

# RAIL ROAD SOLUTIONS

## PATENTED WELD EQUIVALENT<sup>®</sup> Railroad Pipe Solutions<sup>™</sup>



**PERMANENT**  
*Gold Weld Alternative*



**ASSEMBLED**  
*Within Minutes*



**AAR APPROVED**  
*(American Association  
of Railroads)*



# RAILROAD PIPE SOLUTIONS

## Lokring Technology LLC

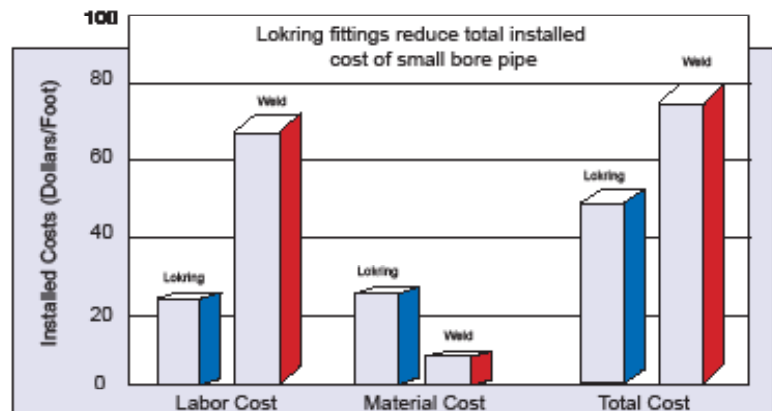


### Lokring Technology and the Rail Industry

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

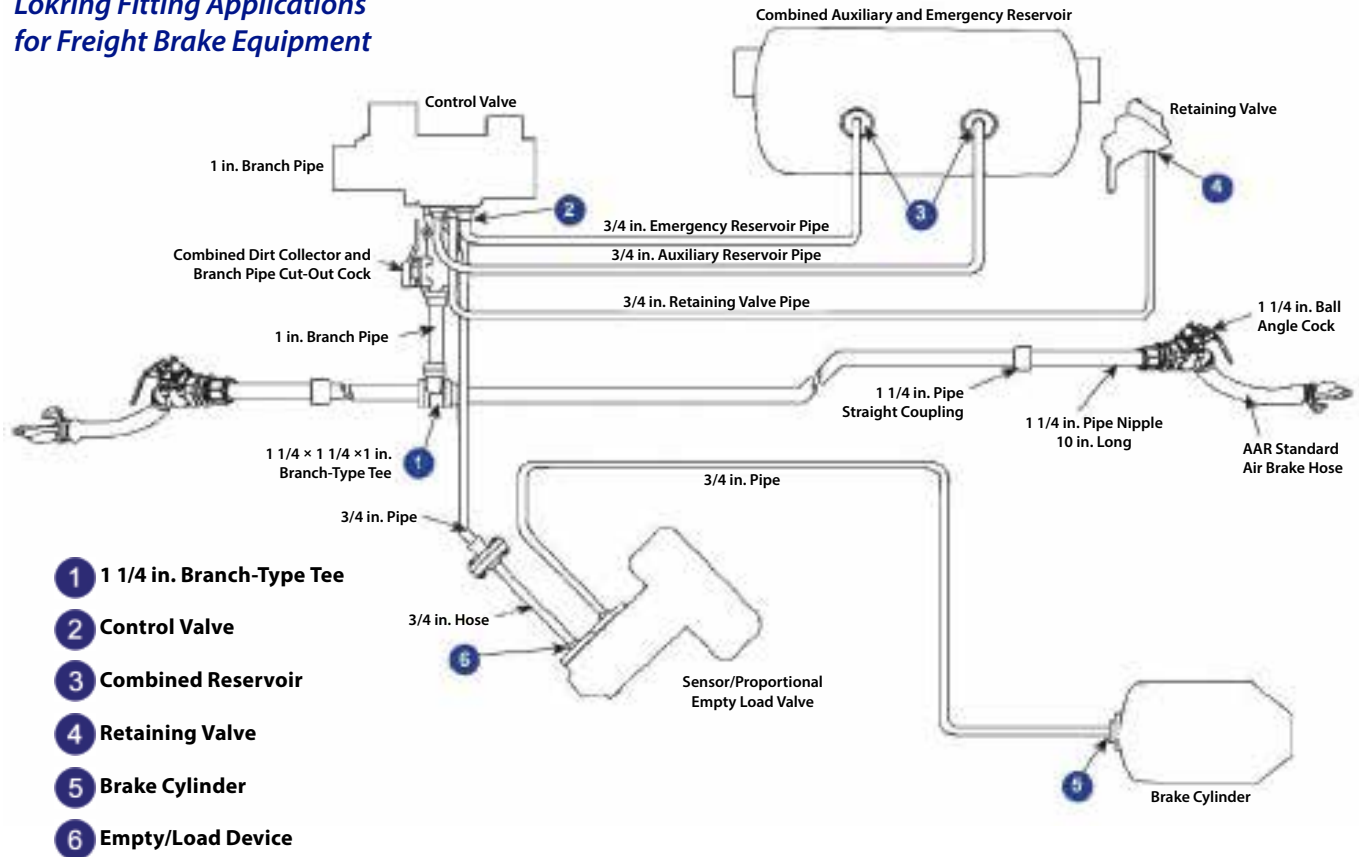
#### Benefits to the Rail Industry

- Lokring fittings install 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.
- Installations are 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 fittings' 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 failures due to high vibration at single-point-contact socket welds are eliminated.
- Lokring fittings 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.



## Typical Railcar Applications

### Lokring Fitting Applications for Freight Brake Equipment

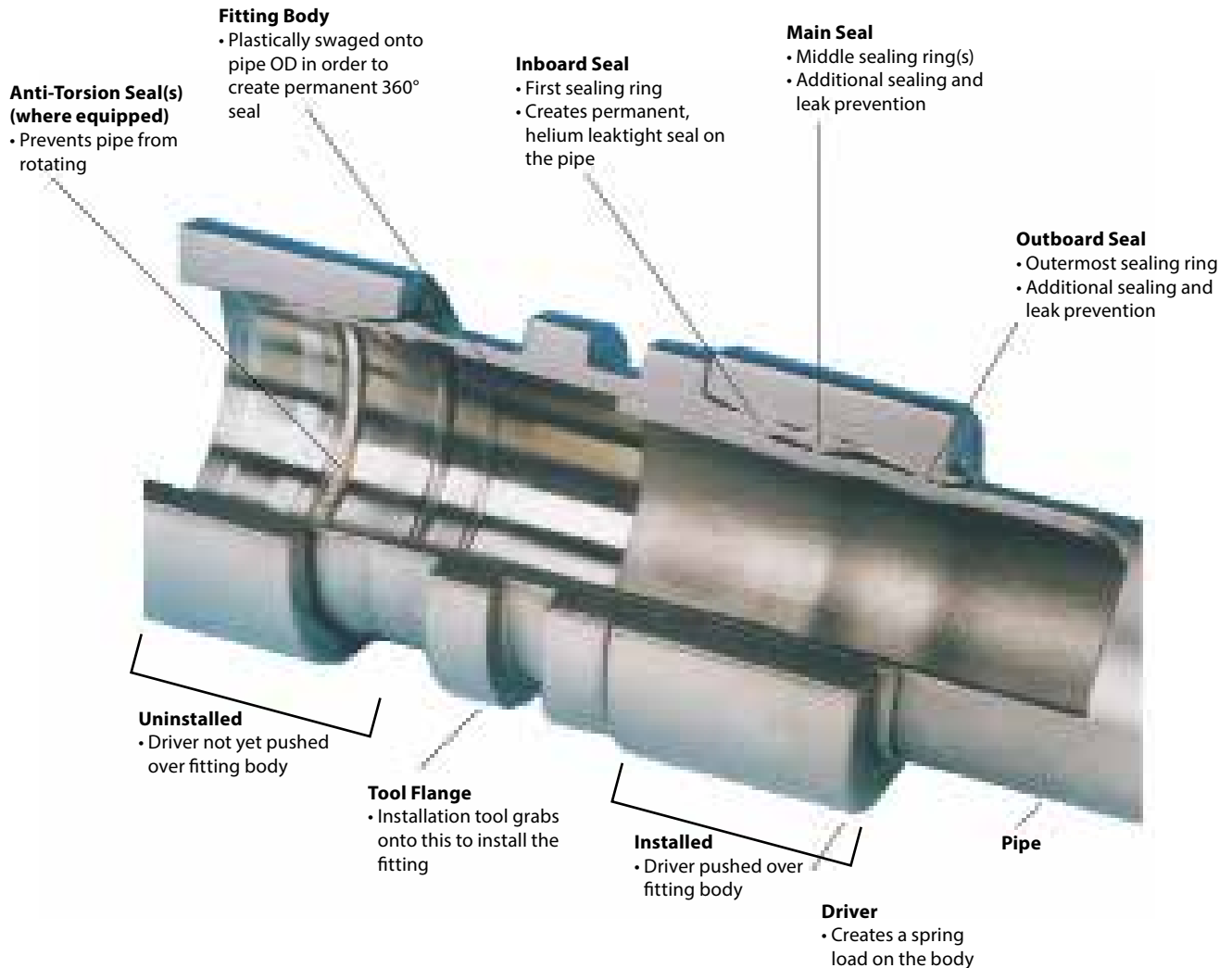


Typical applications for Lokring fittings include, but are not limited to, the following locations:

1. Branch pipe tee connection — 1 each 1 1/4 in. 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 in. 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 in. 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 in. flange.
5. Brake cylinders — 1 each 1/2 or 3/8 in. 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 in. Straight couplings for train line 1 1/4 in.

# RAILROAD PIPE SOLUTIONS

## Elastic Strain Preload® (ESP®)



The leak-free seal is the result of the Lokring 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.

## 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 an unconditional approval for railroad service.



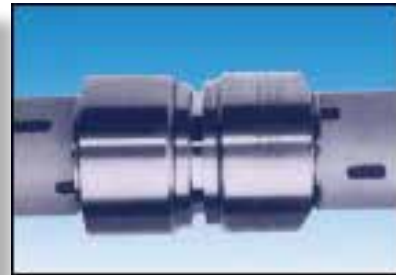
## Installation



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

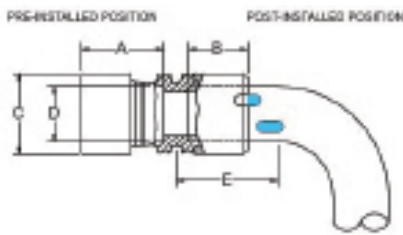


3 - Select Lokring MTK50-RR tool kit (page 17) and assemble.



4 - Actuate tool to install fitting.  
5 - Inspect completed job.

## General Information



Dimensions, in.					
Fitting Size (PXX)	Insertion Depth Pre-Install A	Insertion Depth Post-Install B	Outside Diameter C	Inside Diameter D	Minimum Straight Run Before 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

- All dimensions are in inches and are for reference only and subject to change.
  - Dimensions are applicable to other fittings of the same size within this catalog.
  - For use on seamless carbon steel pipe in accordance with ASTM A53S and ASTM 106 and ERW carbon steel pipe in accordance with ASTM A53E and ASTM A587.
  - Fitting material microalloyed steel in accordance with ASTM A675 or ASTM A513.
  - Standard coating is black oxide.
  - Other part configurations than those shown and custom configurations may be available, contact your authorized Lokring sales and service representative for details.
- Scope of Specification:** This specification covers Lokring pipe fittings manufactured from high-strength, microalloyed steel. Fittings are qualified on carbon steel nominal pipe (NPS) from 3/8 through 1 1/4 in. For fitting dimensions, refer to the product specification sheets. For installation procedures and selection of tooling see Lokring specification LP-105.
- Fitting Material Specification:** Fitting body and drivers are manufactured from high-strength, microalloyed steel. Material conforms to ASTM A675 or ASTM A513. For shelf-life corrosion protection, machined fittings are subjected to a black oxide process, followed by a rust-inhibiting dip.

# RAILROAD PIPE SOLUTIONS

## Railroad Pipe Solutions

### Flange, Extended With Gasket Groove<sup>A</sup>



Pipe Size NPS in.	Ordering Information			Dimensions, in.			
	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	0.41
1/2	CS	-FLNGEP-RR-	P08	4.27	1.46	2.84	0.44
3/4	CS	-FLNGEP-RR-	P12	4.78	1.60	3.16	0.56
1	CS	-FLNGEP-RR-	P16	5.16	1.95	3.18	0.56
1 1/4	CS	-FLNGEP-RR-	P20	5.52	2.29	3.31	0.56

Insertion depth = L - A.  
A. Gasket not included.

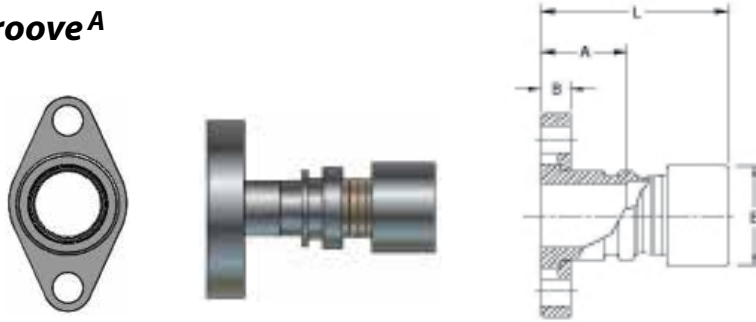
### Flange, Extended 90° Elbow With Gasket Groove<sup>A</sup>



Pipe Size NPS in.	Ordering Information			Dimensions, in.					
	Fitting Material	Shape	Fitting Size PXX	Part Length (Uninstalled) L1	Part Length (Uninstalled) L2	E	Take-Out A	Take-Out B	C
3/8	CS	-FLNGEL90EP-RR-	P06	6.06	2.81	1.24	4.70	2.19	0.41
3/4	CS	-FLNGEL90EP-RR-	P12	5.35	3.05	1.60	3.73	2.25	0.56
1	CS	-FLNGEL90EP-RR-	P16	7.21	3.60	7.95	5.23	2.63	0.56

Insertion depth = L - A.  
A. Gasket not included.

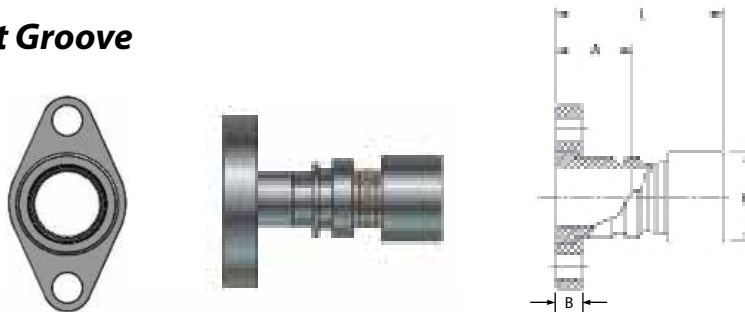
## Flange With Gasket Groove<sup>A</sup>



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

Insertion depth = L - A.  
A. Gasket not included.

## Flange Without Gasket Groove

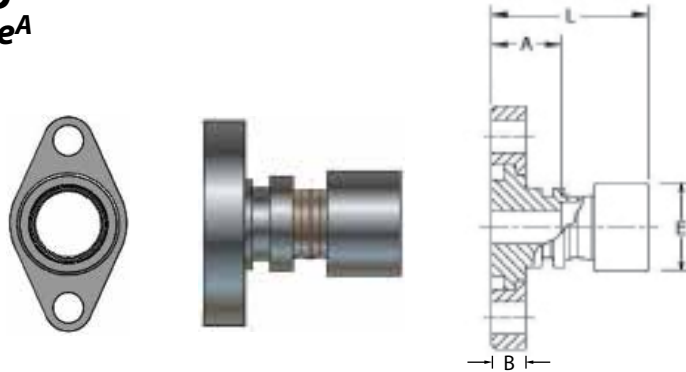


Pipe Size NPS in.	Ordering Information			Dimensions, in.			
	Fitting Material	Shape	Fitting Size PXX	Part Length (Uninstalled) L	E	Take-Out A	B
3/8	CS	-FLNG-NG-RR-	P06	2.70	1.24	1.33	0.41
1/2	CS	-FLNG-NG-RR-	P08	2.77	1.46	1.34	0.44
3/4	CS	-FLNG-NG-RR-	P12	3.28	1.60	1.66	0.56
1	CS	-FLNG-NG-RR-	P16	3.66	1.95	1.68	0.56
1 1/4	CS	-FLNG-NG-RR-	P20	4.02	2.29	1.81	0.56

Insertion depth = L - A.

# RAILROAD PIPE SOLUTIONS

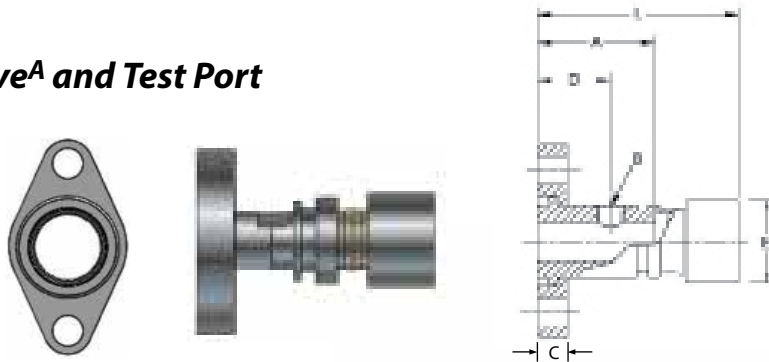
## Reducing Flange With Gasket Groove<sup>A</sup>



Pipe Size NPS in.	Ordering Information			Dimensions, in.			
	Fitting Material	Shape	Fitting Size PXX <sup>B</sup>	Part Length (Uninstalled) L	E	Take-Out A	B
1/2 to 3/8	CS	-RFLNG-RR-	P08-P06	2.39	1.24	1.01	0.44
3/4 to 3/8	CS	-RFLNG-RR-	P12-P06	2.51	1.24	1.14	0.56
3/4 to 1/2	CS	-RFLNG-RR-	P12-P08	2.58	1.46	1.15	0.56
1 to 3/8	CS	-RFLNG-RR-	P16-P06	2.51	1.24	1.14	0.56
1 to 1/2	CS	-RFLNG-RR-	P16-P08	2.58	1.46	1.15	0.56
1 to 3/4	CS	-RFLNG-RR-	P16-P12	2.84	1.60	1.23	0.56
1 1/4 to 3/4	CS	-RFLNG-RR-	P20-P12	2.91	1.60	1.29	0.56
1 1/4 to 1	CS	-RFLNG-RR-	P20-P16	3.28	1.95	1.30	0.56

Insertion depth = L - A.  
 A. Gasket not included.  
 B. Fitting size refers to flange size first, Lokring end connection size second.  
 Example: P-20-P16 is 1 1/4 in. flange by a 1 in. Lokring end connection.

## Flange With Gasket Groove<sup>A</sup> and Test Port



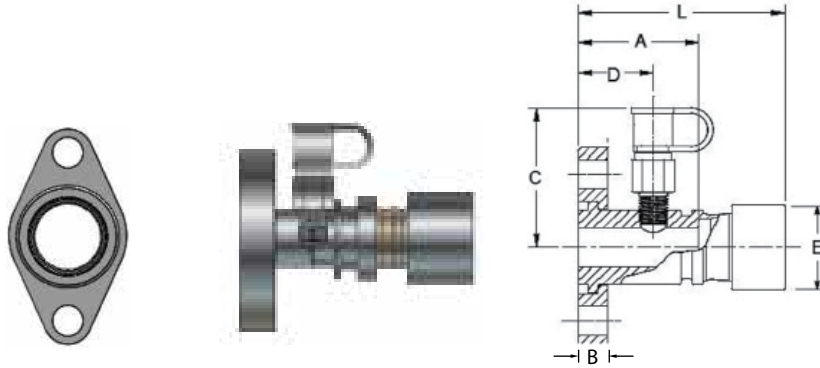
Pipe Size NPS in.	Ordering Information			Dimensions, in.					
	Fitting Material	Shape	Fitting Size PXX	Part Length (Uninstalled) L	E	Take-Out A	Female Test Port B	D	C
3/4	CS	-TFLNG-RR-	P12	3.96	1.60	2.35	1/4-18	1.41	0.56

Insertion depth = L - A.  
 A. Gasket not included.



## Flange

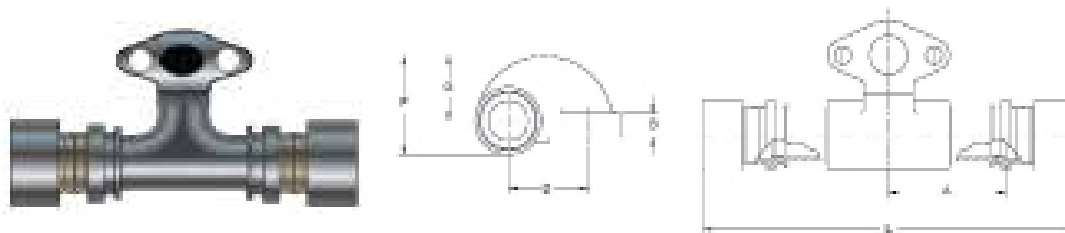
With Gasket Groove<sup>A</sup> and Test Port with CEJN® Quick Connect Fitting



Pipe Size NPS in.	Ordering Information			Dimensions, in.					
	Fitting Material	Shape	Fitting Size PXX	Part Length (Uninstalled) L	Take-Out A	C	D	E	B
3/4	CS	-TFLNG-RR-	P12-TF	3.96	2.35	2.22	1.41	1.60	0.56

Test fitting is a standard 1/4 in. male quick connect.  
 Insertion depth = L - A.  
 A. Gasket not included.

## Branch Pipe Tee

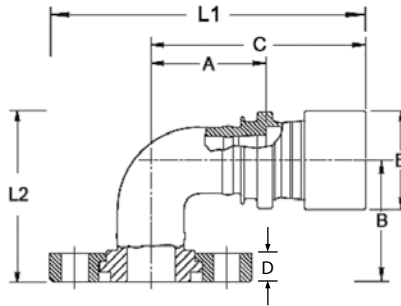


Pipe Size NPS in.	Ordering Information			Dimensions, in					
	Fitting Material	Shape	Fitting Size PXX-PXX	Part Length (Uninstalled) L	Take-Out A	Take-Out B	Take-Out D	F	G
1 1/4 to 1	CS	-BRANCH-RTEE-RR-	P20-F16	12.10	3.85	0.75	2.62	3.20	2.06

Insertion depth = L/2 - A.

# RAILROAD PIPE SOLUTIONS

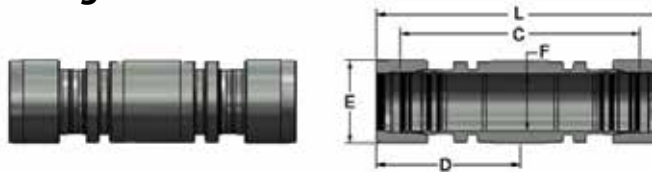
## 90° Elbow Flange With Gasket Groove<sup>A</sup>



Pipe Size NPS in.	Ordering Information			Dimensions, in.						
	Fitting Material	Shape	Fitting Size PXX	Part Length (Uninstalled) L1	Part Length (Uninstalled) L2	Take-Out A	Take-Out B	Take-Out C	E	D
3/8	CS	-FLNG-EL90-RR	P06	5.90	2.81	3.19	2.19	4.56	1.24	0.41
1/2	CS	-FLNG-EL90-RR	P08	6.87	3.05	3.25	2.25	4.68	1.46	0.44
3/4	CS	-FLNG-EL90-RR	P12	6.87	3.05	3.25	2.25	4.87	1.60	0.56
1	CS	-FLNG-EL90-RR	P16	7.88	3.60	3.73	2.63	5.71	1.95	0.56
1 1/4	CS	-FLNG-EL90-RR	P20	7.28	3.92	2.63	2.78	4.84	2.29	0.56

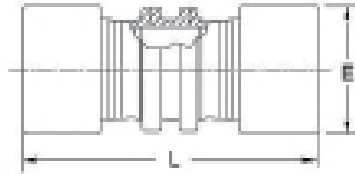
Insertion depth = C - A.  
A. Gasket not included.

## Couplings, Extended With Through-Bore Design



Pipe Size NPS in.	Ordering Information			Dimensions, in.				
	Fitting Material	Shape	Fitting Size PXX-YYFPT	Part Length (Uninstalled) L	E	C	D	F
1/4	CS	-BHP2-	P04-P04	4.91	1.05	4.15	2.07	0.57
3/8	CS	-BHP2-	P06-P06	5.33	1.24	4.49	2.25	0.71
1/2	CS	-BHP2-	P08-P08	5.47	1.46	4.62	2.31	0.88
3/4	CS	-BHP2-	P12-P12	6.00	1.60	5.09	2.54	1.09
1	CS	-BHP2-	P16-P16	6.97	1.95	5.84	2.99	1.35
1 1/4	CS	-BHP2-	P20-P20	7.42	2.29	6.13	3.06	1.75
1 1/2	CS	-BHP2-	P24-P24	7.90	2.61	6.56	3.28	1.94
2	CS	-BHP2-	P32-P32	9.54	3.25	8.02	4.01	2.54

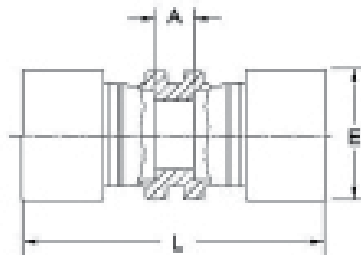
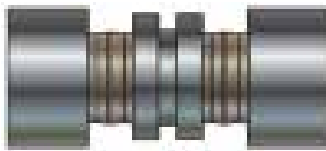
## Repair Coupling Without Internal Stop



Pipe Size NPS in.	Ordering Information			Dimensions, in.		
	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
1/2	CS	-RCPL-	P08	3.33	1.46	N/A
3/4	CS	-RCPL-	P12	3.78	1.60	N/A
1	CS	-RCPL-	P16	4.55	1.95	N/A
1 1/4	CS	-RCPL-	P20	5.02	2.29	N/A

Lokring carbon steel repair couplings are "slip-over" couplings made without an internal stop 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 stainless steel pipe fittings; and their temperature ratings are the same of those of carbon steel fittings.

## Coupling With Internal Stop

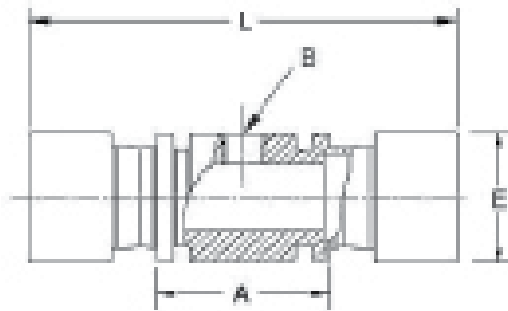
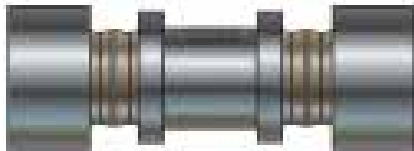


Pipe Size NPS in.	Ordering Information			Dimensions, in.		
	Fitting Material	Shape	Fitting Size PXX	Part Length (Uninstalled) L	E	Take-Out A
3/8	CS	-CPL-	P06	3.20	1.24	0.45
1/2	CS	-CPL-	P08	3.32	1.46	0.46
3/4	CS	-CPL-	P12	3.78	1.60	0.55
1	CS	-CPL-	P16	4.55	1.95	0.59
1 1/4	CS	-CPL-	P20	5.02	2.29	0.59

Insertion depth =  $(L - A)/2$ .

# RAILROAD PIPE SOLUTIONS

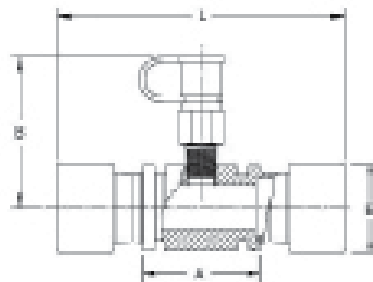
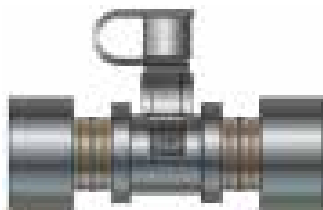
## Test Coupling With Test Port



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

Insertion depth =  $(L - A)/2$ .

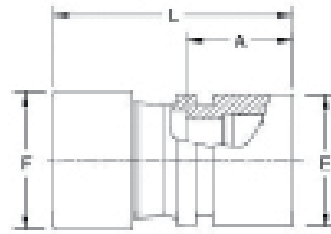
## Test Coupling With Test Port with CEJN Quick Connect Fitting



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

Test fitting is a standard 1/4 in. male quick connect.  
Insertion depth =  $(L - A)/2$ .

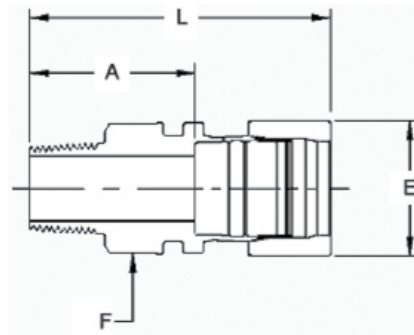
## Female NPT Adapter



Pipe Size NPS in.	Ordering Information				Dimensions, in.		
	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	2.35	1.24	0.98
1/2	CS	-ADPT-	P08	1/2 FPT	2.41	1.46	0.98
3/4	CS	-ADPT-	P12	3/4 FPT	3.66	1.60	2.05
1	CS	-ADPT-	P16	1 FPT	4.35	1.95	2.38
1 1/4	CS	-ADPT-	P20	1 1/4 FPT	3.96	2.29	1.75

Insertion depth = L - A.

## Male NPT Adapter

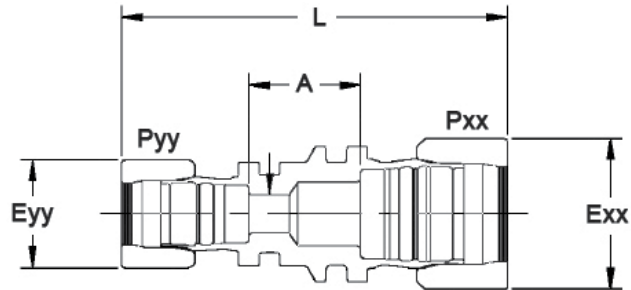


Pipe Size NPS in.	Ordering Information				Dimensions, in.		
	Fitting Material	Shape	Fitting Size PXX	NPT Size	Part Length (Uninstalled) L	E	Take-Out A
1/4	CS	-ADPT-	P04	1/4 MPT	2.71	1.05	1.47
3/8	CS	-ADPT-	P06	3/8 MPT	2.71	1.24	1.34
1/2	CS	-ADPT-	P08	1/2 MPT	3.12	1.46	1.69
3/4	CS	-ADPT-	P12	3/4 MPT	3.52	1.60	1.90
1	CS	-ADPT-	P16	1 MPT	4.34	1.95	2.36
1 1/4	CS	-ADPT-	P20	1 1/4 MPT	4.40	2.29	2.19

Insertion depth = L - A.

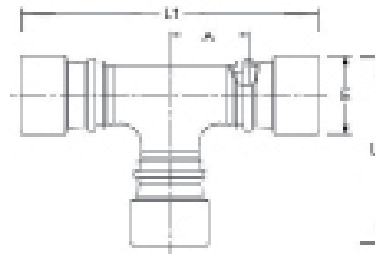
# RAILROAD PIPE SOLUTIONS

## Reducer



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

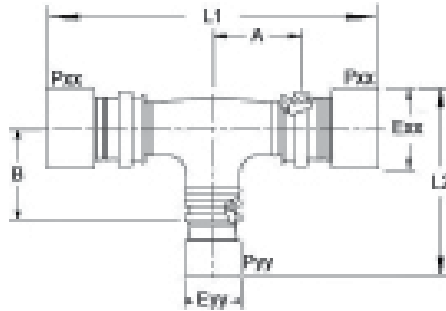
## Tee



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

Insertion depth =  $(L1 - 2A) / 2$  and  $L2 - A - 1/2E$ .

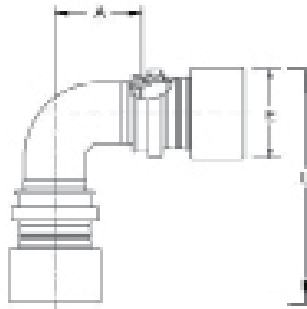
## Reducing Branch Tee



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

Insertion depth =  $(L1 - 2A)/2$  and  $L2 - 1/2Exx - B$ .

## 90° Elbow



Pipe Size NPS in.	Ordering Information			Dimensions, in.		
	Fitting Material	Shape <sup>A</sup>	Fitting Size PXX	Part Length (Uninstalled) L	E	Take-Out A
1/2	CS	-EL90LR-	P08	4.31	1.46	2.15
	CS	-EL90SR-	P08	3.78	1.46	1.62
3/4	CS	-EL90LR-	P12	4.65	1.60	2.23
	CS	-EL90SR-	P12	4.03	1.60	1.62
1	CS	-EL90LR-	P16	5.22	1.95	2.39
1 1/4	CS	-EL90LR-	P20	5.86	2.29	2.50

45° elbows are available upon request.

Insertion depth =  $L - A - 1/2E$ .

A. SR = short radius; LR = long radius.

# RAILROAD PIPE SOLUTIONS

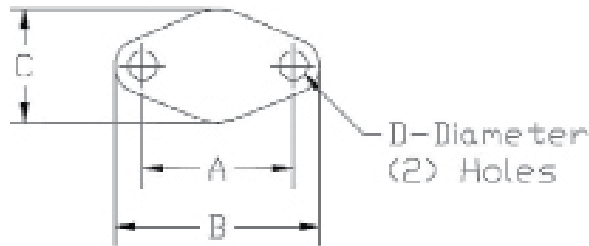
## Installation Applications

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 representative for these other applications.**



## Recommended Gaskets and Fasteners



Dimensions	NPS Pipe Size, in.				
	3/8	1/2	3/4	1	1 1/4
	Dimensions, in.				
A	1 15/16	2 3/8	2 3/4	3	3 3/4
B	2 11/16	3 3/8	3 3/4	4	4 7/8
C	1 9/16	1 15/16	2 1/16	2 1/4	2 5/8
D	13/32	17/32	17/32	17/32	11/16
Gaskets and Cap Screws					
Gasket Part Number	93839	93840	93841	93986	94790
Cap Screw Size	3/8 × 1	1/2 × 1 1/4	1/2 × 1 1/4	1/2 × 1 1/4	5/8 × 1 1/2
Cap Screw Part Number	562052	305380	305380	305380	563765

This table is used to identify fittings by flange size.  
Part numbers, shown for cross-reference purposes only, belong to Webtec Corporation.



## Loktool® Installation Tool

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 in. The kit also contains all the gauges needed to help ensure and leak-tight installation.



### **Installation Kits**

#### **MTK50-RR Tool Kit**

MTK50-RR railroad tool kit complete with carrying case for use with 3/8 to 1 1/4 in. pipe.

Includes tool head, inserts, and gauges. Pump kit is required.

#### **1/4 in. Insert Kit**

Two insert kits, part numbers 7080191 and 7080192, are required for 1/4 in. end connections.



### **Pump Kits**

To power the Loktool, an electric, pneumatic, or manually operated hydraulic pump is required, along with a 15 ft hose with quick connect couplings.

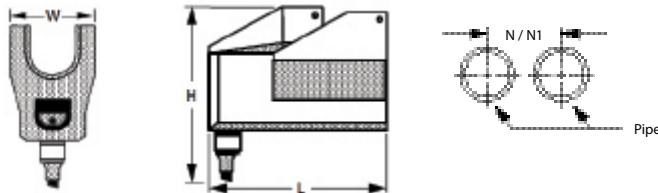
Includes pump, hose, and case.

Part Number 9080050	Manual pump kit
Part Number 9080189	Pneumatic pump kit
Part Number 9080184	Electric pump kit

# RAILROAD PIPE SOLUTIONS

## Tooling Dimensions

### MTK50-RR Tool Kit



Carbon Steel Pipe Fittings						
Dimensions, in.						
Pipe Size (Fitting Size)	Pipe OD	Tool Width W	Tool Length L	Tool Height H	Minimum Spacing Center to Center N	Minimum Spacing Center to Center, with fittings adjacent to each other N1
1.4 in. NPS (P04) <sup>A</sup>	0.540	2.36	5.00	4.95	1.58	1.83
3/8 in. NPS (P06)	0.675	4.21	7.29	5.33	2.58	2.85
1/2 in. NPS (P08)	0.840	4.21	7.29	5.33	2.66	2.96
3/4 in. NPS (P12)	1.050	4.21	7.29	5.33	2.76	3.05
1 in. NPS (P16)	1.315	4.21	7.29	5.33	2.90	3.21
1 1/4 in. NPS (P20)	1.660	4.21	7.29	5.33	3.07	3.41

Consult your authorized Lokring representative for details and other available options.

A. Two insert kits, part numbers 7080191 and 7080192, are required with MTK50-RR tool kit.

## Warranty Information

### The Lokring Technology, LLC Limited Lifetime Warranty

Lokring and its authorized distributors warrant to the purchaser of Lokring components from them that these components shall be free from defects in material and workmanship under normal use and service for the life of the product.

The purchaser's remedies shall be limited to replacement of any Lokring components that fail through a defect in material or workmanship.

**IN NO EVENT SHALL LOKRING, OR ITS AUTHORIZED DISTRIBUTORS, BE LIABLE FOR ANY OTHER DAMAGES (WHETHER DIRECT, INDIRECT, FORESEEABLE, CONSEQUENTIAL, OR INCIDENTAL) SUFFERED BY THE PURCHASER OR ANYONE ELSE ARISING OUT OF THE USE OF LOKRING PRODUCTS. THIS EXPRESS WARRANTY DISCLAIMS ALL OTHER WARRANTIES, GUARANTEES, AND REPRESENTATIONS, EXPRESS OR IMPLIED.**

### Safe Selection

System design and system safety are the ultimate responsibilities of the end-user. Consideration to system function, material 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.



# A FITTING END TO YOUR PIPING CONCERNS™



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