



Bharat Heavy Electricals Limited
Piping Centre Chennai-17

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TECHNICAL SPECIFICATION FOR HYDRAULIC SNUBBERS

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I. General Requirements

The Snubbers shall be mounted in between a piping system and the supporting structure. The purpose is to protect the piping/components against Dynamic movements arising from sudden changes in steam flow, safety valve reactions, earthquake etc.

The snubber shall allow free movement of the piping with minimum frictional resistance when subjected to non-dynamic movements such as thermal expansion and contraction.

The snubber shall limit motion, when the component is subjected to dynamic or impulse loads. The snubber shall be “locked up” and form a rigid connection when the piping is subjected to dynamic/seismic motion thereby protecting the piping by limiting their relative displacement. The Snubbers shall be of double acting type so that it can lock the motion of component and resist inertial forces of highly oscillatory nature, in both directions along longitudinal axis of the snubber.

II. Technical requirements

a) Stroke Length

The Snubber stroke length shall be decided based on the thermal movement of the pipe as given in the data sheet with a cushion of 25 mm on the either side.

The arrangement should permit swiveling motion not less than 6deg in all directions.

b) Mechanical

End Connection: Each end of the snubber shall be provided with self-aligning bearing. One end of the snubber shall be connected to the pipe clamp and the other



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end to a weld on bracket attached to the supporting structure. The weld on bracket are to be supplied by the snubber supplier.

c) Materials & construction

Materials & construction shall conform to be as per MSS 58, 69, 89 and 90.

III. Specific requirements/Data

- a) Application: For pipe support
- b) The Snubbers may be of hydraulic type.
- c) The distance between the structural member and the pipe to be supported as indicated in the data sheet.
- d) Recommended spares list to be furnished by supplier.
- e) Supplier to furnish reference list, relevant catalogues and maintenance procedures.
- f) For hydraulic snubber, the recommended Indian equivalent oil. If not, furnish the quantity of oil to be stocked as spare along with price particulars.
- g) Filling instruction of oil to the shock absorber.
- h) For data sheet refer Annexure-A.

IV. Scope of Supply

- a) The length 'L' indicated in the data sheet is the actual length required based on arrangement in cold condition.
- b) The supplier has to select the shock absorber type, extension tube and weld on bracket assembly.
- c) Dimension "A" and "E" are to be selected by the supplier.
- d) Snubber with necessary accessories as required.
- e) Weld on brackets with pins etc.



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- f) Painting of the supplied equipment.
- g) Any special tools as required for erection and maintenance.
- h) Commissioning/recommended spares.

V. Documents to be submitted along with the offer:

- a) Dimensional drawings of the snubber and weld on bracket(s)
- b) Details of materials for the above
- c) Quality plan
- d) Reference list, relevant catalogues and maintenance procedures..
- e) Recommended spares list.
- f) Detailed equipment specification

VI. Documents to be submitted along with supply of material

- a) Detailed dimensional drawings of the snubber and weld on bracket.
- b) Details of materials for the above.
- c) Quality plan.
- d) Recommended spares list.
- e) Special tools (if any).
- f) Erection instructions.
- g) Technical Data sheets.
- h) Maintenance instructions