# Flange Isolation Joints Manufactured for Current Pipeline Products"

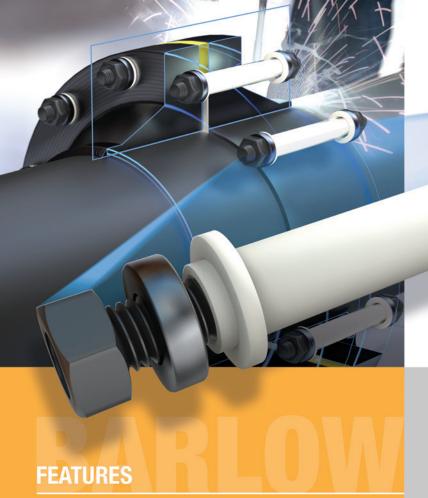
a division of IMAC Systems, Inc.

Nothing better than

# BARLOW

Welded into place for a permanent solution



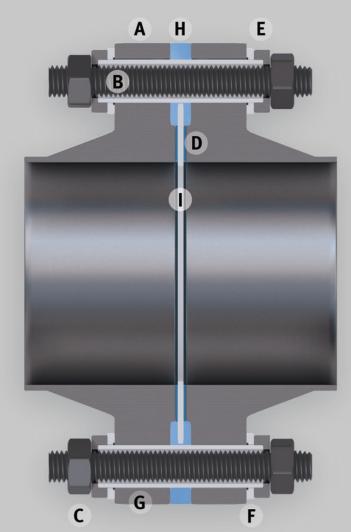


- Thicker dielectric sleeves (1/8") machined to precise, close tolerance dimensions, both length and diameter.
- Flange bolt holes line reamed to provide perfect alignment and close tolerance fit to the dielectric sleeves.
- Flange studs machined from Alloy Steel and heat treated to ASTM Designation A-193-52T Grade B-7, resulting in superior strength and greater resistance to stress-induced elongation.
- Coupling nuts machined from Alloy Steel and heat treated to ASTM Designation A-194 Class 2-H.
- Precision machined steel washers, flat, parallel, and counterbored allowing for square alignment and clearance for the dielectric sleeves. The clearance prevents load on the sleeves after torquing flange studs.
- Flange gasket precision cut for ideal fit with small projection into the stream to prevent bridging of the joint inside the pipe.
- Precise assembly with accurate torquing carried out in sequential pattern followed by retorquing after 24 hours.
- Flange gap sealed with epoxy resin to prevent contamination and electrical shorting.
- Dielectric strength test (minimum) 5 kV at 50 hz for 1 minute (dry air).
- Electrical resistance test (minimum) 50 M $\Omega$  at 1 kV DC (dry air).



### Precision Assembly and Torquing

- A Forged Steel Flanges
- **B** Alloy Steel Studs
- C Heavy Steel Hex Nuts
- **D** Sealing Gaskets
- **E** Recessed Steel Washers
- F Extra Thick Dielectric Washers
- **G** Extra Thick Dielectric Sleeves
- **H** Epoxy Resin Sealant
- I Dielectric Gasket



# **DIMENSIONS**

### **Barlow Insulating Joints ANSI 150 Class**

PIPE SIZE	FLANGE DIMENSIONS			ALLOY STEEL STUDS			JOINT	AVERAGE WEIGHT
Inches	O.D.	I.D.*	Thickness***	Number	Thread	Length	End to End	Pounds
2	6	2.07	0.69	4	1/2-13	4 1/4	5 <sup>3</sup> / <sub>16</sub>	15
3	7 1/2	3.07	0.88	4	1/2-13	4 <sup>5</sup> /8	5 <sup>11</sup> / <sub>16</sub>	27
4	9	4.03	0.88	8	1/2-13	4 <sup>5</sup> /8	6 <sup>3</sup> /16	40
6	11	6.07	0.94	8	5/8-11	5	7 <sup>3</sup> /16	64
8	131/2	7.98	1.06	8	5/8-11	51/4	83/16	96
10	16	10.02	1.12	12	<sup>3</sup> /4 -10	5 <sup>5</sup> /8	8 <sup>3</sup> ⁄16	135
12	19	12.00	1.19	12	<sup>3</sup> /4-10	5 <sup>3</sup> / <sub>4</sub>	9 <sup>3</sup> /16	203
16	231/2	15.25	1.38	16	<sup>7</sup> ∕8-9	65/8	10 <sup>3</sup> /16	330
20	27 1/2	19.25	1.62	20	1-8	73/8	11 <sup>9</sup> ⁄16	480
24	32	23.25	1.81	20	11/8-8	8	12 <sup>3</sup> / <sub>16</sub>	656
30	383/4	29.25	2.88	28	11/8-8	8 1/2	10 <sup>15</sup> /16	913

### **Barlow Insulating Joints ANSI 300 Class**

-								
PIPE SIZE	FLANGE DIMENSIONS			ALLOY STEEL STUDS			JOINT	AVERAGE WEIGHT
Inches	O.D.	I.D.*	Thickness***	Number	Thread	Length	End to End	Pounds
2	61/2	2.07	0.81	8	1/2-13	4 1/2	5 <sup>11</sup> / <sub>16</sub>	23
3	81/4	3.07	1.06	8	<sup>5</sup> /8-11	51/4	67/16	44
4	10	4.03	1.19	8	<sup>5</sup> /8 - 11	51/2	6 <sup>15</sup> /16	61
6	121/2	6.07	1.38	12	<sup>5</sup> /8 - 11	53/4	7 15/16	102
8	15	7.98	1.56	12	3/4-10	63/4	8 15/16	156
10	171/2	10.02	1.81	16	7/8-9	71/2	97/16	236
12	201/2	12.00	1.94	16	1-8	8	107/16	332
16	251/2	15.25	2.19	20	1 ½ - 8	83/4	11 <sup>11</sup> /16	581
20	301/2	19.25	2.44	24	11/8-8	91/2	12 <sup>15</sup> /16	901
24	36	23.25	2.69	24	13/8-8	101/2	13 <sup>7</sup> / <sub>16</sub>	1329
30	43	29.25	3.57	28	15/8-8	121/2	16 <sup>11</sup> /16	2059

### **Barlow Insulating Joints ANSI 600 Class**

PIPE SIZE	FLANGE DIMENSIONS			ALLOY STEEL STUDS			JOINT	AVERAGE WEIGHT
Inches	O.D.	I.D.**	Thickness***	Number	Thread	Length	End to End	Pounds
2	6½	1.94	1	8	1/2-13	51/4	67/16	30
3	81/4	2.90	1.25	8	<sup>5</sup> /8 -11	6	73/16	53
4	103/4	3.83	1.50	8	3/4-10	63/4	8 11/16	97
6	14	5.76	1.88	12	7/8-9	8	9 15/16	188
8	161/2	7.63	2.19	12	1-8	9	11 <sup>3</sup> / <sub>16</sub>	278
10	20	9.75	2.50	16	11/8-8	93/4	1211/16	442
12	22	11.75	2.62	20	11/8-8	10	12 <sup>15</sup> /16	532
16	27	15.00	3	20	1 <sup>3</sup> ⁄8-8	111⁄4	14 <sup>11</sup> /16	1105
20	32	19.00	3.50	24	11/2-8	121/2	15 <sup>11</sup> /16	1608
24	37	23.00	4	24	1 <sup>3</sup> /4-8	14	16 <sup>11</sup> /16	2300
30	44 1/2	29.00	4.50	28	17/8-8	151/2	203/16	2920

<sup>\*</sup>ID for Standard Wall Pipe \*\*ID for Extra Strong Wall Pipe (STD Wall Available Upon Request) \*\*\*Flange thickness does not include raised face thickness Other sizes and ratings available upon request. Flange dimensions follow the ANSI B16.5 and ANSI B16.47 Series 'A' specifications.

# **ABOUT IMAC SYSTEMS, INC.**

**BARLOW** Flange **Insulated** Joints, welded into place for a permanent solution

Manufacturers and distributors of equipment for the mitigation and control of corrosion, specializing in cathodic protection.

### Why BARLOW Insulated Joints?

- 1. Factory manufactured BARLOW eliminates kits, no field assembly required
- 2. Controlled assembly and pretesting eliminates adjustments, eliminates short circuits and guarantees performance
- 3. Mechanical design resists effects of stress and the resulting insulation failure
- 4. Every joint has stringent quality control, traceable with a unique, permanently marked serial number
- 5. Each joint provided with a certificate of testing



Tested and Ready for Installation

**American Made** 

REPRESENTATIVE:

**Liberty Sales & Distribution, LLC** 

2880 Bergey Road, Suite F, Hatfield, PA 19440 Phone: (877) 373-0118 Fax: (888) 850-3787 Email: sales@libertysales.net Web: www.libertysales.net