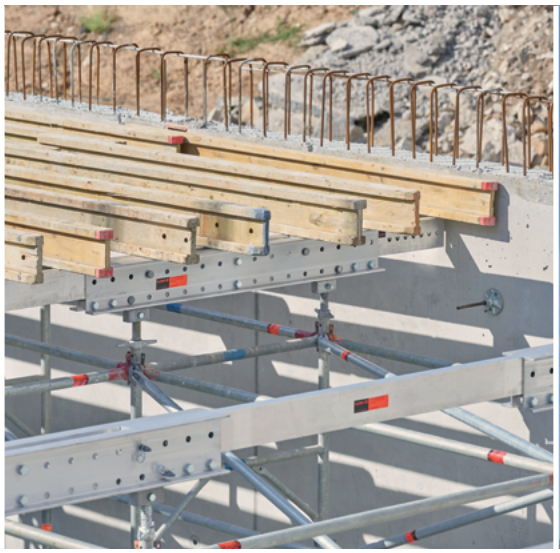
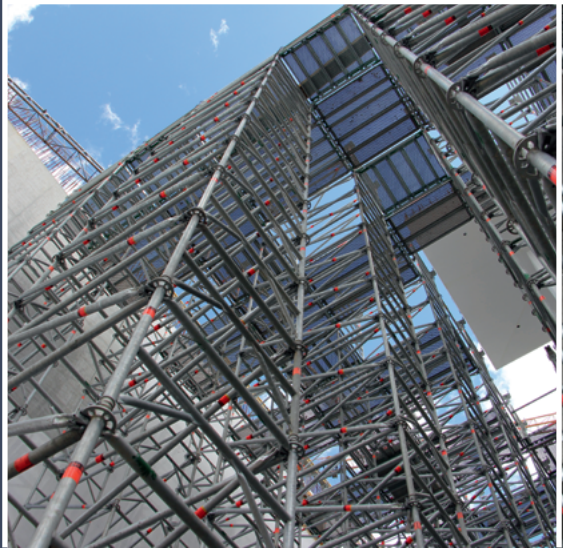
Layher®

More Possibilities. The Scaffolding System.

LAYHER ALLROUND SCAFFOLDING®
SHORING TG 60





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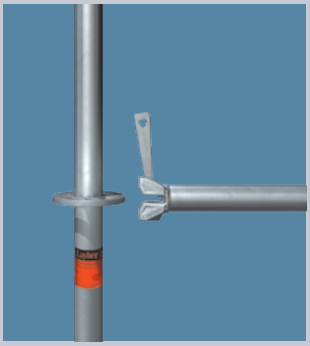
Quality management certified as per DIN EN ISO 9001

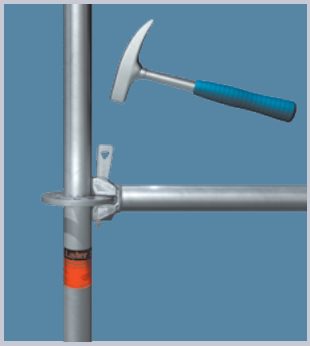
With TP-11-017 type test as per DIN EN 12812

LAYHER ALLROUND SCAFFOLDING®

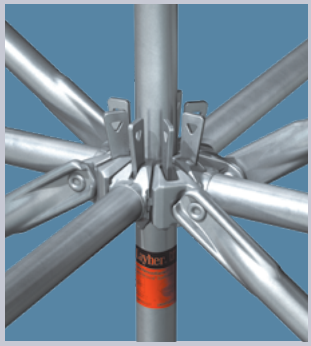
THE BASIS FOR SHORING TG 60



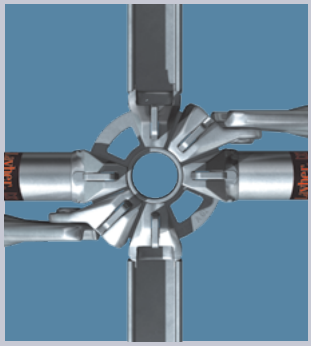
Allround equipment features a simple, unique and bolt-free connection technology. When the wedge head is pushed over the rosette, the wedge drops automatically into the recess thanks to the innovative AutoLock function and is **immediately secured against being moved or falling out.**



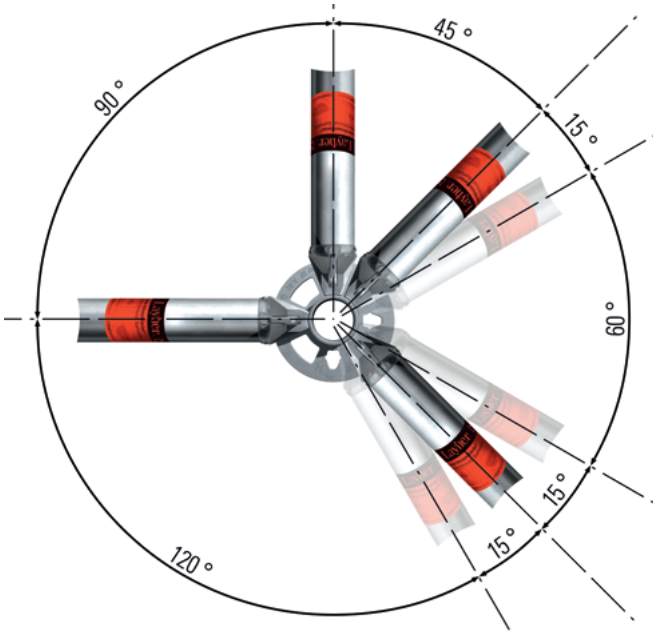
A hammer blow on the wedge transforms the positive connection into a non-positive one. The end face of the wedge head is now positioned precisely at the standard.



The result of superior engineering. Up to eight connections can be made in the structurally ideal Allround connector, on one level and at various angles. Attachment is possible at the standard dimension intervals of 50 cm on all Allround standards. The flat rosette prevents clogging by dirt of any type.



Ingenious connection technology. The four small punched-out openings in the rosette automatically centre the ledger at right angles – the four large openings permit alignment with free selection of the angle.



Ideal transmission of high forces coupled with low weight.
The wedge head and standard are harmonised in such a way that the ledger loads to be absorbed are transmitted directly to the centre of the standard. The following **approvals** are available for Layher Allround Scaffolding: Z-8.22-64, Z-8.22-64.1, Z-8.22-939, Z-8.22-949, Z-8.1-919 as well as other international approvals.

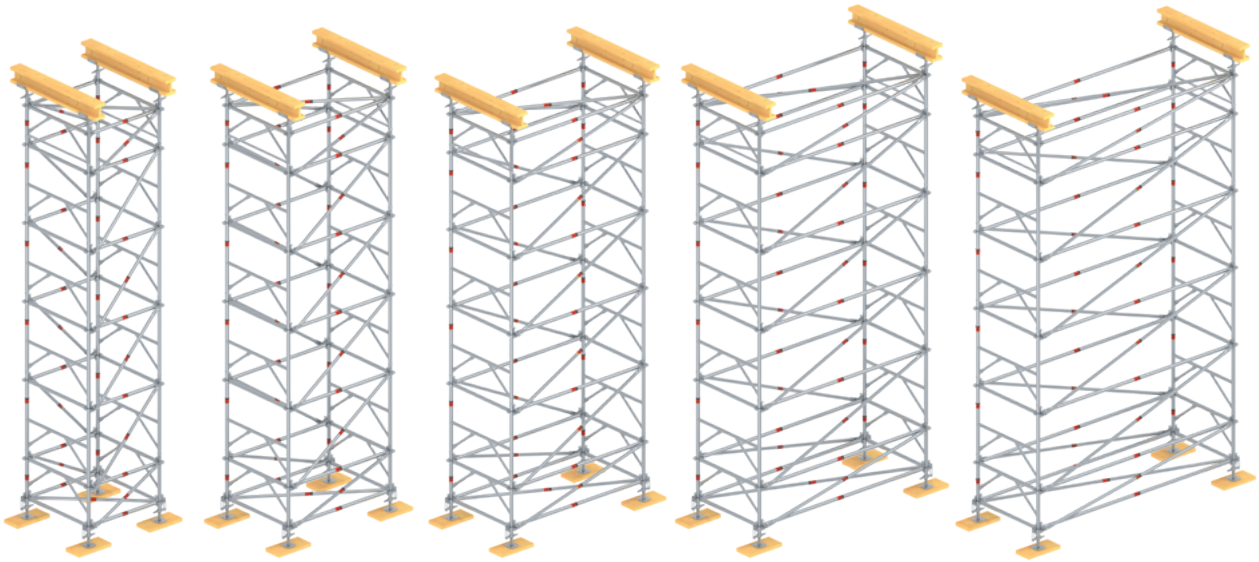
Ingenious technology for efficient working.
The sturdy and inexpensive Allround equipment made from (hot-dip galvanised) steel is primarily used in the field of demanding construction scaffolding.

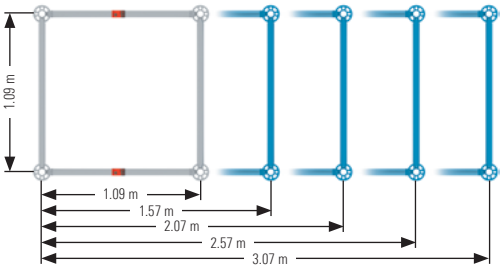
THE BENEFITS TO YOU

- Time saved when assembling and dismantling thanks to bolt-free connection technology.
- No parts can be lost.
- Small amount of material used.
- Maintenance-free, long-lasting hot-dip-galvanised components that are always ready for use.
- Low weight of individual components.
- Sophisticated range of parts.
- Excels due to cost-effectiveness and versatility.

SAFER.

FLEXIBLE ADJUSTMENT TO GEOMETRY AND LOAD REQUIREMENTS



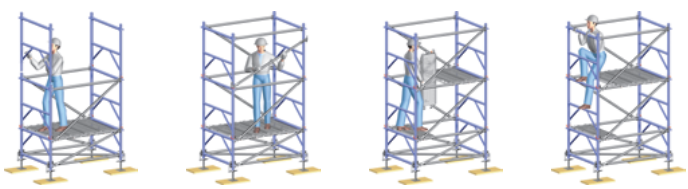


- Different Allround ledgers and diagonal braces can be used to flexibly adapt the shoring tower to geometrical and load requirements.
- TP-11-017 type test covers various individual towers with different assembly heights.

SAFER ASSEMBLY – WITH SYSTEM-INTEGRATED ADVANCING SIDE PROTECTION

Safer upright assembly thanks to integrated and advancing side protection

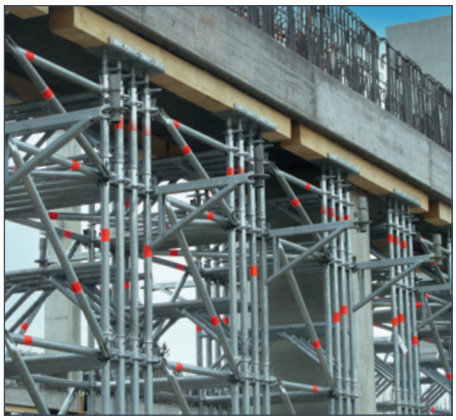
- Allround Shoring TG 60 not only offers exceptional load-bearing capacity but is also safer during assembly and dismantling. If the towers are assembled upright, O-steel decks are placed in position. The frames, ledgers and diagonal braces of the next tower section are then fitted.
- The scaffolding decks are then simply positioned 1 m higher, and it is possible to ascend to the secured next level directly via the Allround Shoring Frame TG 60.



For further information, see the video:
yt-tg60-en.layher.com

FLEXIBLE.

FLEXIBLY ADAPTABLE

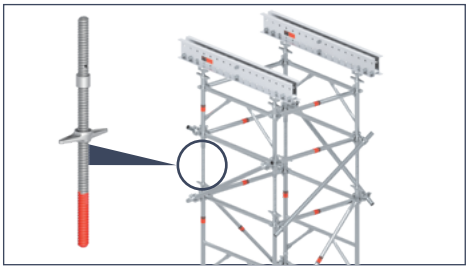


- Increasing load-bearing capacity by grouping the shoring frames together.

- Ground surfaces sloping by up to 16% can be compensated for using the equalising plate.

- Compensation for height differences in the base area, e. g. for stair flights, through the use of different shoring frames and the extensive Allround Scaffolding construction kit.

- Height compensation in the top area using various shoring frames.



- Height compensation in the top area using an intermediate spindle for additional spindle travel.

- Shoring Towers TG 60 are connected together and braced using Allround ledgers and diagonal braces in the Layher system dimensions to create birdcage scaffolding. This results in extremely strong scaffolding structures – even for very large support heights.

SAFER ASSEMBLY USING A CRANE

- By pinning the joints in place, it is possible to pre-assemble entire towers horizontally on the ground and then place them by crane.
- Thanks to the highly accurate fit, tower sections can also be transported by crane and simply mounted in place.

STRONG.

EXTENSION USING THE ALLROUND SCAFFOLDING CONSTRUCTION KIT

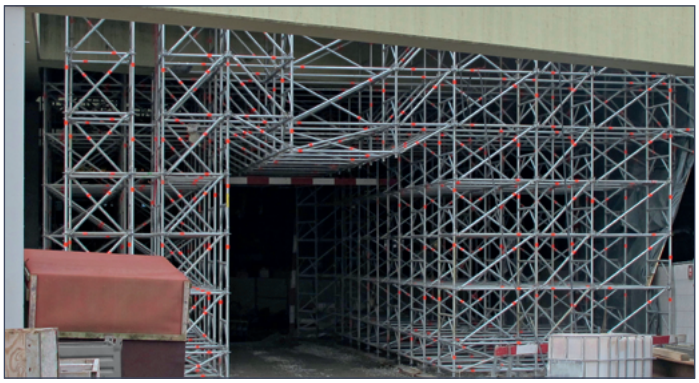
Because the towers are arranged in the Layher system dimensions, standard components from the Allround construction kit can be added to the scaffolding to extend it as required. This all brings about efficient, convenient and safer solutions for everyday building site work.

- Integration of stairs.

- Attachment of bracket deck surfaces at edge.

- Side protection at the edge of a slab.

- Integration of working levels.



- Bridging structure / passageway in shoring scaffolding using standard Allround Scaffolding material.

- Bridging structure / passageway in shoring scaffolding using the Allround FW System.

ALLROUND SHORING TG 60 WITH ALUMINIUM TWIXBEAM AS SYSTEM MAIN BEAM

For further information, see the video:
yt-twixbeam-bau-en.layher.com

- When the TwixBeam is combined with Shoring TG 60, significant optimisations of the load absorption, material consumption and assembly effort of the structures are possible. This is because the standard load is frequently limited by the H-20 main beam, meaning that the entire load-bearing capacity of Shoring TG 60 cannot be used to the full. The considerably higher load-bearing capacity of the TwixBeam means that heavier loads can be transmitted into the scaffolding, and the high load-bearing capacity of TG 60 is optimally used.
- Main beams can also be constructed as genuine continuous beams with the aid of the 140 mm-high insertion beam in the intermediate area of the aluminium TwixBeam, or by using the beam connector.
- Because the beam lengths are predetermined by the system, there is no need for detailed planning of the main beams with positioning and joint design. No cost-intensive sawing work is needed at the edge areas of the wooden beams.

ECONOMICAL.

COSTING, WORK PREPARATION, PLANNING AND PROJECT HANDLING

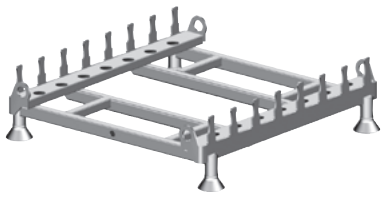
Layher supplies auxiliary equipment and planning tools for Shoring TG 60 to cover all project phases:

- Material requirements tables and costing aids incl. cost / effort values for estimating assembly times and costs.
- Excel tools for determining the ideal basic dimensions and cost calculations.
- Instructions for Assembly and Use and load-bearing capacity tables for the individual towers verified by DIBt on the basis of DIN EN 12812.
- CAD data for the individual components and templates for complete towers.
- LayPLAN SUITE planning software including various modules for individual 3D scaffolding planning.
- Material Manager for optimised logistics.

In addition, the Layher training team offers seminars and product training events. If required, our project engineers from the Technical Office as well as sales engineers and expert assemblers are available to help you handle your project. Just contact us.

LOGISTIC SOLUTIONS

- A special system pallet is available for the space-saving storage of Allround Shoring Frames TG 60. Thanks to the pallet's three nested levels, it can be filled with 22 frames in a single stacking level. Depending on frame type, up to four levels can be stacked above one another on a pallet. The maximum filling quantity is therefore 88 frames.
- Integrated crane eyelets permit crane transport directly to the place of use.
- A maximum of two filled pallets can be stacked on top of one another.

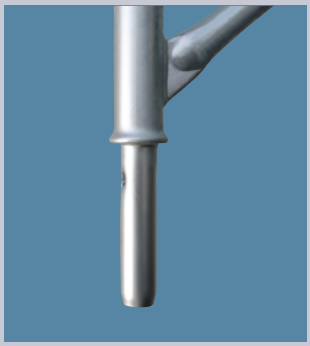


EXTENSIVE RENTAL STOCK

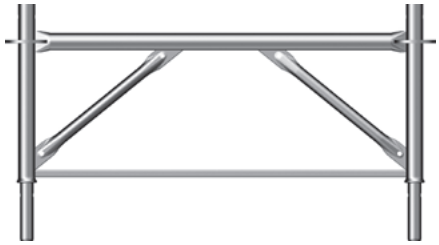
- To permit cost-effective planning and cover short-term peak material requirements, our rental and returned materials centre possesses an extensive stock of Allround Shoring TG 60 that is available for rental.
- Just contact us. We will be happy to send you a quotation.

THE COMPONENTS.

Shoring Frames TG 60 – even more possibilities for Allround Scaffolding. The Shoring Frames TG 60 were developed on the basis of Allround Scaffolding. With just three additional parts, they can be used to create higher and more stable shoring structures even more quickly. The Shoring Frames TG 60 are available in the sizes 1.00 x 1.09 m, 0.50 x 1.09 m and 0.71 x 1.09 m.

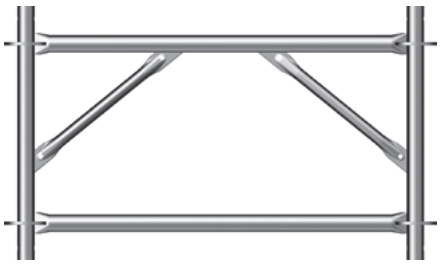


The initial frame H = 0.71 m is equipped with rosettes at the top and bottom and does not have any spigots. The Shoring Frames TG 60 with H = 1.00 m and H = 0.50 m are only equipped with Allround rosettes at the top ends of the standards. They are connected using the integrated spigots at the bottom.



Shoring Frame TG 60
H = 0.50 m
as end frame or equalising frame

Shoring Frame TG 60
H = 1.00 m
as frame in central tower area



Shoring Frame TG 60
H = 0.71 m
as initial frame

Allround Shoring Frames TG 60 are manufactured from high-tensile steel scaffolding tube and stiffened using two struts. Each standard can be **loaded with up to six tonnes.** The welded-in ledgers are crimped at the ends to provide seven connecting points at the Allround rosette. The Shoring Frames TG 60 replace the standards, ledgers and diagonal braces, meaning that **assembly and dismantling can be performed 30% faster** and with fewer components.

The individual shoring frames are secured using hinged pins at the joint for transmission of any tensile forces that occur. It is therefore possible to assemble a structure horizontally at ground level before moving it into position by crane. The Shoring Frames TG 60 have a symmetrical design, with the result that no diagonal guidance has to be taken into account during assembly.

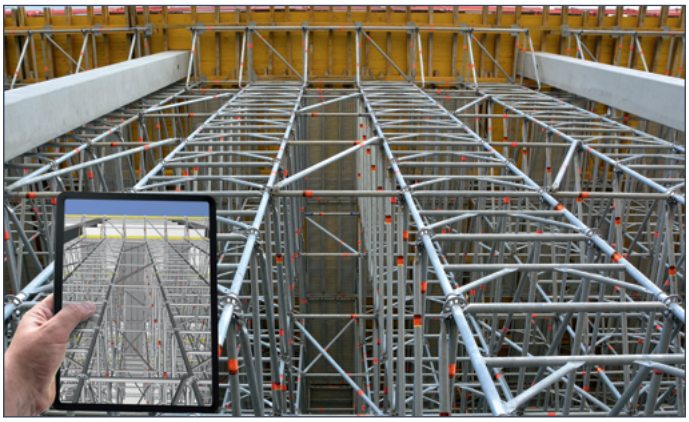
THE BENEFITS TO YOU

- Lightweight components with high load-bearing capacity.
- Faster and safer assembly and dismantling.
- Variably adaptable to loads and building geometries.
- Type tests for the individual towers of types A to E.

- Approval **Z-8.22-64** regulates the manufacture and marking of Shoring Frames TG 60.
- The **TP-11-017 type test** contains calculations for tower variants with different ground plans and support heights.

DIGITAL SCAFFOLDING PLANNING
SIM | SCAFFOLDING INFORMATION MODELING

Digitalisation optimises project planning effectively, while opening up enormous potential for transparency and cost savings.



The future in scaffolding construction is digital – and it's called SIM

Scaffolding Information Modeling – SIM for short – is a process based on 3D models and designed by Layher to meet the specific requirements of scaffolding construction. SIM not only allows you to plan, assemble and manage temporary scaffolding structures more efficiently, but also affords access to BIM at the same time. With the integrated Layher software solution LayPLAN SUITE, you have a powerful tool for the SIM process.

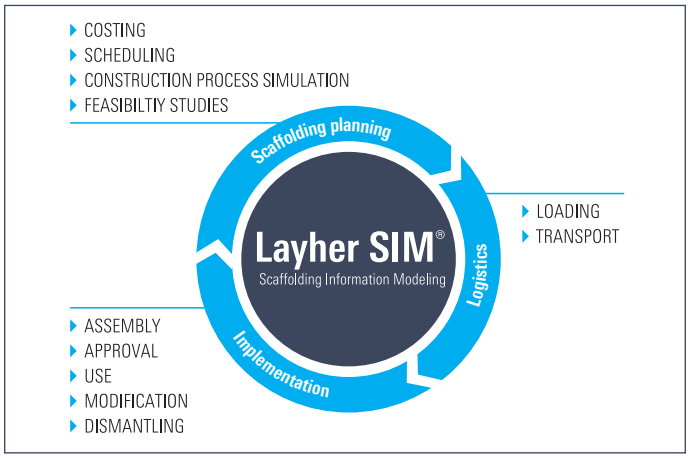
Planning and scheduling certainty at sites

Dependable 3D planning of scaffolding structures without conflicts is just one of many benefits. Added to that are the realistic visualisation of scaffolding, allowing work to be coordinated with other trades, construction sequence simulation, transfer of the scaffolding planning to structural analysis programs, and output of material lists and assembly plans. Transparency at every step results in a reduction in costs and an increase in safety and profitability. In their work with Layher's scaffolding construction customers, both building contractors and industry end customers benefit from a high degree of planning certainty, cost control and above all completion of projects on schedule thanks to the efficient and undisrupted construction processes made possible by SIM. Delays and added costs due to inadequate planning are a thing of the past.

Guaranteed integrity thanks to extensive conversion capabilities

Using the LayPLAN TO REVIT module, the planned scaffolding structures can be made available in both RVT and IFC file format. LayPLAN TO RSTAB makes it possible to transfer the 3D model to the analysis program RSTAB for further processing.

Process content of SIM



THE BENEFITS TO YOU

- Transparency in all work steps plus cost control.
- Increase in safety and profitability for every project.
- Planning and scheduling certainty at every site.
- Your access to BIM.

The modules of LayPLAN SUITE

LayPLAN CLASSIC
LayPLAN CAD
LayPLAN VR VIEWER
LayPLAN MATERIALMANAGER
LayPLAN TO REVIT
LayPLAN TO RSTAB

You can find further information on Layher SIM in the brochure: **System solutions for digitalisation and software**

Further information about SIM in the construction industry can be found in a video at: **http://yt-sim-en.layher.com**

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More Possibilities. The Scaffolding System.

Wilhelm Layher GmbH & Co KG
Scaffolding Grandstands ladders

Ochsenbacher Strasse 56
74363 Gueglingen-Eibensbach
Germany

Post box 40
74361 Gueglingen-Eibensbach
Germany
Phone +49 (0)71 35 70-0
Fax +49 (0)71 35 70-2 65
E-Mail info@layher.com
www.layher.com

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