

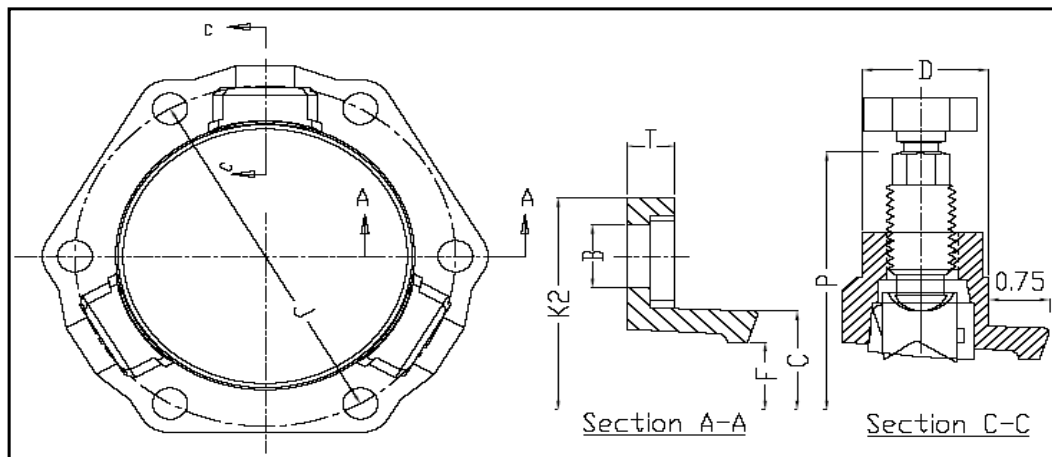
ONE-LOK™ Series SLDM for Oversized Pipe

Sample Specification

Restraint for standard mechanical joint fittings on oversized cast iron pipe shall be incorporated in the design of the follower gland and shall utilize multiple wedge segments that act against the pipe, increasing their resistance as the line pressure increases. The assembled joint shall maintain the maximum flexibility and deflection of all nominal pipe sizes after burial. Restraining gland, 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. Dimensions shall be compatible with standardized mechanical joints conforming to the requirements AWWA C111/ANSI A21.11 and AWWA C153/ANSI 21.53 through 20". Breakaway tops shall be incorporated in the design of the actuating bolts 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 restraining devices shall have a working pressure rating of 250 psi (150 psi for 20") minimum and provide no less than a safety factor of 2:1. Restraining device shall be SIGMA ONE-LOK™ or approved equal.

Materials:

- Gland body, wedge segments, & actuating bolts: ASTM A536 65-45-12 ductile iron.
- Wedge segments are heat treated to a minimum hardness of 370BHN
- T-head bolts & nuts: High strength, low alloy steel meeting AWWA/ANSI C111/A21.11 with minimum 65,000psi tensile strength and 45,000psi yield strength.



Dimensions in Inches, Weights in Pounds

Nom Pipe Size	Item #	Wgt (lbs)	PIT CAST PIPE OD CLASS C & D	Dimensions								Break off Bolts and Inserts			Pressure Rating (PSI)	T-Bolts			Gasket	
				C	F	D	T	P*	B	J	K2	No	Size	Torque ft-lbs		No	Size	Torque ft-lbs	No	Item
4	SLDM4	10.00	5.00	5.92	5.10	1.50	0.75	10.24	0.875	7.50	9.12	4	7/8	75 - 90	250	4	¾ x 3.5	75 - 90	1	MG-4
6	SLDM6	12.00	7.10	8.02	7.20	1.50	0.88	12.34	0.875	9.50	11.12	3	7/8	75 - 90	250	6	¾ x 3.5	75 - 90	1	MG-6
8	SLDM8	20.00	9.30	10.17	9.40	1.63	1.00	14.32	0.875	11.75	13.37	6	7/8	75 - 90	250	6	¾ x 4.0	75 - 90	1	MG-8
10	SLDM10	26.00	11.40	12.22	11.50	1.57	1.00	16.54	0.875	14.00	15.62	8	7/8	75 - 90	250	8	¾ x 4.0	75 - 90	1	MG-10
12	SLDM12	34.00	13.50	14.32	13.60	1.63	1.00	18.80	0.875	16.25	17.88	8	7/8	75 - 90	250	8	¾ x 4.0	75 - 90	1	MG-12
14	SLDM14	45.00	15.65	16.40	15.80	1.77	1.25	21.20	0.875	18.75	20.25	10	7/8	75 - 90	250	10	¾ x 4.5	75 - 90	1	MG-14
16	SLDM16	56.00	17.80	18.65	17.95	2.42	1.31	23.74	0.875	21.00	22.91	12	7/8	75 - 90	200	12	¾ x 4.5	75 - 90	1	MG-16
20	SLDM20	75.00	22.06	23.15	22.20	1.85	1.38	27.94	0.875	25.50	27.47	14	7/8	75 - 90	150	14	¾ x 5.0	75 - 90	1	MG-20

Note: P* With break off bolts broken head

Installation Instructions for Wedge Action Restraint with PVC Pipe & Mechanical Joint Fitting

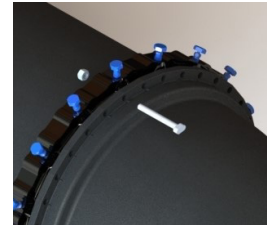


<p>1. Clean the fitting socket & pipe end. Lubricate mechanical joint gasket & pipe end with soapy water or approved lubricant meeting AWWA C111/A21.11. (A transition gasket is required if using on steel OD pipe)</p>	
<p>2. Insert the One Lok SLDM Wedge Restraint on the pipe with the lip extension facing the pipe end followed by the gasket, tapered side toward end of the pipe.</p>	
<p>3. Insert the gasket along with the pipe into the fitting socket and seat the gasket firmly and evenly into the gasket cavity, keeping the joint straight.</p>	
<p>4. Push the One-Lok gland toward the fitting and center it around the pipe with the lip evenly against the gasket.</p>	

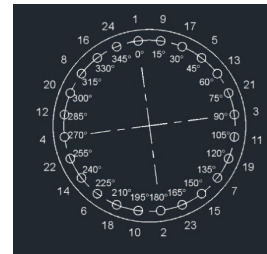
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Installation Instructions for Wedge Action Restraint with PVC Pipe & Mechanical Joint Fitting (Continued)

5. Insert the T-bolts with the T-head on the fitting side and nut on the restraint side, and hand tighten the nuts. Make the joint deflection as required keeping the wedge restraint centered on the pipe before torquing the T-Bolts.



6. Tighten the nuts in an alternate method (STAR PATTERN) to the recommended torque of 45-60 ft-lbs for 3", 75-90 ft-lbs for 4" – 24", 100-120 ft-lbs for 30", 36", 120 – 150 ft-lbs for 42", 48", 54", 60" & 64" sizes, use of a torque indicating wrench is recommended to confirm the applied torque.



7. Hand tighten each actuating bolt in a clockwise direction until contact is made between each wedge insert and the pipe OD. Continue tightening the actuating bolts in an alternate method (STAR PATTERN) until all the break-off tops have been removed. Never tighten actuating bolt more than 180 degrees before moving to the next bolt.

Recommended Torque for actuating bolt – 75-90 ft-lbs for 3" – 24", 115 – 125 ft-lbs for 30", 36", 42", 48", 400 +/- 5 ft-lbs for 54", 60", 64"

