

Flexible Bends (Articulated) for Rigid Pipe Roof Drain

Specifications:

Only flexible swing bends (articulated) for rigid pipe roof drain system to be provided. National Refinery Limited will make it's own arrangements for fabrication & installation of complete system. However, vendor to submit following drawings along with dimensions and metallurgy compatible with each below mentioned tanks according to their respective details for fabrication & installation purpose:

1. Elevation, Layout & Plan views of roof drain system along with delivery in case of Purchase Order.
2. Installation manual along with field instructions along with delivery in case of Purchase Order.
3. Supplier to provide drawing of flexible bends (articulated) with quotation.

TANK SIZE

Flexible bends are intended to be utilized for roof rain drain systems of any of the following tank diameter and height (in ft) combinations:

1. 180 x 48,
2. 160 x 42,
3. 140 x 42,
4. 45 x 36,
5. 30 x 30,
6. 12 x 12.

SERVICE/ FLUID

Flexible bend material to be compatible for the following services:

1. Imported Crude Oil,
2. Local Crude Oil,
3. Naphtha,
4. Kerosene,
5. Reformate,
6. Jet fuel (JP-4) & (JP-1)

SERVICE TEMP. / PRESSURE / FLUID

Flexible bend material to be compatible for the Temp range b/w 21-66 °C and pressure b/w atm-10psig (storage tank conditions).

General Notes:

- Material of Flexible swing bends should be compatible with the above mentioned services of the tank and to be specified by the vendor. Aromatic resistance to be specified by the vendor in their quotation.
- Service life of flexible bends to be specified by the vendor.
- Vendor to submit the MTC of Articulated Flexible swing bends along with the supply.
- Vendor to perform Hydrotest of the Articulated Flexible swing bends at design pressure at their facility and submit its certificate along with supply of material.
- The roof drain system shall be fully articulated pipe system.

- The design of the roof drain system shall be such that the water from the roof of external floating roof tanks is drained without contaminating the stored product.
- The joints shall be fully sealed and shall meet the conditions required for total immersion in above mentioned product / service for long periods.
- The system shall be capable of withstanding all possible axial, lateral, and rocking motions within the confines of the tank shell, without causing heavy loads on any part of the system.
- The roof drain system shall be suited for 100% Aromatic Resistance.
- Supplier to provide list: specifications of material, installation, testing, maintenance instruction, detailed dimensional drawings and construction methodology.
- All the documents shall be in English Language
- All material other than mentioned in this specification shall be according to manufacturer standard.
- The articulated joint guaranteed for adequate design, trouble free operation and against defective materials and workmanship for 36 months from supply or 24 months from commissioning, whichever is earlier.
- Deviations from these specifications if any, shall be clearly specified.