Joint Restraint Submittal Form

STAR® PIPE PRODUCTS

Stargrip[®]series 3000

Mechanical Joint Wedge Action Restraint for Ductile Iron Pipe

AWWA

Certified to ISO 9001:2015

	SUBMITTAL INFORMATION								
	PROJECT NAME:								
	ENGINEER:								
	CONTRACTOR:								
A CONTRACT	SPEC. SECTION:								
Stargrip® series 3000 for Ductile Iron Pipe									

FEATURES & ADVANTAGES

- Gland is made from high strength Ductile Iron per ASTM A536, Grade 65-45-12 and is compatible with all Mechanical Joints conforming to ANSI/AWWA C111/A21.11.
- The Wedge Assembly is designed with a Break-Off Torque Control Head, ensuring proper installation.
- The Stargrip® offers a full 5° deflection through 12" size, 3° on 14"-24", 2° on 30"-36", 1° on 42"-48" and ½° on 54" & 60".
- Minimum safety factor of 2:1
- Stargrip® sizes 3"-36" are listed with Underwriters Laboratories Inc. and sizes 3"-12" are approved by Factory Mutual Research.
- The Wedges are heat treated to a minimum of 370 BHN.
- The Wedge Assembly is designed to fit specific pipe sizes.
- Stargrip® eliminates tie rods and thrust blocks.
- Standard gland color is Black.
- Stargrip® may also be used on minimum SCH 40 steel pipe* up to 12" (*transition gasket required on 12" and under). For 14" and larger steel applications, contact Star Pipe.

MATERIAL SPECIFICATIONS:

- Gland: Ductile Iron per ASTM A536, Grade 65-45-12
- Wedges: Ductile Iron per ASTM A536, Grade 65-45-12 heat treated to a minimum of 370 BHN
 - Wedge Finish: Thermally cured fluoropolymer epoxy coating

GLAND FINISH OPTIONS (Please check one):

Standard: alkyd enamel coating

Optional: Starbond[™] TGIC polyester powder coating applied by an electrostatic spray process

Optional: Other (specify) _

COUNTRY OF ORIGIN OPTION (Please check one):

Import

Domestic - AIS Compliant

HARDWARE OPTIONS (Please check one):

APPROVED

Standard: T-bolts are high strength low alloy steel manufactured in accordance with ANSI/AWWA C111/A21.11-00

Optional: T-bolts and nuts alloy SS 304 per ASTM F593

Optional: T-bolts and nuts alloy SS 316 per ASTM F593

Optional: T-bolts and nuts Fluoropolymer Star-Blue coated high strength low alloy steel manufactured in accordance with ANSI/AWWA C111/A21.11-00

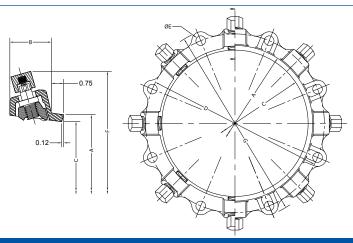
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REV.21.02

Stargrip[®] series 3000

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	STARGRIP® 3000 SPECIFICATIONS*													
Please check sizes:	NOM. SIZE	MAX PRESSURE RATING (PSI)	A	В	с	D	E	F	F W/NUTS TWISTED OFF	G	NO. OF WEDGES	NO. OF T-BOLTS	APPROX WT. (LBS)	
	3	350	4.84	2.40	4.06	6.19	3⁄4	9.85	8.78	8.13	2	4	6	
	4	350	5.92	2.40	4.90	7.50	7∕8	11.06	9.62	9.12	2	4	8	
	6	350	8.02	2.40	7.00	9.50	7⁄8	13.06	11.72	11.12	3	6	12	
	8	350	10.17	2.51	9.15	11.75	7∕8	15.25	13.84	13.37	4	6	17	
	10	350	12.22	2.51	11.20	14.00	7⁄8	17.25	15.88	15.62	6	8	24	
	12	350	14.32	2.51	13.30	16.25	7⁄8	19.50	17.98	17.88	8	8	34	
	14	350	16.40	2.91	15.44	18.75	7⁄8	21.25	20.12	20.90	10	10	49	
	16	350	18.50	2.91	17.54	21.00	7⁄8	23.34	22.22	23.00	12	12	56	
	18	250	20.60	2.91	19.64	23.25	7⁄8	26.40	24.90	25.25	12	12	59	
	20	250	22.70	2.67	21.74	25.50	7⁄8	28.56	27.00	27.50	14	14	75	
	24	250	26.90	3.50	25.94	30.00	7∕8	33.86	32.34	31.54	16	16	139	
	30	250	33.29	3.49	32.17	36.88	1 1/8	40.12	38.62	39.12	20	20	199	
	36	250	39.59	3.49	38.47	43.75	1 1/8	46.42	44.92	46.00	24	24	232	
	42	250	45.79	5.15	44.75	50.62	1 3⁄8	54.86	53.32	53.12	28	28	400	
	48	250	52.09	5.15	51.05	57.50	1	61.16	59.62	60.00	32	32	488	
	54	200	58.87	5.00	57.90	63.20	1 3⁄8	68.33	66.30	66.00	36	36	581	
	60	200	62.92	5.00	61.95	67.72	1	72.38	70.35	70.52	36	36	636	

*All dimensions in inches except where indicated.

Notes:

TAR®PIPE PRODUCI

- Stargrip[®] Series 3000 restraints are designed for use on ductile iron pipe that meets all physical requirements of ANSI/AWWA C151/A21.51. The pipe must be fully annealed to assure primary carbides have been dissolved and pearlite has been converted to ferrite. Please contact Star Pipe Products for technical assistance.
- 54" 60" Stargrip® requires Star High Pressure gasket for max. pressure rating listed above.
- Stargrips® must be adequately wrapped or protected if they are covered by concrete to ensure that concrete does not enter the wedge pocket.
- For applications exceeding the maximum pressure ratings listed, please contact Star Pipe Products for recommendations (see Tandem Stargrip®)
- For applications with vertical offsets, please contact Star Pipe Products for technical assistance.
- For applications on existing pipe, the pipe needs to be structurally sound and the surface needs to be relatively free of any corrosive by-products in order for the wedges to function properly. Please contact Star Pipe Products for technical assistance.
- Sizes 42" 60" require extra long 1 ¹/₄" x 8 ¹/₂" T-bolts.

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