

All about Scaffolding

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A head start in knowhow means success for the future



Roland Bischoff, Sales Manager

Knowledge and experience are the best capital a company can have. Only staying ahead in knowhow can keep a company competitive in a hard-fought market. In times of economic difficulty, further training is often the first stop when savings are made. But the smarter approach is better qualifications for the company and for its employees. Which gives it that crucial head start. The keen interest in Layher's regular meetings for scaffolding erectors shows that "learning" can also be fun. They're not just about the sober exchange of facts, but also (and above all) about exchanging experiences with colleagues from the trade – in interesting specialized lectures and exciting discussions concerned with scaffolding construction.

Layher's regular scaffolding erector meetings

Started in 1991 as the scaffolding erectors' ring in Zwickau, the meetings are now being held all over Germany with

growing numbers of people attending. Call it a ring, a regular, a meeting or a forum – the names of the different events are as varied as the talks given by the specialists. Their wide scope, devised on an individual basis for scaffolding construction people, covers not only economic aspects, but also and in particular practical ones such as anchoring systems in scaffolding construction, plus logistic topics such as how to secure loads, and of course news about working safety. But customers can also hear at first hand about developments from Layher.

More possibilities – from information

The scaffolding erector "regulars" are just part of the extensive information sources intended to provide more possibilities for customers. Layher provides here relevant information in various forms. Besides the regular meetings, there are a variety of publications like the technology brochures, practical product training courses and technical

seminars – the Layher training programme. In the winter months, specialists at the main factory in Eibensbach pass on both theoretical and practical basics, either in a beginners' course or in in-depth courses for experienced scaffolding erectors.

New: the Event Forum

Specially for customers from the Events industry, the Event Forum was held for the first time early in March in Hanover. With numerous people attending from all over Germany, and with an extremely positive feedback, this is yet another of Layher's successful scaffolding erectors' meetings which have since become something of an institution in the industry.

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More than 150 interested listeners at the Event Forum in Hanover

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Operations scheduling at Layher



Safeguarding against falls when erecting scaffolding



Dr. Rolf Sontheimer,
Head of the Technical Office

The mandatory EU directives on improving occupational safety have prompted the writing of many sets of regulations in the European member states. The German Ordinance on Industrial Health and Safety in force since 2002, and also the scaffolding-specific Part 1 of the Technical Rules 2121 for Industrial Health and Safety, have stated in specific terms Europe's health and safety law at the national level. This ordinance specifies that "work must be arranged such that any risk to life and to health must be avoided if at all possible and any remaining risk must be minimized". On the one hand these laws ensure more legal security, but they mean a greater degree of responsibility for the scaffolding builder too. A risk assessment is thus required for every construction site, and the safety measures are stipulated on that basis. When providing scaffolding, i.e. during assembly, modification and dismantling of this scaffolding, a suitable measure for protection against falls must be selected and stipulated, depending on the structure receiving the scaffolding and on the scaffolding type, design and system.

Fall protection

The fall protection must as a general principle be designed as a side protection in accordance with DIN EN 12811-1:2004-03 or as a protective wall in accordance with DIN 4420-1:2004-03. A side protec-

tion or a protective wall is not required if the work and access areas are no more than 30 cm from other load-carrying and sufficiently large surfaces. For assembly of length-oriented working and safety scaffolding, a guardrail in accordance with Section 5.5.2 of DIN EN 12811-1 or a temporary advance guardrail (AGS) must be fitted as a fall preventer at the top scaffolding level used for horizontal transportation and for assembly.

Arrester device

The arrester device must be designed as a protective scaffolding in accordance with DIN 4420-1:2004-3 or as a safety net in accordance with DIN 1263-1:2002-07.

Individual danger prevention

If the above safety measures cannot be used, an individualized danger prevention system must be provided. Employees must be protected here with personal safety apparatus against falls (PSA). Suitable attachment points for this equipment are stated in the instruction manuals for assembly and use of the various scaffolding manufacturers. Suitable rescue measures must be provided for the event of a fall.

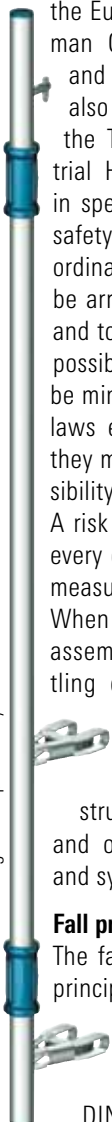
The use of PSA requires a special risk assessment beforehand and entails special instructions for the employees on how to use this equipment, including how to conduct the necessary rescue measures. The instructions for assembly and use from the PSA manufacturers must be followed, particularly in cases where safety harnesses with webbing extension are used. The use of PSA can be dispensed

with in individual cases if the structural and scaffolding-specific circumstances mean that a suitable attachment device is not available or if the employee cannot be safely caught in the event of a fall. It must be ensured here that the work is performed by professionally qualified and physically able persons, that the employer has provided special instructions for justifiable exceptions, and that the risk-of-fall edge is clearly visible to the personnel.

Previous experience with the use of PSA during scaffolding assembly has shown that the use of PSA in our industry is a worthwhile safety measure and in some assembly situations has advantages over the temporary advance guardrail. This finding has prompted new discussions about the ranking of the safety measures to be stipulated. In future, PSA and the temporary advance guardrail will be considered as equivalent safety measures. The previous demand of the German Ordinance on Industrial Health and Safety for "collective" safety to take precedence over "individual" will be dropped for scaffolding construction.

Regardless of which safety measure is used, the regular safety instructions given to the employees, the drafting of written risk assessments and the stipulation of measures derived from these should be a part of the daily routine in every company.

Advance guardrail post of Layher AGS



SpeedyScaf assembly with the Layher advance guardrail system

Quickly onto the scaffolding. With safety.

Unmatched advantages for access up onto the scaffolding are available from scaffolding erectors for their customers, with the Layher platform stairway. This has now again been optimized by Layher with two new components – the stair guardrail and the U distance coupler. This makes access to façade scaffolding even faster, more convenient and above all more secure – in the legal sense too.



A service that will quickly convince the end customers – perhaps after a free-of-charge trial assembly. And that will pay off accordingly. Good reasons why scaffolding construction in recent years has been clearly trending towards the platform stairway.

Access using this stairway is easy and convenient – one hand is always free. Visitors to the site also appreciate the advantages of the Layher platform stairway, particularly when they aren't in their working clothes when they access the scaffolding. Working on the scaffolding level is also much more convenient with the Layher platform stairway, since there are no ladders obstructing the way, nor is there any need to keep opening and closing the access hatches provided in the scaffolding decks. Another advantage is rapid ascent and descent with this stairway – even when carrying working materials and tools: measurements at Layher have shown there is a time saving of over 40 percent compared with ladder access.



And not least is the fact that the platform stairway is much safer during ascent and descent thanks to its wide tread areas and its guardrail. In the legal sense too: the draft of the German Technical Rules for Industrial Safety (TRBS 2121) Part 1 that specifies precise details for the Ordinance on Industrial Health and Safety also provides assistance when it comes to accesses to working areas on scaffolding structures. Particularly in the case of extensive work, when conveying large amounts of material or when the ascent height inside the scaffolding exceeds 10 meters, the TRBS will in future require stairways or lifts instead of ladders for access. To further optimize scaffolding access with the platform stairway, Layher has now designed two new components – the stair guardrail for the stairwell and the U-distance coupler.

Layher offers a number of variants for scaffolding access. In addition to the standard solution – the integrated ladder access – Layher's range for its customers also includes external platform stairways for the various scaffolding systems. With this variant, scaffolding erectors can offer their customers many advantages over the standard solution: faster ascent and descent, problem-free carrying of working materials or tools, and greater safety thanks to wide tread surfaces and guardrails.

Increased safety, lower costs

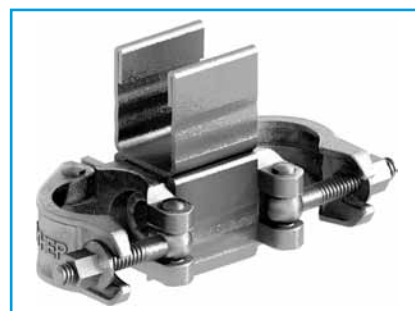
A much faster and less expensive assembly is possible with the stair guardrail for stairwell from Layher. The new one-piece component supersedes the previous design using 4 individual parts. As a result, the assembly duration can be minimized from about 2.5 minutes to about 20 seconds. When fitting the new stair guardrail, the savings when compared to the previous solution using individual parts are not only 80 % of the costs, but also 80 % of the assembly time.



Stair guardrail for stairwell

Gap-free surfaces

The new U-distance coupler connects the stairway tower to the main scaffolding in a simple, quick and absolutely safe manner. To reduce the gap between the stairway landing and the main deck, the stairway tower now no longer has to be arranged offset from the scaffolding. The integrated U-section of the distance coupler acts as an additional support for the scaffolding decks. With the SpeedyScaf 70 equipment, the U-distance coupler allows the use of a 0.19 m wide standard deck as a gap cover between the main deck and the platform stairway. Separate and individual gap covers are no longer needed, so less material is used.



U-distance coupler

Safe planning ...

Being able to take on and handling orders both flexibly and on schedule provides a crucial advantage over competitors in the scaffolding industry – particularly in the case of short-notice orders or major projects. To allow you to benefit every time from Layher material availability during your planning work, there is always plenty of material ready and waiting for you in our warehouse

at Eibensbach. This is assured for you by us – the “operations scheduling” department. We monitor and control at all times all our material stocks, draw up the schedules and quantity plans for production early on, initiate the appropriate orders for raw materials, and of course we monitor all the deadlines. So you have every time the crucial degree of flexibility you need for planning.



Introducing ourselves – the “operations scheduling” team at Layher

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Pilot event successfully launched

This March, Layher put on for the first time the Event Forum, for keenly attentive customers from the stage and stand construction industry – the first event of this type ever. More than 150 people had come from all over Germany to learn about the latest news from and for the events industry. Layher not only contributed its long years of experience in event construction work, but also its training services. The idea was to give talks about events technology, and also to promote the exchange of opinions and information. For example, Michael Lück from Expo Engineering in Oelde explained in his talk what changes in 2009 will bring in respect of standards for wind loads and what has to be taken into account as a result. There was also a talk on the subject of aluminium in event technology by Willi Flegel from H.O.F. Alutec. As a practical example for special event structures, Benjamin Neuen (from Studio Hamburg Media Consult International GmbH) presented the musical project “Tarzan”. However,

the networking idea was also covered: in the casual atmosphere of a shared evening meal, customers were able to make new contacts for future cooperative ventures. In view of the great success of the pilot event, Layher will henceforth be expanding its Event Forum inside Germany and even outside Germany. In one-day events, specialists will provide information on current economic and technical topics relating to the field of stage and stand construction, for example on financing concepts in the events industry. If you are interested in further information, please contact your local Layher representative.

Next Event Forums:

19 January 2010 / Cologne
02 February 2010 / Ulm

Dates

The next regular scaffolding erector meetings

| | |
|------------|-------------------|
| 22.10.2009 | Bremen |
| 05.11.2009 | Munich |
| 12.11.2009 | Düsseldorf |
| 19.11.2009 | Nuremberg |
| 26.11.2009 | Meerane / Zwickau |
| 26.11.2009 | Dortmund |
| 03.12.2009 | Osnabrück |
| 10.12.2009 | Kassel |

Layher at the 2010 shows

| | |
|--------------|----------------------------------|
| 12. – 16.01. | Swissbau, Basel |
| 24. – 27.02. | Dach + Holz, Cologne |
| 24. – 27.03. | Farbe – Ausbau & Fassade, Munich |
| 24. – 27.03. | prolight & sound, Frankfurt |
| 19. – 25.04. | Bauma, Munich |
| 07. – 10.09. | SMM, Hamburg |

Layher Technical Seminars 2009/2010

- ▶ **Basic Course in Scaffolding Construction**
The 1-day course teaches the basics of scaffolding construction.
- ▶ **Scaffolding Design**
The 1-day course teaches the planning and calculation of scaffolding structures.
- ▶ **Rolling Towers and Ladders**
The 1-day course teaches theoretical and practical basics.

The Layher team would be happy to answer any questions, and information and an application form can also be found online at: www.layher.com



“We’re delighted about the keen interest in our offer. With this information platform, we want to give a boost to our customers and in so doing contribute to their success.”

Bernd Michael, Product Manager for Event & Protective Systems

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