

With the Ashcroft® Isolation Ring, the instrument is in contact with the fill fluid, not directly with the process flow. Clogging or fouling is never a problem. The Iso-Ring has a flexible inner cylinder, behind which is the fill fluid. As process liquid flows through the pipe, it exerts pressure. The pressure exerted by the fill fluid is then monitored by the instrument-sensing element. A 360-degree flexible cylinder means no plugging, assuring reliable and accurate pressure readings. A built-in threaded needle valve is provided as standard. This permits the removal of a pressure instrument for calibration, repair, or replacement without shutting down the process flow.

Adaptable to a variety of process conditions and applications, the

Ashcroft Iso-Ring can be used for protection of instrumentation such as pressure gauges, switches, transmitters, recorders and transducers. The Iso-Ring fits between customer-supplied piping flanges like many butterfly valves, and is available for piping diameters from 2" to 20". It can be used at any pressure within the limitations of ASME classes 150 and 300, and even in most vacuum applications.

Ashcroft® Type 85 and 86 Iso-Spools are used for small-diameter piping. Designed to provide a large sensing area in the smaller pipe diameters from 1" to 2", the patented Iso-Spool is offered in either NPT threaded or flanged models. Type 86 is available with flat or raised-face flanges.



### SELECTION TABLES

Table A – Pipe Size/Type Number

Size Code	Pipe Size/Code—Inches																Type Number	Housing Material
	1 01	1½ 15	2 02	3 03	4 04	5 05	6 06	8 08	10 10	12 12	14 14	16 16	18 18	20 20				
																	80	Carbon Steel
																	85 <sup>(1)</sup>	
																	86 <sup>(2)</sup>	
																	81	

Table B Inner Flexible Wall<sup>(5)</sup>

Material	Code	Temp. Limits
Buna N	E	up to 225°F (107°)
Teflon <sup>(3)</sup>	T	up to 350°F (177°)
Silicone <sup>(4)</sup>	SI	up to 450°F (232°)
Viton	Y	up to 350°F (177°)
White Neoprene	CR	up to 225°F (107°)
Natural Rubber	NR	up to 225°F (107°)

Table C Assembly Flanges

Material	Code
Carbon steel	B
316 stainless steel	S
Chlorinated Polyvinyl Chloride	CP
Teflon Enveloped	CT
Polypropylene	PP

Table D Instrument Connection

Size – NPT	Code
¼	02T
½	04T

**NOTES:**

- (1) Female threaded ends.
- (2) Flanged ends.
- (3) Not available in sizes 12" or larger.
- (4) Iso-Spool only.
- (5) Temperature limits of both wall and fill fluid must not be exceeded.

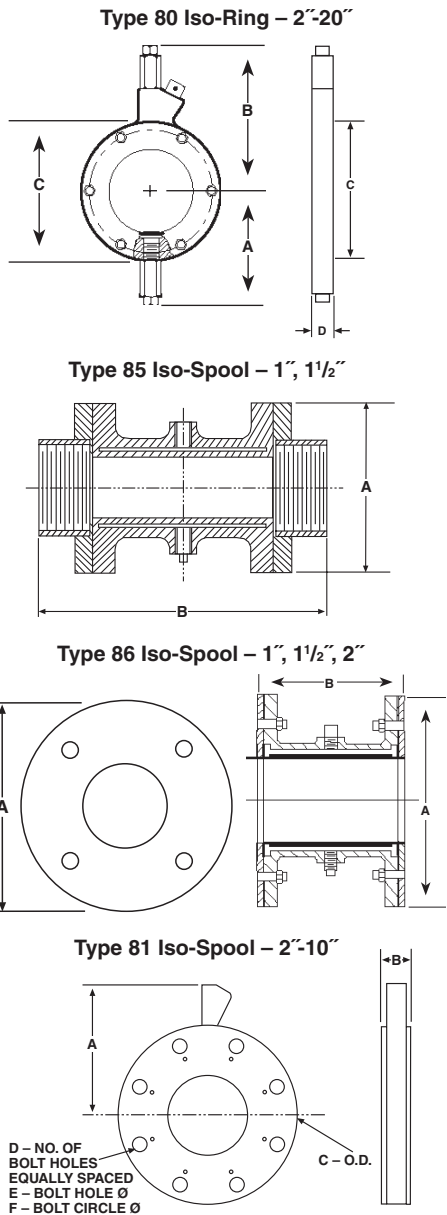
Table E – Filling Fluid

Filling	Service	Connection to Instrument	Temperature Range °F	Code
Glycerin	Pressure	Direct Only	0/400	CG
Silicone	Pressure/Vacuum	Direct or Flexible Line	-40/600	CK
Halocarbon	Pressure/Vacuum in presence of strong oxidizing agent	Direct or Flexible Line	-70/300	CF
Syltherm	Pressure/Vacuum	Direct or Flexible Line	-40/750	HA

### TO ORDER THIS ISO-RING/ISO-SPOOL:

1. From Table A...select TYPE NUMBER based on Type number and pipe size (e.g., Type 80/6"-code-8006)
2. From Table B...select INNER FLEXIBLE WALL (e.g., Buna N-code E)
3. From Table C...select ASSEMBLY FLANGE MATERIAL. (e.g., AISI 316 stainless steel-code S)
4. From Table D...select INSTRUMENT CONNECTION size. (e.g., ¼ NPT-code 02T)
5. From Table E...select FILLING FLUID, if Iso-Ring/Spool will be attached to instrument. (e.g., Glycerin-code CG)

Coded order: 8006-ES-02T-CG



**Dimensions: Table A<sup>(1)</sup>**

Type	Nominal Pipe Size	A	B	C	D		Approximate Shipping Weight
					Chlorinated PVC Thickness	Carbon Steel/316SS Thickness	
Type 800 Iso-Ring*	2"	3.69" (94mm)	5.22" (133mm)	4.22" (107mm)	2.25" (57mm)	2.00" (51mm)	3 lbs (1.35kg)
	3"	4.31" (110mm)	5.84" (148mm)	5.47" (139mm)	2.25" (57mm)	2.00" (51mm)	6 lbs (2.7kg)
	4"	4.72" (120mm)	6.25" (159mm)	6.28" (160mm)	1.75" (44mm)	1.50" (38mm)	8 lbs (3.6kg)
	5"	5.34" (147mm)	6.88" (187mm)	7.56" (214mm)	1.75" (44mm)	1.50" (38mm)	10 lbs (4.5kg)
	6"	5.78" (147mm)	7.34" (187mm)	8.44" (214mm)	1.75" (44mm)	1.50" (38mm)	12 lbs (5.4kg)
	8"	6.84" (174mm)	8.38" (213mm)	10.53" (267mm)	1.75" (44mm)	1.50" (38mm)	16 lbs (7.3kg)
	10"	7.97" (202mm)	9.53" (242mm)	12.81" (325mm)	1.75" (44mm)	1.50" (38mm)	20 lbs (9.7kg)
	12"	9.00" (229mm)	10.53" (267mm)	14.84" (377mm)	N/A	1.75" (44mm)	25 lbs (11.4kg)
	14"	10.16" (258mm)	11.72" (298mm)	17.20" (437mm)	N/A	1.75" (44mm)	50 lbs (22.7kg)
	16"	11.19" (284mm)	12.72" (323mm)	19.22" (488mm)	N/A	1.75" (44mm)	60 lbs (27.2kg)
Type 850 Iso-Spool (Female Threaded)	1"	3.56" (90mm)	7.63" (194mm)				10 lbs (4.5kg)
	1½"	4.38" (111mm)	7.88" (200mm)				12 lbs (5.4kg)
Type 860 Iso-Spool (Flanged**)	1"	Class 150 4.25" (108mm)	Class 300 4.88" (124mm)	5.38" (136mm)			Class 150 8 lbs (3.6kg) Class 300 8 lbs (3.6kg)
	1½"	5" (127mm)	6.13" (156mm)	5.38" (136mm)			10 lbs (4.5kg) 12 lbs (5.4kg)
	2"	6" (152mm)	-	5.38" (136mm)			15 lbs (6.8kg)

\*Centering gages supplied with Iso-Ring.

\*\*Specify FF (Flat Face Flange) or RF (Raised Face Flange) when ordering.

(1) All dimensions ±.12" (3mm).

**Dimensions: Table B**

Type	Nominal Pipe Size	A	B	B (w/CPVC End Flanges)	C	D	E	F
Type 810 Iso-Spool	2"	5.06" (129mm)	2.00" (51mm)	2.25" (57mm)	6.00" (152mm)	4	.75" (19mm)	4.75" (121mm)
	3"	5.81" (148mm)	2.00" (51mm)	2.25" (57mm)	7.50" (191mm)	4	.75" (19mm)	6.00" (152mm)
	4"	6.56" (167mm)	1.50" (38mm)	1.75" (44mm)	9.00" (229mm)	8	.75" (19mm)	7.50" (191mm)
	6"	7.56" (192mm)	1.50" (38mm)	1.75" (44mm)	13.00" (330mm)	8	.88" (22mm)	9.50" (241mm)
	8"	8.75" (222mm)	1.50" (38mm)	1.75" (44mm)	13.50" (343mm)	8	.88" (22mm)	11.75" (298mm)
	10"	10.00" (254mm)	1.50" (38mm)	1.75" (44mm)	16.00" (406mm)	12	1.00" (25mm)	14.25" (362mm)

**Specifications: Table C**

Housing	Iso-Ring	Iso-Spool	Code
Assembly Flanges	Carbon Steel Carbon Steel 316 Stainless Steel Chlorinated Polyvinyl Chloride <sup>(2)</sup>	Carbon Steel Carbon Steel 316 Stainless Steel Chlorinated Polyvinyl Chloride Teflon Encased <sup>(1,3)</sup>	B S CP CT
Inner Flexible Wall <sup>(4)</sup>	Buna N ..... up to 225°F (107°C) Teflon <sup>(1,2)</sup> ..... up to 350°F (177°C) Silicone <sup>(3)</sup> ..... up to 450°F (232°C) Viton <sup>(1)</sup> ..... up to 350°F (177°C) White Neoprene ..... up to 225°F (107°C) Natural Rubber ..... up to 212°F (100°C)		E T SI Y CR NR
Fill Fluid <sup>(4)</sup>	Glycerin ..... 0°F to 400°F (–5°C to 204°C) Silicone ..... –40°F to 600°F (–29°C to 316°C) Halocarbon ..... –70°F to 300°F (–29°C to 149°C) Food Grade Silicone ..... 0°F to 300°F (–5°C to 149°C) Distilled Water ..... .45°F to 180°F (– °C to °C) Ethyl Glycol and Water ..... –30°F to 220°F (– °C to °C) Propylene Glycol ..... –50°F to 200°F (– °C to °C)		CG CK CF CZ FJ CT CV

(1) Trademark of E. I. DuPont de Nemours and Company. (3) Iso-Spool only.

(2) Not available in sizes 12" or larger.

(4) Temperature limits of both wall and fill fluid must not be exceeded.