

Machines for EPS step sound production

> Pipe lifting function

- Screed completely surrounds the pipe
- ideal transfer and distribution of heat and cooling

> Double barb

- highest security against breakaways
- first-class holding power



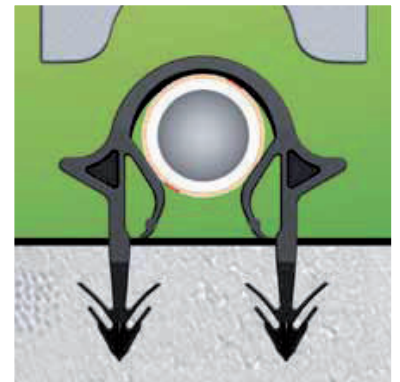
- Double barb with a new design for easier installation, maximum tear-out security and unique holding power



The lower barb of the Ex-Klips stapler is highly stable and also has a sharp cutting edge, while the barb above is particularly elastic. This special technology ensures easy and safe penetration through the insulation film into the insulation and thus optimizes ease of installation and installation speed.

The stability of the lower barb provides ideal support for the upper barb. The double barb ensures optimal tear-out security, maximum holding power and a secure and precise hold of the pipes in the system Composite panels and rolls – even in harsh construction site conditions.

The stapler Ex-Klips with pipe lifting function and new double barb for even easier installation, perfect pipe fixation and ideal energy efficiency, comfort and safety.





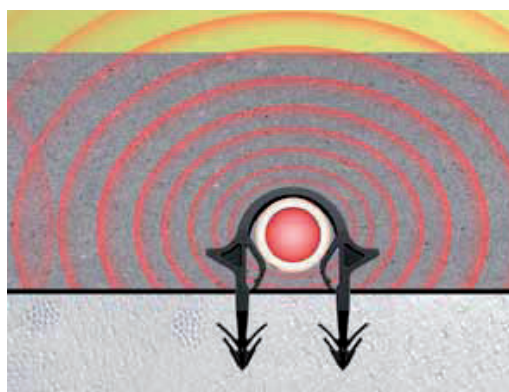
unique, two-sided, self-adhesive overlap



System composite panels for surface heating and cooling systems

Simple, fast, standard-compliant: system composite panels made of polystyrene particle foam.

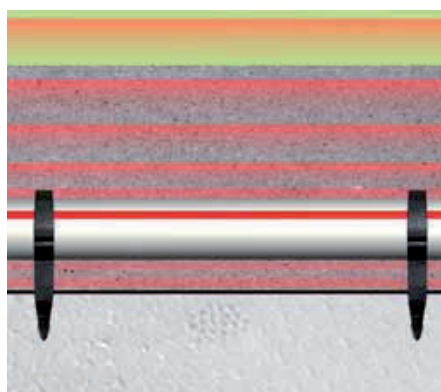
An excellent choice for thermal and impact sound insulation. When laying, they create a self-contained surface in no time. This allows for a unique two-sided 30mm wide self-adhesive overlap. A secure seal against moisture and screed (according to DIN 18560) prevents the formation of sound and thermal bridges. Furthermore, a printed grid makes it easier to fix the system pipes precisely according to precisely calculated installation distances.



Strong solution for high loads

If increased traffic loads prevail (e.g. car dealership exhibition areas), the system composite panel EPS DEO WLG 035, 26 mm is used. This composite panel can be used with an appropriately coordinated screed structure up to a maximum traffic load of 35 kN/m².

Depending on the thermal insulation requirements and traffic load, additional insulation panels made of EPS or PU are available in the range.



Ex-system composite panel – high insulating effect and flat structure

The Ex system composite panel EPS DES 25-2 WLG 032 with x times the energy plus quality reduces the installation height of the floor by up to 10 mm compared to standard insulation panels with impact sound insulation.

The Neopor insulation material enables reduced insulation thicknesses combined with impact sound insulation due to the heat conduction group (WLG 032). This means that a panel height of just 25 mm is sufficient to properly insulate ceilings between living rooms.

The pipe lifting function allows the screed to flow under the pipe so that it completely surrounds it. This ensures ideal transfer and distribution of heat and cooling and thus increased efficiency and comfort.



Approval no. 7F083
Approval no. 7F087

- > perfectly coordinated system solution
- > proven millions of times
- > patented laying technology
- > easy construction
- > Centimeter-accurate pipe positioning
- > optimal distribution of heat



Original tacker-system for solutions that retain their value

A perfectly coordinated system solution creates the basis for tackling demanding heating construction tasks.

The proven tacker system, in combination with the DUOPEX S5® and X-PERT S5®+ system pipes, offers the best conditions for ensuring a long-term, stable heat supply.

The smoothly overlapping connection of pipe and patented laying technology is therefore always the first choice for all demanding applications. Perfection in the result, whether in residential, office or industrial construction projects.

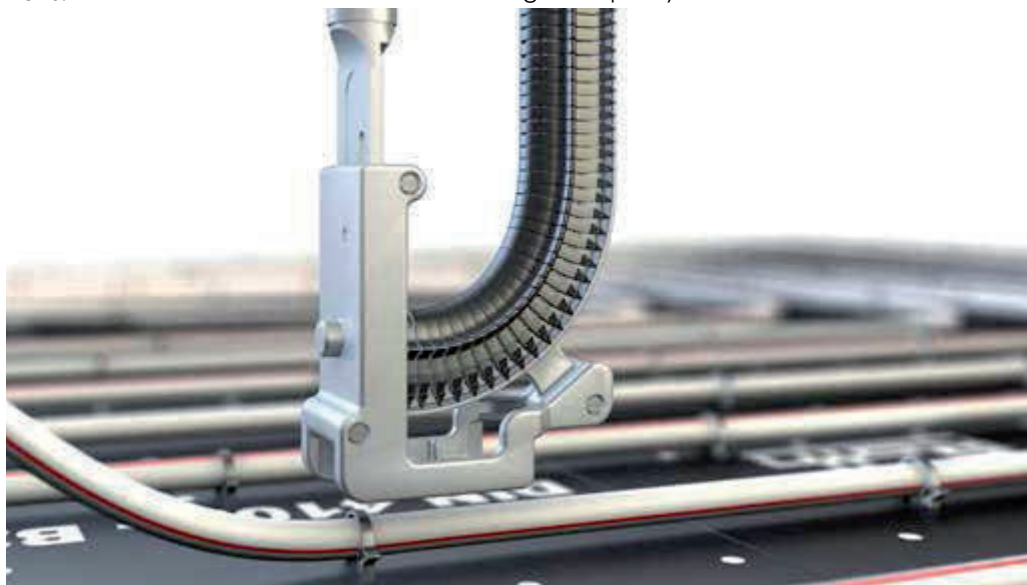
Three system steps to perfection

The high-quality factory prefabrication of all system components – pipe, composite panel and accessories – makes it possible: the complete surface heating and cooling system is installed using stapler technology in just three work steps. Of course, according to a computer-precise calculation and taking all applicable regulations into account.

Surface heating and cooling – comfort is that easy

Simple installation with a high level of flexibility, coupled with operational and construction site safety as well as superior efficiency, characterize surface heating and cooling – even with unusual floor plans. The original Tacker® system ensures the easiest installation and centimeter-accurate pipe positioning with a view to optimal distribution of heat and cooling, even in the most difficult installation situations.

Surface heating and cooling are based on DIN EN 1264 ("Hot water underfloor heating"), taking into account DIN 18560 ("Screeds in construction"), DIN 4109 ("Sound insulation in building construction") and the Energy Saving Ordinance (EnEV). The consistently high quality standards of the individual components and the entire system are documented by a large number of test, monitoring and quality marks





TIMATEC COATING GMBH has also been active in the EPS industry for over 20 years with the manufacture of special machines for staplers

There is also a very successful market in the EPS industry with machines and systems for underfloor heating and its insulation measures for the simple and fast laying of heating pipes on EPS boards using the TACKER system.

A very cost-effective installation system with plastic clips with barbs for various pipe diameters from 6 to 20 mm with pipe lifting function for complete encasing of screed, resulting in ideal heat transfer in the screed.

EPS insulation boards in thicknesses from 20 mm to 50 mm in 1000 x 1000 mm format are laminated with fibre-reinforced PP films of approx. 100 g/m². The HOT-Melt adhesive quantity setting can be varied on the adhesive application machine and can be infinitely adjusted from as little as 30 g/m² to 60 - 70 g/m² if the film is well bonded to the panel material.

The film-laminated sheet material can be produced with the laminating system as single sheets 1 m², folded sheets or sandwich sheets 2 m² or as rolls of 10 m². The production output - regardless of production - is approx. 800 m² /h or 6,000 m² /shift.

We have a major advantage over the competition in that we can produce any panel product with a film overhang to prevent cold bridges and can also equip the film overhang with or without double-sided adhesive tape for any panel format.

Finally, it should be noted that completely flat rolls can be produced, and a packaging station can also be supplied as an option for both rolls and sheet material. When the production machine is fully equipped with packaging and sheet feeding, the systems are in fully automatic operation with SIMATIC S7 control without the need for personnel.

EPS laminating line with HOTMELT adhesive application for TACKER panel production of EPS systems for underfloor heating



Tacker for quick positioning of the hoses



EPS panels with clips - Clamping elements

for heating pipes from 6 - 20 mm



Vapour barrier:

The PE grid foil bonded to the EPS panels with hotmelt adhesive prevents moisture absorption and guarantees a good and quick hold of the heating hoses with the Klips-Tacker system.

Thermal insulation without thermal bridges:

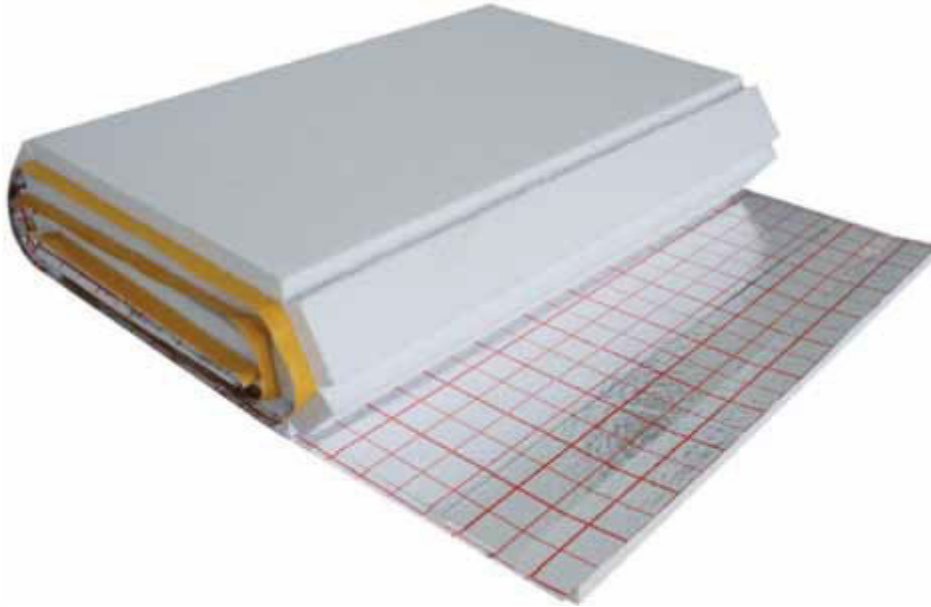
The roller tracks with overlapping grid film are attached to the next roller track with self-adhesive strips and form a fixed unit without thermal bridges.

Economical:

No other system - whether dimpled or hook and loop - can be installed so easily, securely against hose displacement, quickly and without problems, with minimum waste and lowest costs.

Laying distance:

The PE carrier foil equipped with a grid enables any type of laying and hose spacing.



Example:

<u>Material:</u>	PST-SE
<u>Impact sound improvement:</u>	29 DB
<u>Nominal thickness:</u>	20 / 50 mm
<u>Vapour barrier:</u>	PE grid foil 0.2 mm
<u>Thermal resistance:</u>	at 32/30 = 0.66 m ² K/W
<u>Fire class:</u>	B1
<u>Grid dimension:</u>	5/10 cm
<u>Packaging unit:</u>	10 m ² roll, 2 m ² sandwich, 1 m ² single
<u>Format:</u>	10 x1 m = 10m ² , 2x1 m = 2 m ² , 1x1 m = 1 m ²