



# StarFlex® series 5100

Single-Ball Flexible Expansion Joint  
for the Protection of Water, Wastewater, and Industrial Pipelines



StarFlex® Series 5100 for DI, Steel or PVC

### SUBMITTAL INFORMATION

PROJECT NAME:

ENGINEER:

CONTRACTOR:

SPEC. SECTION:



### FEATURES & ADVANTAGES

- Rated 350 PSI working pressure sizes 3"-24". Sizes 30" and above rated for 250 PSI working pressure.
- Each StarFlex™ is coated inside and outside with 15 mils of Fusion Bonded Epoxy that is NSF compliant.
- Each ball on the StarFlex™ can deflect a minimum of 20 degrees for 3"-10", 18 degrees for 12", 15 degrees for 14"-24", 14 degrees for 30", 13.5 degrees for 36" and 13 degrees for 42"-48".
- All cast components are made entirely of ductile Iron grade 65-45-12.
- All fasteners are Type 304 Stainless Steel.
- Every unit is pressurized and cycled while maintaining 350 PSI on sizes 3" - 24", 250 PSI on sizes 30" and above. Each unit is shipped in a cradle at its position, but can be adjusted to the desired dimension in the field.
- All sizes have external EPDM rubber boots to prevent debris from entering the sealing areas.
- Pressure seals are EPDM. Maximum operating temperature is 175° F.
- The StarFlex™ may be used on ductile iron, steel, HDPE or PVC pipe.
- Flanged outlets are dimensioned according to ANSI/AWWA C110/A21.11 which is also equal to ASME B16.1 Class 125 & ASME B16.5 Class 150 without a raised face.
- Standard color is Coral Red (RAL 3016).
- NSF61 Approved Fusion Bonded Epoxy coating is used in wetted areas.

*Note: StarFlex™ series 5000 and 5100 flexible expansion joints are designed to expand when internally pressurized. End thrust generated from expansion of the Starflex™ under internal pressure must be accommodated in the piping system design.*

### MATERIAL SPECIFICATIONS:

- All cast components are made entirely of Ductile Iron per ASTM A536, Grade 65-45-12
- All fasteners are Type 304 Stainless Steel.

STAR® PIPE PRODUCTS



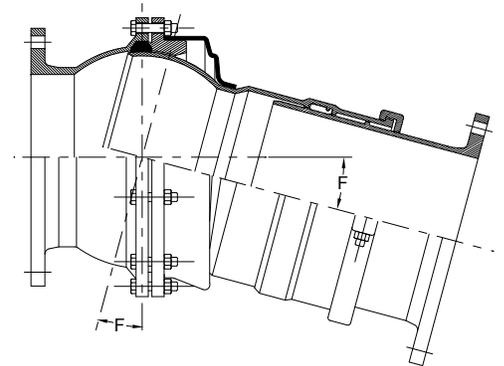
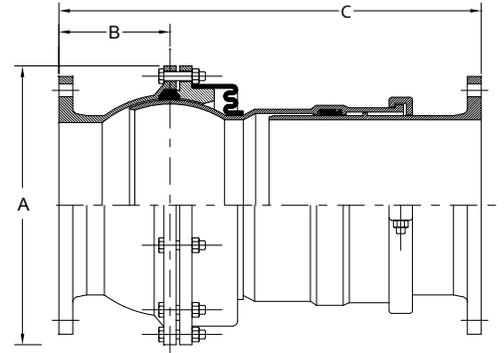


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Single-Ball Flexible Expansion Joint  
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Please check sizes:

STARFLEX® 5100 SPECIFICATIONS*						
NOM. SIZE	F	A (OD)	B	EXPANSION <sup>1</sup>	C	WEIGHT (LBS)
3	20°	9.69	5.31	+2 /-2	24.41	79
	20°	9.69	5.31	+4 /-4	34.25	100
4	20°	10.87	5.91	+2 /-2	25.59	119
	20°	10.87	5.91	+4 /-4	35.04	133
	20°	10.87	5.91	+6 /-6	44.88	156
	20°	10.87	5.91	+8 /-8	54.72	179
6	20°	13.11	5.91	+2 /-2	26.38	146
	20°	13.11	5.91	+4 /-4	36.42	198
	20°	13.11	5.91	+6 /-6	46.26	232
	20°	13.11	5.91	+8 /-8	56.1	266
	20°	13.11	5.91	+12 /-12	75.79	341
8	20°	15.31	6.3	+2 /-2	27.95	227
	20°	15.31	6.3	+4 /-4	37.4	295
	20°	15.31	6.3	+6 /-6	47.64	340
	20°	15.31	6.3	+8 /-8	57.48	382
	20°	15.31	6.3	+12 /-12	77.17	471
10	20°	17.32	6.69	+2 /-2	29.13	252
	20°	17.32	6.69	+4 /-4	38.39	335
	20°	17.32	6.69	+6 /-6	48.62	389
	20°	17.32	6.69	+8 /-8	58.46	444
	20°	17.32	6.69	+12 /-12	78.15	561
12	18°	19.76	7.87	+2 /-2	31.1	335
	18°	19.76	7.87	+4 /-4	40.75	450
	18°	19.76	7.87	+6 /-6	50.98	506
	18°	19.76	7.87	+8 /-8	60.83	571
	18°	19.76	7.87	+12 /-12	80.51	710
14	15°	22.56	9.06	+4 /-4	43.31	627
	15°	22.56	9.06	+6 /-6	53.94	780
	15°	22.56	9.06	+8 /-8	63.78	878
	15°	22.56	9.06	+12 /-12	89.96	1073
16	15°	24.69	9.45	+4 /-4	44.09	724
	15°	24.69	9.45	+6 /-6	54.72	903
	15°	24.69	9.45	+8 /-8	65.57	1014
	15°	24.69	9.45	+12 /-12	84.65	1239
18	15°	26.81	10.24	+4 /-4	45.28	801
	15°	26.81	10.24	+6 /-6	56.3	1013
	15°	26.81	10.24	+8 /-8	66.34	1141
	15°	26.81	10.24	+12 /-12	92.13	1433
20	15°	28.94	11.02	+4 /-4	46.46	913
	15°	28.94	11.02	+6 /-6	57.48	1232
	15°	28.94	11.02	+8 /-8	67.72	1375
	15°	28.94	11.02	+12 /-12	93.31	1671
24	15°	33.15	11.42	+4 /-4	47.64	1247
	15°	33.15	11.42	+6 /-6	59.84	1615
	15°	33.15	11.42	+8 /-8	71.85	1805
	15°	33.15	11.42	+12 /-12	97.24	2184
30	14°	44.49	15.16	+6 /-6	69.69	3241
	14°	44.49	15.16	+12 /-12	98.82	3917
36	13.5°	50.51	16.54	+4 /-4	61.42	3630
	13.5°	50.51	16.54	+6 /-6	72.44	3912
	13.5°	50.51	16.54	+12 /-12	108.46	4998
48	13°	64.49	19.02	+6 /-6	79.53	6513
	13°	64.49	19.02	+12 /-12	112.6	7954



\*All dimensions in inches except where indicated.

\*Dimensions "C" are factory set position.

<sup>1</sup>For units of expansion that are not listed, please contact your Star® Pipe representative.

STAR® PIPE PRODUCTS