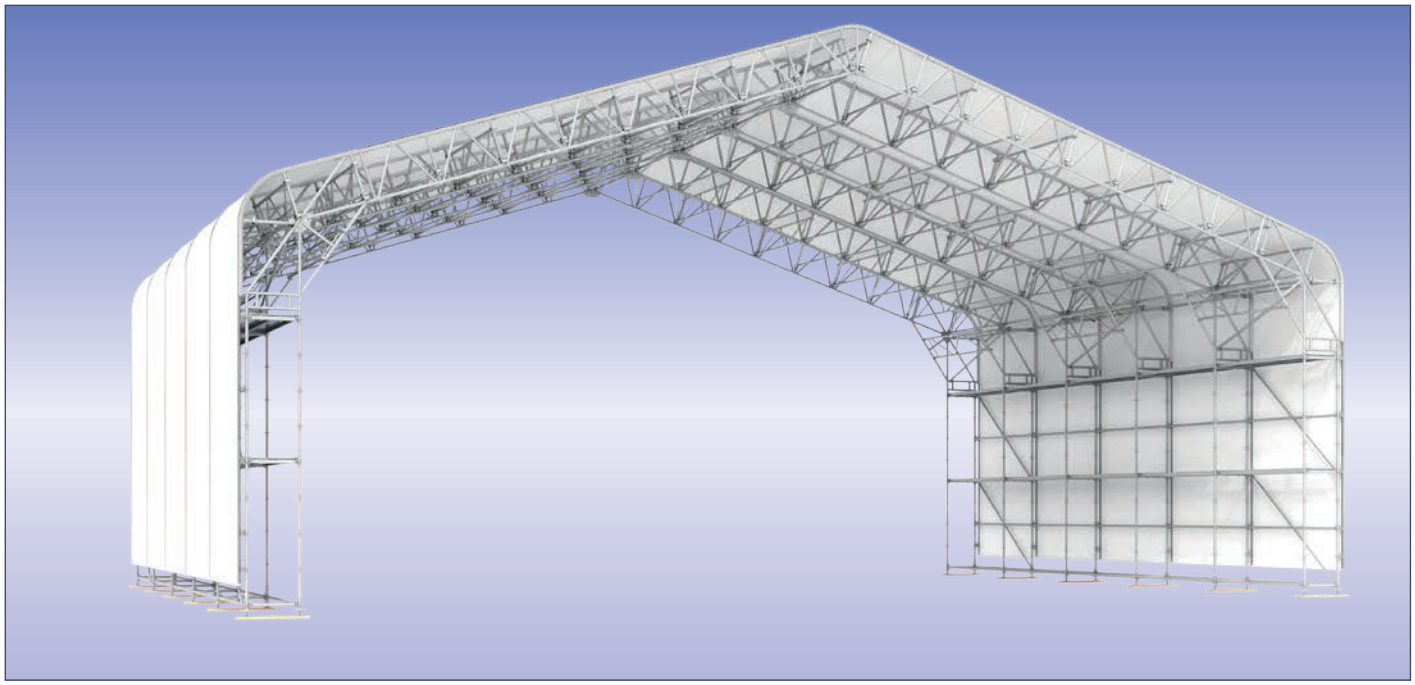
BRACING COMPONENTS

The bracing components of the Keder Roof XL are quick and safe to assemble with the proven Layher technology simply by using snap-on claws.

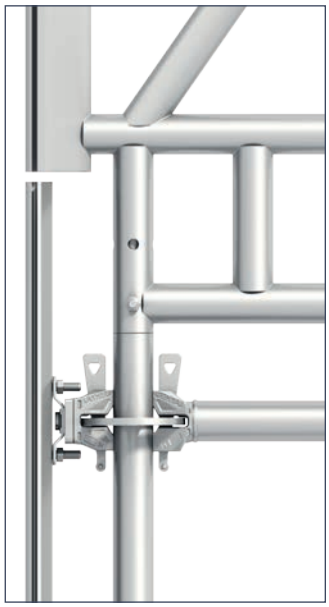


KEDER HALLS

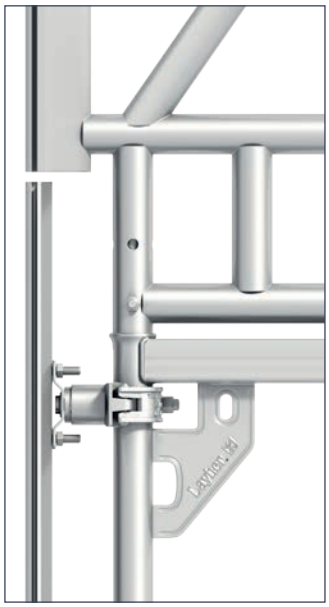
The Bending-Resistant Corner is available as a special roof support, to create visually attractive and closed halls with wide spans using the Keder Roof XL. It can be mounted both on support scaffolding made from Allround parts and on SpeedyScaf.



The Bending-Resistant Corner can be connected quickly and easily by setting it down onto the spigots. The roof tarpaulins are joined to the wall covering using rotatable keder rail holders and keder rails 2000 from the Layher accessories range.



Transition from Keder Roof XL to Allround support scaffolding

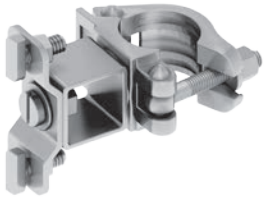


Transition from Keder Roof XL to SpeedyScaf support scaffolding

You only need one additional component – the Bending-Resistant Corner – to design closed keder halls. The support scaffolding can also be used as fully fledged work scaffolding, and the attachment of brackets or inward-facing projections presents no problem when parts from the Layher construction kit are used.

Bending-Resistant Corner
Ref. No. 5975.160

Keder rail holder for Allround Scaffolding
Ref. No. 5573.000



Keder rail holder for SpeedyScaf
Ref. No. 5573.006

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