



Retainer Gland series 600

For Ductile Iron Mechanical Joints



Retainer Gland Series 600 for Ductile Iron

INFORMATION

Ductile Iron Retainer Glands provide reliable restraint for ductile iron pipe, valves and fittings. This simple design has been in service for over 30 years. Retainer glands install in minutes, in any type of soil condition and offer guaranteed restraint. Eliminating expensive time consuming concrete thrust blocks, pipe.

Proven Success for Over 30 Years

FEATURES & ADVANTAGES

- Gland is made of Ductile Iron, ASTM A536 Grade 65-45-12
- Offers a full 5° deflection through 12" size, 3° on 14"-20" & 2° on 24"-36"
- Sizes 3" through 12" are Underwriters Laboratories Listed
- All sizes have a 2:1 safety factor.
- Intended for use on Ductile Iron Pipe, minimum Class 51 and above
- For use on Schedule 40 Steel Pipe, please contact Star® Engineering
- Retainer Glands eliminate tie rods and thrust blocks.
- Standard gland color is Graphite Black (RAL 9011).

SAMPLE SPECIFICATIONS

Restrainer mechanism dimensions shall be in accordance with ANSI/AWWA C111/A21.11. This mechanism shall be designed to fit standard mechanical joint bells with standard T-Bolts.

The mechanical joint restrainer glands shall be manufactured of ductile iron Grade 65-45-12 Conforming to ASTM A536. Set screws are to be of high strength low alloy steel in accordance with ANSI 4140 and heat-treated to Rockwell C45-53 with cup points. Restrainer mechanism sizes 3"-12" shall be Underwriters Laboratories Listed and sizes 3"-12" shall be Factory Mutual Research approved.

Restrainer mechanism shall possess specified pressure rating and abide by a minimum safety factor of 2:1. Restrainer mechanism shall be Star® Pipe Products, Series 600 or an approved equal.

REV.07



® REGISTERED TRADEMARK OF STAR PIPE PRODUCTS

STAR® PIPE PRODUCTS
HOUSTON CORPORATE | TOLL FREE 1-800-999-3009 | FAX 281-558-9000
www.starpipeproducts.com

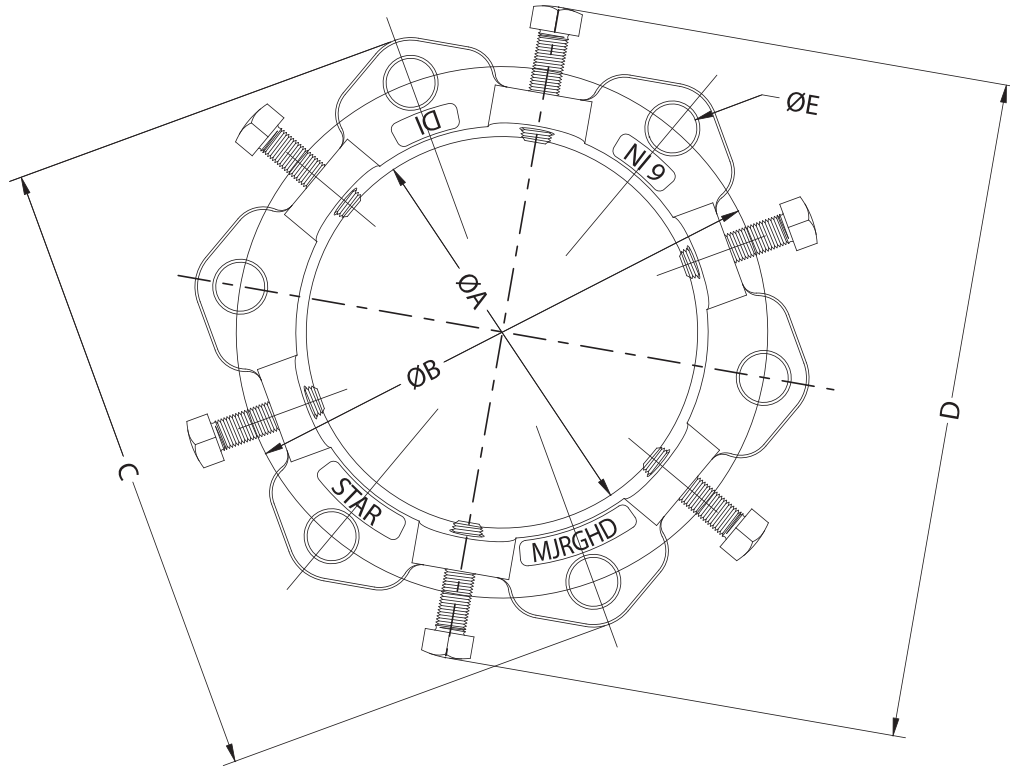
STAR® PIPE PRODUCTS



Retainer Gland series 600

For Ductile Iron Mechanical Joints

TECHNICAL INFORMATION



RETAINER GLAND 600 SPECIFICATIONS*

NOM. SIZE	DI PIPE OD	WWP (PSI)	øA	øB	C	D	øE	SET SCREWS SIZE (QTY)	SET SCREW TORQUE (FT/LBS)	APPROX. WT. (LBS)
3	3.96	350	4.06	6.19	7.69	8.87	3/4	5/8x2 (4)	85	4
4	4.80	350	4.90	7.50	9.12	9.72	7/8	5/8x2 (4)	85	7
6	6.90	350	7.00	9.50	11.12	11.82	7/8	5/8x2 (6)	85	11
8	9.05	350	9.15	11.75	13.37	13.95	7/8	5/8x2 (9)	85	15
10	11.10	350	11.20	14.00	15.62	16.00	7/8	5/8x2 (16)	85	22
12	13.20	300	13.30	16.25	17.88	18.12	7/8	5/8x2 (16)	85	27
14	15.30	250	15.44	18.75	20.25	20.50	7/8	5/8x2 (20)	90	38
16	17.40	250	17.54	21.00	22.50	22.50	7/8	5/8x2 (24)	90	45
18	19.50	150	19.64	23.25	24.75	24.60	7/8	5/8x2 (24)	90	60
20	21.60	150	21.74	25.50	27.00	26.70	7/8	5/8x2 (28)	90	73
24	25.80	150	25.94	30.00	31.50	30.90	7/8	5/8x2 (32)	90	92
30	32.00	100	32.17	36.88	39.12	39.50	1-1/8	3/4x3 (40)	90	162
36	38.30	100	38.47	43.75	46.00	45.80	1-1/8	3/4x3 (48)	90	208

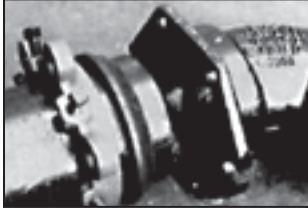
*All dimensions in inches except where indicated.



Retainer Gland series 600

For Ductile Iron Mechanical Joints

INSTALLATION INSTRUCTIONS - SIZES 3" - 36"



STEP 1

Wash socket and plain end pipe with soapy water. Ensure that the set crews are retracted to clear the pipe OD. Slip gland and gasket over plain end pipe with small side of gasket and lip side of gland facing socket.



STEP 2

Slip plain end pipe into socket. Lubricate gasket with soapy water to allow it to slip easily into place. Push gasket into socket making sure it is evenly seated.



STEP 3

Slide gland into position against gasket. Align bolt holes and insert T-bolts. Tighten nuts by hand. Note: deflection of joint must be made prior to tightening of T-bolts and set screws. The max deflection is 5° for 3"-12", 3° for 14"-20" and 2° for 24"-36".



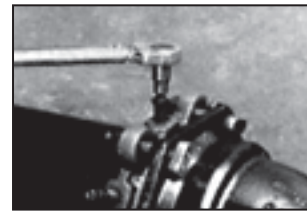
STEP 4

T-bolts should be tightened alternately on opposite sides (Star Pattern), to the torque recommended by AWWA (see table A), and hand tighten set screws until tips evenly touch pipe, assuring concentricity.



STEP 5

Then tighten set screws alternately on opposite sides to approximate 50 ft. lbs. of torque. Finally, in the same sequence, tighten set screws to recommended torque DO NOT RE-TORQUE. (see table B)



STEP 6

For Auto-Tork® screws simply use a 7/16" 12-point socket wrench. Tighten alternately on opposite sides until caps shear off.

Note: Not to be used on plain end fittings, PVC or HDPE pipe.

(TABLE A) T-HEAD BOLT & NUT DETAILS		
PIPE SIZE (IN)	BOLT SIZE (IN)	RANGE* OF TORQUE (FT/LBS)
3	5/8	45-60
4-24	3/4	75-90
30-36	1	100-120

*These torque ranges are requirements of AWWA C600

(TABLE B) SET SCREW TORQUE		
PIPE SIZE (IN)	BOLT SIZE (IN)	RANGE OF TORQUE (FT/LBS)
3-12	5/8 X 2	85
14-24	3/4 X 2	90
30-36	1 X 3	90

STAR® PIPE PRODUCTS

