9" L/L MULTI-PLY BELLOWS DATA

HASTELLOY-X

NOMINAL SIZE	BELLOWS I.D.	LIVE LENGTH	AXIAL COMP.	AXIAL SPRING RATE (LBS/INCH)	CYCLES	LATERAL OFFSET	LATERAL SPRING RATE (LBS/INCH)	CYCLES	MAX PRESSURE	MAX TEMP	PART NUMBER
3" TUBE	3.00"	9.00"	1.63"	72	100,000	1.00"	16	100,000	5 PSIG	1500ºF	12-3090-X
3" PIPE	3.50"	9.00"	2.00"	84	64,844	1.00"	24	100,000	5 PSIG	1500ºF	12-3590-X
4" TUBE	4.00"	9.00"	2.75"	42	93,857	1.00"	16	100,000	5 PSIG	1500ºF	12-4090-X
4" PIPE	4.50"	9.00"	3.00"	46	55,956	1.00"	22	100,000	5 PSIG	1500ºF	12-4590-X
5" TUBE	5.00"	9.00"	3.00"	64	50,701	1.00"	39	100,000	5 PSIG	1500ºF	12-5090-X
5" PIPE	5.56"	9.00"	3.00"	65	65,703	1.00"	48	100,000	5 PSIG	1500ºF	12-5590-X
6" TUBE	6.00"	9.00"	3.00"	75	49,045	1.00"	62	100,000	5 PSIG	1500ºF	12-6090-X
6" PIPE	6.63"	9.00"	3.00"	82	43,471	1.00"	82	100,000	5 PSIG	1500ºF	12-6590-X
8" TUBE	8.00"	9.00"	3.00"	97	37,506	1.00"	136	44,817	5 PSIG	1500ºF	12-8090-X
8" PIPE	8.63"	9.00"	3.00"	104	34,481	1.00"	168	28,138	5 PSIG	1500ºF	12-8590-X
10" TUBE	10.00"	9.00"	3.00"	100	58,694	1.00"	213	22,719	5 PSIG	1500ºF	12-10090-X
10" PIPE	10.75"	9.00"	3.00"	102	65,252	1.00"	249	17,528	5 PSIG	1500ºF	12-10590-X
12" TUBE	12.00"	9.00"	3.00"	119	51,341	.750"	354	37,380	5 PSIG	1500ºF	12-12090-X
12" PIPE	12.75"	9.00"	3.00"	121	57,459	.750"	405	30,332	5 PSIG	1500ºF	12-12590-X
14"	14.00"	9.00"	3.00"	172	84,931	.750"	719	24,261	5 PSIG	1500ºF	12-14090-X
16"	16.00"	9.00"	3.00"	194	75,074	.625"	1,039	29,460	5 PSIG	1500ºF	12-16090-X
18"	18.00"	9.00"	3.00"	216	67,925	.625"	1,442	15,201	5 PSIG	1500ºF	12-18090-X
20"	20.00"	9.00"	3.00"	237	62,801	.500"	1,938	26,717	5 PSIG	1500ºF	12-20090-X
22"	22.00'	9.00"	3.00"	260	60,152	.500"	2,547	16,090	5 PSIG	1500ºF	12-22090-X
24"	24.00"	9.00"	3.00"	283	57,964	.438"	3,270	20,096	5 PSIG	1500ºF	12-24090-X
26"	26.00"	9.00"	3.00"	305	56,123	.438"	4,118	13,261	5 PSIG	1500ºF	12-26090-X
28"	28.00"	9.00"	3.00"	327	54,550	.375"	5,100	19,605	5 PSIG	1500ºF	12-28090-X
30"	30.00"	9.00"	3.00"	449	60,473	.375"	8,072	14,883	5 PSIG	1500ºF	12-30090-X
32"	32.00"	9.00"	3.00"	478	59,069	.313"	9,732	27,042	5 PSIG	1500ºF	12-32090-X
34"	34.00"	9.00"	3.00"	507	57,831	.313"	11,605	19,549	5 PSIG	1500ºF	12-34090-X
36"	36.00"	9.00"	3.00"	536	56,805	.313"	13,703	14,549	5 PSIG	1500ºF	12-36090-X
38"	38.00"	9.00"	3.00"	564	56,360	.250"	16,033	35,145	5 PSIG	1500ºF	12-38090-X
40"	40.00"	9.00"	3.00"	593	55,958	.250"	18,613	26,712	5 PSIG	1500ºF	12-40090-X
42"	42.00"	9.00"	3.00"	622	55,593	.250"	21,455	20,721	5 PSIG	1500ºF	12-42090-X
44"	44.00"	9.00"	3.00"	650	55,259	.250"	24,571	16,359	5 PSIG	1500ºF	12-44090-X
46"	46.00"	9.00"	3.00"	679	54,953	.250"	27,974	13,115	5 PSIG	1500ºF	12-46090-X
48"	48.00"	9.00"	3.00"	708	54,671	.188"	31,675	47,692	5 PSIG	1500ºF	12-48090-X

1. Movements listed are non-concurrent.

   Triad engineers will privide an EJMA 9th Edition data sheet with concurrent movements specific to your application

2. Cycle life data is theoretical based on EJMA 9th Edition formulas and is not guaranteed.

   The cycle life will increase as the required movement is decreased

3. Axial and lateral spring rates are based on the maximum allowable temperature shown.

   The pressure capability and spring rates increase as the temperature requirement is decreased.

TRIAD BELLOWS
DESIGN AND MANUFACTURING