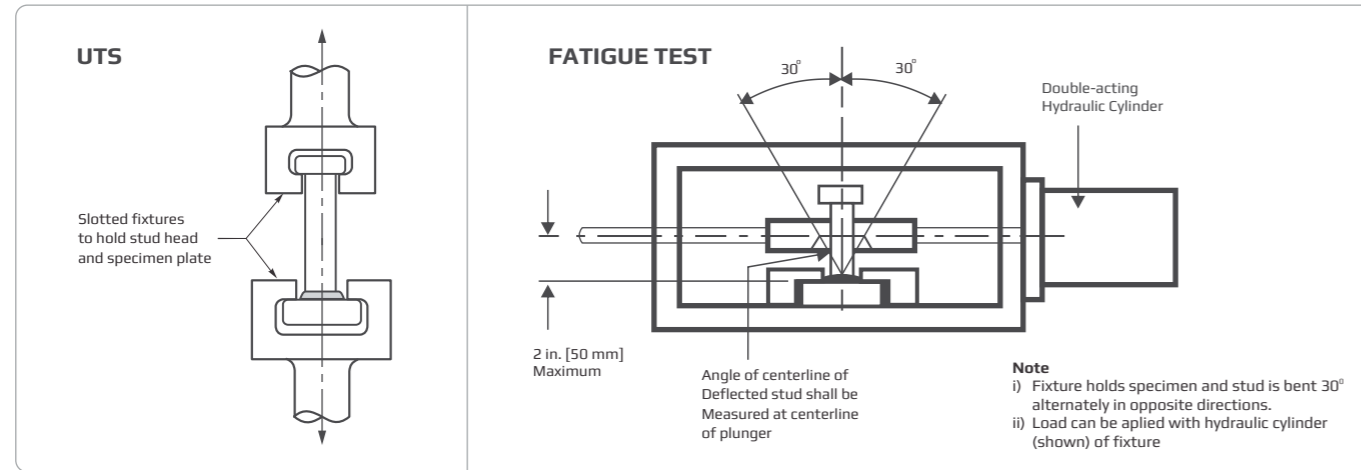


TESTING OF SHEAR CONNECTORS

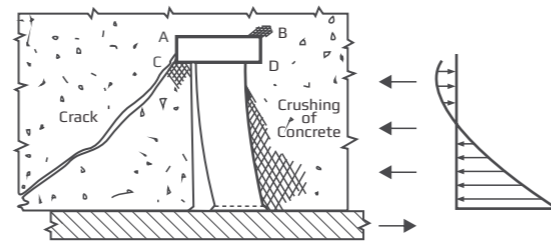
BEND TEST: After welding, the strength of the weld is checked by Bend Test. Shear Connector head is hammered till it bends upto 30 degrees on one side, without failure of weld joint.

UTS: Ultimate Tensile Strength is carried out on Universal Testing Machine, by using fixture as shown.



Flexible shear connectors resist shear forces by bending, tension or shearing in the root, at the connection point of steel beam, where they are subject to plastic deformations.

FAILURE MODE AT HEADED STUD



ADVANTAGES

- Shear Connectors have high load bearing capacity and offer heavy resistance for failure by shearing, in composite structure.
- Very high rate of production can be achieved, during construction.
- Ease of operation, during construction. No specific skill is required for welding.
- Flexibility in design of construction.
- Shear Connectors can be welded through Deck Sheet, to produce concrete slab.
- Size of columns are smaller hence for given built up area we can have larger carpet area
- Strong, durable, stable and seismic resistant.

STUD CRAFT is manufacturing shear connectors according to international standard ISO 13918 and testing is done as per AWS D1.1/D1.1M. Considering the criticality of application, Stud Craft has carefully selected the raw material with proper chemical composition and mechanical properties to ensure excellent weldability and strength.

Shear connectors with shank diameter 13, 16, 19, 22 and 25 mm are most commonly used worldwide, with varying lengths. Ceramic ferrules to suit the shear connectors are supplied by Stud Craft. Depending upon the application, Bare Metal or Through Deck Ceramic Ferrules are supplied.

WORKS

Gat No 155/3, Arvi Village, Near Khed Shivapur, Pune 412205 (INDIA)
Tel. +91 9960603961

ADDRESS FOR CORRESPONDENCE

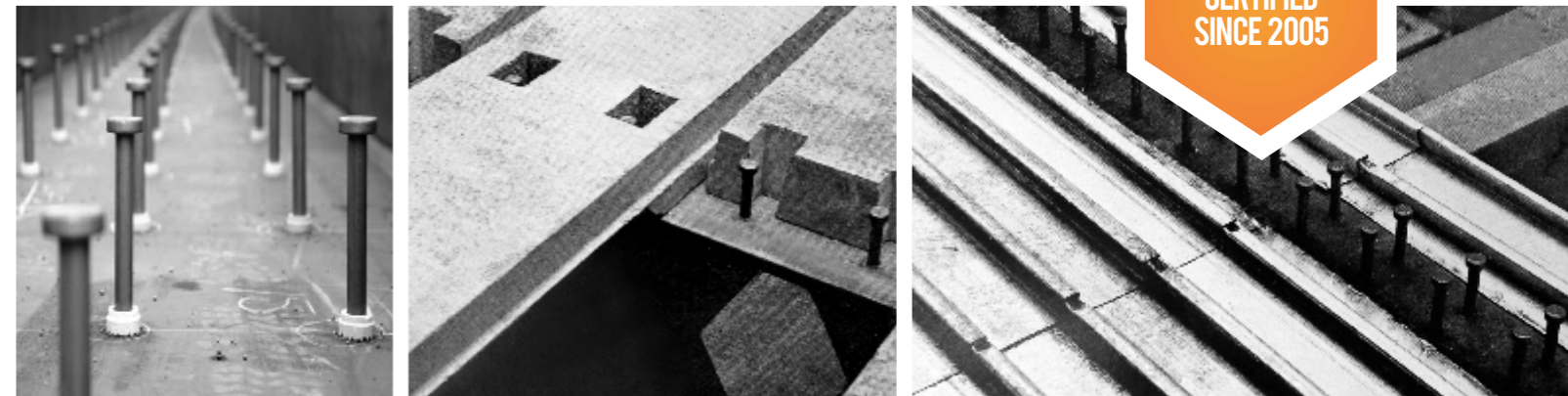
Sl. No-87/1, walakerwadi, Ravet Road, Chinchwad Pune 411033 (INDIA)
Tel. +91 8600022431

info@arkooinfra.com/sales@arkooinfra.com



STUD CRAFT[®]
Arkoo Infra & Trade Pvt. Ltd.

ISO/TS 16949
CERTIFIED
SINCE 2005

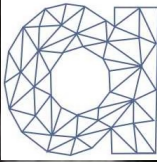


MANUFACTURER & EXPORTER OF SHEAR CONNECTORS FOR CONSTRUCTION



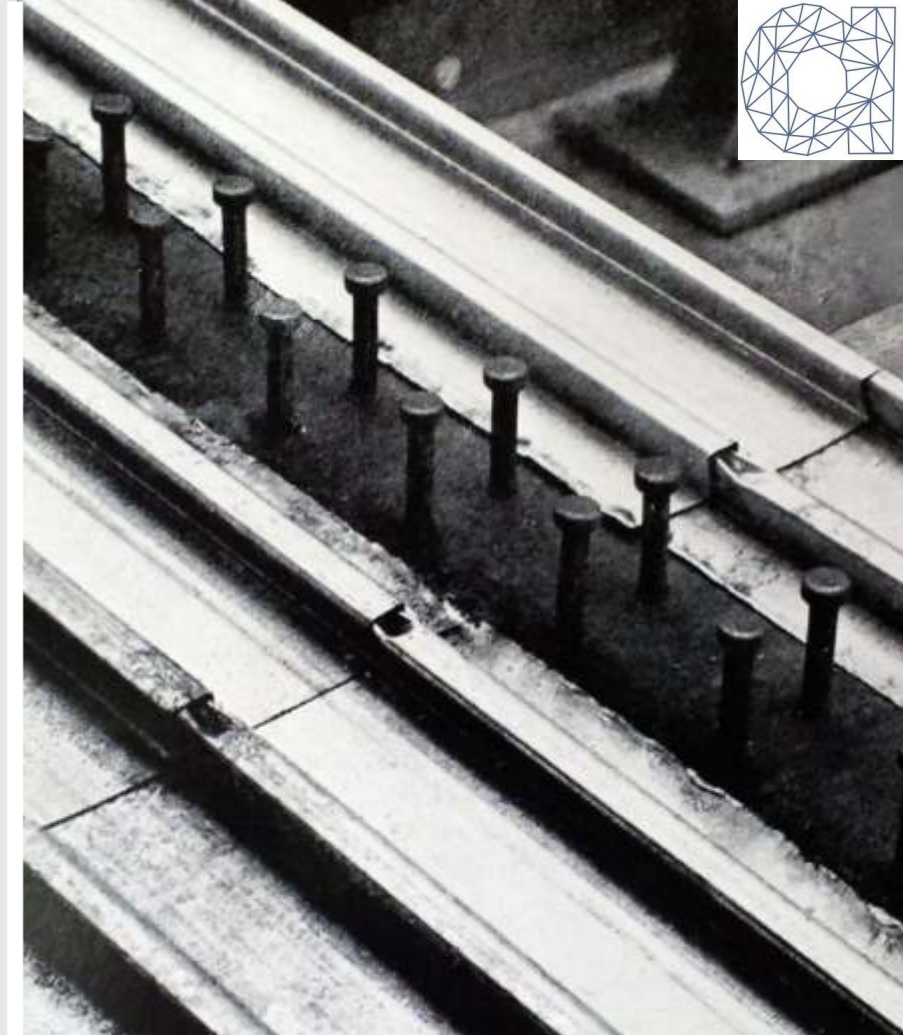
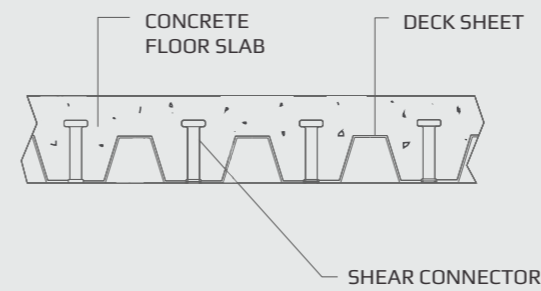
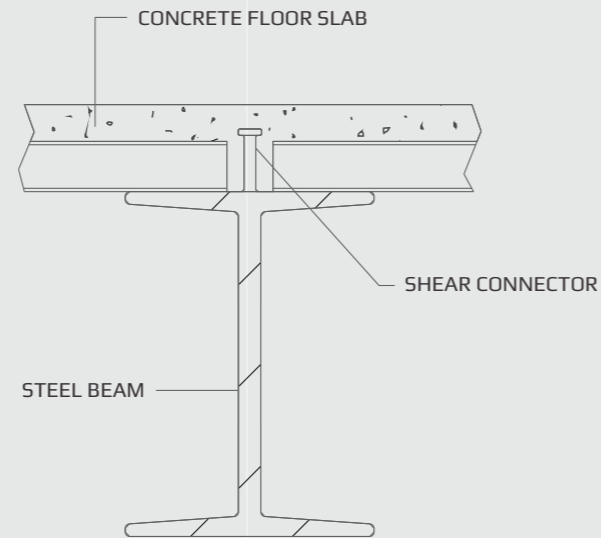
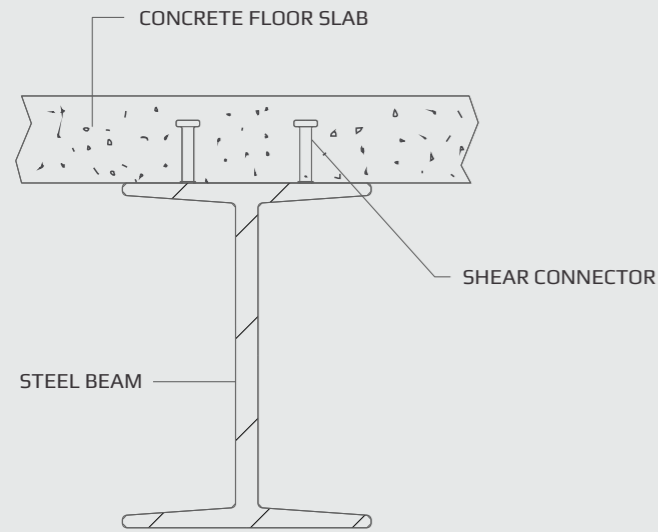
SHEAR CONNECTORS

The latest technology used in construction of buildings and bridges. They are used as a major element in the composite structure. Excellent quality, high load bearing capacity, durability, faster speed of construction, etc are some of the reasons why it is gaining popularity in the construction industry.



WHAT ARE SHEAR CONNECTORS?

Shear connector means headed steel studs. These are welded to a structural member for achieving composite action with concrete. Shear connector is one of the major elements in the composite structure.



STUD WELDING SEQUENCE



STUD IN CONTACT WITH PLATE



PILOT ARC



POWER ARC



COMPLETED WELD

WELDING PROCESS

Shear Connectors are welded to the structural member within a couple of seconds, with the help of Stud Welding Machine. The process is:

- i) Locate Shear Connector & Ceramic Ferrule held in the gun, against sheet or I beam.
- ii) Press the trigger. Current passes through Shear Connector and the plate. Shear Connector gets lifted upwards.
- iii) Gap in the Shear Connector and the plate, produces arc, which melts part of the Shear Connector and part of the plate.
- iv) Shear Connector is automatically pressed into the molten pool, to form homogeneous solid joint.



CERAMIC FERRULE

IT IS MAINLY USED TO

- Control the flow of molten metal
- Protect our eyes from bright arc light
- Provide proper path for the gases to escape

