



Thrust Balanced StarFlex® series 5400

Thrust Balanced Flexible Expansion Joint
for the Protection of Water, Wastewater, and Industrial Pipelines
Sizes 4"-36"



Thrust Balanced StarFlex® Series 5400
for Water, Wastewater, and
Industrial Pipelines

SUBMITTAL INFORMATION

PROJECT NAME:

ENGINEER:

CONTRACTOR:

SPEC. SECTION:



FEATURES & ADVANTAGES

- Sizes 4"-16" are FM approved.
- Castings manufactured of ductile iron conforming to the requirements of ASTM A536 grade 65-45-12.
- All fasteners are of type 304 stainless steel.
- All internal and external pressure seals are EPDM elastomer and NSF 61 approved/compliant. External debris boots are EPDM.
- Internal and external surfaces are coated with fusion bonded epoxy as per ANSI/AWWA C213. Coatings are NSF 61 approved.
- Expansion joint is pressure balanced design which will not impart an axial thrust under internal pressure and will not expand or exert an axial thrust.
- Ball and socket flexible joint have a minimum deflection of 20° for 4"-12", 15° for 14"-36".
- Total expansion capability shall be minimum 8" for sizes 4"-12", 10" for sizes 14"-18", 12" for sizes 20"-24", and 16" for sizes 30"-36".
- Each expansion joint has been pressurized and cycled to rated working pressure of 350 psi for sizes up to 16" and 250 psi for sizes 18"-36" prior to shipment.
- Flanged outlets provided which dimensionally conform to ANSI/AWWA C110/A21.10 and ASME B16.42 class 150 with the addition of an o-ring gasket for a watertight joint.
- A polyethylene sleeve that meets ANSI/AWWA C105/A21.5 is included with each unit.
- This must not be used on pipelines having solids/debris.

SAMPLE SPECIFICATIONS

Flexible expansion joints shall be manufactured of ductile iron in accordance with ASTM A536 Grade 65-45-12.

Each flexible expansion joint shall be capable of deflecting and expanding at the same time to the amounts shown on the drawing or indicated in the specifications.

Each ball joint shall possess an external rubber boot to prevent penetration of outside debris.

All hardware nuts, bolts and straps shall be type 304 stainless steel.

All ductile iron components shall be coated internally and externally with 15 mils of fusion bonded epoxy and shall be holiday tested with a 1500 volt spark test, both of which conform to the requirements ANSI/AWWA C213.

Every flexible joint unit shall be cycled and pressure tested at 350 PSI for 4"-16" and 250 PSI for 18" and above prior to shipment.

A polyethylene sleeve that meets ANSI/AWWA C105/A21.5 included with each unit.

Flexible expansion joint shall not impart an axial thrust nor expand under internal pressure.

Flexible expansion joints shall be Star® Pipe Products, StarFlex® Series 5400 or an approved equal.

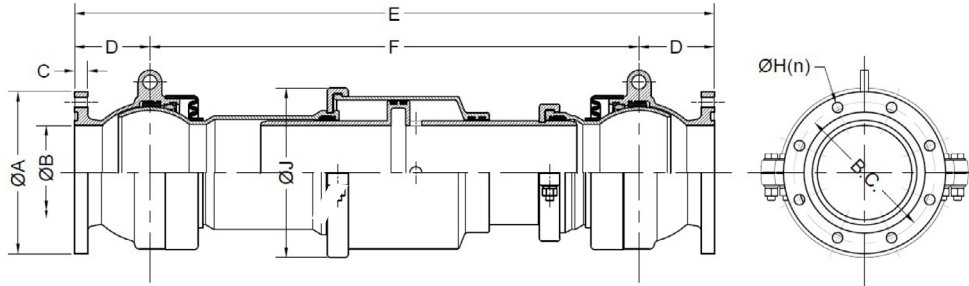
STAR® PIPE PRODUCTS



Thrust Balanced StarFlex® series 5400

Thrust Balanced Flexible Expansion Joint
for the Protection of Water, Wastewater, and Industrial Pipelines
Sizes 4"-36"

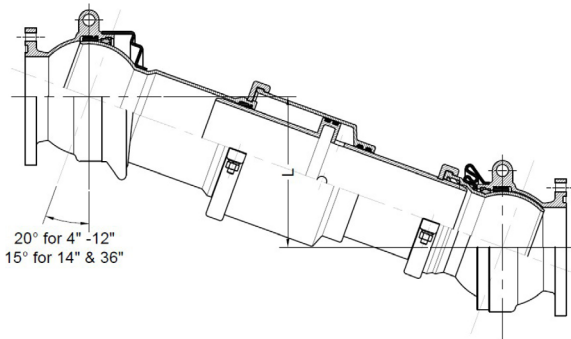
TECHNICAL INFORMATION



THRUST BALANCED STARFLEX® 5400 SPECIFICATIONS

Part Number	Size	ØA	ØB	C	D	E		F		ØH	n	B.C.	ØJ
						Min	Max	Min	Max				
SFTB5404E08	4	9.00	3.98	0.94	5.91	45.81	53.81	33.99	41.99	0.75	8	7.50	8.62
SFTB5406E08	6	11.00	5.94	1.00	5.91	47.58	55.58	35.76	43.76	0.88	8	9.50	11.45
SFTB5408E08	8	13.50	7.87	1.12	6.30	49.35	57.35	36.75	44.75	0.88	8	11.75	14.13
SFTB5410E08	10	16.00	9.84	1.19	7.87	55.45	63.45	39.71	47.71	1.00	12	14.25	17.36
SFTB5412E08	12	19.00	11.81	1.25	8.66	58.99	66.99	41.67	49.67	1.00	12	17.00	20.51
SFTB5414E10	14	21.00	13.78	1.38	9.06	66.26	76.26	48.14	58.14	1.13	12	18.75	23.76
SFTB5416E10	16	23.50	15.75	1.44	9.45	67.44	77.44	48.54	58.54	1.13	16	21.25	26.67
SFTB5418E10	18	25.00	17.72	1.56	10.73	73.74	83.74	52.28	62.28	1.25	16	22.75	30.00
SFTB5420E12	20	27.50	19.69	1.69	11.61	80.61	92.61	57.39	69.39	1.25	20	25.00	32.83
SFTB5424E12	24	32.00	23.62	1.88	12.60	86.13	98.13	60.93	72.93	1.38	20	29.50	38.82
SFTB5430E16	30	38.75	29.53	2.12	15.55	111.29	127.29	80.19	96.19	1.38	28	36.00	48.50
SFTB5436E16	36	46.00	35.43	2.38	17.13	117.59	133.59	83.33	99.33	1.63	32	42.75	57.72

* All dimensions in inches except where indicated.



EXPANSION

Part Number	Size	E Factory Set	L		WT (lbs.)
			Min	Max	
SFTB5404E08	4	49.81	11.63	14.36	181
SFTB5406E08	6	51.58	12.23	14.96	274
SFTB5408E08	8	53.35	12.56	15.30	372
SFTB5410E08	10	59.45	13.58	16.31	582
SFTB5412E08	12	62.99	14.25	16.98	763
SFTB5414E10	14	71.26	12.46	15.05	1230
SFTB5416E10	16	72.44	12.56	15.15	1445
SFTB5418E10	18	78.74	14.01	16.69	1885
SFTB5420E12	20	86.81	15.38	18.59	2250
SFTB5424E12	24	92.13	16.33	19.54	3104
SFTB5430E16	30	119.29	21.49	25.77	4340
SFTB5436E16	36	125.59	22.33	26.62	8632

* All dimensions in inches except where indicated.

STAR® PIPE PRODUCTS