

## Recommended fixings for installing floor decking and edge trim

SMD recommend a variety of specialist fixings dependant upon project design, specification, Health and Safety requirements and the situation in which they are being used.

### Decking to Steelwork

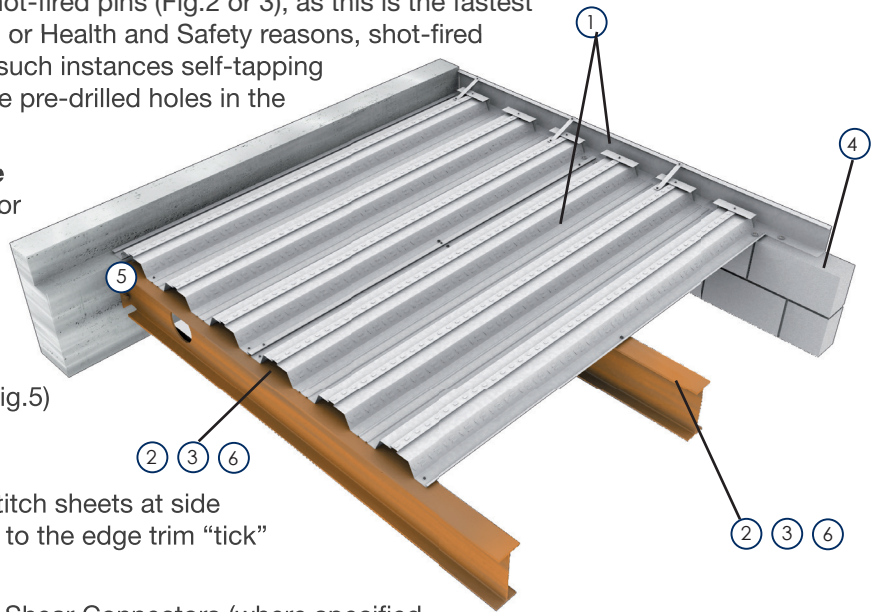
Decking is generally fixed to steelwork using shot-fired pins (Fig.2 or 3), as this is the fastest and most cost effective method. Due to Design or Health and Safety reasons, shot-fired fixings are in some instances not permitted. In such instances self-tapping screw fixings (Fig.6) are used, these may require pre-drilled holes in the beam flange (dependant on flange thickness).

### Decking to Blockwork, Masonry or Concrete

Where decking is fixed to blockwork, masonry or concrete the standard shot-fired fixings are not suitable as these may cause damage to the bearing surface. For fixing to blockwork, an alternative shot-fired fixing (Fig.4) can be used. Where decking is to be fixed to concrete or masonry, drill, plug and screw type fixings (Fig.5) are recommended.

### Restraint straps and side stitching

Metal construction screws (Fig.1) are used to stitch sheets at side lap locations and also to attach restraint straps to the edge trim "tick" and decking.



The use of thru deck welded studs or Hilti HVB Shear Connectors (where specified for composite beam design) will enhance the deck anchorage. For further information on fixings centres and/or shear studs refer SMD Technical Manual, downloadable at [www.smdltd.co.uk](http://www.smdltd.co.uk)

**Fig.1 Metal Construction Screws**

**Supplier** Hilti or Fixfast

**Code** S-MD01Z (4.8mm x 19mm)

**Use** Side stitching deck / Restraint Straps / End Caps

**Tool** Hilti ST2500 or equivalent



**Fig.4 "Mexican Hats" (36mm approx long)**

**Supplier** Hilti / SPIT

**Code** X-SW 30 ZF37 / SPIT CR9

**Use** Fixing deck to blockwork (Shot-fired)

**Tool** Hilti DX460 or DXA40 / SPIT P370



**Fig.2 General Purpose Nails**

**Supplier** Hilti / SPIT

**Code** X-U 15 P8 TH, DAK16 or XP-14 (Gas) / SPIT SDK9

**Use** General fixing of deck to steelwork (Shot/Gas-fired)

**Tool** Hilti DX460, DXA40 or GX-3 (Gas) / SPIT P370



**Fig.5 Hammer Screws**

**Supplier** Hilti

**Code** HPS-1 6 (25x50)

**Use** Fixing deck to concrete or masonry. A hole is drilled through the deck into the concrete/masonry for this fixing to be installed.

**Tool** Standard power drill



**Fig.3 ENP 19's (19mm long)**

**Supplier** Hilti / SPIT

**Code** X-ENP-19 L15 / SPIT SBR14

**Use** Fixing deck commonly where shear studs are not required, these provide an increased shear resistance to Fig.2

**Tool** Hilti DX76 or DX750 / SPIT P560



**Fig.6 Steelwork Screws (5.5mm x 38mm)**

**Supplier** Hilti / SPIT

**Code** S-MD05Z / SPIT TL38

**Use** Screw fixing deck to steelwork (Commonly where shot fired fixings are not permitted or design requires)

**Tool** Hilti ST2500 or equivalent



For technical literature on Hilti fixings  
SPIT fixings

logon to [www.hilti.co.uk](http://www.hilti.co.uk)  
logon to [www.itwcp.co.uk](http://www.itwcp.co.uk)

or call Hilti GB on 0800 08 308 58  
or call SPIT GB on 0800 731 4924