

Production

Memo 32

Date :	12.01.03	Sign: sa
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Production procedure using TSS

GENERAL

The TSS units were developed as a connection detail between precast landings or stairs and walls in stairways, where the precast elements are given the final surface in the factory. It provides a hidden connection, the erection is quick, and no site work is necessary with bolts, welding or mortar. It is important to provide a rubber pad at the support in order to reduce transfer of impact sound between the landing and the wall.

Since there normally is not a connection that can transfer tensile forces between the TSS unit and the wall, the supported concrete element must be locked in position connection details at least at three sides. Otherwise a steel plate can be embedded in the bottom of the recess in the wall, and a welded connection can be established.

This is not recommended for sound insulation purposes, though.

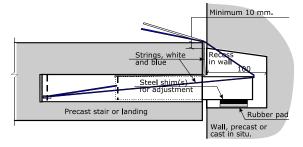
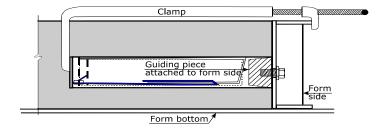


Figure 32.1. Typical connection between landing and wall.

CASTING PROCEDURE

The type of elements suited for the use of TSS units are normally cast on flat tables, either right side up or upside down, depending upon the requirements to the surfaces. Either way, the method of fixing the unit in the form is similar.



The inner steel tube of the TSS is shorter than the outer tube. A tapered guiding piece (as shown in figure 32.2, 32.3 and described in memo 41

Figure 32.2. Fixing with the guiding piece.

additional equipment) The guiding piece can be made of timber, steel, rubber or plastic. The outer maximum dimensions of the guiding piece shall be made so that the outer steel tube fits tightly when it is pressed on to the guiding piece.



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During casting the TSS unit is normally kept in place with a clamp as shown in figure 32.2. After vibration of the concrete the clamp is removed, and the hole in the wet concrete is patched. The unit can also be tied to the reinforcement to keep it in its place during casting, or fasten with a threaded bar a shown in figure 32.3. During casting the strings are bundled up within the tubes.

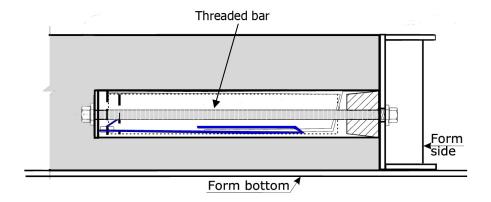


Figure 32.3 TSS fasten with a threaded bar