

Installation at the precast company

PS-A Steel Bearing, two-piece Installation of the steel bearings



The two-piece steel bearing variant is not supplied preassembled due to the more favourable space requirement during transport. Steel support and anchoring bar are packed separately here. Therefore, the anchoring bar with anchor plate must be screwed into the socket of the steel profile prior to the installation of the steel bearing in the formwork. The tightening torques given in Table 1 must be observed when doing this.

Table 1: Tightening torques

Steel bearing type	d_s [mm]	M_T [Nm]
PS-A 65 two-piece	20	80
PS-A 80/100 two-piece	25	100
PS-A 130 two-piece	28	140
PS-A 160 two-piece	28	140

PS-A Steel Bearing, one-piece/two-piece General



one-piece:
Anchoring
bar already
welded on

- These installation and assembly instructions show the procedure for the installation and assembly of steel bearings.
- All reinforcements required for the transfer of the steel bearing load into the structural element are to be defined by the responsible planner according to the valid approval Z-15.6-287. The illustrations below only show the correct number of bars/stirrups as an example. Details are to be taken from the approval depending on the specific installation situation.
- The reinforcement of the complete structural element is also to be defined by the planner according to the static requirements and installed by trained personnel.



Download approval
Z-15.6-287 now at:

www.pfeifer.info/steel-bearing



Steel Bearing

Installation and assembly instructions

INTERNATIONAL

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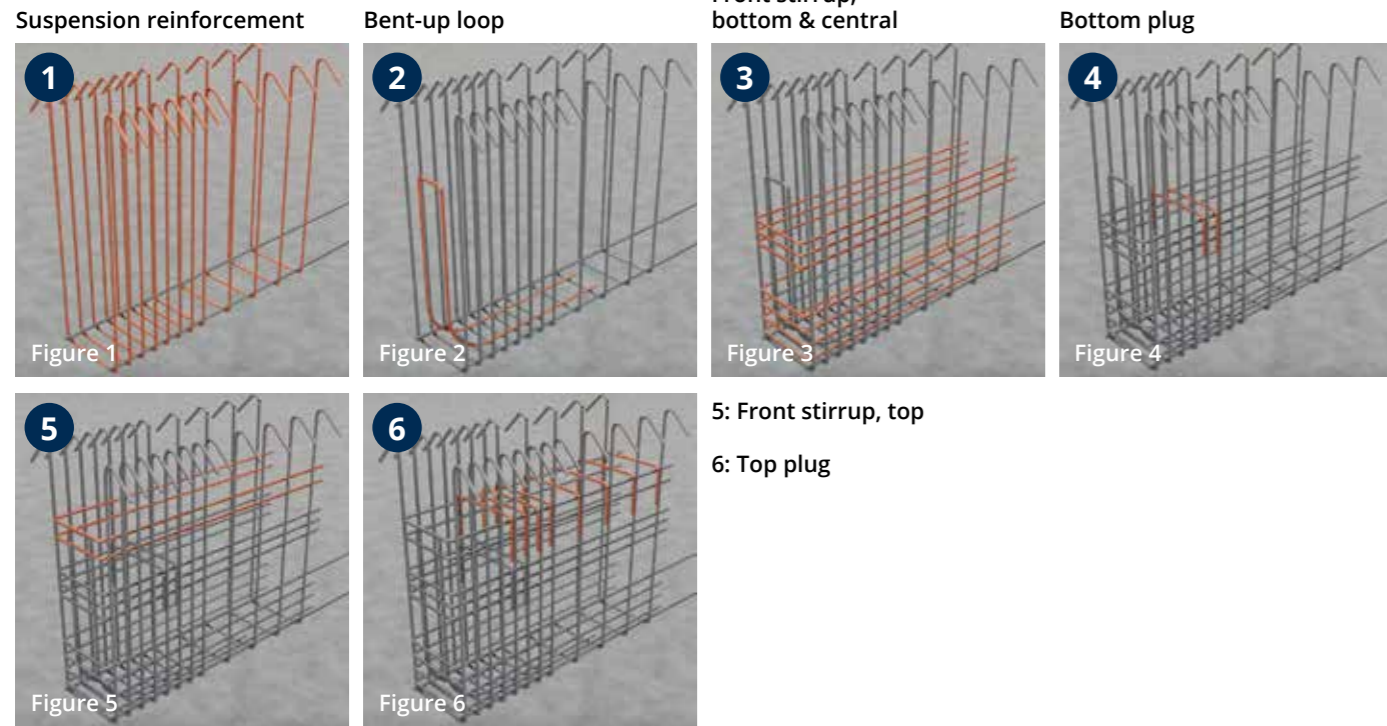
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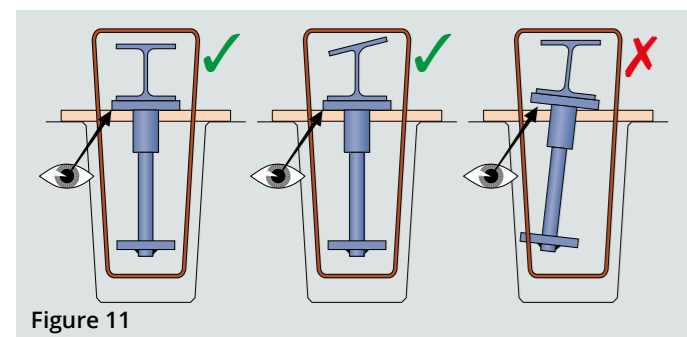
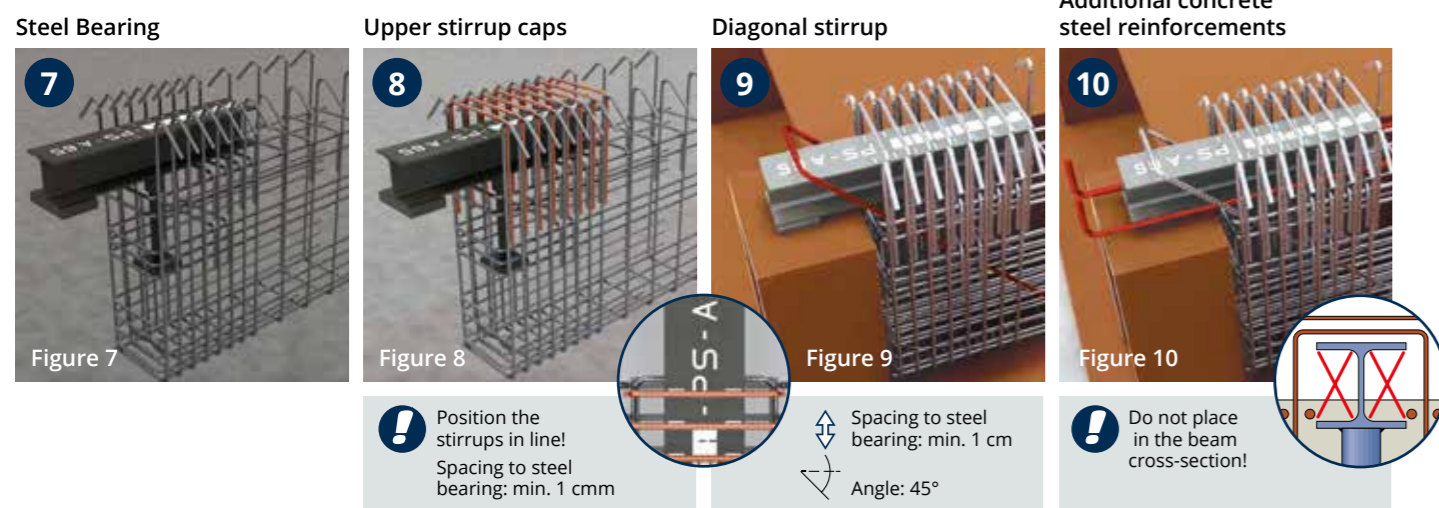
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Tie reinforcement cage



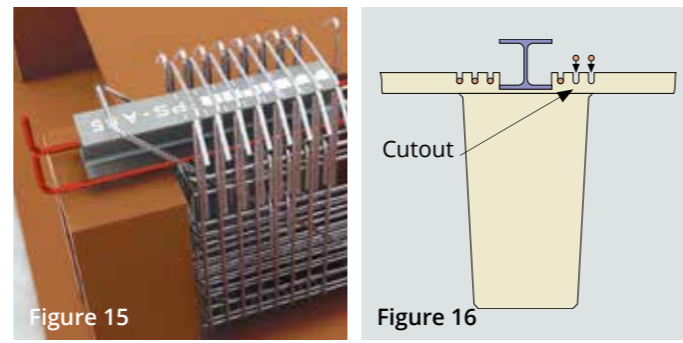
Install steel bearing and supplementary reinforcement in the formwork



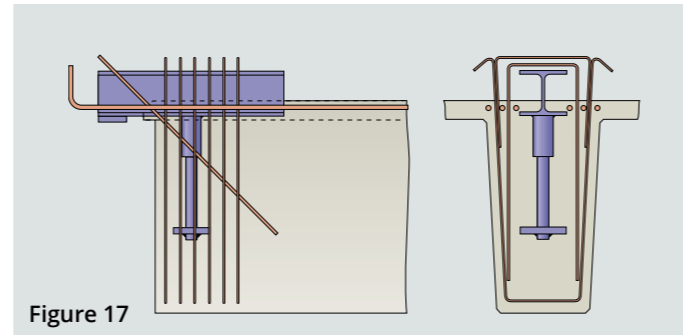
- The PFEIFER steel bearing (in the two-piece variant with screwed-in anchoring bar) can be fixed with wire in the reinforcement cage to be manufactured. In order to allow subsequent adjustments, however, the steel bearing should not be fastened too tightly to the reinforcement cage.
- The steel bearings, which are still tied movably in the reinforcement cage, are now aligned horizontally in the longitudinal and transverse direction (fig. 11). Due to the normal tolerances of the flanges with respect to one another, the steel bearing is to be aligned to the formwork on the support pad (lower flange) during the assembly.



- The PFEIFER steel bearing can be fixed to the formwork in the following way, for example:
 - Timber construction for clamping (fig. 12)
 - Bearing plate with metal clamping device (fig. 13)
 - Screw clamp (fig. 14)



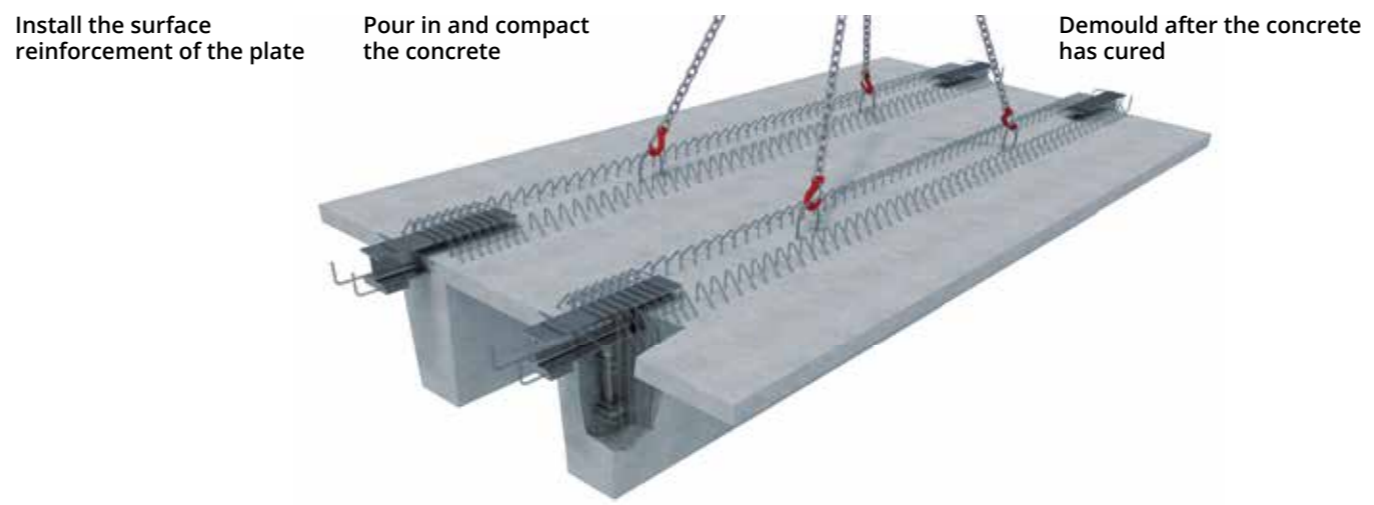
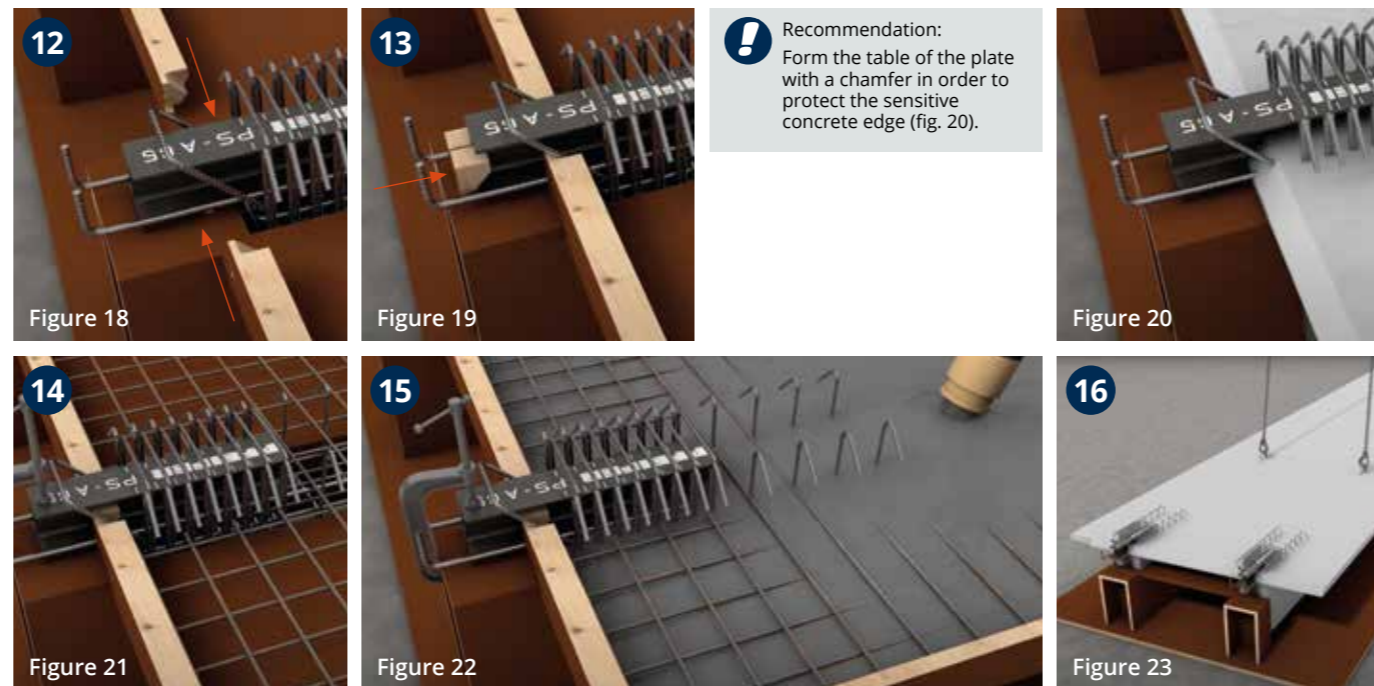
In order to correctly position the additional horizontal concrete steel reinforcements to the left and right of the PFEIFER Steel Bearing (fig. 15), corresponding cut-outs are provided in the formwork (fig. 16). The intermediate spaces above the cut-out can be closed and sealed at the front sides with polystyrene (e.g. styrofoam).



After concreting, the horizontal additional concrete steel reinforcement outside the precast element and the vertical stirrups above the steel support must be clearly exposed, with no concrete residues in between, in order to ensure a good bond with the subsequently cast in-situ concrete (fig. 17).

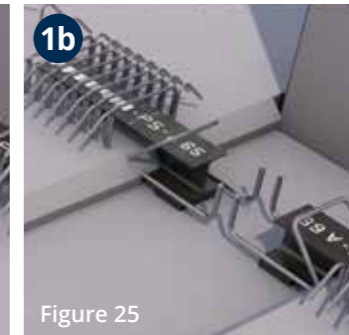
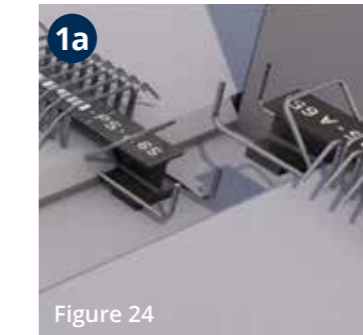
Install steel bearing and supplementary reinforcement in the formwork

Supplementary formwork element for the faces of the element

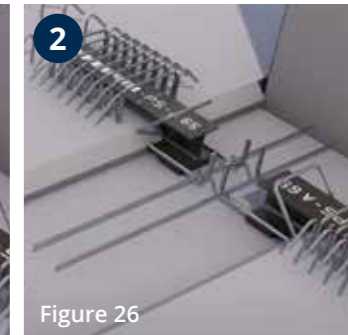


Installation on the building site

Support the π plate/trough plate/secondary joist directly on the primary joist



Insert the longitudinal reinforcement



Insert the topping layer reinforcement min. Q188A



- The load distribution plate under the steel bearing must contact the joist with its entire surface if possible. The stirrups in the joists (if existent) must be arranged appropriately where the steel bearings come to rest in order to enable the π plates with the protruding steel bearings and the horizontal concrete steel reinforcements to be placed on top.

Pour in and compact the concrete



Allow to cure - done!

During the installation of the prefabricated elements on the building site, care must be taken to ensure that the gap between the level surface of the π plate and the ceiling joist is closed, for example with a pre-compressed tape, in order to prevent the escape of the cement paste when concreting the in-situ concrete layer. The spacings and gaps between the structural elements shown in fig. 28 are obtained when the steel bearing is used.

