

## 9" LENGTH 321SS MULTI PLY BELLOWS DATA

NOMINAL SIZE	BELLOWS ID	LIVE LENGTH	AXIAL COMP.	AXIAL SPRING RATE	CYCLES	LATERAL OFFSET	LATERAL SPRING RATE	CYCLES	MAX PRESSURE	MAX TEMP
3" TUBE	3.00"	9.00"	1.63"	72	100,000	1.00"	16	100,000	5 PSIG	1200° F
3" PIPE	3.50"	9.00"	2.00"	83	70,776	1.00"	24	100,000	5 PSIG	1200° F
4" TUBE	4.00"	9.00"	2.75"	68	38,953	1.00"	27	100,000	5 PSIG	1200° F
4" PIPE	4.50"	9.00"	3.00"	46	60,266	1.00"	22	100,000	5 PSIG	1200° F
5" TUBE	5.00"	9.00"	3.00"	64	53,593	1.00"	39	100,000	5 PSIG	1200° F
5" PIPE	5.56"	9.00"	3.00"	66	67,843	1.00"	47	100,000	5 PSIG	1200° F
6" TUBE	6.00"	9.00"	3.00"	75	51,054	1.00"	62	100,000	5 PSIG	1200° F
6" PIPE	6.63"	9.00"	3.00"	82	47,316	1.00"	80	100,000	5 PSIG	1200° F
8" TUBE	8.00"	9.00"	3.00"	97	46,633	1.00"	136	38,994	5 PSIG	1200° F
8" PIPE	8.63"	9.00"	3.00"	103	37,378	1.00"	165	31,484	5 PSIG	1200° F
10" TUBE	10.00"	9.00"	3.00"	96	70,635	1.00"	205	26,704	5 PSIG	1200° F
10" PIPE	10.75"	9.00"	3.00"	103	66,559	1.00"	248	18,277	5 PSIG	1200° F
12" TUBE	12.00"	9.00"	3.00"	113	63,342	.88"	338	19,934	5 PSIG	1200° F
12" PIPE	12.75"	9.00"	3.00"	121	59,850	.88"	405	14,193	5 PSIG	1200° F
14"	14.00"	9.00"	3.00"	132	57,316	.75"	530	19,005	5 PSIG	1200° F
16"	16.00"	9.00"	3.00"	150	54,125	.63"	777	23,976	5 PSIG	1200° F
18"	18.00"	9.00"	3.00"	168	51,665	.50"	1,092	12,956	5 PSIG	1200° F
20"	20.00"	9.00"	3.00"	186	49,705	.50"	1,480	23,188	5 PSIG	1200° F
22"	22.00"	9.00"	3.00"	204	48,101	.50"	1,952	14,081	5 PSIG	1200° F
24"	24.00"	9.00"	3.00"	222	46,763	.50"	2,513	9,107	5 PSIG	1200° F
26"	26.00"	9.00"	3.00"	298	68,388	.44"	4,017	15,248	5 PSIG	1200° F
28"	28.00"	9.00"	3.00"	320	66,559	.38"	4,980	23,384	5 PSIG	1200° F
30"	30.00"	9.00"	3.00"	342	64,974	.38"	6,085	16,262	5 PSIG	1200° F
32"	32.00"	9.00"	3.00"	364	63,587	.13"	7,342	29,688	5 PSIG	1200° F
34"	34.00"	9.00"	3.00"	386	62,765	.32"	8,758	21,522	5 PSIG	1200° F
36"	36.00"	9.00"	3.00"	289	100,000	.32"	7,382	100,000	2 PSIG	1200° F
38"	38.00"	9.00"	3.00"	304	100,000	.25"	8,638	100,000	2 PSIG	1200° F
40"	40.00"	9.00"	3.00"	320	100,000	.25"	10,028	92,996	2 PSIG	1200° F
42"	42.00"	9.00"	3.00"	335	100,000	.25"	11,559	68,574	2 PSIG	1200° F
44"	44.00"	9.00"	3.00"	351	100,000	.25"	13,239	51,835	2 PSIG	1200° F
46"	46.00"	9.00"	3.00"	366	100,000	.25"	15,071	40,193	2 PSIG	1200° F
48"	48.00"	9.00"	3.00"	382	100,000	.25"	17,062	31,814	2 PSIG	1200° F

Movements listed are non-concurrent  
 Spring rate units are lbs/in  
 Calculations based on EJMA 9th Edition

Contact FS Products engineers for  
 calculations based on your specific job  
 requirements

Note: Axial and lateral spring rates are based on maximum allowable temperature shown