



## Stargrip® series 3000

Mechanical Joint Wedge Action Restraint  
for Ductile Iron Pipe

Stargrip® series 3000 for Ductile Iron Pipe

## SUBMITTAL INFORMATION

PROJECT NAME: ENGINEER: CONTRACTOR: SPEC. SECTION: 

## FEATURES &amp; 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 be used on steel pipe of any size. For steel pipe 12" and under a transition gasket is required if the diameter regimen is IPS. For steel pipe 14" and larger, the pipe's outside diameter must be the same as ductile iron pipe (CIOD diameter regimen). For sizes 3" – 8", minimum SCH40 steel pipe wall thickness is required. For sizes 10" through 16" the minimum wall thickness must be equal to or greater than

## 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) \_\_\_\_\_

HARDWARE OPTIONS (Please check one):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/A21.11-00COUNTRY OF ORIGIN OPTION (Please check one):

Import

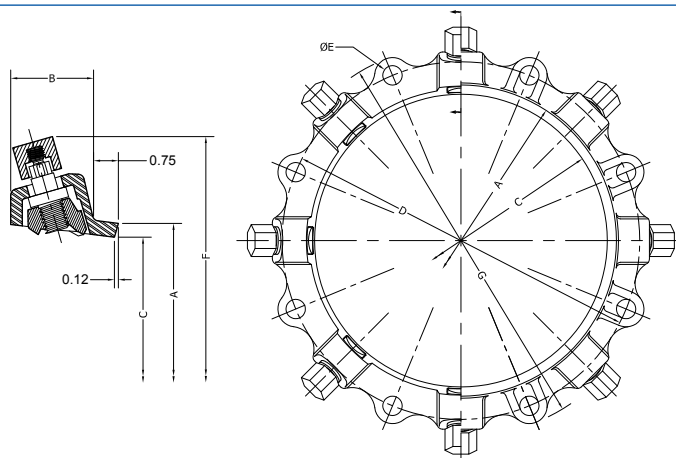
Domestic - AIS Compliant



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## TECHNICAL INFORMATION



STARGRIP® 3000 SPECIFICATIONS\*

Please  
check sizes:

NOM. SIZE	MAX PRESSURE RATING (PSI)	A	B	C	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	¾	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 3/8	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 3/8	72.38	70.35	70.52	36	36	636

\*All dimensions in inches except where indicated.

## Notes:

- 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.