

PROCO™ SERIES

240/242

molded expansion joints



PROCO Series 240 and Series 242 Non-Metallic Expansion Joints are designed for tough demanding industrial applications as found in: Air Conditioning-Heating and Ventilating Systems, Chemical-Petrochemical and Industrial Process Piping Systems, Power Generating Systems, Marine Services, Pulp & Paper Systems, Water-Waste-water-Sewage and Pollution Control Systems. Installed next to mechanical equipment or between the anchor points of a piping system, specify the PROCO Series 240 or 242 to: (1) Absorb Pipe/Movement/Stress, (2) Reduce System Noise, (3) Isolate Vibration, (4) Compensate Alignment/Offset, (5) Eliminate Electrolysis, (6) Protect Against Start-Up/Surge Forces. Our history in the manufacturing of expansion joint products dates back to 1930. When you need an engineered rubber solution to a piping system problem, call PROCO.

Spherical Shapes-Stronger-More Efficient. Featuring an engineered molded style single or twin sphere designed bellows, the PROCO Series 240 and Series 242 are inherently stronger than the conventional hand-built Spool Type arch. Internal pressure within a sphere is exerted in all directions, distributing forces evenly over a larger area. The spherical design "flowing-arch" reduces turbulence, sediment buildup, thrust area and the effects of thrust on the piping system equipment when compared to the "high-arch" design of hand-built standard products.

Greater Movements Are Available with the PROCO Series 240 and Series 242 when compared to the movements of conventional hand-built products. Axial compression, elongation, deflection and angular movements in the system are more readily absorbed by spherical types. These products are more forgiving and can be compressed or extended to install in non-standard openings, caused by equipment shifting or settling (Pre-compressing/extending the expansion joints for installation, may result in reduced pressure, vacuum and movement capabilities of the expansion joints. See Tables 2 and 3.)

Easy Installation With Alignable Metallic Flanges. The floating metallic flanges freely rotate on the bellows, compensating for mating flange misalignment, thus speeding up installation time (see Figures 1, 2, 3 & 4). Gaskets are also not required with the Series 240 or Series 242, provided the expansion joints are mated against a flat face flange as required in the installation instructions.

Less System Strain With Thin Wall Design. Manufactured by high pressure molding of elastomer and high-tensile fabric reinforcement, the Series 240 and Series 242 have a thinner wall section and lighter weight when compared to conventional hand-built products. Lower spring forces are therefore required, reducing piping/flange/equipment stress-strain-damage. PROCO Styles 240-C and 240-A are acceptable for use with plastic piping systems where even lower deflection forces are required.

Specifications Met. The PROCO Series 240 and Series 242 are designed to meet or exceed the pressure, movement and dimensional rating of the Spool Type arch as shown in the Rubber Expansion Joint Division, Fluid Sealing Association "Technical Handbook - Sixth Edition" Tables IV & V.

Absorbs Vibration-Noise-Shock. The PROCO quiet operating Series 240 and Series 242 are a replacement for "sound transmitting" metallic expansion joints. Sound loses energy traveling axially through the elastomer bellows. Water hammer pumping impulses and water-borne noises are cushioned and absorbed by the molded lightweight thin-wall structure. Install the Series 240 or Series 242 in a system to enable isolated equipment to move freely on its vibration mountings; or to reduce vibration transmission when the piping section beyond the expansion joint is anchored or sufficiently rigid.

Flange Materials/Drilling. All PROCO Spherical 240 and 242 connectors are furnished complete with plated carbon steel flanges for corrosion protection. Series 240 and 242 Neoprene connectors — 12" and below — are tapped to ANSI 125/150# drilling. All other connectors come with standard drilled holes to the ANSI 125/150# standards (see Table 7 and Figures 3 & 4). Stainless steel flanges and other drilling standards such as: ANSI 250/300#, BS-10, DIN NP-10 and DIN NP-16 are also available from stock and are listed on Table 7. JIS-5K and JIS-10K are also available upon request.

Chemical Service Capability At Minimal Cost. Expensive, exotic metal expansion joints for chemical service can be replaced with the PROCO Series 240 or Series 242. Molded with low cost chemical resistant elastomers such as Neoprene, Nitrile, Hypalon®, EPDM and Chlorobutyl insures an expansion joint is compatible with the fluid being pumped or piped. (See Table 1 below). Use the PROCO "Chemical/Rubber Guide" to specify an elastomer recommendation compatible for your requirement.

Wide Service Range With Low Cost. Engineered to operate up to 300 PSIG and 265°F, the PROCO Series 240 and Series 242 can be specified for a wide range of piping requirements. Compared to conventional hand-built Spool Type arch, you will invest less money when specifying the mass-produced, consistent high quality, molded single or twin sphere expansion joints.

Large Inventories Mean Same-Day Shipment.

PROCO maintains the largest inventory of spherical expansion joints in the Americas. Every size listed is in stock in several elastomers and comes with a choice of drilling patterns. Shipment is based on customer need. PROCO can ship same day as order placement. In fact, when it comes to rubber expansion joints, **if PROCO doesn't have your requirement...nobody does!** Information • Ordering • Pricing • Delivery. Day or night, weekends and holidays ... the PROCO phones are monitored 24 hours around the clock. When you have a question, you can call us.

**Protecting Piping And
Equipment Systems
From Stress/Motion**

Table 1: Available Styles • Materials

For Specific Elastomer Recommendations, See: PROCO™ "Chemical To Elastomer Guide"								
240-A	240-C	240-A,D,E,M	242-A,B,C	PROCO™ Material Code ¹	Cover Elastomer ²	Tube Elastomer	Maximum Operating Temp. °F	Identifying Color Band/Label
	X	X	X	/BB	Chlorobutyl	Chlorobutyl	250°	Black
	X	X	X	/EE	EPDM	EPDM	250°	Red
	X	X	X	/EE-9	EPDM	EPDM	265°	Red
	X	X	X	/ET-9 ³	EPDM	Teflon®	265°	Red
	X	X	X	/HH	Hypalon®	Hypalon®	230°	Green
	X	X	X	/NH	Neoprene	Hypalon®	230°	Green
	X	X	X	/NJ	Neoprene	FDA-Nitrile	230°	White
	X	X	X	/NN	Neoprene	Neoprene	230°	Blue
X	X	X	X	/NP	Neoprene	Nitrile	230°	Yellow
X	X	X	X	/NT ³	Neoprene	Teflon®	230°	Yellow

NOTES: Hypalon® is a registered trademark of DuPont Dow Elastomers. Teflon® is a registered trademark of the DuPont Company.

1. All elastomers include nylon reinforcing, except EE-9 which is steel cord.

All materials meet or exceed the Rubber Expansion Joint Division, Fluid Sealing Association-REJ Division requirements for Standard Class I and II. EE-9 also meets Special Class II. For more information see The FSA Technical Handbook, Table 1.

Materials NN, NP and NT meet all requirements of UL 30.

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