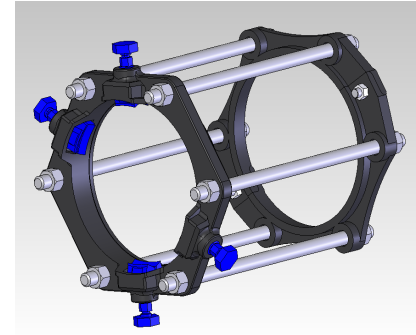
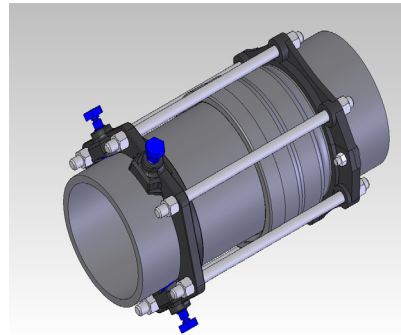
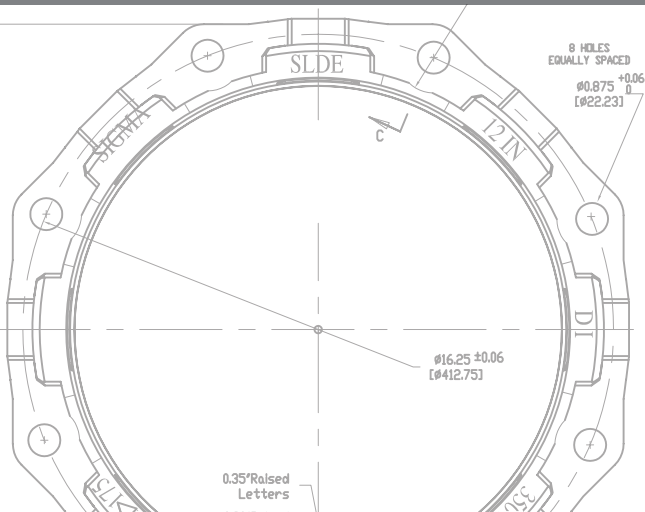


ONE-LOK™ Series SLDEH Harness for Ductile Iron Pipe



The SIGMA ONE-LOK Series SLDEH ductile iron pipe joint harness consists of Series SLDE mechanical joint, wedge-action restraining gland installed on the plain end of the pipe joint and incorporates high strength, low alloy, corrosion resistant restrainer rods connected to a standard mechanical joint follower split gland behind the shoulder of the bell end of the pipe joint. The back-up ring has oblong ears to accommodate varying outside diameter of DI pipe bell.

Sample Specification:

Restraint for push-on bells of ductile iron pipe shall consist of a contoured wedge-action retainer gland installed on the spigot (plain) end of the pipe, connected to a two-piece back-up ring (split follower gland) seated behind the pipe bell. The contoured wedge-action restrainer gland shall utilize multiple wedge segments that act against the pipe, increasing their resistance as line pressure increases. Restraining glands, wedge segments and actuating bolts shall be manufactured of high strength ductile iron conforming to the requirements of ASTM A536, Grade 65-45-12. Wedge segments shall be heat treated to a hardness of 370 BHN minimum. Breakaway tops shall be incorporated in the design of the actuating bolt to visually ensure proper torque. The manufacturing of the actuating bolt must incorporate a quality control procedure that is deemed acceptable by the specifier and positively assures precise and consistent operating torque of the breakaway top. The mechanical joint backing gland shall be manufactured of high strength ductile iron in accordance with AWWA C111/ANSI A21.11 and AWWA C153/ANSI 21.53. All connecting rods and nuts shall be of high strength, low alloy steel in accordance with AWWA C111/ANSI A21.11. The mechanical joint restraining devices shall have a water working pressure rating of 350psi for sizes 3-16 and 250psi for 18-36 minimum and provide a safety factor of not less than 2:1. Restraining harness shall be SIGMA ONE-LOK™ Series SLDEH or approved equal.

Material:

- Gland body, brackets, wedge segments & actuating bolts ASTM A536 65-45-12 ductile iron.
- Restraining Rods & Nuts: High strength, low alloy steel meeting AWWA/ANSI C111/A21.11 with minimum 65,000 psi tensile strength and 45,000 psi yield strength.
- Side Clamping Bolts & Hex Nuts: ASTM A449 high strength steel.

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Installation Instructions:

1. Install the ductile iron mechanical joint split (two-piece split back-up ring) follower gland behind the bell of push-on pipe, making sure to keep the lip extension of the gland facing toward the pipe bell.
2. Slide the SIGMA ONE-LOK SLDE wedge-action restrainer gland onto the plain end of the connecting pipe, placing the lip extension toward the end.
3. Assemble the push-on ductile iron pipe joint per manufacturer's recommendations.
4. Position the ONE-LOK SLDE restrainer on the spigot so that the rod holes are in alignment with the split follower gland and the distance between the restrainer and split gland will accommodate the length of the restraining rods.
5. Install the rods and nuts in each of the bolt holes keeping the glands spaced apart evenly.
6. Hand-tighten the actuating bolts on the SLDE restrainer in a clockwise manner until each wedge segment comes in contact with the pipe wall. To activate the SLDE, continue to tighten each actuating bolt in a star sequence, alternating between the actuating bolts until all the breakaway tops have been sheared away. Never tighten an actuating bolt more than 180 degrees before moving to the next bolt.
7. Tighten all the nuts on the connecting rod until the mechanical joint follower gland is seated firmly against the back of the pipe bell.

Dimensions in Inches, Weights in Pounds

Size	Item No.	Pressure Rating	No. Rods	Rod Length	Rod Diameter	Minimum Rod Clearance	Weight of SG+ONE LOK SLDE+Rod (lb)
3	SLDEH3	350	4	17	5/8	5.4	12.30
4	SLDEH4	350	4	17	3/4	6.6	18.90
6	SLDEH6	350	6	17	3/4	8.6	29.48
8	SLDEH8	350	6	17	3/4	10.9	36.86
10	SLDEH10	350	8	24	3/4	13.1	52.00
12	SLDEH12	350	8	24	3/4	15.4	75.66
14	SLDEH14	350	6	24	3/4	17.9	95.00
16	SLDEH16	350	6	24	3/4	20.1	115.07
18	SLDEH18	250	8	24	3/4	22.4	143.53
20	SLDEH20	250	8	24	3/4	24.6	201
24	SLDEH24	250	10	30	3/4	29.1	223.17
30	SLDEH30	250	10	30	1	35.8	360
36	SLDEH36	250	12	30	1	42.6	508