

RAIL ROAD SOLUTIONS

PATENTED WELD EQUIVALENT Railroad Pipe Solutions™



PERMANENT
Cold Weld Alternative



ASSEMBLED
Within Minutes



AAR APPROVED
*(American Association
of Railroads)*



RAILROAD PIPE SOLUTIONS

Lokring Technology LLC

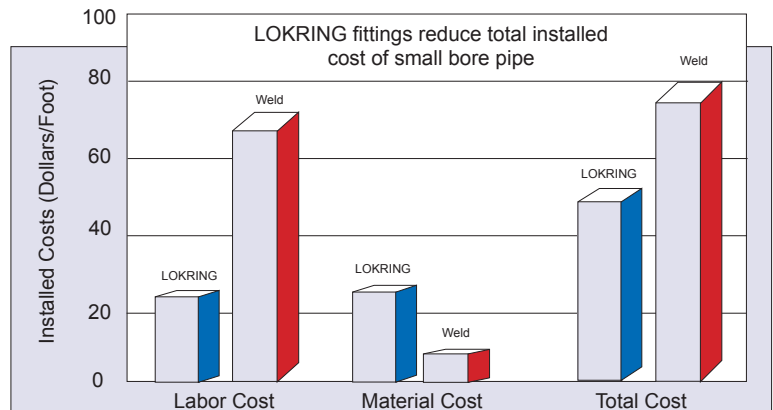


Lokring Technology and the Rail Industry

LOKRING fittings have been approved unconditionally by the American Association of Railroads (AAR) for installation on interchange service freight cars since 1997.

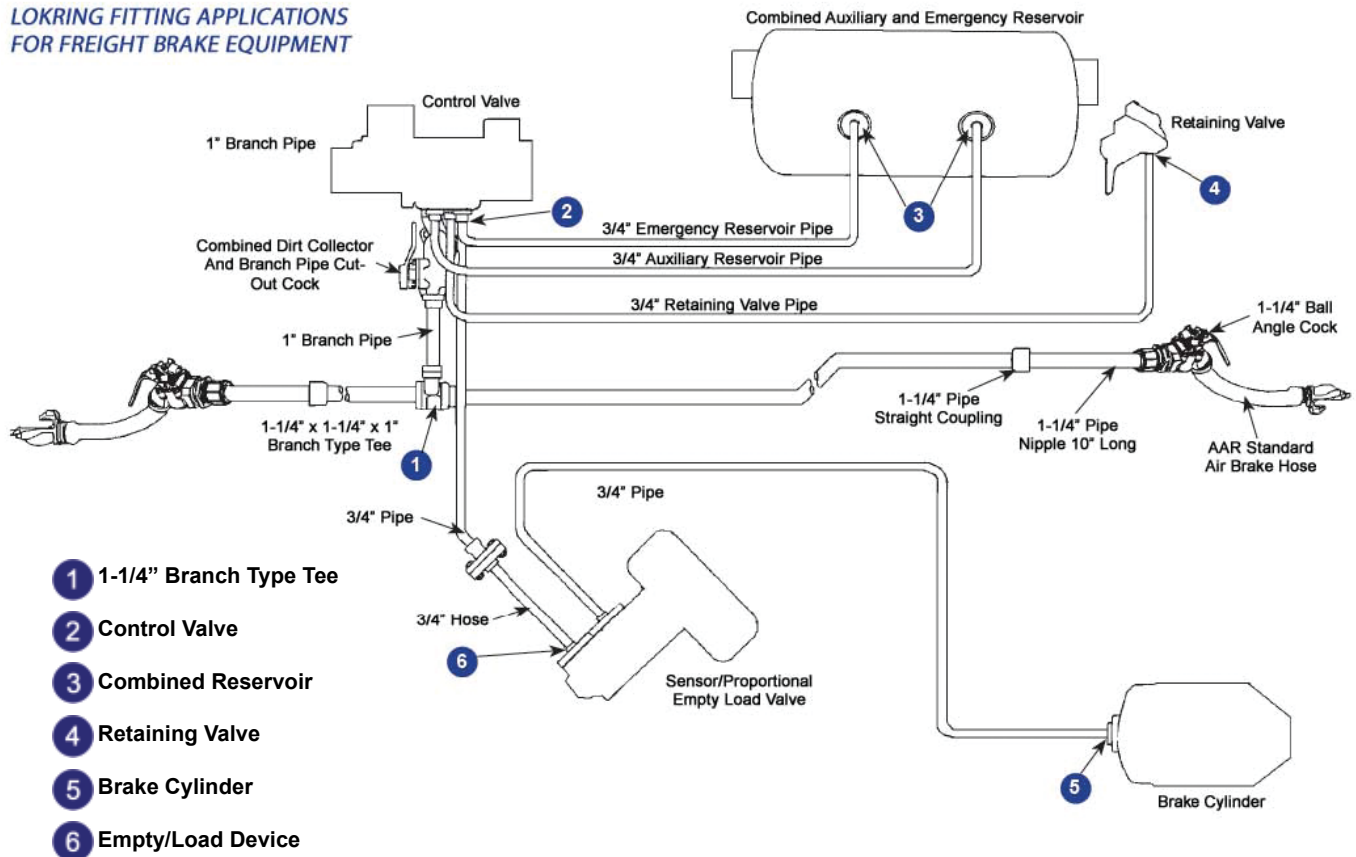
Benefits to the Rail Industry

- LOKRING installs quickly in the field and can be used to efficiently and safely install air brake piping in new, maintenance and general repair piping in a fraction of the time of welding.
- The installation is intrinsically safe with No Hot Work.
- Savings to railroad industry include using fitter crews over the cost of welders plus overhead savings such as safety, consumables, inspections and reworks.
- LOKRING's patented, permanent, metal-to-metal seals help reduce heat-affected zones which are susceptible to accelerated corrosion due to the heat-affected stresses of welding.
- Typical failure due to high vibration at single point contact socket welds is eliminated.
- LOKRING can be installed on railroad air brake piping systems. The fittings can also be used for other railway pneumatic devices.
- LOKRING fittings produce less contamination than welding with no slag or oxide created.
- Easy accessibility



Typical Railcar Applications

LOKRING FITTING APPLICATIONS FOR FREIGHT BRAKE EQUIPMENT

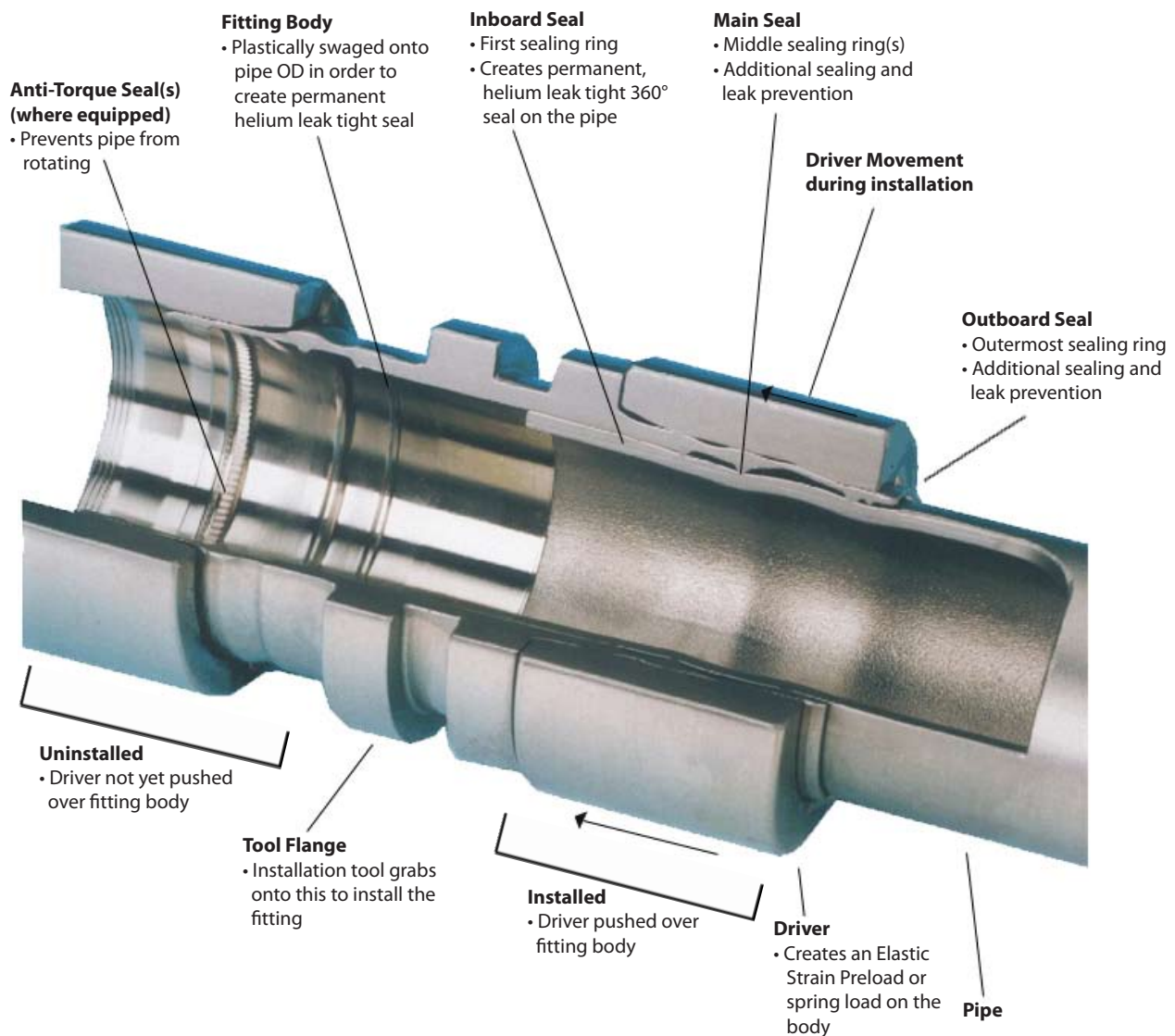


Typical applications for LOKRING fittings include, but are not limited to, the following locations:

1. Branch pipe tee connection -- 1 each 1-1/4". If the car is equipped with a brake pipe reduction device, it will require a second tee connection.
2. Control valves -- 3 each 3/4" flange couplings, may be straight or 90°, depending on brake cylinder design. Also some cars are equipped with an extra reservoir and would require an extra coupling.
3. Combined reservoirs -- 2 each 3/4" flange couplings, may be straight or 90°, depending on brake cylinder design. Also some cars are equipped with an extra reservoir and require an extra coupling.
4. Retaining valve -- 1 each 3/8" NPS flange.
5. Brake cylinders -- 1 each 1/2" or 3/8" flange with or without a brake cylinder measurement tap opening.
6. Empty/load equipment which will require a flange for each valve connected, between 4 and 6 each 1/2" or 3/8". Straight couplings for train line 1-1/4".

RAILROAD PIPE SOLUTIONS

Elastic Strain Preload (ESP®)



The leak-free seal is the result of LOKRING's ESP® installation where the axial movement of the LOKRING driver over the body swages the body onto the pipe's surface. This compresses the pipe wall first elastically and then plastically.

The pipe wall resists this swaging action, generating high unit compressive loads at the contact points between narrow sealing lands inside the fitting body and the pipe surface.

These contact stresses are sufficiently high to plastically yield the pipe surface under the sealing lands, forming a 360° circumferential, permanent, metal-to-metal seal between the pipe and fitting body.

The driver, which experiences a small increase in diameter (elastic strain) during installation, exerts an elastic, radial preload on the metallic seals for the life of the connection.

LOKRING TECHNOLOGY LLC

Testing and Certifications

In order to meet the demands of the rail industry, LOKRING fittings have been subjected to a significant testing program. Test Report #TR93-008, "Qualification Testing of LOKRING Carbon Steel Fittings", advises on ASME B31 piping qualifications for pressure ratings and stress intensification factors consistent with code guidelines and requirements. LOKRING fittings have been subjected to burst, flexural, vibration, torsion, tensile, corrosion, fire, high temperature soak and steam thermal cycling testing. With millions of installations, the American Association of Railroads has granted LOKRING with an unconditional approval for railroad service.



Installation



- 1 - Cut and sand pipe.
- 2 - Gauge pipe - mark pipe ends.

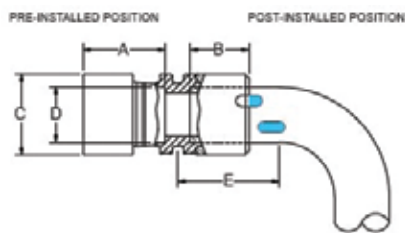


- 3 - Select and assemble Lokring Tool.
- 4 - Actuate tool to install fitting.



- 5 - Remove Lokring Tool.
- 6 - Inspect completed job.

General Information



Fitting Size (PXX)	Insertion Depth Pre-Install A	Insertion Depth Pre-Install B	Outside Diameter C	Inside Diameter D	Minimum Straight Run Before a bend, E
3/8" (P06)	1.37"	0.95"	1.24"	0.69"	2.08"
1/2" (P08)	1.43"	1.01"	1.46"	0.87"	2.24"
3/4" (P12)	1.62"	1.16"	1.60"	1.08"	2.65"
1" (P16)	1.98"	1.41"	1.95"	1.33"	2.86"
1-1/4" (P20)	2.21"	1.57"	2.29"	1.68"	3.33"

1. All dimensions are in inches.
2. Dimensions A, B, C, D, & E are applicable to other fittings of the same size within this catalog.
3. For use on seamless carbon steel pipe as per ASTM A535 and ASTM 106 and ERW carbon steel pipe to ASTM A53E and ASTM A587.
4. Fitting material Micro Alloyed Carbon Steel to LMS 92-10 or LMS 97-20.
5. Standard coating is black oxide per LMS 93-12.
6. Other part configurations than those shown and custom configurations may be available, contact LOKRING for details.
7. All dimensions are for reference only and subject to change (CAD files available upon request).

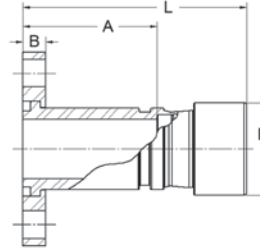
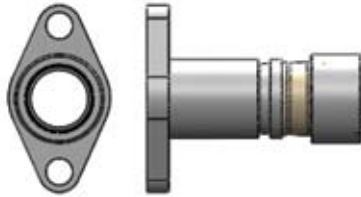
Scope of Specification: This specification covers LOKRING pipe fittings manufactured from high strength, low alloy carbon steel. Fittings are qualified on carbon steel nominal pipe (NPS) from 3/8" through 1-1/4". For fitting dimensions, refer to the product specification sheets. For installation procedures and selection of tooling see specification LP-105.

Fitting Material Specification: Fitting body and swaging rings are manufactured from high strength, low alloy carbon steel. Material shall conform to ASTM A675 with the chemical composition and mechanical properties as listed in LOKRING specifications for the material. For shelf-life corrosion protection, machined fittings shall be subjected to a black oxide process, followed by a rust inhibiting dip. Contact LOKRING for material or process specifications.

RAILROAD PIPE SOLUTIONS

Railroad Pipe Solutions™

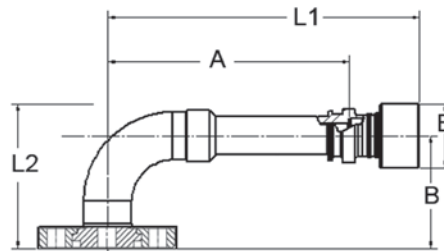
Flange - Extended with Gasket Groove*



Pipe Size NPS	Ordering Information			Dimensions				LOKTOOL™ Installation Tool Kit
	Fitting Material	Shape	Fitting Size PXX	Part Length (Uninstalled) L	E	Take- Out A	B	
3/8	CS	-FLNGEP-RR-	P06	4.20	1.24	2.83	0.42	MTK50-RR
1/2	CS	-FLNGEP-RR-	P08	4.27	1.46	2.84	0.44	MTK50-RR
3/4	CS	-FLNGEP-RR-	P12	4.78	1.60	3.16	0.56	MTK50-RR
1	CS	-FLNGEP-RR-	P16	5.16	1.95	3.18	0.56	MTK50-RR
1-1/4	CS	-FLNGEP-RR-	P20	5.52	2.29	3.31	0.56	MTK50-RR

All dimensions are for reference only and are subject to change.
Consult your authorized LOKRING distributor for details and other available options.
Insertion depth= L-A
*Gasket not included

Flanged Extended 90° Elbow with Gasket Groove*



Pipe Size NPS	Ordering Information			Dimensions					LOKTOOL™ Installation Tool Kit
	Fitting Material	Shape	Fitting Size PXX	Part Length (Uninstalled) L1	Part Length (Uninstalled) L2	E	Take- Out A	Take- Out B	
3/8	CS	-FLNGEL90EP-RR-	P06	6.06	2.81	1.24	4.70	2.19	MTK50-RR
3/4	CS	-FLNGEL90EP-RR-	P12	5.35	3.05	1.60	3.73	2.25	MTK50-RR
1	CS	-FLNGEL90EP-RR-	P16	7.21	3.60	7.95	5.23	2.63	MTK50-RR

All dimensions are for reference only and are subject to change.
Consult your authorized Lokring distributor for details and other available options.
Insertion depth= L-A
*Gasket not included

Flange with Gasket Groove*



Pipe Size NPS	Ordering Information			Dimensions				LOKTOOL™
	Fitting Material	Shape	Fitting Size PXX	Part Length (Uninstalled) L	E	Take-Out A	B	Installation Tool Kit
3/8	CS	-FLNG-RR-	P06	2.70	1.24	1.34	0.41	MTK50-RR
1/2	CS	-FLNG-RR-	P08	2.77	1.46	1.34	0.44	MTK50-RR
3/4	CS	-FLNG-RR-	P12	3.28	1.60	1.66	0.56	MTK50-RR
1	CS	-FLNG-RR-	P16	3.66	1.95	1.68	0.56	MTK50-RR
1-1/4	CS	-FLNG-RR-	P20	4.02	2.29	1.81	0.63	MTK50-RR

All dimensions are for reference only and are subject to change.
Consult your authorized LOKRING distributor for details and other available options.
Insertion depth= L-A
*Gasket not included

Flange without Gasket Groove

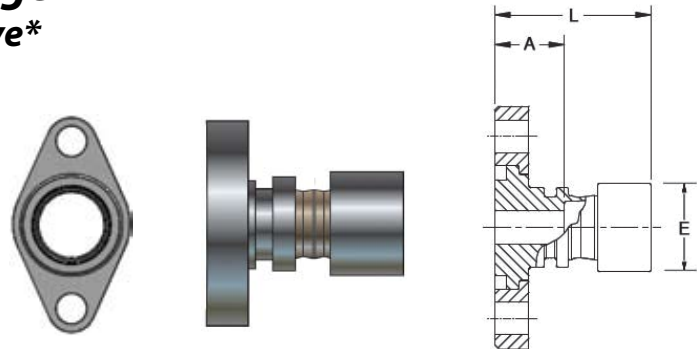


Pipe Size NPS	Ordering Information			Dimensions			LOKTOOL™
	Fitting Material	Shape	Fitting Size PXX	Part Length (Uninstalled) L	E	Take-Out A	Installation Tool Kit
3/8	CS	-FLNG-NG-RR-	P06	2.70	1.24	1.33	MTK50-RR
1/2	CS	-FLNG-NG-RR-	P08	2.77	1.46	1.34	MTK50-RR
3/4	CS	-FLNG-NG-RR-	P12	3.28	1.60	1.66	MTK50-RR
1	CS	-FLNG-NG-RR-	P16	3.66	1.95	1.68	MTK50-RR
1-1/4	CS	-FLNG-NG-RR-	P20	4.02	2.29	1.81	MTK50-RR

All dimensions are for reference only and are subject to change.
Consult your authorized LOKRING distributor for details and other available options.
Insertion depth= L-A

RAILROAD PIPE SOLUTIONS

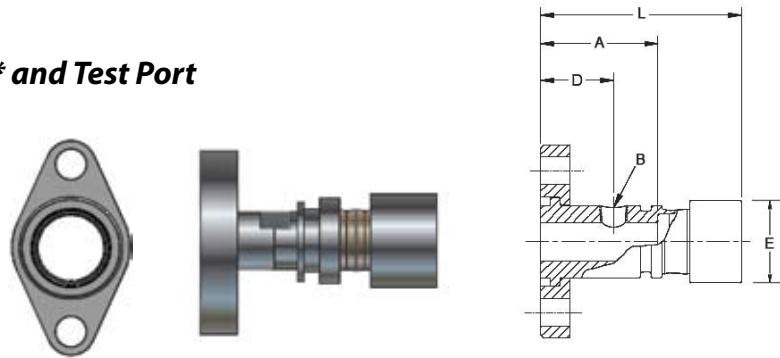
Reducing Flange with Gasket Groove*



Pipe Size NPS	Ordering Information			Dimensions			LOKTOOL™	
	Fitting Material	Shape	Fitting Size PXX**	Part Length (Uninstalled) L	E	Take-Out A	Installation Tool Kit	
1/2 - 3/8	CS	-RFLNG-RR-	P08-P06	2.39	1.24	1.01	MTK50-RR	
3/4 - 3/8	CS	-RFLNG-RR-	P12-P06	2.51	1.24	1.14	MTK50-RR	
3/4 - 1/2	CS	-RFLNG-RR-	P12-P08	2.58	1.46	1.15	MTK50-RR	
1 - 3/8	CS	-RFLNG-RR-	P16-P06	2.51	1.24	1.14	MTK50-RR	
1 - 1/2	CS	-RFLNG-RR-	P16-P08	2.58	1.46	1.15	MTK50-RR	
1 - 3/4	CS	-RFLNG-RR-	P16-P12	2.84	1.60	1.23	MTK50-RR	
1-1/4 - 3/4	CS	-RFLNG-RR-	P20-P12	2.91	1.60	1.29	MTK50-RR	
1-1/4 - 1	CS	-RFLNG-RR-	P20-P16	3.28	1.95	1.30	MTK50-RR	

All dimensions are for reference only and are subject to change.
Consult your authorized LOKRING distributor for details and other available options.
* Gasket not included
Insertion depth= L-A
**Fitting size refers to flange size first, Lokring size second (e.g. P-20-P16 is 1-1/4" flange by a 1" Lokring).

Flange with Gasket Groove* and Test Port

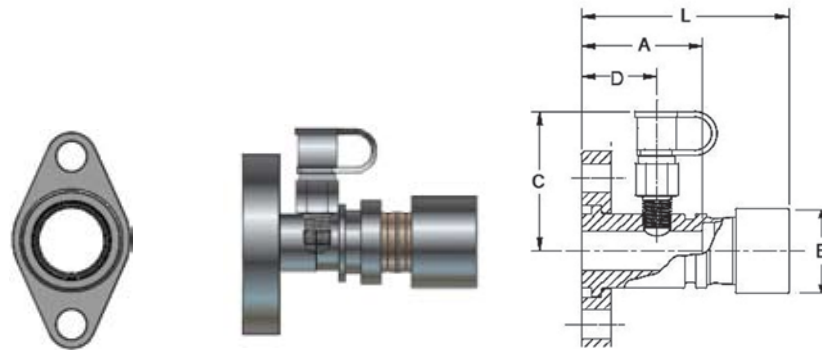


Pipe Size NPS	Ordering Information			Dimensions					LOKTOOL™	
	Fitting Material	Shape	Fitting Size PXX	Part Length (Uninstalled) L	E	Take-Out A	Female Test Port B	D	Installation Tool Kit	
3/4	CS	-TFLNG-RR-	P12	3.96	1.60	2.35	1/4-18	1.41	MTK50-RR	

All dimensions are for reference only and are subject to change.
Consult your authorized LOKRING distributor for details and other available options.
* Gasket not included
Insertion depth= L-A

Flange

with Gasket Groove* and Test Port with Quick Connect fitting



Pipe Size NPS	Ordering Information			Dimensions					LOKTOOL™
	Fitting Material	Shape	Fitting Size PXX	Part Length (Uninstalled) L	Take-Out A	C	D	E	
3/4	CS	-TFLNG-RR-	P12-TF	3.96	2.35	2.22	1.41	1.60	MTK50-RR

All dimensions are for reference only and are subject to change.

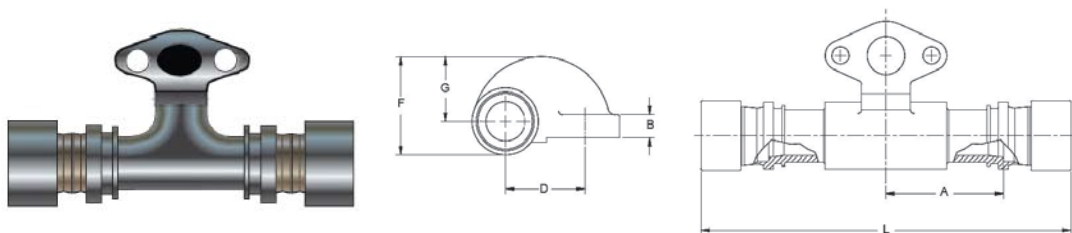
Consult your authorized LOKRING distributor for details and other available options.

* Gasket not included

TF= Test fitting is a standard 1/4" male quick connect.

Insertion depth= L-A

Branch Pipe Tee



Pipe Size NPS	Ordering Information			Dimensions						LOKTOOL™
	Fitting Material	Shape	Fitting Size PXX-PXX	Part Length (Uninstalled) L	Take-Out A	Take-Out B	Take-Out D	F	G	
1-1/4 - 1	CS	-BRANCH-RTEE-RR-	P20-F16	12.10	3.85	0.75	2.62	3.20	2.06	MTK50-RR

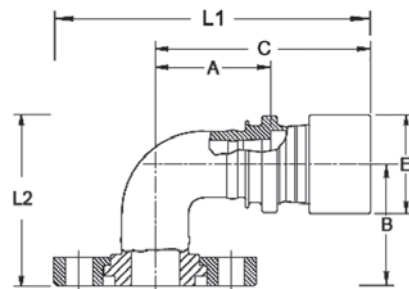
All dimensions are for reference only and are subject to change.

Consult your authorized LOKRING distributor for details and other available options.

Insertion depth= L/2 - A

RAILROAD PIPE SOLUTIONS

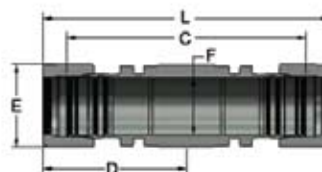
90° Elbow Flange with Gasket Groove*



Pipe Size NPS	Ordering Information			Dimensions						LOKTOOL™
	Fitting Material	Shape	Fitting Size PXX	Part Length (Uninstalled) L1	Part Length (Uninstalled) L2	Take- Out A	Take- Out B	Take- Out C	E	Installation Tool Kit
3/8	CS	-FLNG-EL90-RR	P06	5.90	2.81	3.19	2.19	4.56	1.24	MTK50-RR
1/2	CS	-FLNG-EL90-RR	P08	6.87	3.05	3.25	2.25	4.68	1.46	MTK50-RR
3/4	CS	-FLNG-EL90-RR	P12	6.87	3.05	3.25	2.25	4.87	1.60	MTK50-RR
1	CS	-FLNG-EL90-RR	P16	7.88	3.60	3.73	2.63	5.71	1.95	MTK50-RR
1-1/4	CS	-FLNG-EL90-RR	P20	7.28	3.92	2.63	2.78	4.84	2.29	MTK50-RR

All dimensions are for reference only and are subject to change.
Consult your authorized Lokring distributor for details and other available options.
* Gasket not included
Insertion depth= C-A

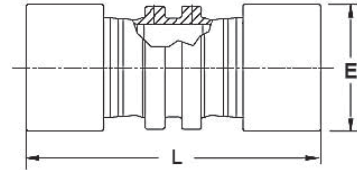
Couplings - Extended with Through Bore Design



Pipe Size NPS	Ordering Information			Dimensions					LOKTOOL™
	Fitting Material	Shape	Fitting Size PXX-YYFPT	Part Length (Uninstalled) L	E	C	D	F	Installation Tool Kit
1/4	CS	-BHP-	P04-P04	4.91	1.05	4.15	2.07	0.57	MTK50-RR
3/8	CS	-BHP-	P06-P06	5.33	1.24	4.49	2.25	0.71	MTK50-RR
1/2	CS	-BHP-	P08-P08	5.47	1.46	4.62	2.31	0.88	MTK50-RR
3/4	CS	-BHP-	P12-P12	6.00	1.60	5.09	2.54	1.09	MTK50-RR
1	CS	-BHP-	P16-P16	6.97	1.95	5.84	2.99	1.35	MTK50-RR
1 1/4	CS	-BHP-	P20-P20	7.42	2.29	6.13	3.06	1.75	MTK50-RR
1 1/2	CS	-BHP-	P24-P24	7.90	2.61	6.56	3.28	1.94	MTK50-RR
2	CS	-BHP-	P32-P32	9.54	3.25	8.02	4.01	2.54	MTK50-RR

* Consult your authorized Lokring distributor for details.
All dimensions are for reference only and subject to change.

Repair Coupling Without Internal Stop

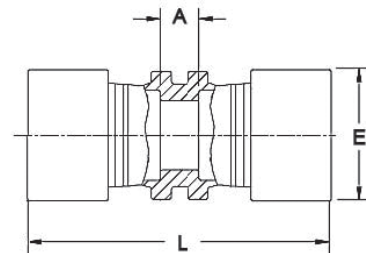
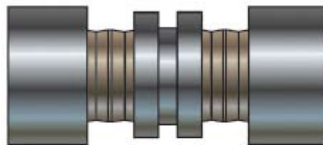


Pipe Size NPS	Ordering Information			Dimensions			LOKTOOL™
	Fitting Material	Shape	Fitting Size PXX	Part Length (Uninstalled) L	E	Take-Out A	
3/8	CS	-RCPL-	P06	3.20	1.24	N/A	MTK50-RR
1/2	CS	-RCPL-	P08	3.33	1.46	N/A	MTK50-RR
3/4	CS	-RCPL-	P12	3.78	1.60	N/A	MTK50-RR
1	CS	-RCPL-	P16	4.55	1.95	N/A	MTK50-RR
1-1/4	CS	-RCPL-	P20	5.02	2.29	N/A	MTK50-RR

All dimensions are for reference only and are subject to change.
Consult your authorized LOKRING distributor for details and other available options.

NOTE: LOKRING's Carbon Steel Repair Couplings are 'slip-over' couplings made without an internal stop in order to facilitate zero-clearance pipe repair work. They consist of a stainless steel body with carbon steel drivers, their pressure ratings are the same as those of LOKRING's stainless steel pipe fittings and their temperature ratings are those of the carbon steel fittings.

Coupling with Internal Stop

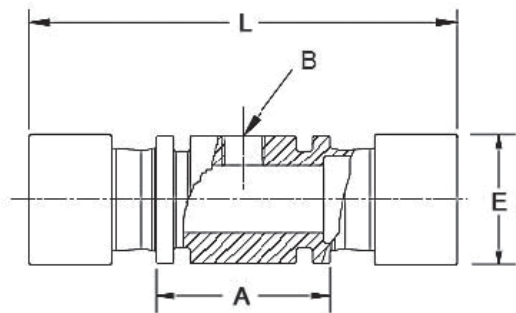


Pipe Size NPS	Ordering Information			Dimensions			LOKTOOL™
	Fitting Material	Shape	Fitting Size PXX	Part Length (Uninstalled) L	E	Take-Out A	
3/8	CS	-CPL-	P06	3.20	1.24	0.45	MTK50-RR
1/2	CS	-CPL-	P08	3.32	1.46	0.46	MTK50-RR
3/4	CS	-CPL-	P12	3.78	1.60	0.55	MTK50-RR
1	CS	-CPL-	P16	4.55	1.95	0.59	MTK50-RR
1 - 1/4	CS	-CPL-	P20	5.02	2.29	0.59	MTK50-RR

All dimensions are for reference only and are subject to change.
Consult your authorized LOKRING distributor for details and other available options.
Insertion depth= (L-A) /2

RAILROAD PIPE SOLUTIONS

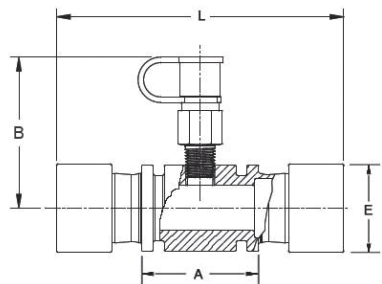
Test Coupling with Test Port



Pipe Size NPS	Ordering Information			Dimensions				LOKTOOL™
	Fitting Body Material	Shape	Fitting Size PXX	Part Length (Uninstalled) L	E	Take-Out A	B	Installation Tool Kit
3/4	CS	-TCPL-RR-	P12	5.36	1.60	1.83	1/4-18NPT	MTK50-RR

All dimensions are for reference only and are subject to change.
Consult your authorized LOKRING distributor for details and other available options.
Insertion depth= (L-A) /2

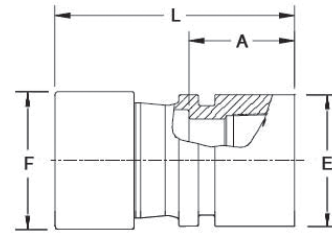
Test Coupling With Test Port with Quick Connect fitting



Pipe Size NPS	Ordering Information			Dimensions				LOKTOOL™
	Fitting Body Material	Shape	Fitting Size PXX-PYY	Part Length (Uninstalled) L	E	Take-Out A	B	Installation Tool Kit
3/4	CS	-TCPL-RR-	P12-TF	5.36	1.60	2.13	2.73	MTK50-RR

All dimensions are for reference only and are subject to change.
Consult your authorized LOKRING distributor for details and other available options.
TF= Test fitting is a standard 1/4" male quick connect.
Insertion depth= (L-A) /2

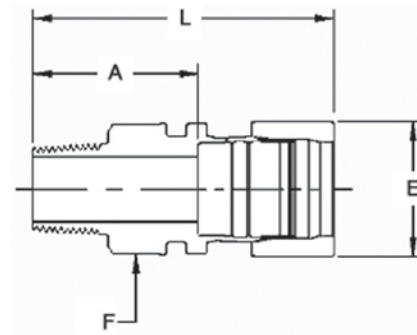
Female NPT Adapter



Pipe Size NPS	Ordering Information				Dimensions			LOKTOOL™
	Fitting Material	Shape	Fitting Size PXX	Female NPT Size	Part Length (Uninstalled) L	E	Take-Out A	
3/8	CS	-ADPT-	P06	3/8 FPT	*	*	*	MTK50-RR
1/2	CS	-ADPT-	P08	1/2 FPT	2.41	1.46	0.98	MTK50-RR
3/4	CS	-ADPT-	P12	3/4 FPT	3.66	1.60	2.05	MTK50-RR
1	CS	-ADPT-	P16	1 FPT	4.35	1.95	2.38	MTK50-RR
1-1/4	CS	-ADPT-	P20	1-1/4 FPT	3.96	2.29	1.75	MTK50-RR

All dimensions are for reference only and are subject to change.
Consult your authorized LOKRING distributor for details and other available options.
Insertion depth= L-A

Male NPT Adapter

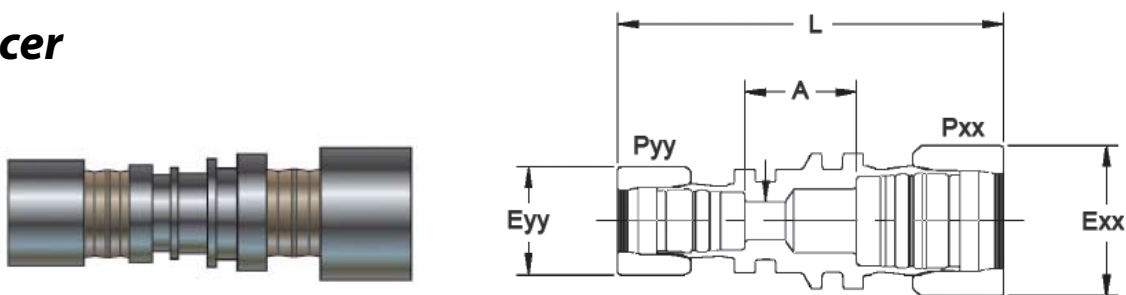


Pipe Size NPS	Ordering Information				Dimensions			LOKTOOL™
	Fitting Material	Shape	Fitting Size PXX	NPT Size	Part Length (Uninstalled) L	E	Take-Out A	
1/4	CS	-ADPT-	P04	1/4 MPT	2.71	1.05	1.47	MTK50-RR
3/8	CS	-ADPT-	P06	3/8 MPT	-	-	-	MTK50-RR
1/2	CS	-ADPT-	P08	1/2 MPT	3.12	1.46	1.69	MTK50-RR
3/4	CS	-ADPT-	P12	3/4 MPT	3.52	1.60	1.90	MTK50-RR
1	CS	-ADPT-	P16	1 MPT	4.34	1.95	2.36	MTK50-RR
1-1/4	CS	-ADPT-	P20	1-1/4 MPT	4.40	2.29	2.19	MTK50-RR

All dimensions are for reference only and are subject to change.
Consult your authorized LOKRING distributor for details and other available options.
Insertion depth= L-A

RAILROAD PIPE SOLUTIONS

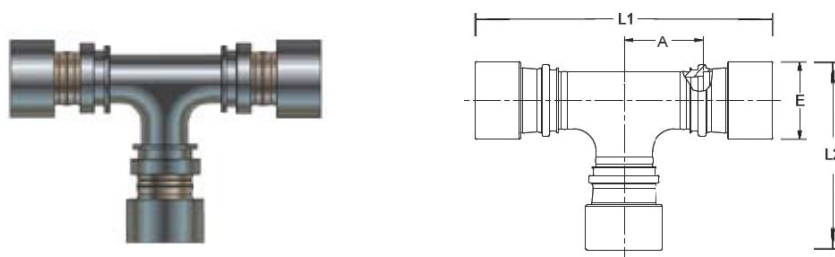
Reducer



Pipe Size NPS	Ordering Information			Dimensions			LOKTOOL™	
	Fitting Body Material	Shape	Fitting Size PXX - PYY	Part Length (Uninstalled) L	Exx	Eyy	Take-Out A	Installation Tool Kit
1/2 - 1/4	CS	-RED-	P08 - P04	3.75	1.46	1.05	1.09	MTK50-RR
1/2 - 3/8	CS	-RED-	P08 - P06	3.92	1.46	1.24	1.12	MTK50-RR
3/4 - 1/2	CS	-RED-	P12 - P08	4.37	1.60	1.46	1.33	MTK50-RR
1 - 1/2	CS	-RED-	P16 - P08	4.90	1.95	1.46	1.50	MTK50-RR
1 - 3/4	CS	-RED-	P16 - P12	5.17	1.95	1.60	1.58	MTK50-RR
1-1/4 - 3/4	CS	-RED-	P20 - P12	5.32	2.29	1.60	1.48	MTK50-RR
1-1/4 - 1	CS	-RED-	P20 - P16	5.92	2.29	1.95	1.73	MTK50-RR

All dimensions are for reference only and are subject to change.
Consult your authorized LOKRING distributor for details and other available options.

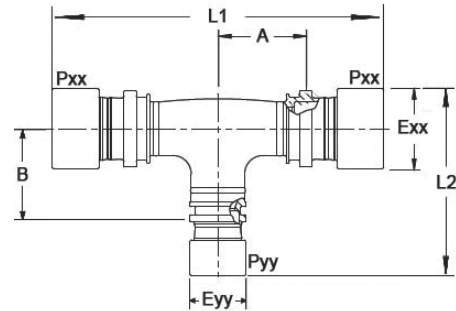
Tee



Pipe Size NPS	Ordering Information			Dimensions			LOKTOOL™	
	Fitting Material	Shape	Fitting Size PXX	Part Length (Uninstalled) L1	Part Length (Uninstalled) L2	E	Take-Out A	Installation Tool Kit
1/2	CS	-TEE-	P08	6.10	3.78	1.46	1.62	MTK50-RR
3/4	CS	-TEE-	P12	6.95	4.27	1.60	1.86	MTK50-RR
1	CS	-TEE-	P16	8.48	5.22	1.95	2.26	MTK50-RR
1-1/4	CS	-TEE-	P20	9.70	5.99	2.29	2.63	MTK50-RR

All dimensions are for reference only and are subject to change.
Consult your authorized LOKRING distributor for details and other available options.
Insertion depth= $(L1-2A) / 2$ and $L2-A-1/2E$

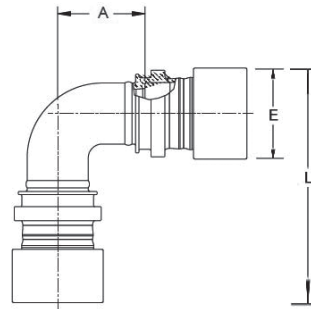
Reducing Branch Tee



Pipe Size NPS	Ordering Information			Dimensions						LOKTOOL™ Installation Tool Kit
	Fitting Material	Shape	Fitting Size PXX PYY	Part Length (Uninstalled) L1	Part Length (Uninstalled) L2	Exx	Eyy	Take- Out A	B	
3/4 - 1/2	CS	-RTEE-RR-	P12-P08	6.47	4.25	1.60	1.46	1.54	2.01	MTK50-RR
1 - 1/2	CS	-RTEE-RR-	P16-P08	8.49	4.55	1.95	1.46	2.27	2.15	MTK50-RR
1 - 3/4	CS	-RTEE-RR-	P16-P12	8.49	4.83	1.95	1.60	2.27	2.23	MTK50-RR
1-1/4 - 3/4	CS	-RTEE-RR-	P20-P12	9.69	5.87	2.29	1.60	2.63	3.11	MTK50-RR
1-1/4 - 1	CS	-RTEE-RR-	P20-P16	9.69	5.85	2.29	1.95	2.63	2.70	MTK50-RR

All dimensions are for reference only and are subject to change.
Consult your authorized LOKRING distributor for details and other available options.
Insertion depth= (L1-2A) / 2 and L2 - 1/2 Exx-B

90° Elbow



Pipe Size NPS	Ordering Information			Dimensions			LOKTOOL™ Installation Tool Kit
	Fitting Material	Shape	Fitting Size PXX	Part Length (Uninstalled) L	E	Take- Out A	
1/2	CS	-EL90LR-	P08	4.31	1.46	2.15	MTK50-RR
	CS	-EL90SR-*		3.78	1.46	1.62	MTK50-RR
3/4	CS	-EL90LR-	P12	4.65	1.60	2.23	MTK50-RR
	CS	-EL90SR-*		4.03	1.60	1.62	MTK50-RR
1	CS	-EL90LR-	P16	5.22	1.95	2.39	MTK50-RR
1 - 1/4	CS	-EL90LR-	P20	5.86	2.29	2.50	MTK50-RR

All dimensions are for reference only and are subject to change.
Consult your authorized LOKRING distributor for details and other available options.
NOTE: 45° Elbows are available upon request.
* Short radius (SR) and long radius 90° elbows are available upon request.
Insertion depth= L-A-1/2E

RAILROAD PIPE SOLUTIONS

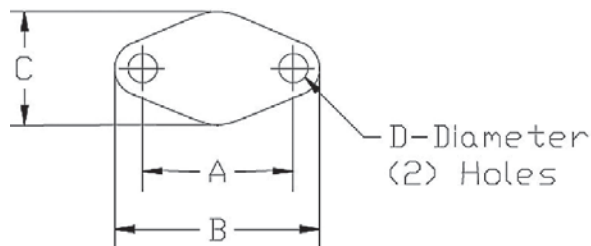
Installation Applications

In addition to air brake applications, the LOKRING system may also be used to install and repair a variety of piping and tubing installations for use with water, hydraulic and lubricating oils, fuel gas, natural gas and more.

Contact your authorized LOKRING distributor for these other applications.



Recommended Gaskets and Fasteners



Dimension	NPS Pipe Size					
	1/4	3/8	1/2	3/4	1	1 1/4
A (in.)	1 5/8	1 15/16	2 3/8	2 3/4	3	3 3/4
B (in.)	2 5/16	2 11/16	3 3/8	3 3/4	4	4 7/8
C (in.)	1 5/16	1 9/16	1 15/16	2 1/16	2 1/4	2 5/8
D (in.)	11/32	13/32	17/32	17/32	17/32	11/16
Gasket Part No.*	99458	93839	93840	93841	93986	94790
Cap Screw Size (in.)	5/16 x 7/8	3/8 x 1	1/2 x 1 1/4	1/2 x 1 1/4	1/2 x 1 1/4	5/8 x 1 1/2
Cap Screw Part No.*	562085	562052	305380	305380	305380	563765

Notes:

This Table is used to identify fittings by flange size.

*Part numbers, shown for cross reference purposes only, belong to Westinghouse Air Brake Co.

All of the above information including illustrations are believed to be reliable. Users, however, should independently evaluate the suitability of each product for their application. LOKRING's only obligations are those in the standard terms and conditions of sale for this product and in no case will LOKRING be liable for any incidental, indirect or consequential damages arising from the sale, resale, use or misuse of the product.

LOKRING TECHNOLOGY LLC

To Order a Lokring LOKTOOL®

The **MTK50-RR Railroad Tool Kit** is designed specifically for installing fittings on railroad air brake piping systems and other railway pneumatic devices.

Packaged in a durable protective carrying case, it is ideal for making "in train" repairs in remote areas. The kit contains the hydraulically operated LOKTOOL head and inserts for installing standard-size fittings and couplings for pipe ranging from 3/8" to 1 1/4". The kit also contains all the gauges needed to simplify installation and inspection.



Installation Tool Kit

(requires hydraulic pump and hose)

MTK50-RR

-MTK50-RR Railroad Tool Kit complete with Carrying Case for use with 3/8" to 1 1/4" pipe. Includes tool head, inserts, and gages.



Pump Kits (Includes pump, Hose and Case)

To power the LOKTOOL, an electric, pneumatic, or manually operated hydraulic pump is required, along with a 15' hose with quick disconnect couplings

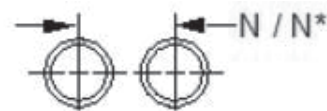
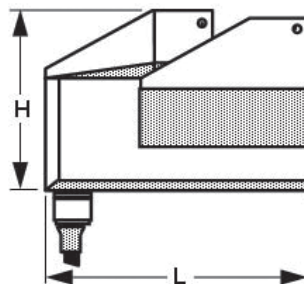
Part No. 9080050 -Manual Pump Kit

Part No. 9080189 -Pneumatic Pump Kit

Part No. 9080184 -Electric Pump Kit

RAILROAD PIPE SOLUTIONS

MTK50-RR Tooling Dimensions



Dimensions in Inches Pipe/Fitting Size	Pipe OD	LOKTOOL Size	W Tool Width	L Tool Length	H Tool Height	N Minimum Spacing Center to center	N* Minimum Spacing Center to Center, with fittings adjacent to each other
3/8" NPS (P06)	0.675	MTK50-RR	4.21	7.29	5.33	2.58	2.85
1/2" NPS (P08)	0.840		4.21	7.29	5.33	2.66	2.96
3/4" NPS (P12)	1.050		4.21	7.29	5.33	2.76	3.05
1" NPS (P16)	1.315		4.21	7.29	5.33	2.90	3.21
1-1/4" NPS (P20)	1.660		4.21	7.29	5.33	3.07	3.41

*Carbon Steel Lokring fittings only

*Consult your authorized LOKRING distributor for details and other available options.

LOKRING TECHNOLOGY LLC

LOKRING TECHNOLOGY STANDARD PRODUCT WARRANTY

Lokring warrants that goods delivered hereunder shall be free from defects in material and workmanship under normal use and service for a period of one (1) year from shipment. If during such one (1) year period,

1. Lokring is notified promptly upon discovery of any defect in the goods, including a detailed description of such defect.
2. Lokring is afforded the opportunity to inspect such goods at the installation site prior to any attempt to repair or retrofit.
3. If requested by Lokring, Customer returns such goods to Lokring for further examination (FOB destination); and upon examination of such, Lokring determines that such goods were defective and such defects were not caused by accident, abuse, misuse, neglect, alteration, improper installation, repair or alteration (other than at the specific direction of Lokring), improper testing or use contrary to instruction of Lokring, then within a reasonable time, Lokring shall at its sole option credit the customer for such goods.

Any goods replaced under this warranty shall be returned to the customer, transportation charges prepaid, and Lokring will reimburse the customer for any transportation charges incurred under section (2) above. The performance of this warranty does not extend the warranty period of any goods beyond the period applicable to the goods originally delivered.

In no event shall Lokring be liable for claims for any other damages whatsoever (whether direct, immediate, foreseeable, consequential or special) suffered by Buyer or anyone else arising out of any breach by Lokring. This express warranty is in lieu of and excludes all other warranties, guarantees, and/or representations, expressed or implied.

System design and system safety are the ultimate responsibilities of the end-user. Consideration to system function, compatibility, product ratings, as well as other factors, must be given to ensure proper product selection and function. All information in this catalog has been compiled with regard to accuracy; however, the most up to date information should be verified before use of the product. Lokring reserves the right to change product dimensions, ratings, or other information.



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A FITTING END TO YOUR PIPING CONCERNS™



**38376 APOLLO PARKWAY
WILLOUGHBY, OHIO 44094
TEL: 440-942-0880
FAX: 440-942-1186
WWW.LOKRING.COM**

Lokring Technology LLC
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