



LOCK-O-RING® Flanges & Plugs

Sizes: 4- Through 36-inch



T.D. Williamson, Inc.

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■ LOCK-O-RING® Plug with Scarfed Nipple



■ LOCK-O-RING® Flange

Description

LOCK-O-RING® Flanges and Plugs are used as a means of recovering tapping valves after a STOPPLE® Plugging Machine operation. They are used in new construction to permit future expansion of a pipeline or a piping system.

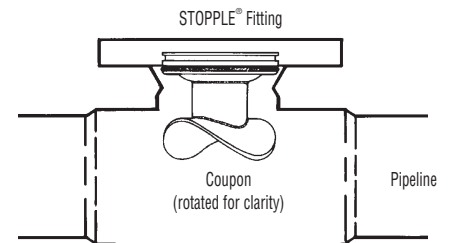
Providing a pressure-tight seal over the tapped holes, LOCK-O-RING Flanges eliminate the need for valves until such time as valves may be necessary. For example, fittings with LOCK-O-RING Flanges and Plugs are installed on the line during construction. Later, when branch connections are needed, valves can be installed on the fittings and the LOCK-O-RING Plugs removed with a tapping machine. In some applications, LOCK-O-RING Flanges entirely eliminate the need for permanent valves.

Features

LOCK-O-RING Flanges are drilled and faced to match ASME Class 150, 300 or 600 flanges.

LOCK-O-RING Flanges are mounted on STOPPLE® Fittings. They are also used on reduced branch fittings and plain nipples (See Bulletin 1100.001.00).

■ LOCK-O-RING® Plug With Scarfed Nipple For Coupon



LOCK-O-RING® Plugs can be welded to scarfed pipe spacers to install original coupons inside tapped holes to eliminate pigging hazards.

■ Flow-Through LOCK-O-RING® With Pig Guide Bars



For pig guides in side openings, a special flow-through LOCK-O-RING® assembly with guide bars will allow full flow into a branch line and will permit pigs to traverse the opening.

Patented in the United States and in foreign countries.
ISO 9001 Certified

Toll Free

1-888-TDWmSon (839-6766)



LOCK-O-RING® Flanges

ASME Class 150 Maximum allowable operating pressure (in psi) per ASME B31.8 at -20 to +100° F

Size		Approx. Weight		Design Factor				Part Number
Inches	DN	Lbs.	Kg.	0.72	0.6	0.5	0.4	
4	100	27	12	285	285	285	285	06-6423-0415
6	150	45	20	285	285	285	285	06-6423-0615
8	200	70	32	285	285	285	285	06-6423-0815
10	250	94	43	285	285	285	285	06-6423-1015
12	300	140	64	285	285	285	285	06-6423-1215
14	350	207	94	285	285	285	260	06-6423-1415
16	400	265	120	285	285	285	285	06-8823-1615
18	450	275	125	285	285	285	250	06-6423-1815
20	500	350	159	285	285	262	210	06-6423-2015
22	550	406	184	285	285	285	238	06-6423-2215
24	600	487	221	285	279	233	186	06-6423-2415
26	650	680	308	285	285	285	259	06-6423-2615
28	700	666	302	285	285	250	200	06-6423-2815
30	750	870	395	285	285	242	194	06-6423-3015
34	850	1101	500	285	285	258	206	06-6423-3415
36	900	1240	562	285	285	239	191	06-6423-3615

For sizes and series not shown, consult the factory.
Consult the factory before pressure-testing above 1800 psi (124 bar).
MAOP per ASME B31.4 at -20 to +180° F = 285 psi

LOCK-O-RING® Flanges are drilled and faced to match ASME Class 150, 300 or 600 flanges.

ASME Class 300 Maximum allowable operating pressure (in psi) per ASME B31.8 at -20 to +100° F

Size		Approx. Weight		Design Factor				Part Number
Inches	DN	Lbs.	Kg.	0.72	0.6	0.5	0.4	
4	100	38	17	740	740	740	740	06-6423-0430
6	150	42	19	740	740	740	733	06-6423-0630
8	200	63	29	740	740	624	499	06-6423-0830
10	250	90	41	740	740	629	503	06-6423-1030
12	300	123	56	740	740	634	507	06-6423-1230
14	350	158	72	740	740	658	527	06-6423-1430
16	400	239	108	740	740	699	559	06-6423-1630
18	45	290	132	740	740	740	610	06-8823-1830
20	500	345	156	740	740	621	497	06-8823-2030
22	550	487	221	740	641	534	427	06-8823-2230
24	600	625	283	740	740	627	502	06-8823-2430
26	650	676	307	740	740	646	517	06-8823-2630
28	700	834	378	740	739	616	452	06-8823-2830
30	750	981	445	740	690	575	460	06-8823-3030
34	850	1204	546	740	657	548	438	06-8823-3430
36	900	1459	662	740	740	634	507	06-8823-3630

For sizes and series not shown, consult the factory.
Consult the factory before pressure-testing above 1800 psi (124 bar).
MAOP per ASME B31.4 at -20 to +180° F = 285 psi

LOCK-O-RING® Flanges are drilled and faced to match ASME Class 150, 300 or 600 flanges.



LOCK-O-RING® Flanges & Plugs

LOCK-O-RING® Flanges ASME Class 600

Maximum allowable operating pressure (in psi) per ASME B31.8 at -20 to +100° F

Size Inches	DN	Approx. Weight		Design Factor				Part Number
		Lbs.	Kg.	0.72	0.6	0.5	0.4	
4	100	46	21	1480	1480	1480	1411	06-6423-0460
6	150	66	30	1480	1372	1140	915	06-6423-0660
8	200	111	50	1480	1480	1304	1020	06-6423-0860
10	250	180	82	1480	1480	1255	1004	06-6423-1060
12	300	225	102	1480	1270	1058	847	06-6423-1260
14	350	334	151	1480	1350	1125	900	06-6423-1460
16	400	481	218	1480	1293	1078	862	06-8823-1660
18	450	531	241	1480	1313	1094	875	06-8823-1860
20	500	590	268	1480	1313	1094	875	06-8823-2060
22	550	730	331	1480	1313	1094	875	06-8823-2260
24	600	923	419	1480	1313	1094	875	06-8823-2460
26	650	1060	481	1480	1199	999	799	06-8823-2660
28	700	1137	516	1480	1239	1032	826	06-8823-2860
30	750	1227	556	1480	1239	1032	826	06-8823-3060
34	850	1472	668	1480	1238	1032	825	06-8823-3460
36	900	1741	790	1480	1238	1032	825	06-8823-3660

For sizes and series not shown, consult the factory.
Consult the factory before pressure-testing above 1800 psi (124 bar).

LOCK-O-RING® Flanges are drilled and faced to match ASME Class 150, 300 or 600 flanges.

LOCK-O-RING® Plug Spare O-Rings*

ASME Class	Part Number
150, 300, 600	00-1250-0001
	00-1250-0002
	00-1250-0003
	00-1250-0004
	00-1250-0005
	00-1250-0006
	00-7877-0001
	00-7877-0002
	00-7877-0003
	00-7877-0004
	00-7877-0005
	00-7877-0006
	00-7877-0007
	00-7877-0008
	00-7877-0010
	00-7877-0011

*Standard O-Rings are Buna-N



■ LOCK-O-RING® Flange



■ LOCK-O-RING® Plug

LOCK-O-RING® Plugs ASME Class 150, 300, 600

Maximum allowable operating pressure (in psi) per ASME B31.8 at -20 to +100° F

Size Inches	DN	Approx. Weight		Design Factor				Part Number
		Lbs.	Kg.	0.72	0.60	0.50	0.40	
4	100	9	4	1480	1480	1480	1480	07-0312-0000
6	150	19	9	1480	1480	1480	1480	07-1265-0000
8	200	35	16	1480	1480	1480	1480	07-1266-0000
10	250	56	25	1480	1480	1480	1480	07-0286-0000
12	300	76	34	1480	1480	1480	1480	07-0287-0000
14	350	95	43	1480	1480	1480	1480	07-0288-0000
16	400	140	63	1480	1480	1480	1480	07-0289-0000
18	450	200	91	1480	1480	1480	1480	07-0290-0000
20	500	260	118	1480	1480	1480	1350	07-0291-0000
22	550	320	145	1480	1480	1480	1480	07-0292-0000
24	600	383	174	1480	1480	1480	1480	07-0293-0000
26	650	370	168	1480	1480	1480	1345	07-0294-0000
28	700	273	124	1480	1480	1480	1235	07-0295-0000
30	750	520	236	1480	1480	1480	1360	07-0296-0000
34	850	715	324	1480	1480	1480	1365	07-0298-0000
36	900	850	386	1480	1480	1480	1350	07-0299-0000

Consult the factory for larger sizes.



LOCK-O-RING® Plugs

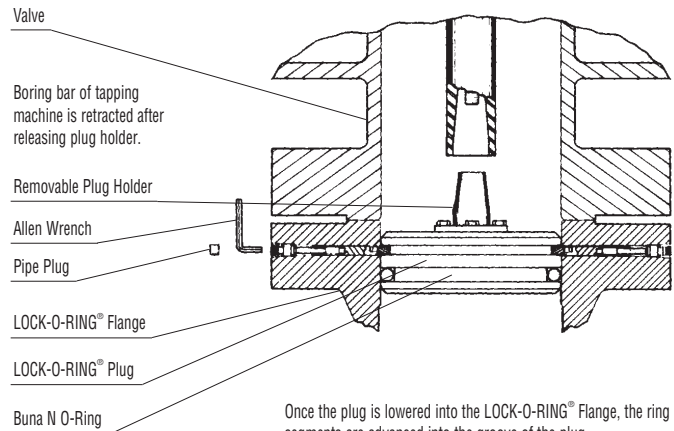
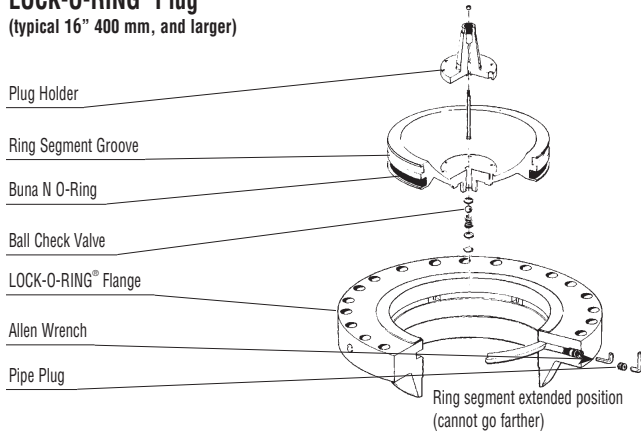
LOCK-O-RING® Plugs with Scarfed Nipple for Use with TDW STOPPLE® Fittings



■ LOCK-O-RING® Plug with Scarfed Nipple

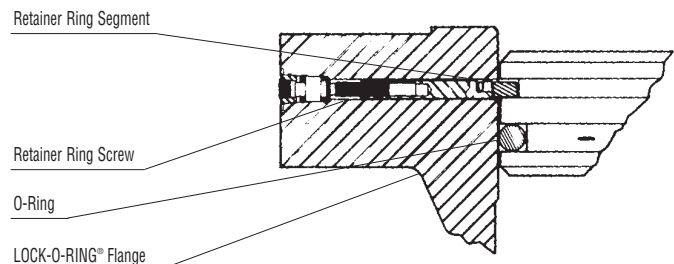
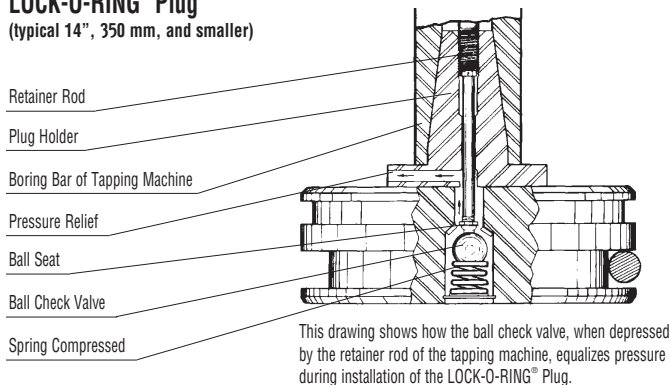
Size		ASME Class 150	ASME Class 300	ASME Class 600
Inches	DN	Part Number	Part Number	Part Number
4	100	07-1267-0004	07-1268-0004	07-1270-0004
6	150	07-1267-0006	07-1268-0006	07-1270-0006
8	200	07-1267-0008	07-1268-0008	07-1270-0008
10	250	07-1267-0010	07-1268-0010	07-1270-0010
12	300	07-1267-0012	07-1268-0012	07-1270-0012
14	350	07-1267-0014	07-1268-0014	07-1270-0014
16	400	07-1267-0016	07-1268-0016	07-1270-0016
18	450	07-1267-0018	07-1268-0018	07-1270-0018
20	500	07-1267-0020	07-1268-0020	07-1270-0020
22	550	07-1267-0022	07-1268-0022	07-1270-0022
24	600	07-1267-0024	07-1268-0024	07-1270-0024
26	650	07-1267-0026	07-1268-0026	07-1270-0026
28	700	07-1267-0028	07-1268-0028	07-1270-0028
30	750	07-1267-0030	07-1268-0030	07-1270-0030
34	850	07-1267-0034	07-1268-0034	07-1270-0034
36	900	07-1267-0036	07-1268-0036	07-1270-0036

LOCK-O-RING® Plug (typical 16" 400 mm, and larger)



Once the plug is lowered into the LOCK-O-RING® Flange, the ring segments are advanced into the groove of the plug.

LOCK-O-RING® Plug (typical 14", 350 mm, and smaller)



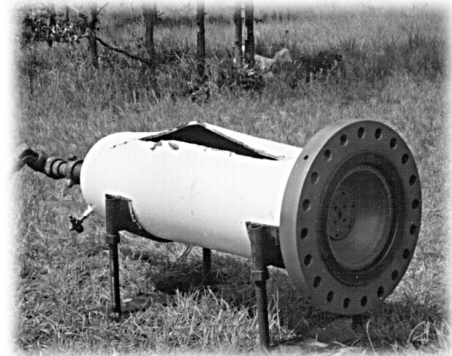


LOCK-O-RING® Flanges & Plugs

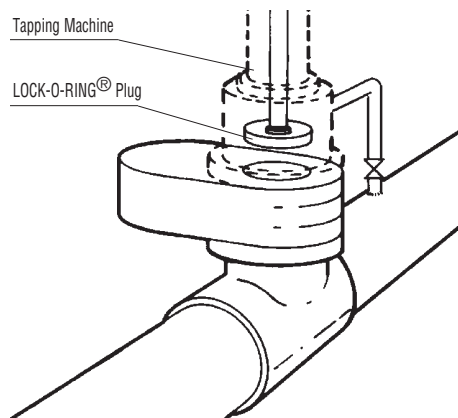
Destruction Tests Prove Strength of LOCK-O-RING® Flange and Plug

For test purposes, a LOCK-O-RING® Flange was welded to a test vessel made of 16" (400 mm), Grade B, 1/2" (12.7 mm) wall pipe. A LOCK-O-RING® Plug was installed in the flange. The test vessel was then hydrostatically pressured to failure, rupturing at 4,400 psi (300 bar). The LOCK-O-RING Plug and Flange assembly was undamaged.

Standard LOCK-O-RING Flanges are welding neck type with thickness to mate with standard weight, Grade B pipe, unless otherwise ordered. Special flanges can be supplied for higher yield pipe. Consult the factory.

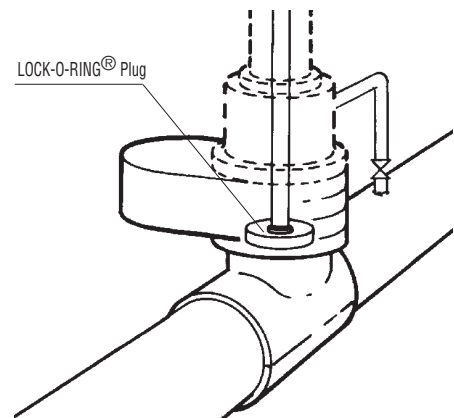


■ Step 1



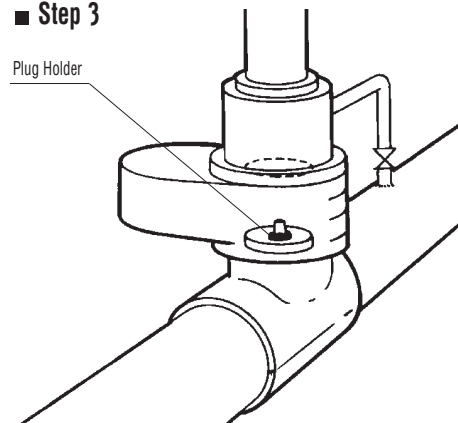
Upon completion of a tapping or plugging job, a LOCK-O-RING® Plug is installed on the boring bar of the tapping machine. The machine is mounted on the tapping valve.

■ Step 2



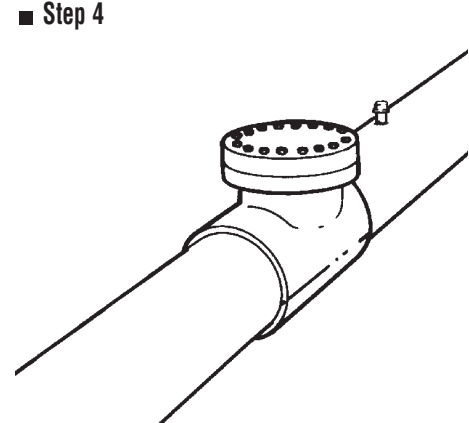
The valve is opened, and the tapping machine boring bar is extended to lower the plug into position inside the LOCK-O-RING® Flange.

■ Step 3



The flange segments are advanced into plug groove. The tapping machine is released from the plug holder, and the boring bar is retracted.

■ Step 4



The tapping machine, valve and plug holder are removed and a blind flange is installed. The plug can be removed any time to provide for reentry.



T.D. Williamson, Inc.

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