



ROSE BRAND

DUAL PURPOSE RIGID AND SWIVEL CLAMPS

SCOPE

This specification covers the requirements of forged steel scaffold clamps for use with 1.90" O.D. and 1 5/8" / 1.69" O.D. U.S. thin wall tubing.

DEFINITIONS

Clamp: A component used for connecting two tubes

Right Angle Clamp: A clamp used for connecting two tubes crossing at a right angle.

Swivel Clamp: A clamp used for connecting two tubes crossing at any angle

COMPONENTS

A Right Angle Clamp shall consist of:

- One forged steel body made from low carbon steel
- Two forged steel caps made from medium carbon steel body and caps hot-dipped galvanized
- Four rivets, 2 x 3/8" diameter, 2 x 7/16" diameter, zinc plated and clear passivated
- Two eyebolts 9/16" UNC12
- Two shoulder nuts, 9/18" UNC12 x 7/8" A/F hex, eyebolts and shoulder nut zinc plated and dichromate passivated

A Swivel Clamp shall consist of:

- One male and one female forged steel body made from low carbon steel, joined together by a center rivet 5/8" diameter x 1" long
- Two forged steel caps made from medium carbon steel body and caps hot-dipped galvanized.
- Four rivets, 2 x 3/8" diameter, 2 x 7/16" diameter, zinc plated and clear passivated
- Two eyebolts 9/16" UNC12
- Two shoulder nuts 9/16" UNC12 x 7/8" A/F Hex, eyebolts and shoulder nuts zinc plated and dichromate passivated

The above listed parts shall be assembled into complete units with the caps and eyebolts hinged to the body by use of the rivets such that the cap will not open more than 90°.

TESTING

Testing of the clamps shall be carried out generally in line with the procedures detailed in European Standard EN74 as adopted by the British Standards Institution Specification BS 1139; Section 2.1; 1991, Metal Scaffolding Part 2.

EN74 specifies 48.3mm O.D. x 3.2mm wall hot dipped galvanized tube, a preferred torque of 37 ft/lbs (50N.m) and that the thread of the bolts be lubricated before testing.

Right Angle Clamp

The main performance characteristics for Class B (heavy duty) right angle clamps required by the specification are:

With an applied and sustained load of 2,248 lbs/sf (10KN), rotation must not exceed 0.275”.

With an applied and sustained load of 3,372 lb/sf (15KN), the clamp must not slip more than 0.020”.

With the clamp resting on a fixed support on the vertical tube, thus preventing it from slipping, it must withstand an applied and sustained load of 6,744 lb/sf (30KN) without distorting such that it will be rendered unsuitable for subsequent use.

Swivel Clamp

The main performance characteristics for swivel clamps required by the specification are:

With an applied and sustained load of 1,349 lb/sf (6KN), rotation must not exceed .0275”.

With an applied and sustained load of 1,911 lb/sf (8.5KN), the clamp must not slip more than 0.020”.

With the clamp resting on a fixed support on the vertical tube, thus preventing it from slipping, it must withstand an applied and sustained load of 3,822 lb/sf (17KN) without distorting such that it will be rendered unsuitable for subsequent use.

CERTIFICATION

At the purchaser's request on the order, the manufacturer will supply a certificate of conformance stating that the clamps comply with the requirements of this specification.