

# ► Layher Protect System

**the low-cost, labour-saving enclosure for protection of the environment and insulation from noise and weather**

With the **Protect System**, Layher can supply a cassette enclosure system which is compatible with the Layher Allround scaffolding and SpeedyScaf systems and which meets requirements concerning environmental protection and insulation from noise and weather.

**It is an exceptionally economical solution which boasts Layher's renowned quality:**

- **Only a small number of individual parts, designed for frequent, changing applications.**
- **Rapid, easy assembly in a simple, logical sequence.**
- The cassettes are designed for Layher axis dimensions (max. width: 3.07 m) and, with a height of 1.0 m, are very simple to assemble and move into the scaffolding.
- The surrounding rubber seal makes the cassette elements dustproof (**removal of asbestos**), vacuum-compatible (**facade coating**), waterproof (**sandblasting work**) and dust-resistant.
- Electrostatically inert and therefore easy to clean.
- To provide **noise protection**, it is possible to equip wall cassettes (sound insulation value: 20 dB) as sound insulation cassettes (sound insulation value: 26 dB) or use cassettes providing a higher level of sound insulation.
- **Light cassettes** permit work in daylight conditions within the enclosure.
- Cassette elements exist for **external and internal corners**;

- a specially developed **connection rail** is used to establish a connection with the existing building or the ground.
- Practical solutions for horizontal and vertical dimension compensation are available.
- Scaffolding with bay lengths of 2.7 m can be clad up to a **height of 90 m** (in the case of 3.07 bay lengths, a height of 50 m is possible);
- the anchoring layout corresponds to that of scaffolding which is clad with tarpaulins.
- The system is closed at the top using a **roof cassette** or by means of a connection to the Layher cassette roof.
- The **support for pedestrian tunnels** makes it possible to extend the scaffolding structure to a total height of 24 m with the scaffolding being simultaneously offset internally or externally.
- **Access elements** compatible with system and individual requirements are available.

**Layher Protect System:**  
a system which meets all environmental and safety requirement and prevents all risks.

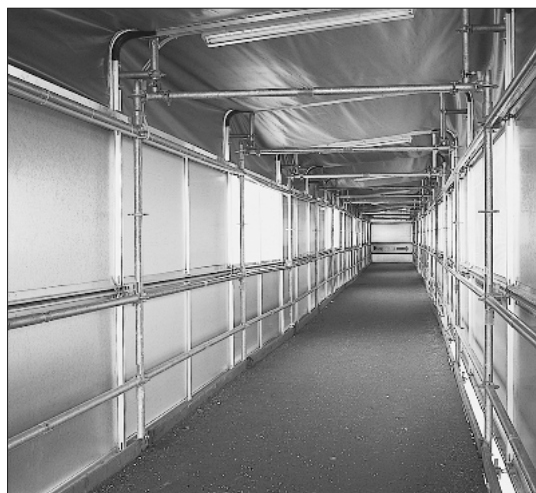
**The individual components of the Protect System can only be supplied ex works from Eibensbach.**

**Metric bay lengths can be ordered subject to delivery times.**



◀ **Stairway tower** (Layher interim stairway, max. load 5 kN/m<sup>2</sup>) with Protect covering.

Internal view of an **totally enclosed pedestrian tunnel** with Layher Allround scaffolding as the supporting structure. ▼



In combination with the proven Layher pedestrian passages, the Layher Protect-System represents an optimal solution for **pedestrian tunnels**.



## ▶ Protect System

### ▶ **Cassette elements**

Frames made from aluminium sections with galvanized sheet steel inserts. A surrounding rubber seal provides a clean, precise connection to neighbouring elements.

The ▶ **wall cassettes** can be converted to form noise isolation elements. The sound insulation value is 20 dB without and 26 dB with a sound-insulating mat (as measured at the Fraunhofer Institute in Stuttgart). This means the noise emission is reduced by more than 75 %.

On request, it is also possible to supply special wall cassette variants with enhanced sound isolation properties in accordance with the "Supplementary Technical Requirements and Guidelines for Highway Noise Insulation Walls" ZTV-Lsw 88:1988 and the evaluation in accordance with DB guideline 800.2001, section 2.

A test report concerning the airborne sound insulation of scaffolding coverings issued by the Fraunhofer Institute for Building Mechanics in accordance with ZTV-Lsw 88:1988 or DB guideline 800.2001 is available.

Thanks to the use of ▶ **light cassettes**, it is possible to work in daylight conditions behind the enclosure. In this case, a translucent plastic web plate replaces the steel plate in the aluminium section frame.

▶ **Connection rails** close the enclosure at the ground or building. These are clamped to the cassettes and make it possible to pull a Keder tarpaulin into the built-in Keder groove. Alternatively, a sheet or board can be adapted for use with the wooden strip intended for this purpose. Connection rails also permit the clean, close-fitting connection of fitted bays.

Internal and external corners are formed using ▶ **corner cassettes**, while the corresponding ▶ **connection rails**, which are inserted in the holder, permit a close-fitting connection to the neighbouring cassettes and close the system both visually and in functional terms.



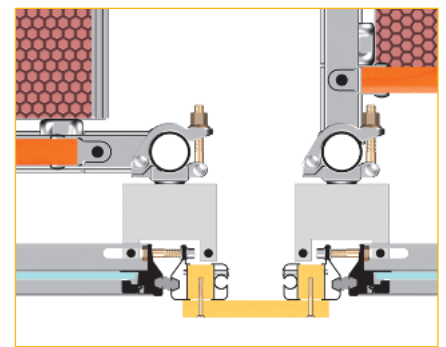
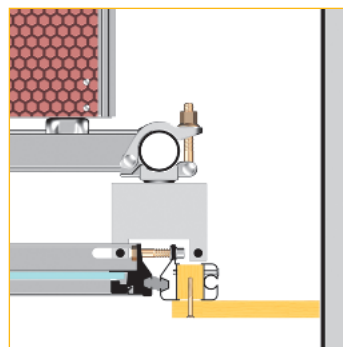
▶ **Wall cassette**



▶ **Light cassette**



▶ **Connection rail**



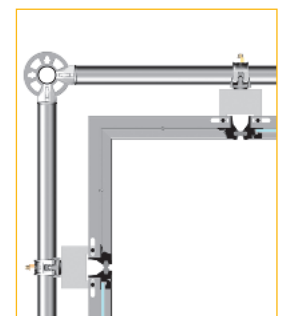
▶ **Corner cassette 90°**



▶ **Connection rail 90°**



▶ **Allround-inner corner cassette 90°**



## ▶ Protect System

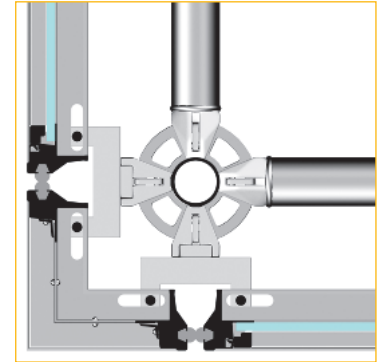
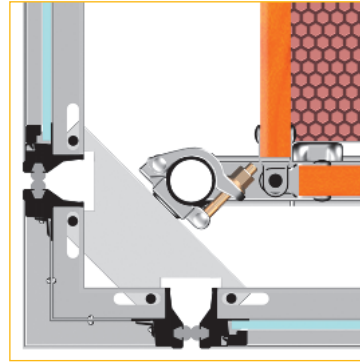
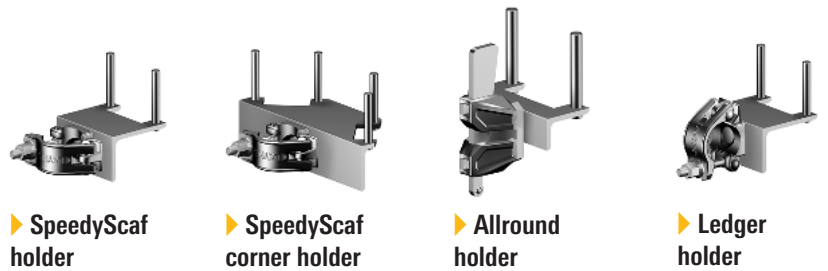
The cassettes are secured to the scaffolding using special ▶ **holders** which are installed at a standard height of 1.0 m. Once the lower row of cassettes has been installed and aligned, all the other cassettes are mounted and secured simply using holders. The subsequent removal and installation of individual cassettes for material covering or other purposes is possible.

A ▶ **support for pedestrian tunnels** should be used as the top closure when constructing pedestrian tunnels using SpeedyScaf gantry frames or Allround scaffolding with a bay length of 1.57 m. This makes it possible to install a 2.57 x 2.0 m roof cassette in the Layher cassette roof and extend the scaffolding to a height of up to 24 m.

▶ **Door elements** exist to permit access to the covered scaffolding. These have axis dimensions of 1.09 – 2.57 m and include a door with the dimensions 1.85 x 1.0 m.

If required, the ▶ **light cassettes** can be equipped with single-glazed safety glass (particularly resistant to mechanical loads).

Sound-proofing cassettes and sound-proofing material are available in roll form on request.



▶ **Half coupler for roof support for pedestrian tunnel**

The individual components of the Protect System can only be supplied ex works from Eibensbach. Metric bay lengths can be ordered subject to delivery times.

## ▶ Price example 1

The price example is based on a facade clad with Allround scaffolding:  
Width 8 x 2.57 m = 20.58 m, height 10.0 m,  
i.e. a surface area of 205.8 m<sup>2</sup>;  
the connection rails are mounted at the lower edge of the cassettes.

**15175.00 €/205.8 m<sup>2</sup> = approx. 73.74 €/m<sup>2</sup>**

**Additionally:**

Light cassettes for wall cassettes, approx.

**14.40 €/m<sup>2</sup>**

