

# PROCO™

## STYLE 4402



two convolution heavy-duty molded PTFE bellows

TABLE 1

NOMINAL SIZE I.D.	NEUTRAL LENGTH INCHES	MOVEMENT CAPABILITIES BASED ON TWO CONVOLUTION DESIGN			SPRING RATE CAPABILITY BASED ON 1" OF MOVEMENT AT ZERO PRESSURE CONDITIONS			EXPANSION JOINT FLANGE DRILLING							PRESSURE AT TEMPERATURE (PSIG) @ °F								VACUUM Hg at Temp.	WEIGHT / LBS	
		± AXIAL (ΔX) MOVEMENT	LATERAL (ΔY) DEFLECTION	ANGULAR DEFLECTION	FORCE LBS PER 1" RATED EXTENSION	FORCE LBS PER 1" RATED COMPRESSION	FORCE LBS PER 1" RATED LATERAL DEFLECTION	# HOLES	THREADED HOLE SIZE	BOLT CIRCLE FLANGE "A"	FLANGE THICKNESS	NOMINAL FLANGE DIAMETER	LIMIT BOLT DIAMETER	BOLT CIRCLE LIMIT BOLT "B"	LIMIT BOLT "EAR" O.D.	All units are hydrostatically tested at 1.5 times rated pressure after manufacturing.									
		IN	IN	DEG.	LB/IN	LB/IN	LB/IN								70°	100°	150°	200°	250°	300°	350°	400°			
1.00	1.772	.276	.157	16	1485	971	2342	4	1/2-13	3.125	.551	4.250	.250	5.300	6.102	232	183	150	104	90	75	62	50	29.9" @ 390°F	4
1.25	1.969	.315	.157	16	1485	971	2342	4	1/2-13	3.500	.551	4.625	.250	6.700	7.480	232	183	150	104	90	75	62	50	29.9" @ 390°F	6
1.50	2.165	.315	.157	16	1485	971	2342	4	1/2-13	3.875	.630	5.000	.250	6.700	7.480	232	183	150	104	90	75	62	50	29.9" @ 390°F	8
2.00	2.362	.433	.236	12	1999	971	2342	4	5/8-11	4.750	.630	6.000	.250	7.300	8.071	232	183	150	104	90	75	62	50	29.9" @ 390°F	9
2.50	2.362	.433	.236	12	2170	971	2342	4	5/8-11	5.500	.630	7.000	.250	8.100	8.858	232	183	150	104	90	75	62	50	29.9" @ 390°F	10
3.00	2.560	.512	.276	11	2627	1085	2570	4	5/8-11	6.000	.630	7.500	.250	8.700	9.449	232	183	150	104	90	75	62	50	29.9" @ 390°F	12
4.00	2.756	.591	.315	10	2627	1142	2741	8	5/8-11	7.500	.630	9.000	.250	9.400	10.236	232	183	150	104	90	75	62	50	29.9" @ 390°F	14
5.00	2.953	.591	.315	9	3083	1313	3026	8	3/4-10	8.500	.630	10.000	.375	11.000	11.417	232	183	150	104	90	75	62	50	29.9" @ 390°F	18
6.00	2.953	.630	.315	8	3655	1485	3940	8	3/4-10	9.500	.709	11.000	.375	12.400	13.583	232	183	150	104	90	75	62	50	29.9" @ 390°F	22
8.00	2.953	.669	.315	7	4229	1771	5082	8	3/4-10	11.750	.709	13.500	.375	14.600	15.748	232	183	150	104	90	75	62	50	29.9" @ 260°F	32
10.00	3.150	.748	.354	7	4968	1999	5539	12	7/8-9	14.250	.709	16.000	.375	16.700	17.913	232	183	150	104	90	75	62	50	29.9" @ 260°F	49
12.00	3.347	.748	.354	6	5621	2341	6338	12	7/8-9	17.000	.709	19.000	.375	19.700	21.260	232	183	150	104	90	75	62	50	29.9" @ 260°F	57
14.00	3.346	.787	.394	5	<b>ENGINEERED PER SPECIFICATIONS</b>			12	1-8	18.750	.787	21.000	.375	22.200	22.244	232	183	150	104	90	75	62	50	14.9" @ 70°F	74
16.00	3.543	.787	.394	5				16	1-8	21.250	.787	23.500	.375	24.300	25.000	232	183	150	104	90	75	62	50	14.9" @ 70°F	107
18.00	3.740	.787	.433	4				16	1 1/8-7	22.750	.866	25.000	.375	25.800	27.362	232	183	150	104	90	75	62	50	14.9" @ 70°F	127
20.00	3.937	.787	.433	4				20	1 1/8-7	25.000	.866	27.500	.375	28.500	29.134	232	183	150	104	90	75	62	50	14.9" @ 70°F	150
22.00	3.937	.709	.354	3				20	1 1/4-7	27.250	.945	29.500	.375	30.500	31.890	232	183	150	104	90	75	62	50	14.9" @ 70°F	182
24.00	4.134	.709	.354	3				20	1 1/4-7	29.500	.945	32.000	.375	32.900	34.646	232	183	150	104	90	75	62	50	14.9" @ 70°F	224

Larger diameters, custom lengths, and performance requirements available upon request.

Pressure Rating Note:

316 Stainless Steel Anti-Squirm Flanges are available for higher pressure applications. (See Back Cover.)

MATERIALS OF CONSTRUCTION	
DESCRIPTION	STYLE 4402
BELLOWS	WHITE PTFE
FLANGES	DUCTILE IRON
REINFORCING RINGS	304 SS
LIMIT BOLTS	CARBON STEEL
NUTS	CARBON STEEL
INSULATING SLEEVES	POLYETHYLENE
WASHERS	CARBON STEEL / NYLON