



Expansion Joints Designed for Industry

- Power Plants
- Chemical Plants
- Steel Mills
- Marine
- Oil & Gas
- Wastewater Treatment Facilities
- Food Processing
- Industrial (Automotive, Aerospace, etc.)
- Mining
- Pulp & Paper

PROCO
PROCO PRODUCTS, INC.

1-800-344-3246 • Fax: 209-943-4084 • Email: sales@proco.com • www.proco.com

The industry's widest selection of flexible connectors, expansion joints, penetration seals and rubber check valves are available from PROCO Products, Inc.

RUBBER EXPANSION JOINTS. ALL DESIGNS AVAILABLE: Handbuilt wide arch, handbuilt low profile, super wide arch, low spring rate wide arch, PTFE lined molded arch, narrow and wide arch castomatic and acoustic reducers and specialized types. Modifications to design included: Multiple arch and flat handbuilt wide arch. Standard elastomers include: Butyl, Neoprene, Viton, CSM (similar to Nippon-Bond), EPDM, Natural and Viton®. Also available in PTFE and FEP. Stock sizes range from 1" ID to 72" ID. Manufacturing capability to 120" ID. (Tooling is available to manufacture all stock sizes.) Proco also supplies unique expansion joints in rectangular, oval and round configurations with internal or external rubber flanges for Ball Valve, Gate Valve applications. Request brochures: Series 230, Series 271, Series 231R/242R, Series 231R/242, Series 231R/242, Series 231R/242, Series 403 and Series 404.

PTFE EXPANSION JOINTS. Called Couplings, Expansion Joints or Bellows. Only PROCO offers bellows sizes ranging from 1" to 12" in 2, 3 and 5 convolutions. PROCO offers sizes ranging from 1" ID through 24" ID in 2 and 3 convolutions and 1" ID through 24" ID in 5 convolutions. Designed joints for chemical service. The neoprene coat and short flange/long flange make these products universal in application. Request Brochure: Series 440.

RUBBER PIPE / VIBRATION DAMPERS. For Vibration/Noise Reduction in liquid movement, PROCO rubber pipe is stock from 1" ID to 24" ID in lengths from 12" to 48" over-all length. Standard molded elastomers are Neoprene and Butyl, although other elastomers are available. Request Brochure: Series 300.

RUBBER CHECK VALVES. Rubber Check Valves are cost effective way to control back pressure from different operations. Offered as direct replacement for ineffective and maintenance intensive flap type valves. Sizes range in ID from 1" to 24". Available in flanged or sleeve to fit on end of pipe. Also available as sleeve rubber check valve. Request Brochure: Series 700.

PENETRATION SEALS. When piping passes through a wall or floor, use an all rubber Pen-Seal to create a tight seal around space between wall/floor and pipe. Manufactured of EPDM, Viton and Silastic. Bellows can be supplied with Decelerated Latex Steel or 316 Stainless Steel. Request Brochure: Pen-Seal.

LOW TORQUE GASKETS. For Flange, Flangeless, Glass or other piping which require minimum seating forces. Manufactured in EPDM, nitrile, polyurethane and Viton® (each PTFE lined). Stock sizes are available from 1 1/2" ID to 12" ID. Request Brochure: Series 9013.

NON-METALLIC DUCTING EXPANSION JOINTS / FAN CONNECTORS. PROCO manufactures a complete line of ducting expansion joints available in round or rectangular sizes with flanged or flat bell profiles for fan inlet and discharge applications. Elastomer elements are offered for systems requiring below 50°F and are manufactured of Butyl, SBR, EPDM, Neoprene, Viton or chlorinated polyethylene. Request Brochure: Series 500.

CATALOG AVAILABLE. A complete listing of products with information and data sheets on PROCO's products is available without cost or obligation. Write, fax, phone or e-mail for your copy today!

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FLUID SEALING ASSOCIATION **ESA** **NAHAD** **IDCO**
Water Environment Federation

THE EXPANSION JOINT AND CHECK VALVE PEOPLE

PROCO
PROCO PRODUCTS, INC.

Applications: Food Processing, Oil & Gas, Marine, Chemical/Plastic/FRP Piping, Water/Waste Water, Power Generation.

Expanding Water & Raw Water Systems
Rubber Spool Type
Series 230 - 54x 131/88
Series RC - 54x RC21/88

Condensate Systems
Rubber Spool Type
Series 230 - 54x 231/88 or 232/88
Series RC - 54x RC21/88

Food Water Prep Systems
Rubber Spool Type
Series 230 - 54x 231/88 or 232/88
Series RC - 54x RC21/88

Scrubber Systems
Rubber Spool Type
Series 230 - 54x RC21/88
Series 230 - 54x RC22/88
Series RC - 54x RC21/88

Cooling Water Systems
Rubber Spool Type
Series 230 - 54x 231/88

Corrosive Fluid Lines & CPVC Fluid Lines
Molded PTFE Type
Series 440 - 54x 442B, 443B & 445B
Integral Molded Flanged Wide Arch
Style 261R

Integral Molded Flanged Wide Arch
Style 261R & 262R

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Water Environment Federation

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McGill Hose & Coupling Locations & Contact info:
email: sales@mcgillhose.com

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East Longmeadow, MA
413-525-3977

35 Industrial Pkwy Unit F,
Woburn, MA
781-933-3300

920 Broadway,
East Providence, RI
401-438-0639





Why are Expansion Joint Surveys important?

McGill Hose and Proco Products are teaming up to offer an Expansion Joint Survey that will ensure your piping systems can perform as designed.

Though small and typically inexpensive, expansion joints play a critical role in maximizing the performance of your piping system. Spending a bit of proactive time managing the expansion joints in your facility can prevent catastrophic failures, costly downtime, facility damage, personnel injuries and ultimately lost business.

Invest a small amount of your time and contact McGill Hose & Coupling feat. Proco Products for your Expansion Joint Survey right away!

Room	Asset	Location	Side	Size	OAL	Temp	Elastomer	Proco Equivalent	Additional Notes
Boiler									
EJ 1		Pump 1	Suction	6"	5-3/4 7/8	190	EPDM	240	
EJ2		Pump 1	Discharge	6"	6"	180	EPDM	240	
Caustic NaOH									
EJ3				2	6		EE	231	
EJ4				2	6		EE	231	All joints in good
EJ5				2	6		EE	231	shape for now
EJ6				4	6		EE	231	
EJ8		Pump 1	Suction	10	7.125"		EE	240	
EJ9		Pump 1	Discharge	10	6.5"		EE	240	
EJ10									
EJ11									
EJ12									
EJ13									
EJ14									

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(209) 943-6088 (International) Fax: (209) 943-0242
(800) 344-3246 (USA/Canada) Email: eric@procoproducts.com

Sample Expansion joint survey notes

Distributor: 000000

Agent: 00000

Manufacturer: Eric Blazaj Proco Products

ATTN: To whom it may concern,

000000 recently did a rubber expansion joint survey. Here were some of the things that we found while that survey was conducted...



Proco recommends that all thread be used, however, if regular bolts are used there should be no more than 2 turns worth of threads exposed. If there was a system pressure surge or during pump start up you risk the cover being nicked by the bolt and causing a failure.

The second expansion joint we looked at on the roof actually had two cracks in the body from where the bolts scuffed the body. I would keep an eye on this one for that reason. Also, it looked like there was some external cracking on the cover of the EJ... most likely due to the fact that it is exposed to the sun and outdoor elements.



There seems to be some piece of fabricated rubber that has been inserted between the mating flange of the red valve and the rubber joint. This is not a proper installation. I would recommend removing that rubber and doing the following: use a spacer flange, put a spacer flange between the gasket of the spacer flange and the red valve then bolting everything up.



Towards the end of our survey there were a few joints that had been installed for at least 5 years and had not been replaced. I would keep a few on the shelf of these...

PROCO PRODUCTS, INC.

QUOTATION

30059

REPLY TO ADDRESS: 3417 FISHPOND CIRCLE, CHICAGO, IL 60631
SHIP TO ADDRESS: 3417 FISHPOND CIRCLE, CHICAGO, IL 60631

Phone: (209) 943-6088 Fax: (209) 943-0242 Toll Free Phone: (800) 344-3246

Date of Quotation: 02/21/2018 FS2

Excluded items are not guaranteed or warranted. Material items can be returned within one month of work for a 10% refunding fee. If no refunding fee is given, please send for 30 days.

Project:

ITEM	QUANTITY	DESCRIPTION OF GOODS	UNIT PRICE	TOTAL
9	1	ASSEMBLY, 491 LIMIT RODS	131.00	
10	1	ASSEMBLY, 491 LIMIT RODS	340.00	
11	1	ASSEMBLY, 491 LIMIT RODS	75.00	
12	1	ASSEMBLY, 491 LIMIT RODS	85.00	
13	1	ASSEMBLY, 491 LIMIT RODS	347.00	
14	1	ASSEMBLY, 491 LIMIT RODS	96.00	
15	1	ASSEMBLY, 491 LIMIT RODS	95.00	
16	1	ASSEMBLY, 491 LIMIT RODS	974.00	
17	1	ASSEMBLY, 491 LIMIT RODS	99.00	
18	1	ASSEMBLY, 491 LIMIT RODS	95.00	
19	1	ASSEMBLY, 491 LIMIT RODS	3,040.00	
20	1	ASSEMBLY, 491 LIMIT RODS	1,050.00	
21	1	ASSEMBLY, 491 LIMIT RODS	1,344.00	
22	1	ASSEMBLY, 491 LIMIT RODS	1,804.00	
23	1	ASSEMBLY, 491 LIMIT RODS	334.00	

What does a survey entail?

- Documented spreadsheet of Expansion Joint assets
- Detailed explanations of survey results w/photos
- Official quote for required replacement Expansion Joints

This joint is severely over-compressed and is only measuring 4.5" OAL. It should be 6" OAL and can support max 1" compression. I would recommend changing out the joint, adjusting the piping and adjusting installing Figure 2 or Figure 3 control rods to prevent over-compression. Here is what that would look like.



Other notes:

Along the way we found a bolt that was completely loose. That should be tightened up again. No need to torque it hand. Bolt torque values can be found here on our install instructions.

<http://www.procoproducts.com/wp-content/uploads/2016/05/2013-2014-Survey-Type.pdf>

Typically eccentric reducers are installed on the suction side and concentric reducers are installed on the discharge. It appears a lot of eccentrics are installed on the discharge side at your facility. If you have the ability to change this I would recommend it.

PROCO PRODUCTS, INC.

QUOTATION

300595

REPLY TO ADDRESS: 3417 FISHPOND CIRCLE, CHICAGO, IL 60631
SHIP TO ADDRESS: 3417 FISHPOND CIRCLE, CHICAGO, IL 60631

Phone: (209) 943-6088 Fax: (209) 943-0242 Toll Free Phone: (800) 344-3246

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Project:

ITEM	QUANTITY	DESCRIPTION OF GOODS	UNIT PRICE	TOTAL PRICE
1	1	720X1231E 16 X 8 231EE SOL ARCH EPDM EXP JT	3,779.00	3,779.00
2	1	720X1231E 16 X 8 231EE SOL ARCH EPDM EXP JT	1,480.00	1,480.00
3	1	720X1231E 16 X 8 231EE SOL ARCH EPDM EXP JT	1,915.00	1,915.00
4	1	720X1231E 16 X 8 231EE SOL ARCH EPDM EXP JT	529.00	529.00
5	1	720X1231E 16 X 8 231EE SOL ARCH EPDM EXP JT	152.00	152.00
6	1	720X1231E 16 X 8 231EE SOL ARCH EPDM EXP JT	131.00	131.00
7	1	720X1231E 16 X 8 231EE SOL ARCH EPDM EXP JT	672.00	672.00
8	1	720X1231E 16 X 8 231EE SOL ARCH EPDM EXP JT	152.00	152.00

THE EXPANSION JOINT AND CHECK VALVE PEOPLE

EXPANSION JOINT SURVEYS