

Typical Specifications for Water/Waste Water Applications

1. Flexible Connectors - Rubber Expansion Joints: Water/Waste Water Service including Sludge Lines

- A. Flexible rubber spheres (expansion joints) shall be used on all equipment as called out in drawings. Materials of construction will include Neoprene tube reinforced with multiple plies of Nylon tire cord with a Neoprene cover*. Expansion joints 24" ID or less shall be single sphere furnished with a set of floating galvanized steel flanges with recessed groove to interlock with rubber connector's raised face flange bead. Flange bead will be wire reinforced. Flanges will be drilled 125/150# ANSI.

The flexible rubber joints will be rated as follows:

I.D. SIZE	PRESSURE AT 170°F
1" to 12"	225 PSIG
14"	120 PSIG
16" to 20"	100 PSIG
22"	92 PSIG
24"	88 PSIG

All connectors must have a burst pressure of 4:1 over the above rated pressure.

Products that meet this specification:

1" ID to 24" ID -

- Proco Series 240/242, Style 240 AV/NN
- * • Proco Series 240/242, Style 240 AV/NP
- * (For applications where heavy mineral oils are present, (ie. fuel oil, gasoline, etc...), Nitrile (NP) elastomers shall be used.

- B. Flexible rubber spool type expansion joints shall be used on all equipment as called out in drawings. Materials of construction will include Butyl tube reinforced with multiple plies of polyester or Nylon tire cord with a Butyl cover. The body of the expansion joint shall be steel reinforced. Expansion joints greater than 24" ID shall be spool type with integrally molded full face rubber flanges with galvanized steel split retaining rings drilled to 125/150# ANSI standards.

The spool will be rated equal to or higher than the Fluid Sealing Association Series C high pressure design:

I.D. SIZE	PRESSURE AT 170°F
26" - 40"	90 PSIG
42" - 66"	89 PSIG

All spools must have a burst pressure of 4:1 over the above rated pressure.

Products that meet this specification:

26" ID and Larger - Open Arch

- Proco Series 230, Style 231/BB

For applications where heavy solids are present, the use of filled arch expansion joints are necessary to keep debris out of the expansion joint cavity.

Products that meet this specification:

26" ID and Larger - Filled Double Arches

- Proco Series 230, Style FA232/**

** Elastomer selection is dependant upon application conditions.

- C. Control Rods - Two galvanized steel control rods and four control rod plates will be supplied with each expansion joint. Rubber washers shall be used to isolate the control rods and control rod plates according to expansion joint manufacturer's installation instructions.

2. **Flexible Connectors - Rubber Expansion Joints:**

Air Service in Blower Lines

Flexible rubber spherical expansion joints shall be used on all equipment as called out in drawings. Materials of construction will include EPDM tube reinforced with multiple plies on nylon tire cord with a EPDM cover. Expansion joint shall be single sphere furnished with a set of floating galvanized steel flanges with recessed groove to interlock with rubber connectors raised face flange bead. Flange bead will be wire reinforced. Flanges will be drilled 125/150# ANSI.

The flexible rubber joints will be rated as follows:

I.D. SIZE	PRESSURE AT 170°F*
1" to 12"	225 PSIG
14"	120 PSIG
16" to 20"	100 PSIG
22"	92 PSIG
24"	88 PSIG

All connectors must have a burst pressure of 4:1 over the above rated pressure.

Products that meet this specification:

- Proco Series 240/242, Style 240 AV/EE

*Higher temperatures may be obtained at lower pressures.

3. **Flexible Connectors - PFA Expansion Joints**

Corrosive Fluid Lines:

Flexible molded PFA expansion joints with three convolutions, ductile iron flanges, drilled 150 PSI ANSI standard with stainless steel external rings. Materials of construction will be PFA. Built in limit bolts will be supplied with expansion joint.

Products that meet this specification:

- Proco Series 440, Style 443 molded PFA expansion joint 3-convolutions

4. **Flexible Connectors - Fabric Fan Connectors Expansion Joints:**

Odor Control System

Flexible fabric fan connector expansion joints shall be used on all equipment as called out on drawings. The fan connector is to be manufactured in a U-Design configuration with continuous corners and a minimum of one ply of reinforced fabric vulcanized into a homogeneous product that is 3/16" thick or a minimum of two plies of reinforced fabric vulcanized into a homogeneous product that is 1/4" or 3/8" thick. No splices are to be made in the corner areas. System media, temperature, pressure and movements will determine the elastomer material to be used for the application, the nominal body thickness of the connector and the overall length the connector will need to be.

Fan connector expansion joints shall come with 1/4" thick X 2" wide retaining rings/back-up bars to clamp the expansion joints into the ducting system.

Products that meet this specification:

- Proco Series 500, Style 520 Fabric Fan Connector