



Section M

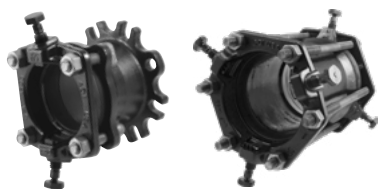
Ford® Cast Couplings and Adapters



Ford Couplings

Contents

	Page
Coupling Numbering System	3
Features of Ford Cast Couplings, Style FC1 and FC2A	4
Ford Couplings, Style FC1	5
Ford Extended Length Ductile Iron Couplings, Style FC1-L12	6
Ford Transition Couplings, Style FC2A	7
Transition Coupling Parts	8
Ford Extended Length Transition Couplings, Style FC2A-L12	9
Extended Length Transition Coupling Parts	10
Ford Ultra-Flex Wide Range Couplings, Style FC2W	11
Ford Ultra-Flex Wide Range Long Sleeve Couplings, Style FC2W-L12	12
Ford Insulating Boots, Style FIB	12
Ford Flanged Coupling Adapters, Style FFCA	13
Ford Cut-In Couplings, Style FRR	14
Ford End Cap Couplings, Style FEC and FC2W-EC	15
Ford Mechanical Joint Flange Adapter, Style MJFA	16 - 17
Ford Mechanical Joint Coupling, Style MJC	18 - 19
Ford FC2W Ultra-Flex Installation Instructions	20
Installation Instructions for Ford Flexible Couplings	20
Stainless Steel Inserts for HDPE Pipe	21
Pipe O.D. Chart	22
Warranty	24



For restrained couplings and flange adapters, see Catalog Section U.

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Ford Cast Coupling Numbering System

TYPE OF COUPLING

- FC1** = Cast Coupling
- FC2A** = Cast Transition Coupling
- FFCA** = Flanged Coupling Adapter
- FRR** = Cut-In Coupling
- FEC** = End Cap Coupling

OPTIONAL FEATURES

- SH** = Type 304 Stainless Steel Nuts and Bolts
 - ESH** = Type 304 Stainless Steel Nuts and Bolts with Epoxy Coated Coupling
 - N** = NBR (Buna-N) Gaskets
 - EPDM** = EPDM Gaskets
 - BBN** = Blue Fluorocarbon Coated Nuts and Bolts
 - Q** = Type 316 stainless steel nuts and bolts
 - Z** = Type 316 stainless steel nuts and bolts with Epoxy Coated Coupling
 - L12** = 12" Long Center Sleeve Length (for FC1 4" and 6" FC2A - 4" - 12")
- FOR FFCA COUPLING ADAPTERS**
- AS2** = Two Anchor Studs
 - AS4** = Four Anchor Studs

FC2A - 663 - 720 - SH

↑
one end

↑
other end

OD SIZE

Use listed catalog sizes.

For most coupling types each number indicates top end of range.

Only the FC1 and FC2A have an OD size for each coupling end.

See item listings in catalog section to ensure that desired sizes and options are available.

TYPE OF COUPLING

- MJFA** = Mechanical Joint Flange Adapter
- MJC** = Mechanical Joint Couplings

MJFA - 6 - I

- 3-I** = 3"
- 4-I** = 4"
- 6-I** = 6"
- 8-I** = 8"
- 10-I** = 10"
- 12-I** = 12"

↑
NOMINAL PIPE SIZE

TYPE OF COUPLING

- FC2W** = Ductile Iron Wide Range Coupling (epoxy coated, NBR (Buna-N) gaskets)

FC2W - 6 - SH

NOMINAL PIPE SIZE

- 3** = 3"
- 4** = 4"
- 6** = 6"
- 8** = 8"
- 10** = 10"
- 12** = 12"
- 16** = 16"

OPTIONAL FEATURES

- SH** = Type 304 Stainless Steel Nuts and Bolts
 - L12** = 12" Long Center Sleeve (sizes 3" - 12")
 - EPDM** = EPDM Gasket
 - EC** = End Cap with 2" FIP Threaded Boss (sizes 4"-12")
 - BBN** = Blue Fluorocarbon Coated Nuts and Bolts
- (316 stainless steel nuts and bolts available - contact factory)

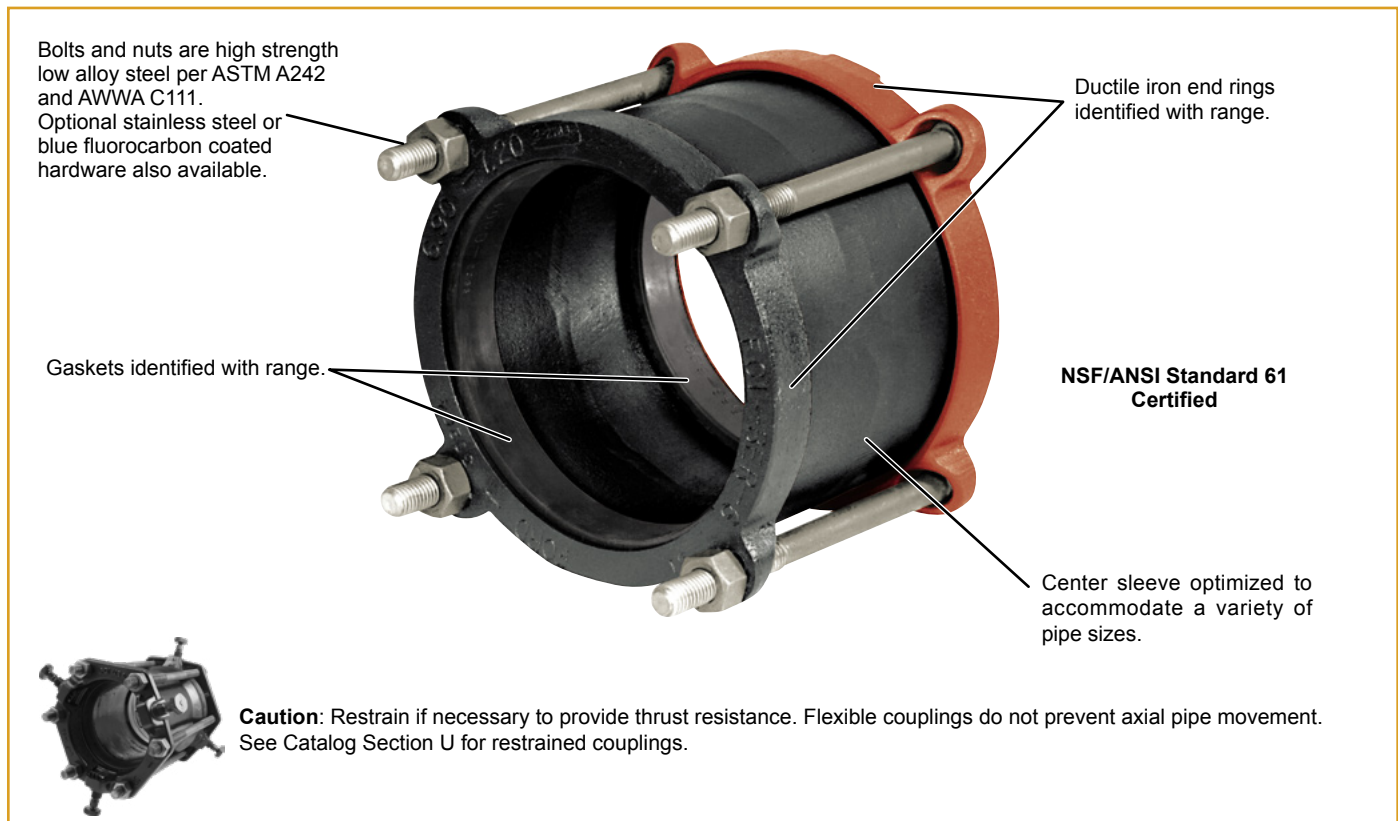
Ford offers many products that are certified to ANSI/NSF Standard 61. To verify if a product is certified to ANSI/NSF Standard 61, contact the Ford Meter Box Customer Service Department at 260-563-3171 or visit fordmeterbox.com. Ford Meter Box meets your need for ANSI/NSF Standard 61 approved items with products that are proven and reliable.



Information

General Features of Ford Cast Couplings

Ford Cast Couplings offer an easy and economical way of joining pipe, whether the pipe is of the same nominal size and type or different at each coupling end. Ford FC1, FC2A and most cast couplings offer the following quality features:

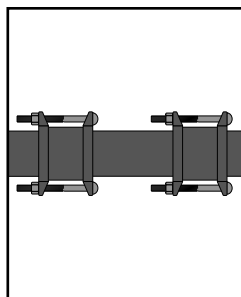


Specifications:

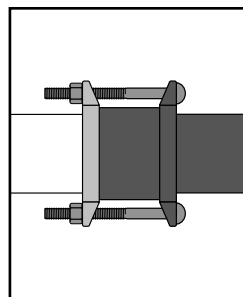
Ford Cast Couplings as listed in Catalog Section M are manufactured in accordance with the design, testing and performance standards of AWWA C219.

- Center Sleeve -** Cast from ductile iron per ASTM A536 Grade 65-45-12.
- End Rings -** Cast from ductile iron per ASTM A536 Grade 65-45-12. End rings are color coded for easy identification.
- Gaskets -** SBR rubber per ASTM D2000. Gaskets have size and end ring color code embossed for easy identification. Optional armored gaskets are available on Style FC1 and Style FC2A in 4" thru 12" nominal pipe sizes. Optional NBR (Buna-N) or EPDM gaskets are available.
- Bolts and Heavy Hex Nuts -** High strength low alloy per ASTM A242 and AWWA C111. Optional blue fluorocarbon coating available. Optional stainless steel also available.
- Finish -** Shop coat. Optional fusion bonded epoxy coating is available.

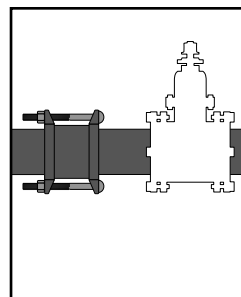
Typical Uses for Ford Cast Couplings



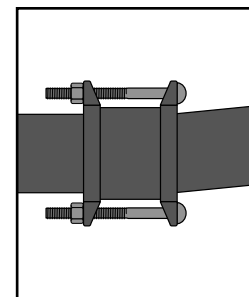
To repair split pipe



To couple different types of pipe



To install (cut-in) hydrants and valves



To connect misaligned pipe

Ford Couplings

Style FC1



Style FC1 for Cast, Steel,
Ductile Iron or PVC Pipe

Rated Working Pressure: Up to 300 psi
based on pipe type

Suggested uses for Ford FC1 Couplings include water main repair, joining of plain end pipe, valve and hydrant installation, and flexible joint installation at critical areas of water main stress.

The FC1 Couplings are constructed entirely of ductile iron components, permitting a strong, durable connection.

Only the FC1 offers one gasket and end ring that fits all PVC and ductile iron pipe in the most popular sizes: 4", 6", and 8". Gasket ranges are embossed on each gasket for easy identification.

Caution: Restrain if necessary to provide thrust resistance.

Flexible couplings do not prevent axial pipe movement.

See Catalog Section U for restrained couplings.

NOM. PIPE SIZE	CATALOG NUMBER PREFIX	GASKET RANGE		END RING COLOR CODE	BY	GASKET RANGE		END RING COLOR CODE	CENTER SLEEVE LENGTH	NUMBER OF BOLTS	APPROX. WEIGHT LBS
		1ST. HALF CAT. NO.				2ND HALF CAT. NO.					
2"	FC1-	2.34	— 2.63	Red	X	2.34	— 2.63	Red	4"	2	6
2 1/2"	FC1-	See 2" FC2A on page M-7									
4"	FC1-	4.00	— 4.00	Red	X	4.00	— 4.00	Red	5"	3	14
		4.50	— 4.80	Red		4.50	— 4.80	Red			
		4.80	— 5.10	Black		4.80	— 5.10	Black			
6"	FC1-	6.00	— 6.00	Red	X	6.00	— 6.00	Red	5"	4	20
		6.30	— 6.30	Red		6.30	— 6.30	Red			
		6.63	— 6.90	Red		6.63	— 6.90	Red			
		6.90	— 7.20	Black		6.90	— 7.20	Black			
8"	FC1-	8.00	— 8.00	Red	X	8.00	— 8.00	Red	5"	5	29
		8.16	— 8.40	Red		8.16	— 8.40	Red			
		8.63	— 9.05	Red		8.63	— 9.05	Red			
		9.05	— 9.40	Black		9.05	— 9.40	Black			
10"	FC1-	10.20	— 10.50	Red	X	10.20	— 10.50	Red	6"	6	41.5
		10.75	— 10.75	Red		10.75	— 10.75	Red			
		11.10	— 11.46	Black		11.10	— 11.46	Black			
12"	FC1-	12.24	— 12.50	Red	X	12.24	— 12.50	Red	6"	7	54.5
		12.75	— 12.75	Red		12.75	— 12.75	Red			
		13.20	— 13.56	Black		13.20	— 13.56	Black			

To order: Locate the gasket range that accommodates your pipe O.D. for both pipe ends. Use the top range of each gasket size to determine the part number. For example, to connect pipe with an O.D. of 6.63 to a pipe with an O.D. of 7.10, the catalog number is FC1-690-720. For 100% domestic content, contact factory for pricing and availability.

- Options:**
- SH** Standard coated coupling with Type 304 stainless steel nuts and bolts. Add "-SH" to the catalog number.
 - E** Epoxy coated coupling. Add "-E" to the catalog number.
 - ESH** Epoxy coated coupling with Type 304 stainless steel nuts and bolts. Add "-ESH" to the catalog number.
 - Q** Standard coated coupling with Type 316 stainless steel nuts and bolts. Add "-Q" to the catalog number.
 - Z** Epoxy coated couplings with Type 316 stainless steel nuts and bolts. Add "-Z" to the catalog number.
 - BBN** Blue fluorocarbon coating on HSLA nuts and bolts. Add "-BBN" to catalog number.
 - N** NBR (Buna-N) gasket, standard coated coupling and standard alloy bolts. Add "-N" to the catalog number.
 - EPDM** EPDM gasket. Add "-EPDM" to the catalog number.

Example: FC1-690-720-ESH is an FC1 coupling with epoxy coating and stainless steel nuts and bolts.

Component Parts for Style FC1 Couplings

NOM. PIPE SIZE	GASKET CAT. No.	END RING CAT. No.	CENTER SLEEVE CAT. No.	BOLT AND NUT CAT. No.
2"	FC1G-234-263	FC1-RER-2	FC1-CS-2	FBN-58-65
	FC1G-400	FC1-RER-4		
4"	FC1G-450-480	FC1-RER-4	FC1-CS-4	FBN-58-8
	FC1G-480-510	FC1-BER-4		
6"	FC1G-600	FC1-RER-6	FC1-CS-6	FBN-58-8
	FC1G-630	FC1-RER-6		
	FC1G-663-690	FC1-RER-6		
	FC1G-690-720	FC1-BER-6		
8"	FC1G-800	FC1-RER-8	FC1-CS-8	FBN-58-8
	FC1G-816-840	FC1-RER-8		
	FC1G-863-905	FC1-RER-8		
	FC1G-905-940	FC1-BER-8		
10"	FC1G-1020-1050	FC1-RER-10	FC1-CS-10	FBN-58-9
	FC1G-1075	FC1-RER-10		
	FC1G-1110-1146	FC1-BER-10		
12"	FC1G-1224-1250	FC1-RER-12	FC1-CS-12	FBN-58-9
	FC1G-1275	FC1-RER-12		
	FC1G-1320-1356	FC1-BER-12		

Ford Extended Length Couplings

Style FC1-L12



Suggested uses for Ford FC1-L12 Couplings include water main repair, joining of plain end pipe, valve and hydrant installation, and flexible joint installation at critical areas of water main stress.

The FC1 Couplings are constructed entirely of ductile iron components, permitting a strong, durable connection.

Only the FC1-L12 offers one gasket and end ring that fits all PVC and ductile iron pipe in the most popular sizes: 4" and 6", with 12" center sleeve length. Gasket ranges are embossed on each gasket for easy identification. End rings are color coded to match the color embossed on each gasket.

Style FC1-L12 for Cast, Ductile Iron or PVC Pipe
Rated Working Pressure: Up to 300 psi

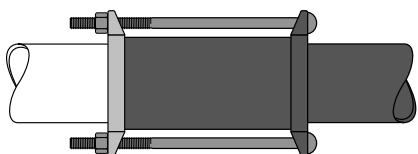
Caution: Restrain if necessary to provide thrust resistance.
Flexible couplings do not prevent axial pipe movement.
See Catalog Section U for restrained couplings.

NOM. PIPE SIZE	CATALOG NUMBER PREFIX	GASKET RANGE		END RING COLOR CODE	BY	GASKET RANGE		END RING COLOR CODE	CATALOG NUMBER SUFFIX	CENTER SLEEVE LENGTH	NUMBER OF BOLTS	APPROX. WEIGHT LBS
		1ST. HALF CAT. NO.	2ND HALF CAT. NO.			1ST. HALF CAT. NO.	2ND HALF CAT. NO.					
4"	FC1-	4.00 — 4.00	4.00	Red	X	4.00 — 4.00	4.00	Red	-L12	12"	3	29
		4.50 — 4.80	4.80	Red		4.50 — 4.80	4.80	Red				
		4.80 — 5.10	5.10	Black		4.80 — 5.10	5.10	Black				
6"	FC1-	6.00 — 6.00	6.00	Red	X	6.00 — 6.00	6.00	Red	-L12	12"	4	42
		6.30 — 6.30	6.30	Red		6.30 — 6.30	6.30	Red				
		6.63 — 6.90	6.90	Red		6.63 — 6.90	6.90	Red				
		6.90 — 7.20	7.20	Black		6.90 — 7.20	7.20	Black				

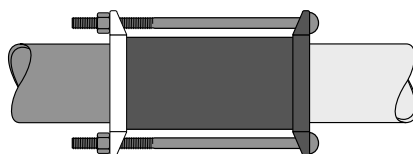
To order: Locate the gasket range that accommodates your pipe O.D. for both pipe ends. Use the top range of each gasket size to determine the part number. For example, to connect pipe with an O.D. of 6.63 to a pipe with an O.D. of 7.10, the catalog number is FC1-690-720-L12.

- Options:**
- SH** Standard coated coupling with Type 304 stainless steel nuts and bolts. Add "-SH" to the catalog number.
 - ESH** Epoxy coated coupling with Type 304 stainless steel nuts and bolts. Add "-ESH" to the catalog number.
 - Q** Standard coated coupling with Type 316 stainless steel nuts and bolts. Add "-Q" to the catalog number.
 - Z** Epoxy coated coupling with Type 316 stainless steel nuts and bolts. Add "-Z" to the catalog number.
 - BBN** Blue fluorocarbon coating on HSLA nuts and bolts. Add "-BBN" to catalog number.
 - N** NBR (Buna-N) gasket, standard coated coupling and standard alloy bolts. Add "-N" to the catalog number.
 - EPDM** EPDM gasket. Add "-EPDM" to the catalog number.

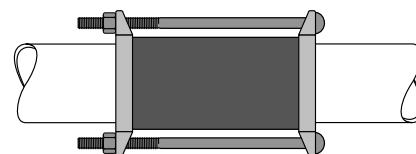
Example: FC1-690-720-L12-ESH is an FC1 coupling with epoxy coating and stainless steel nuts and bolts with 12" center sleeve.



Steel Size PVC x Ductile Iron



A/C x C900 PVC



Steel Size PVC x Steel Size PVC

Component Parts for Style FC1-L12 Extended Length Couplings

NOM. PIPE SIZE	GASKET CAT. NO.	END RING CAT. NO.	CENTER SLEEVE CAT. NO.	BOLT AND NUT CAT. NO.
4"	FC1G-400	FC1-RER-4	FC1-CS-4-L12	FBN-58-155
	FC1G-450-480	FC1-RER-4		
	FC1G-480-510	FC1-BER-4		
6"	FC1G-600	FC1-RER-6	FC1-CS-6-L12	FBN-58-155
	FC1G-630	FC1-RER-6		
	FC1G-663-690	FC1-RER-6		
	FC1G-690-720	FC1-BER-6		

Ford Transition Couplings

Style FC2A



Ford Iron Transition Couplings provide a convenient method of joining two pipes of the same nominal size but with different O.D.s. Gaskets are embossed and end rings are color coded for easy identification. The gaskets are identified with the exact O.D. range and the end ring color with which it is to be used. Generally, red signifies use on steel size PVC, black for iron pipe and Class 150 A/C, and white/gray for Class 200 A/C. See the table below for exact ranges. Larger, fabricated steel couplings are detailed in Catalog Section N.

Caution: Restrain if necessary to provide thrust resistance.

Flexible couplings do not prevent axial pipe movement.

See Catalog Section U for restrained couplings.

Rated Working Pressure: 250 psi (sizes 2" - 12")
150 psi (sizes 14" - 24")

NOM. PIPE SIZE	CATALOG NUMBER PREFIX	GASKET RANGE		END RING COLOR CODE	BY	GASKET RANGE		END RING COLOR CODE	CENTER SLEEVE LENGTH	NUMBER OF BOLTS	APPROX. WEIGHT LBS
		1ST. HALF CAT. NO.	2ND HALF CAT. NO.			1ST. HALF CAT. NO.	2ND HALF CAT. NO.				
2"	FC2A-	2.30 — 2.45	2.30 — 2.45	Black	X	2.30 — 2.45	2.30 — 2.45	Black	4"	2	9
		2.40 — 2.65	2.40 — 2.65	Black		2.40 — 2.65	2.40 — 2.65	Black			
		2.65 — 2.88	2.65 — 2.88	Black		2.65 — 2.88	2.65 — 2.88	Black			
3"	FC2A-	3.13 — 3.13	3.13 — 3.13	Red	X	3.13 — 3.13	3.13 — 3.13	Red	4"	3	14
		3.45 — 3.60	3.45 — 3.60	Red		3.45 — 3.60	3.45 — 3.60	Red			
		3.70 — 3.88	3.70 — 3.88	Black		3.70 — 3.88	3.70 — 3.88	Black			
		3.91 — 4.06	3.91 — 4.06	Black		3.91 — 4.06	3.91 — 4.06	Black			
		4.07 — 4.20	4.07 — 4.20	Black		4.07 — 4.20	4.07 — 4.20	Black			
4"	FC2A-	4.00 — 4.00	4.00 — 4.00	Red	X	4.00 — 4.00	4.00 — 4.00	Red	5"	3	16
		4.50 — 4.50	4.50 — 4.50	Red		4.50 — 4.50	4.50 — 4.50	Red			
		4.80 — 5.14	4.80 — 5.14	Black		4.80 — 5.14	4.80 — 5.14	Black			
		5.15 — 5.57	5.15 — 5.57	White/Gray		5.15 — 5.57	5.15 — 5.57	White/Gray			
6"	FC2A-	6.00 — 6.00	6.00 — 6.00	Red	X	6.00 — 6.00	6.00 — 6.00	Red	5"	4	24
		6.63 — 6.63	6.63 — 6.63	Red		6.63 — 6.63	6.63 — 6.63	Red			
		6.90 — 7.20	6.90 — 7.20	Black		6.90 — 7.20	6.90 — 7.20	Black			
		7.21 — 7.56	7.21 — 7.56	White/Gray		7.21 — 7.56	7.21 — 7.56	White/Gray			
8"	FC2A-	8.00 — 8.00	8.00 — 8.00	Red	X	8.00 — 8.00	8.00 — 8.00	Red	5"	5	34
		8.63 — 8.63	8.63 — 8.63	Red		8.63 — 8.63	8.63 — 8.63	Red			
		9.05 — 9.40	9.05 — 9.40	Black		9.05 — 9.40	9.05 — 9.40	Black			
		9.40 — 9.74	9.40 — 9.74	White/Gray		9.40 — 9.74	9.40 — 9.74	White/Gray			
10"	FC2A-	10.00 — 10.00	10.00 — 10.00	Red	X	10.00 — 10.00	10.00 — 10.00	Red	6"	6	48
		10.75 — 10.75	10.75 — 10.75	Red		10.75 — 10.75	10.75 — 10.75	Red			
		11.10 — 11.40	11.10 — 11.40	Black		11.10 — 11.40	11.10 — 11.40	Black			
		11.42 — 11.77	11.42 — 11.77	Black		11.42 — 11.77	11.42 — 11.77	Black			
		11.77 — 12.12	11.77 — 12.12	White/Gray		11.77 — 12.12	11.77 — 12.12	White/Gray			
12"	FC2A-	12.00 — 12.00	12.00 — 12.00	Black	X	12.00 — 12.00	12.00 — 12.00	Black	6"	7	62
		12.75 — 12.75	12.75 — 12.75	Black		12.75 — 12.75	12.75 — 12.75	Black			
		13.20 — 13.50	13.20 — 13.50	Black		13.20 — 13.50	13.20 — 13.50	Black			
		13.69 — 14.04	13.69 — 14.04	White/Gray		13.69 — 14.04	13.69 — 14.04	White/Gray			
		14.03 — 14.38	14.03 — 14.38	White/Gray		14.03 — 14.38	14.03 — 14.38	White/Gray			
14"	FC2A-	15.30 — 15.70	15.30 — 15.70	Black	X	15.30 — 15.70	15.30 — 15.70	Black	6"	9	83
		16.00 — 16.35	16.00 — 16.35	Red		16.00 — 16.35	16.00 — 16.35	Red			
		16.40 — 16.88	16.40 — 16.88	White/Gray		16.40 — 16.88	16.40 — 16.88	White/Gray			
16"	FC2A-	17.40 — 17.80	17.40 — 17.80	Black	X	17.40 — 17.80	17.40 — 17.80	Black	6"	10	103
		18.45 — 18.97	18.45 — 18.97	White/Gray		18.45 — 18.97	18.45 — 18.97	White/Gray			
		18.90 — 19.20	18.90 — 19.20	White/Gray		18.90 — 19.20	18.90 — 19.20	White/Gray			
18"	FC2A-	19.50 — 20.00	19.50 — 20.00	Black	X	19.50 — 20.00	19.50 — 20.00	Black	7"	11	111
20"	FC2A-	21.60 — 22.06	21.60 — 22.06	Black	X	21.60 — 22.06	21.60 — 22.06	Black	7"	12	125
24"	FC2A-	25.80 — 26.32	25.80 — 26.32	Black	X	25.80 — 26.32	25.80 — 26.32	Black	10"	14	183

To order: Locate the gasket range that accommodates your pipe O.D. for both ends of pipe. Use the top range of each gasket size to determine the part number. For example, to connect pipe with an O.D. of 6.90 to a pipe with an O.D. of 7.37, the catalog number is FC2A-720-756. For 100% domestic content, contact factory for pricing and availability.

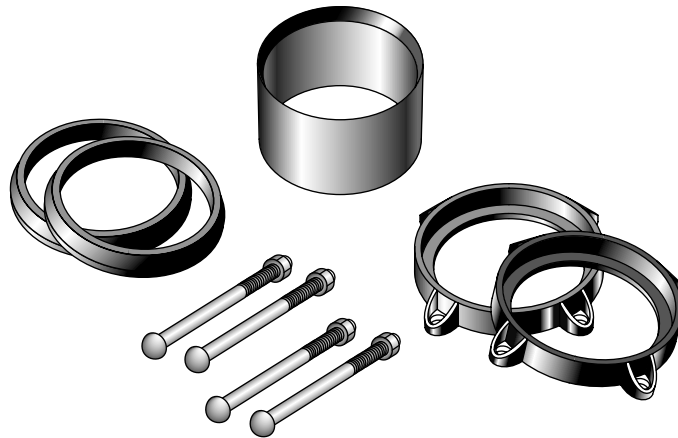
- Options:** SH Standard coated coupling with Type 304 stainless steel nuts and bolts. Add "-SH" to the catalog number.
 E Epoxy coated coupling. Add "-E" to the catalog number.
 ESH Epoxy coated coupling with Type 304 stainless steel nuts and bolts. Add "-ESH" to the catalog number.
 Q Standard coated coupling with Type 316 stainless steel nuts and bolts. Add "-Q" to the catalog number.
 Z Epoxy coated coupling with Type 316 stainless steel nuts and bolts. Add "-Z" to the catalog number.
 BBN Blue fluorocarbon coating on HSLA nuts and bolts. Add "-BBN" to catalog number.
 N NBR (Buna-N) gasket, standard coated coupling and standard alloy bolts. Add "-N" to the catalog number.
 EPDM EPDM gasket. Add "-EPDM" to the catalog number.

Example: FC2A-690-720-ESH is an FC2A coupling with epoxy coating and stainless steel nuts and bolts.

Note: For end cap options, see page M-15.

Ford Transition Coupling Parts

Style FC2A



Component Parts for Style FC2A Couplings

NOM. PIPE SIZE	GASKET CATALOG No.	END RING CATALOG No.	CENTER SLEEVE CATALOG No.	BOLT AND NUT CATALOG No.	BOLT AND NUT SIZE	NUMBER OF BOLTS REQUIRED
2"	FC2AG-230-245	FC2A-BER-2	FC2A-CS-2	FBN-58-65	5/8" x 6-1/2"	2
	FC2AG-240-265	FC2A-BER-2				
	FC2AG-265-288	FC2A-BER-2				
3"	FC2AG-313	FC2A-RER-3	FC2A-CS-3	FBN-58-65	5/8" x 6-1/2"	3
	FC2AG-345-360	FC2A-RER-3				
	FC2AG-370-388	FC2A-BER-3				
	FC2AG-391-406	FC2A-BER-3				
	FC2AG-407-420	FC2A-BER-3				
4"	FC2AG-400	FC2A-RER-4	FC2A-CS-4	FBN-58-8	5/8" x 8"	3
	FC2AG-450	FC2A-RER-4				
	FC2AG-480-514	FC2A-BER-4				
	FC2AG-515-557	FC2A-WER-4				
6"	FC2AG-600	FC2A-RER-6	FC2A-CS-6	FBN-58-8	5/8" x 8"	4
	FC2AG-663	FC2A-RER-6				
	FC2AG-690-720	FC2A-BER-6				
	FC2AG-721-756	FC2A-WER-6				
8"	FC2AG-800	FC2A-RER-8	FC2A-CS-8	FBN-58-8	5/8" x 8"	5
	FC2AG-863	FC2A-RER-8				
	FC2AG-905-940	FC2A-BER-8				
	FC2AG-940-974	FC2A-WER-8				
10"	FC2AG-1000	FC2A-RER-10	FC2A-CS-10	FBN-58-9	5/8" x 9"	6
	FC2AG-1075	FC2A-RER-10				
	FC2AG-1110-1140	FC2A-BER-10				
	FC2AG-1142-1177	FC2A-BER-10				
	FC2AG-1177-1212	FC2A-WER-10				
12"	FC2AG-1200	FC2A-BER-12	FC2A-CS-12	FBN-58-9	5/8" x 9"	7
	FC2AG-1275	FC2A-BER-12				
	FC2AG-1320-1350	FC2A-BER-12				
	FC2AG-1369-1404	FC2A-WER-12				
	FC2AG-1403-1438	FC2A-WER-12				
14"	FC2AG-1530-1570	FC2A-BER-14	FC2A-CS-14	FBN-58-105	5/8"x10-1/2"	9
	FC2AG-1600-1635	FC2A-RER-14				
	FC2AG-1640-1688	FC2A-WER-14				
	FC2AG-1740-1780	FC2A-BER-16				
16"	FC2AG-1845-1897	FC2A-WER-16	FC2A-CS-16	FBN-58-105	5/8"x10-1/2"	10
	FC2AG-1890-1920	FC2A-WER-16				
	FC2AG-1950-2000	FC2A-BER-18				
18"	FC2AG-2160-2206	FC2A-BER-20	FC2A-CS-20	FBN-58-105	5/8"x10-1/2"	12
20"	FC2AG-2160-2206	FC2A-BER-20	FC2A-CS-20	FBN-58-105	5/8"x10-1/2"	12
24"	FC2AG-2580-2632	FC2A-BER-24	FC2A-CS-24	FBN-58-135	5/8"x13-1/2"	14

To order: Specify desired quantity and order using catalog number.

Ford Extended Length Transition Couplings

Style FC2A-L12



The extended length version of the Ford FC2A offers the same advantages as the standard FC2A (page M-7) with the added versatility of a 12-inch long center sleeve.

Caution: Restrain if necessary to provide thrust resistance.
Flexible couplings do not prevent axial pipe movement.
See Catalog Section U for restrained couplings.

Rated Working Pressure: 250 psi

NOM. PIPE SIZE	CATALOG NUMBER PREFIX	GASKET RANGE		END RING COLOR CODE	BY	GASKET RANGE		END RING COLOR CODE	CATALOG NUMBER SUFFIX	CENTER SLEEVE LENGTH	NUMBER OF BOLTS	APPROX. WEIGHT LBS
		1ST. HALF CAT. No.	2ND HALF CAT. No.			1ST. HALF CAT. No.	2ND HALF CAT. No.					
4"	FC2A-	4.00 — 4.00	4.00	Red	X	4.00 — 4.00	4.00	Red	-L12	12"	3	34
		4.50 — 4.50	4.50	Red		4.50 — 4.50	4.50	Red				
		4.80 — 5.14	5.14	Black		4.80 — 5.14	5.14	Black				
		5.15 — 5.57	5.57	White/Gray		5.15 — 5.57	5.57	White/Gray				
6"	FC2A-	6.00 — 6.00	6.00	Red	X	6.00 — 6.00	6.00	Red	-L12	12"	4	48
		6.63 — 6.63	6.63	Red		6.63 — 6.63	6.63	Red				
		6.90 — 7.20	7.20	Black		6.90 — 7.20	7.20	Black				
		7.21 — 7.56	7.56	White/Gray		7.21 — 7.56	7.56	White/Gray				
8"	FC2A-	8.00 — 8.00	8.00	Red	X	8.00 — 8.00	8.00	Red	-L12	12"	5	63
		8.63 — 8.63	8.63	Red		8.63 — 8.63	8.63	Red				
		9.05 — 9.40	9.40	Black		9.05 — 9.40	9.40	Black				
		9.40 — 9.74	9.74	White/Gray		9.40 — 9.74	9.74	White/Gray				
10"	FC2A-	10.00 — 10.00	10.00	Red	X	10.00 — 10.00	10.00	Red	-L12	12"	6	83
		10.75 — 10.75	10.75	Red		10.75 — 10.75	10.75	Red				
		11.10 — 11.40	11.40	Black		11.10 — 11.40	11.40	Black				
		11.42 — 11.77	11.77	Black		11.42 — 11.77	11.77	Black				
12"	FC2A-	11.77 — 12.12	12.12	White/Gray	X	11.77 — 12.12	12.12	White/Gray	-L12	12"	7	106
		12.00 — 12.00	12.00	Black		12.00 — 12.00	12.00	Black				
		12.75 — 12.75	12.75	Black		12.75 — 12.75	12.75	Black				
		13.20 — 13.50	13.50	Black		13.20 — 13.50	13.50	Black				
		13.69 — 14.04	14.04	White/Gray		13.69 — 14.04	14.04	White/Gray				
14.03 — 14.38	14.38	White/Gray	14.03 — 14.38	14.38	White/Gray							

To order: Locate the gasket range that accommodates your pipe O.D. for both ends of pipe. Use the top range of each gasket size to determine the part number. For example, to connect pipe with an O.D. of 6.90 to a pipe with an O.D. of 7.37, the catalog number is FC2A-720-756-L12.

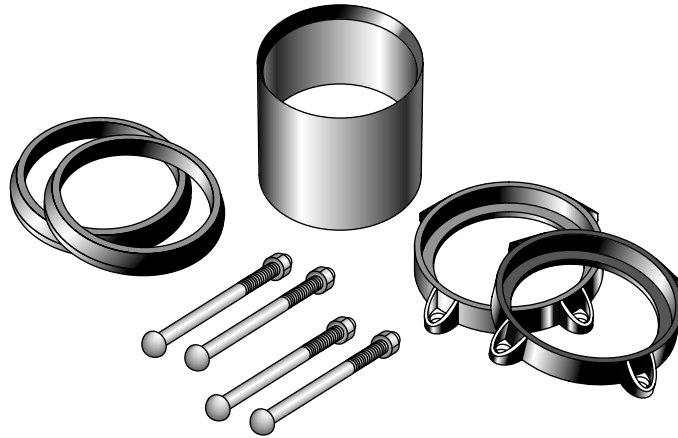
- Options:**
- SH** Standard coated coupling with Type 304 stainless steel nuts and bolts. Add "-SH" to the catalog number.
 - E** Epoxy coated coupling. Add "-E" to the catalog number.
 - ESH** Epoxy coated coupling with Type 304 stainless steel nuts and bolts. Add "-ESH" to the catalog number.
 - Q** Standard coated coupling with Type 316 stainless steel nuts and bolts. Add "-Q" to the catalog number.
 - Z** Epoxy coated coupling with Type 316 stainless steel nuts and bolts. Add "-Z" to the catalog number.
 - BBN** Blue fluorocarbon coating on HSLA nuts and bolts. Add "-BBN" to catalog number.
 - N** NBR (Buna-N) gasket, standard coated coupling and standard alloy bolts. Add "-N" to the catalog number.
 - EPDM** EPDM gasket. Add "-EPDM" to the catalog number.

Example: FC2A-690-720-L12-ESH is an FC2A coupling with epoxy coating and stainless steel nuts and bolts.

Note: For end cap options, see page M-15.

Ford Extended Length Transition Coupling Parts

Style FC2A-L12



Component Parts for Style FC2A-L12 Extended Length Couplings

NOM. PIPE SIZE	GASKET CATALOG No.	END RING CATALOG No.	CENTER SLEEVE CATALOG No.	BOLT AND NUT CATALOG No.	BOLT AND NUT SIZE	NUMBER OF BOLTS REQUIRED
4"	FC2AG-400	FC2A-RER-4	FC2A-CS-4-L12	FBN-58-155	5/8" x 15-1/2"	3
	FC2AG-450	FC2A-RER-4				
	FC2AG-480-514	FC2A-BER-4				
	FC2AG-515-557	FC2A-WER-4				
6"	FC2AG-600	FC2A-RER-6	FC2A-CS-6-L12	FBN-58-155	5/8" x 15-1/2"	4
	FC2AG-663	FC2A-RER-6				
	FC2AG-690-720	FC2A-BER-6				
	FC2AG-721-756	FC2A-WER-6				
8"	FC2AG-800	FC2A-RER-8	FC2A-CS-8-L12	FBN-58-155	5/8" x 15-1/2"	5
	FC2AG-863	FC2A-RER-8				
	FC2AG-905-940	FC2A-BER-8				
	FC2AG-940-974	FC2A-WER-8				
10"	FC2AG-1000	FC2A-RER-10	FC2A-CS-10-L12	FBN-58-155	5/8" x 15-1/2"	6
	FC2AG-1075	FC2A-RER-10				
	FC2AG-1110-1140	FC2A-BER-10				
	FC2AG-1142-1177	FC2A-BER-10				
12"	FC2AG-1177-1212	FC2A-WER-10	FC2A-CS-12-L12	FBN-58-155	5/8" x 15-1/2"	7
	FC2AG-1200	FC2A-BER-12				
	FC2AG-1275	FC2A-BER-12				
	FC2AG-1320-1350	FC2A-BER-12				
	FC2AG-1369-1404	FC2A-WER-12				
FC2AG-1403-1438	FC2A-WER-12					

To order: Specify desired quantity and order using catalog number.

Ford Ultra-Flex Wide Range Couplings

Style FC2W

Ford Ultra-Flex Wide Range Couplings offer convenience, reliability, and inventory reduction. The Ultra-Flex can join virtually any pipes within a nominal size and is rated for 350 psi working pressure on 3"-12" and 250 psi working pressure on 16". The stab-in design allows quicker installation and the standard fusion bonded epoxy coating provides corrosion protection. The standard NBR (Buna-N) gaskets are lubricated at the factory. No field lubrication is required. The unique gaskets seal on the pipe with fewer turns of the wrench. This allows the installer to use a standard deep-well socket, even when installing on pipes at the low end of the listed range. See the table below for exact ranges.

Benefits:

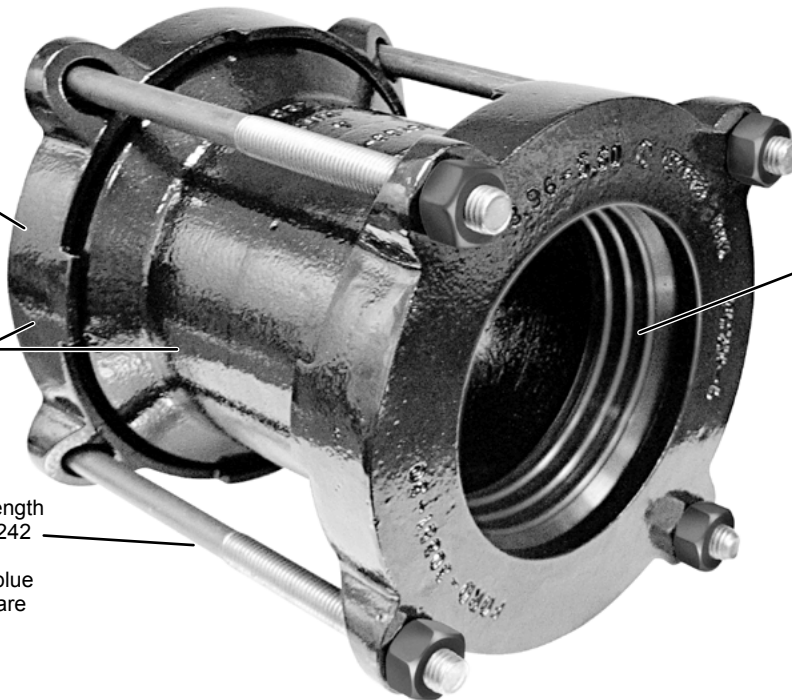
- Stab-in installation. No disassembly required.
- Long standard sleeve.
- Unique gasket allows for quicker installation.
- 350 psi rated working pressure, sizes 3" - 12"
- 250 psi rated working pressure for 16"

End rings and sleeve fusion bonded epoxy coating standard

Center sleeve and end rings are ductile iron per ASTM A536, Grade 65-45-12

Bolts and nuts are high strength low alloy steel per ASTM A242 and AWWA C111. Optional stainless steel or blue fluorocarbon coated hardware also available.

NBR (Buna-N) Gasket per ASTM D2000



Caution: Restrain if necessary to provide thrust resistance. Flexible couplings do not prevent axial pipe movement. See Catalog Section U for restrained couplings.

Style FC2W Wide Range Couplings

NOMINAL PIPE SIZE	PIPE OD RANGE*		CATALOG NUMBER	NUMBER OF BOLTS	BOLT DIAMETER	SLEEVE LENGTH	APPROX. WEIGHT LBS.
	INCHES	MILLIMETERS					
3"	2.50 - 4.29	63.5 - 109.0	FC2W-3	3	5/8"	7"	27
4"	3.96 - 5.60	100.5 - 142.2	FC2W-4	4	5/8"	7"	35
6"	6.23 - 7.60	158.2 - 193.0	FC2W-6	4	5/8"	7"	44
8"	8.40 - 9.75	213.3 - 247.6	FC2W-8	4	5/8"	7"	52
10"	10.75 - 12.12	273.0 - 307.8	FC2W-10	6	5/8"	9"	76
12"	12.75 - 14.38	323.8 - 365.25	FC2W-12	6	5/8"	9"	97
16"	16.00 - 17.80	406.4 - 452.1	FC2W-16	8	5/8"	10"	135

* Pipes smaller than the published range may be joined using the FC2W coupling at a reduced pressure rating. Contact Ford Meter Box for details.

- Options:**
- SH** Type 304 stainless steel nuts and bolts. Add "-SH" to the catalog number.
 - Q** Type 316 stainless steel nuts and bolts. Add "-Q" to the catalog number.
 - EPDM** EPDM gaskets. Add "-EPDM" to the catalog number.
 - BBN** Blue fluorocarbon coating on HSLA nuts and bolts. Add "-BBN" to catalog number.
 - EC** End Cap (see page M-15)

Note: See page M-20 for installation instructions.

Ford Ultra-Flex Long Sleeve Wide Range Couplings

Style FC2W-L12

The long sleeve version of the Ford FC2W Ultra-Flex offers the same advantages as the standard FC2W (page M-11) with the added versatility of a 12-inch long center sleeve.

Caution: Restrain if necessary to provide thrust resistance. Flexible couplings do not prevent axial pipe movement. See Catalog Section U for restrained couplings.



Rating: 350 psi working water pressure

Style FC2W-L12 Long Sleeve Wide Range Couplings

NOMINAL PIPE SIZE	PIPE OD RANGE		CATALOG NUMBER	NUMBER OF BOLTS	BOLT DIAMETER	SLEEVE LENGTH	APPROX. WEIGHT LBS.
	INCHES	MILLIMETERS					
3"	2.50 - 4.29	63.5 - 109.0	FC2W-3-L12	3	5/8"	12"	40
4"	3.96 - 5.60	100.5 - 142.2	FC2W-4-L12	4	5/8"	12"	45
6"	6.23 - 7.60	158.2 - 193.0	FC2W-6-L12	4	5/8"	12"	56
8"	8.40 - 9.75	213.3 - 247.6	FC2W-8-L12	4	5/8"	12"	68
10"	10.75 - 12.12	273.0 - 307.8	FC2W-10-L12	6	5/8"	12"	90
12"	12.75 - 14.38	323.8 - 365.25	FC2W-12-L12	6	5/8"	12"	109

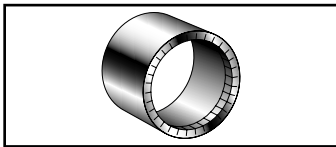
* Pipes smaller than the published range may be joined using the FC2W coupling at a reduced pressure rating. Contact Ford Meter Box for details.

- Options:** **SH** Type 304 stainless steel nuts and bolts. Add "-SH" to the catalog number.
Q Type 316 stainless steel nuts and bolts. Add "-Q" to the catalog number.
EPDM EPDM gaskets. Add "-EPDM" to the catalog number.
BBN Blue fluorocarbon coating on HSLA nuts and bolts. Add "-BBN" to catalog number.
EC End Cap (see page M-15)

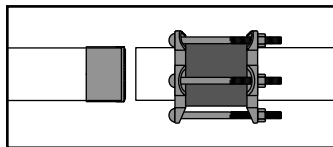
Ford Insulating Boots Style FIB

Ford Insulating Boots are used to provide a break in electrical conductivity between metallic pipes in order to control corrosion. The 7" long rubber boot slides over the end of the pipe and prevents contact with adjoining pipe. **The FIB adds .25" to the outside diameter of the pipe which is important to consider when ordering couplings.**

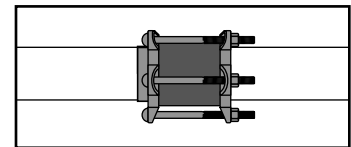
Material Specifications: NBR (Buna-N) Rubber per ASTM D2000.



The Ford FIB



Place the FIB on one pipe end and the coupling on the adjoining pipe



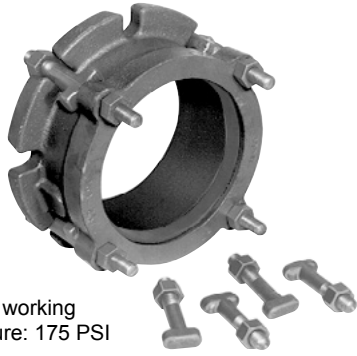
Complete the installation according to the coupling instructions.

NOM. PIPE SIZE	PIPE O.D.	CATALOG NUMBER	APPROX. WT. LBS.
4"	4.80	FIB-480	0.7
6"	6.90	FIB-690	1.0
8"	9.05	FIB-905	1.3
10"	11.10	FIB-1110	1.6
12"	13.20	FIB-1320	1.9

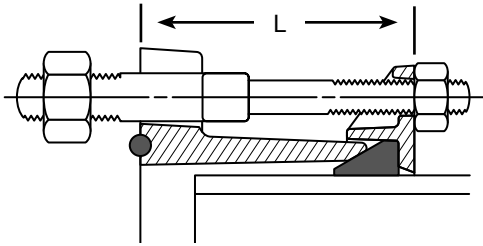
Note: Additional sizes built to the same specification are available upon request.

Ford Flanged Coupling Adapters

Style FFCA



Rated working pressure: 175 PSI



Ford Flanged Coupling Adapters are used to join plain end pipe to flanged fittings. The FFCA is designed without pipe stops and can slide completely over the pipe to allow for clearance. The adapter is furnished with HSLA tee-head bolts and/or ductile iron cross bolts. The flange has a built-in O-ring gasket. Larger, fabricated steel flanged coupling adapters are detailed in Catalog Section N.

Material Specifications:

1. **Body** - Ductile iron per ASTM A536 Grade 65-45-12.
2. **End Rings** - Ductile iron per ASTM A536 Grade 65-45-12.
3. **Coupling Gasket** - SBR per ASTM D2000.
4. **Cross Bolts, T-Bolts & Nuts** - High strength low alloy steel per AWWA C111/ASTM A242. Optional blue fluorocarbon coating.
5. **Finish** - Shop coat. Optional fusion bonded epoxy coating is available upon request.
6. **Flange** - Drilling per ANSI/AWWA C110/A21.10, AWWA C207 Class D and per ANSI B16.1 Class 125.
7. **Flange O-Ring** - NBR (Buna-N).
8. **Anchor Studs** - (optional) C1141 cold rolled steel.

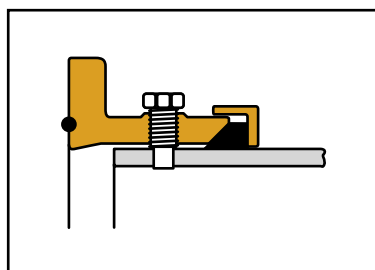
Caution: Restrain if necessary to provide thrust resistance. Flexible couplings do not prevent axial pipe movement. See anchor stud options below. See Catalog Section U for restrained couplings.

Style FFCA Flanged Coupling Adapters

NOMINAL PIPE SIZE	PIPE O.D. RANGE	CATALOG NUMBER	END RING COLOR CODE	APPROX. ASSEMBLED LENGTH (L)	APPROX. WEIGHT LBS.	OPTIONAL ANCHOR STUDS	NO. AND SIZE OF CROSS BOLTS	NO. AND SIZE OF T-BOLTS
							CATALOG NUMBER	CATALOG NUMBER
3"	3.45-3.60	FFCA-360	Red	3-7/8"	18	2	4	N/A
	3.70-3.88	FFCA-388	Black		18		5/8" x 5/8"	
	3.91-4.06	FFCA-406	Black		18		FCBN-58-58	
	4.07-4.20	FFCA-420	White/Gray		18			
4"	4.45-4.60	FFCA-460	Red	3-1/2"	22	2	4	4
	4.70-4.91	FFCA-491	Black		22		5/8" x 5/8"	5/8"
	4.92-5.16	FFCA-516	Black		22		FCBN-58-58	FTBN-58-3
	5.17-5.32	FFCA-532	White/Gray		22			
6"	6.54-6.76	FFCA-676	Red	4-1/8"	34	2	4	4
	6.81-7.12	FFCA-712	Black		34		3/4" x 5/8"	3/4"
	7.17-7.37	FFCA-737	Black		34		FCBN-34-58	FTBN-34-35
	7.37-7.60	FFCA-760	White/Gray		34			
8"	8.50-8.75	FFCA-875	Red	4-3/16"	45	4	8	N/A
	8.76-9.17	FFCA-917	Black		45		3/4" x 5/8"	
	9.22-9.50	FFCA-950	Black		45		FCBN-34-58	
	9.49-9.79	FFCA-979	White/Gray		45			
10"	10.69-10.85	FFCA-1085	Red	4-13/16"	55	4	12	N/A
	11.04-11.40	FFCA-1140	Black		55		7/8" x 5/8"	
12"	12.72-12.84	FFCA-1284	Red	4-3/4"	63	4	12	N/A
	13.14-13.56	FFCA-1356	Black		63		7/8" x 5/8"	

Note: End rings for FFCA's are not interchangeable with the balance of the Ford coupling system. For fabricated or larger flange coupling adapters, see Catalog Section N.

Optional Anchor Studs (C1141 cold rolled steel)



(Use of anchor studs requires field drilling of pipe.)

Optional anchor studs provide restraint against axial pipe movement. For use on ductile iron or steel pipe. See table above for optional stud quantities.

Optional anchor studs: For two studs add "-AS2" to the catalog number. For four studs add "-AS4" to the catalog number.
Example: FFCA-712-AS2

Ford Cut-In Couplings

Style FRR



Designed Specifically for Cut-In Applications

Ford FRR cut-in couplings are commonly used to replace leaking couplings that require removal or join pipe where the sections can't be moved or it is difficult or undesirable to replace a section of pipe.

The three-piece sleeve allows disassembly for installation through the space between two existing stationary pipe ends where a solid body coupling would not fit.

Material Specifications:

1. **Center Sleeve** - ASTM A36 steel.
2. **Repair Ring** - Ductile iron per ASTM A536 or carbon steel per ASTM A36.
3. **End Rings** - Ductile iron per ASTM A536 Grade 65-45-12.
4. **Gaskets** - NBR (Buna-N) per ASTM D2000.
5. **Bolts** - High strength low alloy steel per ASTM A242 and AWWA C111.
6. **Finish** - Shop coat. Optional epoxy coating is available upon request.

Caution: Restrain if necessary to provide thrust resistance. Flexible couplings do not prevent axial pipe movement. See Catalog Section U for restrained couplings.

Style FRR Ford Cut-In Coupling

NOM. PIPE SIZE	PIPE O.D. RANGE	CATALOG NUMBER	APPROX. WT. LBS.	BOLT AND NUT CATALOG NUMBER	BOLT AND NUT SIZE	NUMBER OF BOLTS REQUIRED	MINIMUM PIPE SEPARATION	MAXIMUM PIPE SEPARATION*
4"	4.80-5.14	FRR-514	38	FBN-58-155	5/8"x15-1/2"	3	5.25"	7-3/4"
	5.15-5.57	FRR-557	38					
6"	6.90-7.20	FRR-720	61	FBN-58-155	5/8"x15-1/2"	4	5.25"	7-3/4"
	7.21-7.56	FRR-756	61					
8"	9.05-9.40	FRR-940	82	FBN-58-155	5/8"x15-1/2"	5	5.25"	7-3/4"
	9.40-9.74	FRR-974	82					
10"	11.10-11.40	FRR-1140	105	FBN-58-175	5/8"x17-1/2"	6	6.25"	9-3/4"
	11.42-11.77	FRR-1177	105					
	11.77-12.12	FRR-1212	105					
12"	13.20-13.50	FRR-1350	135	FBN-58-175	5/8"x17-1/2"	7	6.25"	9-3/4"
	13.69-14.04	FRR-1404	135					
	14.03-14.38	FRR-1438	135					

* Maximum pipe separation is dependent on the pipe material and the centering of the coupling.

Note: A repair ring can be manufactured for any size 4" through 12". FC2A listed on page M-7.

Options: SH Standard coated coupling with Type 304 stainless steel nuts and bolts. Add "-SH" to the catalog number.

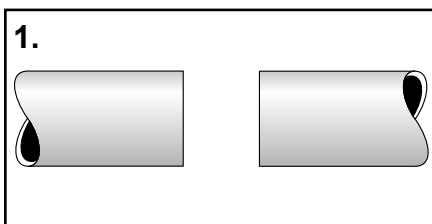
E Epoxy coated coupling. Add "-E" to the catalog number.

ESH Epoxy coated coupling with Type 304 stainless steel nuts and bolts. Add "-ESH" to the catalog number.

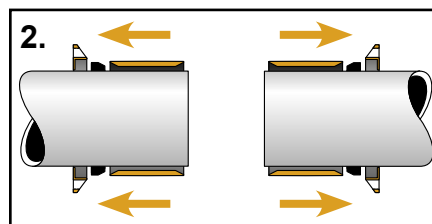
BBN Blue Fluorocarbon coating on HSLA nuts and bolts. Add "-BBN" to catalog number.

Example: FRR-720-ESH is an FRR coupling with epoxy coating and stainless steel nuts and bolts.

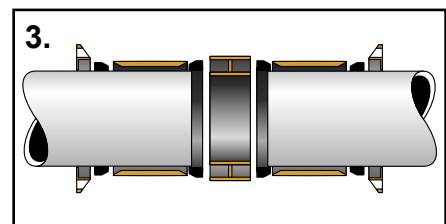
Installation Instructions



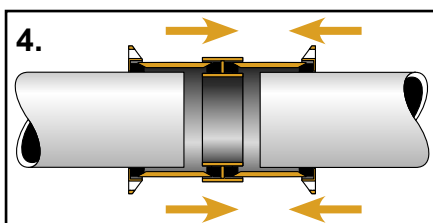
1. Clean each end of the pipe to ensure a watertight seal.



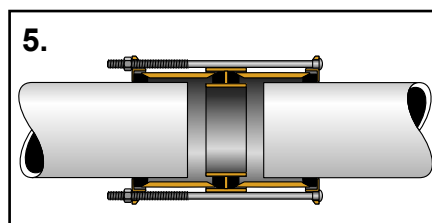
2. Slide the two end rings, end ring gaskets and sleeves over the exposed ends of the pipes as shown above.



3. Place the cut-in sleeve gaskets and cut-in sleeve into position.



4. Slide the end rings, end ring gaskets and sleeves toward the cut-in sleeve, making sure all components are properly positioned.



5. Insert the bolts and tighten nuts evenly to 60-70 ft-lb in an incremental and alternating sequence to ensure the end rings remain parallel.

Ford End Cap Couplings

Style FEC



The FEC Ford End Cap Coupling is provided with a 2" female iron pipe threaded boss (less the pipe plug). The boss is located in the center as standard; optional locations are available. Blind end caps may be furnished upon request.

Material Specifications:

- Center Sleeve** - Ductile iron per ASTM A536, Grade 65-45-12.
- End Rings** - Ductile iron per ASTM A536, Grade 65-45-12.
- Gaskets** - NBR (Buna-N) per ASTM D2000.
- End Cap** - Carbon steel per ASTM A36 with 2" female iron pipe threaded boss.
- Bolts** - High strength low alloy steel per ASTM A242 and AWWA C111.
- Finish** - Shop coat. Optional epoxy coating is available upon request.

Caution: Restrain if necessary to provide thrust resistance. Flexible couplings do not prevent axial pipe movement. See Catalog Section U for restrained couplings.

NOM. PIPE SIZE	PIPE O.D. RANGE	CATALOG NUMBER	APPROX. WT. LBS.	END CAP ONLY (INCLUDES GASKET)		NUMBER OF BOLTS REQUIRED
				FC1 COUPLING	FC2A COUPLING	
4"	4.00	FEC-400	21	FEC1-4	FEC2-4	3
	4.50	FEC-450				
	4.80-5.14	FEC-514				
	5.15-5.57	FEC-557				
6"	6.00	FEC-600	31	FEC1-6	FEC2-6	4
	6.63	FEC-663				
	6.90-7.20	FEC-720				
	7.21-7.56	FEC-756				
8"	8.00	FEC-800	41	FEC1-8	FEC2-8	5
	8.63	FEC-863				
	9.05-9.40	FEC-940				
	9.40-9.74	FEC-974				
10"	11.10-11.40	FEC-1140	55	FEC1-10	FEC2-10	6
	11.77-12.12	FEC-1212				
12"	13.20-13.50	FEC-1350	66	FEC1-12	FEC2-12	7

Note: Larger fabricated end cap couplings are listed in Section "N".

- Options:**
- SH** Standard coated coupling with Type 304 stainless steel nuts and bolts. Add "-SH" to the catalog number.
 - ESH** Epoxy coated coupling with Type 304 stainless steel nuts and bolts. Add "-ESH" to the catalog number.
 - BBN** Blue fluorocarbon coating on HSLA nuts and bolts. Add "-BBN" to catalog number.
 - BEC** Blind End Cap, no female iron pipe threads. Add "-BEC" to the catalog number.
 - EPDM** EPDM gasket. Add "-EPDM" to the catalog number.
(Contact factory for Type 316 stainless steel nuts and bolts.)

Example: FEC-720-ESH is an FEC coupling with epoxy coating and stainless steel nuts and bolts.

Ford End Cap for Ultra-Flex Wide Range Couplings

Style FC2W-EC



The FC2W-EC Ford End Cap Coupling is provided with a 2" female iron pipe threaded boss (less the pipe plug). The boss is located in the center as standard; optional locations are available on 10" and 12" end caps.

Material Specifications:

- Center Sleeve** - Ductile iron per ASTM A536, Grade 65-45-12.
- End Rings** - Ductile iron per ASTM A536, Grade 65-45-12.
- Gaskets** - NBR (Buna-N) per ASTM D2000.
- End Cap** - Ductile iron per ASTM A536, Grade 65-45-12 or carbon steel per ASTM A36.
- Bolts** - High strength low alloy steel per ASTM A242 and AWWA C111.
- Finish** - Sleeve and end rings are epoxy coated. 4", 6" and 8" e-coat epoxy end caps 10" and 12" epoxy coated end caps

NOM. PIPE SIZE	PIPE O.D. RANGE		CATALOG NUMBER	APPROX. WT. LBS.	END CAP ONLY	END CAP WT. LBS.
	INCHES	Millimeters				
4"	3.96-5.60	100.5 - 142.2	FC2W-4-EC	44	FECW-4	9
6"	6.23-7.60	158.2 - 193.0	FC2W-6-EC	57	FECW-6	13
8"	8.40-9.75	213.3 - 247.6	FC2W-8-EC	75	FECW-8	23
10"	10.77-12.12	273.0 - 307.8	FC2W-10-EC	138	FECW-10	62
12"	12.75-14.38	323.8 - 365.25	FC2W-12-EC	178	FECW-12	80

Ford Ultra-Flex Long Sleeve Wide Range Couplings

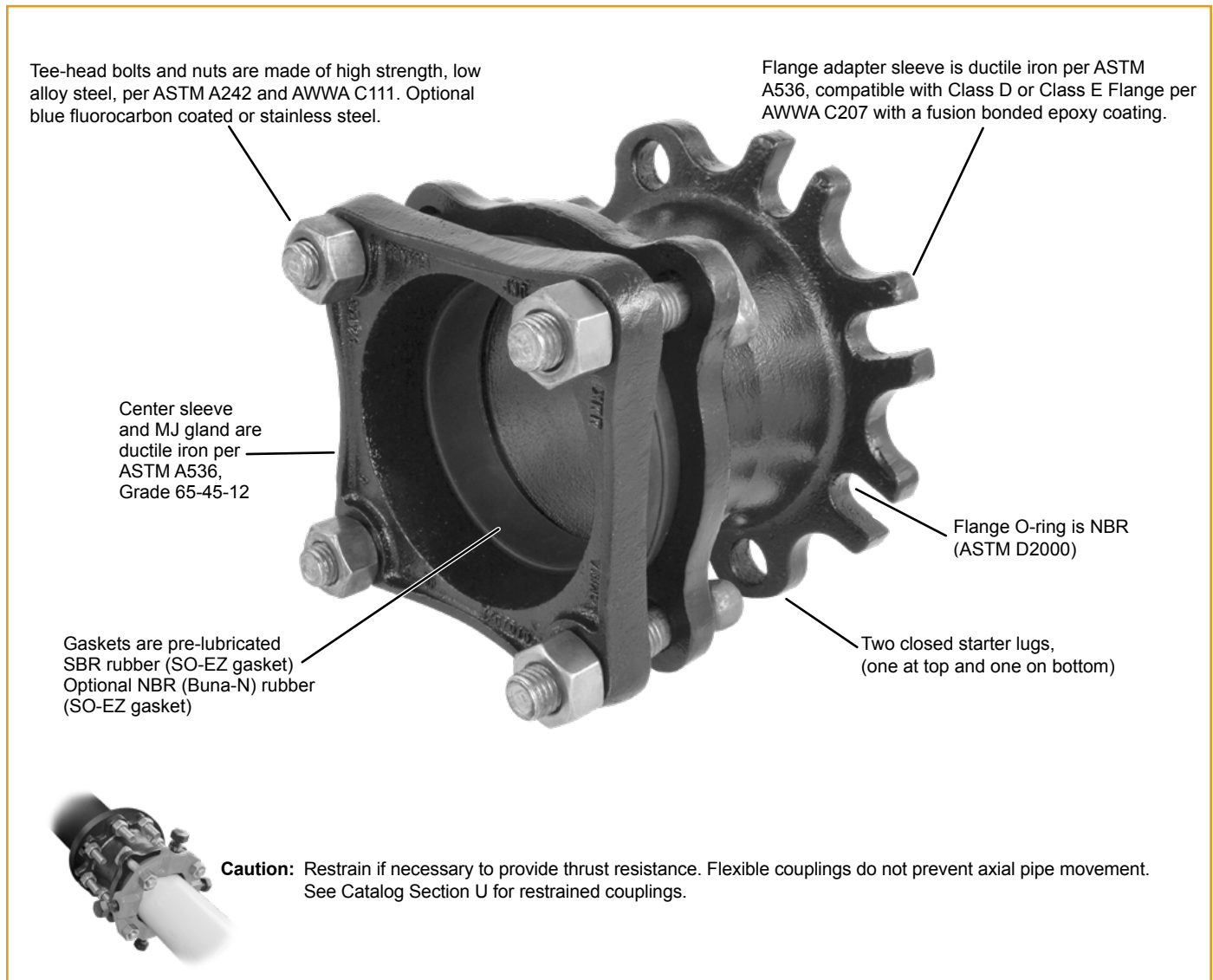
Style FC2W-EC (12" Long)

NOM. PIPE SIZE	PIPE OD RANGE		CATALOG NUMBER	SLEEVE LENGTH	APPROX. WT. LBS.	END CAP ONLY	END CAP WT. LBS.
	INCHES	MILLIMETERS					
4"	3.96 - 5.60	100.5 - 142.2	FC2W-4-L12-EC	12"	54	FECW-4	9
6"	6.23 - 7.60	158.2 - 193.0	FC2W-6-L12-EC	12"	69	FECW-6	13
8"	8.40 - 9.75	213.3 - 247.6	FC2W-8-L12-EC	12"	91	FECW-8	23
10"	10.75 - 12.12	273.0 - 307.8	FC2W-10-L12-EC	12"	152	FECW-10	62
12"	12.75 - 14.38	323.8 - 365.25	FC2W-12-L12-EC	12"	189	FECW-12	80

Ford Flange Adapter

Style MJFA

Ford offers a true stab fit for connecting plain end steel sized or ductile pipe to a flange end pipe with the MJFA style adapter.



- **No disassembly required**
- **Fits steel-to-ductile nominal pipe with no modification**

Component Specifications:

Flanged Adapter Sleeve:	Ductile iron per ASTM A536, bolting up to Class D or Class E flange, per AWWA C207 with a fusion bonded epoxy coating.
Flange O-ring:	NBR (Buna-N per ASTM D2000).
Tee-head Bolts and Nuts:	High strength low alloy steel, per ASTM A242 and AWWA C111 Optional: Blue fluorocarbon coated or stainless steel
MJ Gland:	Black e-coat epoxy, ductile iron per ASTM A536
Gasket:	Pre-lubricated SBR rubber (SO-EZ gasket) Optional: NBR (Buna-N) rubber (SO-EZ gasket) required for sewer applications.

Pressure Rating for C900 PVC, IPS PVC, C909 PVC and SDR35 Sewer Pipe

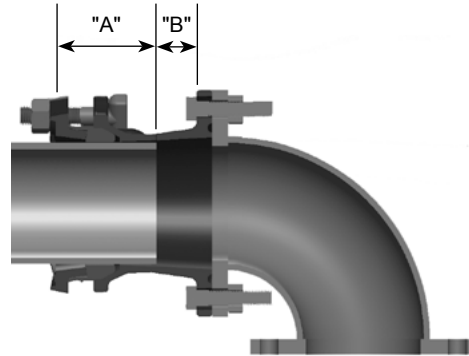
C900			ASTM D2241		C909	SDR35
DR25	DR18	DR14	SDR26	SDR21	PC150	
165 PSI	235 PSI	305 PSI	160 PSI	200 PSI	150 PSI	PS _≥ 46 PSI

Ford Mechanical Joint Flange Adapter

Style MJFA



The Ford Mechanical Joint Flange Adapter, style MJFA provides a stab fit for connecting plain end pipe to a flange end pipe. The MJFA adapter can be used on ductile iron pipe, steel, PVC, or SDR35 sewer pipe applications. There is a 2" or more pipe insertion adjustment, which allows for uneven size cuts and pipe deflection with a maximum pipe deflection of 5° for 4"- 8" and 3° for 10"- 12".



MJFA for Ductile Iron, C900, IPS PVC, Steel, C909 and **SDR35 Sewer Pipe

NOMINAL PIPE SIZE	PIPE O.D.	CATALOG NUMBER	DIMENSION "A" MINIMUM PIPE INSERTION	DIMENSION "B" MINIMUM PIPE INSERTION	MAX. DEFLECTION ALLOWANCE	BOLT AND NUT CATALOG NUMBER	NUMBER OF BOLTS AND NUTS	SIZE OF BOLTS AND NUTS	APPROX. WEIGHT LBS.
3"	3.50 - 3.96	MJFA-3-I	*3-7/8"	*1-7/8"	5°	TB-58-3	4	5/8" x 3"	15
4"	4.21 - 4.80	MJFA-4-I	*4-3/8"	*2"	5°	TB-34-4	4	3/4" x 4"	17
6"	6.27 - 6.90	MJFA-6-I	*4-5/8"	*2-7/8"	5°	TB-34-4	6	3/4" x 4"	34
8"	8.40 - 9.05	MJFA-8-I	*4-11/16"	*3"	5°	TB-34-412	6	3/4" x 4-1/2"	41
10"	10.50 - 11.10	MJFA-10-I	*4-11/16"	*3-3/8"	3°	TB-34-412	8	3/4" x 4-1/2"	56
12"	12.50 - 13.20	MJFA-12-I	*4-11/16"	*3-5/8"	3°	TB-34-412	8	3/4" x 4-1/2"	74

* Not accounting for beveled, unsquare or deflected pipe ends.

** **NBR** (Buna-N) required for sewer applications. Add "-N" to the catalog number. Example: **MJFA-6-N-I**

Ford Series MJFA Flange Adapter with Flange Bolt

NOMINAL PIPE SIZE	PIPE O.D.	CATALOG NUMBER	APPROX. WEIGHT LBS.	CATALOG NUMBER BOLTS AND NUTS	T-BOLTS		CATALOG NUMBER FLANGE BOLTS AND NUTS	FLANGE BOLTS	
					QTY.	SIZE		QTY.	SIZE
3"	3.50 - 3.96	MJFA-3A-I	21	TB-58-3	4	5/8" x 3"	FBN-58-212	4	5/8" x 2-1/2"
4"	4.21 - 4.80	MJFA-4A-I	25	TB-34-4	4	3/4" x 4"	FBN-58-212	8	5/8" x 2-1/2"
6"	6.27 - 6.90	MJFA-6A-I	43	TB-34-4	6	3/4" x 4"	FBN-34-234	8	3/4" x 2-3/4"
8"	8.40 - 9.05	MJFA-8A-I	50	TB-34-412	6	3/4" x 4-1/2"	FBN-34-234	8	3/4" x 2-3/4"
10"	10.50 - 11.10	MJFA-10A-I	69	TB-34-412	8	3/4" x 4-1/2"	FBN-78-3	12	7/8" x 3"
12"	12.50 - 13.20	MJFA-12A-I	76	TB-34-412	8	3/4" x 4-1/2"	FBN-78-312	12	7/8" x 3-1/2"

Options:

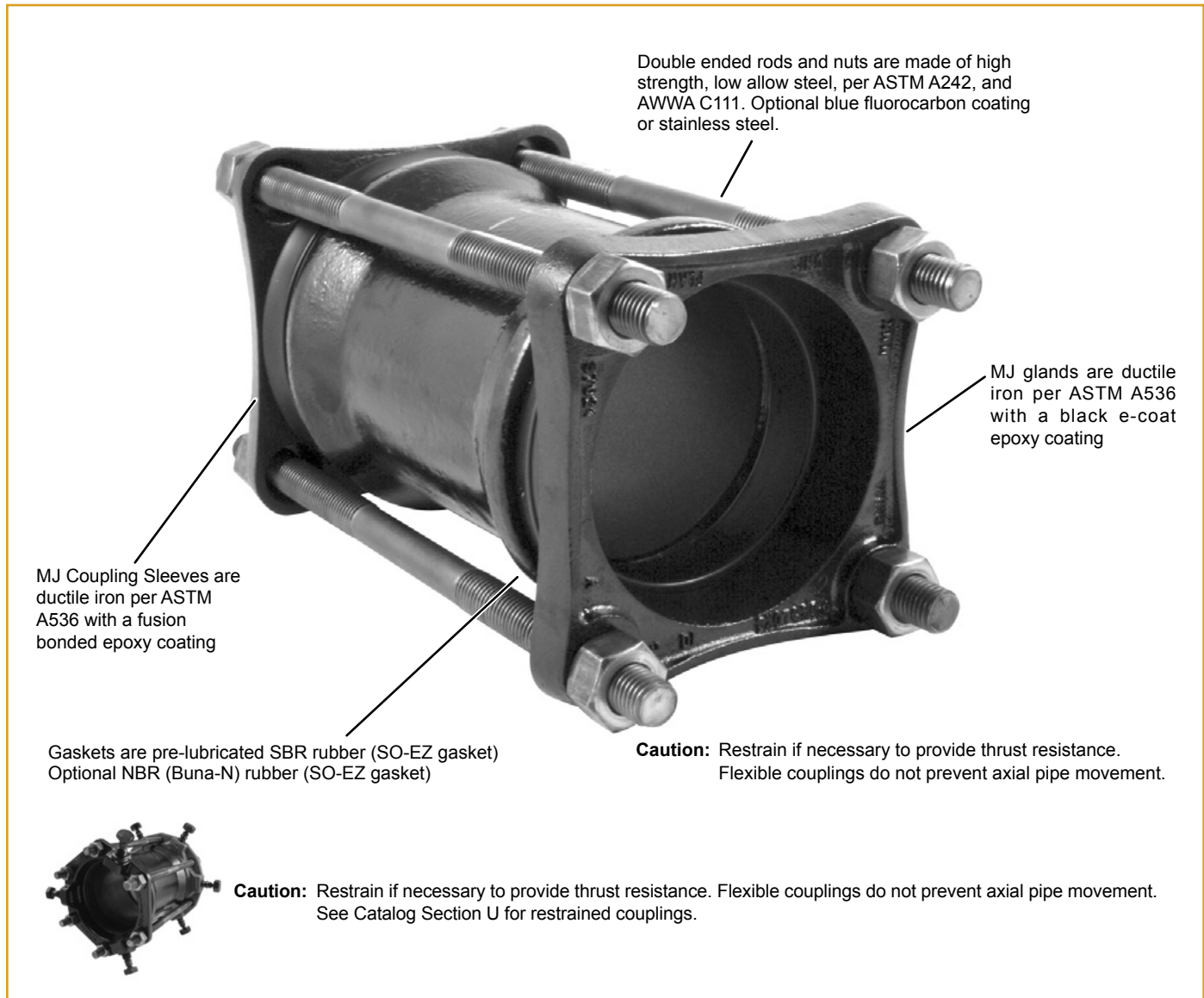
- SH** Type 304 stainless steel nuts and bolts: add "-SH" to the catalog number. Example: **MJFA-6A-SH-I**
- BBN** Blue fluorocarbon coating on HSLA nuts and bolts: add "-BBN" to the catalog number. Example: **MJFA-6A-BBN-I**
- N** NBR (Buna-N) gasket: add "-N" to the catalog number. Required for sewer applications. Example: **MJFA-6A-N-I**

Caution: The MJFA is an unrestrained coupling and does not provide protection against possible pipe pullout. If restraint is required, the RFAD style coupling should be used on ductile iron applications. Restraint applications for C900, IPS PVC, steel, C909 or SDR35 pipe should use the RFAP style coupling (See Catalog Section U for restrained coupling options).

Ford Mechanical Joint Coupling

Style MJC

Joining plain end pipe is so easy when using Ford's MJC coupling. The standard coupling includes the SO-EZ gasket that permits a stab fit for a wide range within a nominal size pipe.



Component Specifications:

MJ Coupling Sleeve:	Ductile iron per ASTM A536 with fusion-bonded epoxy
Double-ended Rods and Nuts:	High strength low alloy steel per ASTM A242 and AWWA C111 Optional: blue fluorocarbon coated or stainless steel
MJ Gland:	Black e-coated, ductile iron per ASTM A536
Gasket:	Pre-lubricated SBR rubber (SO-EZ gasket) ** Optional: NBR (Buna-N) rubber (SO-EZ gasket) required for sewer applications.

Pressure Rating for C900, IPS PVC, C909 and **SDR35 Sewer Pipe

C900			ASTM D2241		C909	SDR35
DR25	DR18	DR14	SDR26	SDR21	PC150	
165 PSI	235 PSI	305 PSI	160 PSI	200 PSI	150 PSI	PS ≥ 46 PSI

Ford Mechanical Joint Coupling

Style MJC



Joining plain end pipe is so easy when using Ford's MJC coupling. The standard coupling includes the SO-EZ gasket that permits a stab fit for a wide range within a nominal size pipe.

The MJC coupling has a 2:1 safety factor at the full rated pressure of the pipe on which it is installed.

Caution: Restrain if necessary to provide thrust resistance.
Flexible couplings do not prevent axial pipe movement.
See Catalog Section U for restrained couplings

Style MJC Coupling for Ductile Iron, C900, IPS, Steel, C909 and **SDR35 Sewer Pipe

NOMINAL PIPE SIZE	PIPE O.D.*	CATALOG NUMBER	MINIMUM PIPE INSERTION	MAXIMUM DEFLECTION ALLOWANCE	RODS AND NUTS		APPROX. WEIGHT LBS.
					QTY.	SIZE	
3"	3.50 - 3.96	MJC-3-U	*4"	5°	4	5/8" x 14"	21
4"	4.21 - 4.80	MJC-4-I	*4-5/8"	5°	4	3/4" x 14"	25
6"	6.27 - 6.90	MJC-6-I	*4-3/4"	5°	6	3/4" x 14"	43
8"	8.40 - 9.05	MJC-8-I	*4-13/16"	5°	6	3/4" x 14"	50
10"	10.50 - 11.10	MJC-10-I	*4-7/8"	5°	8	3/4" x 14"	69
12"	12.50 - 13.20	MJC-12-I	*4-7/8"	5°	8	3/4" x 14"	76

* Not accounting for beveled, unsquare or deflected pipe ends.

** NBR (Buna-N) gasket required for sewer applications.

Larger fabricated sizes are available, contact factory for more information.

Options:

SH Type 304 stainless steel nuts and bolts: add "-SH" to the catalog number. Example: **MJC-6-SH-I**

BBN Blue fluorocarbon coating on HSLA nuts and bolts: add "-BBN" to the catalog number. Example: **MJC-6-BBN-I**

N NBR (Buna-N) gasket: add "-N" to the catalog number. Required for sewer applications. Example: **MJC-6-N-I**

I = Import Casting U = Domestic Casting

Component Parts for Style MJC Couplings

NOMINAL PIPE SIZE	***SLEEVE KITS	MJ COUPLING SLEEVE CATALOG NUMBER	GASKET CATALOG NUMBER	ROD CATALOG NUMBER	ROD SIZE	NUMBER OF RODS	NUTS	NUMBER OF NUTS
3"	RCAK-3	MJCS-3-U	SO-EZ-3	DER-58-14	5/8" x 14"	4	HHN-58	8
4"	RCAK-4	MJCS-4-I	SO-EZ-4	DER-34-14	3/4" x 14"	4	HHN-34	8
6"	RCAK-6	MJCS-6-I	SO-EZ-6	DER-34-14	3/4" x 14"	6	HHN-34	12
8"	RCAK-8	MJCS-8-I	SO-EZ-8	DER-34-14	3/4" x 14"	6	HHN-34	12
10"	RCAK-10	MJCS-10-I	SO-EZ-10	DER-34-14	3/4" x 14"	8	HHN-34	16
12"	RCAK-12	MJCS-12-I	SO-EZ-12	DER-34-14	3/4" x 14"	8	HHN-34	16

*** Includes center sleeve, rods, nuts and bolts.

Installation Instructions

Ford FC2W Ultra-Flex Coupling

FC2W Ultra-Flex Installation Instructions

CAUTION

- Ultra-Flex couplings do not restrain axial movement of pipe.
- Ultra-Flex couplings are designed to float on pipe ends and are not designed to support the pipe. Block and shim as necessary.

INSTALLATION INSTRUCTIONS

1. Measure the outside diameter of each pipe end to be joined to ensure they are within the coupling range.
2. Thoroughly clean each pipe end to a smooth, bare sealing surface.
3. Stab each pipe end into the Ultra-Flex coupling. For ease of installation, it may be necessary to loosen the nuts when assembling on larger O.D. pipes. Disassembly of the coupling is not required. **NOTE: Do not lubricate the pipe OD or the gasket. If the coupling is disassembled, lubricate only the contoured lip on each end of the coupling sleeve prior to reassembly.**
4. Center the coupling between the two pipe ends. The optimum pipe end gap for the Ultra-Flex coupling is less than 1".
5. Evenly tighten bolts in an alternating sequence, being certain that end rings remain parallel to one another. Tighten bolts to the recommended torque shown in the table below. Use of a torque wrench is highly recommended and required to ensure proper torque.

Recommended Bolt Torque	
Nominal Coupling Size	Torque
3" - 10"	50 ft-lb
12" and 16"	75 ft-lb

6. Restrain if necessary. Test and recheck bolt torque before backfilling. If a leak develops during testing, recheck bolt torque. Be advised that extreme torque can overstress coupling components.

Installation Instructions

Ford Flexible Couplings

CAUTION

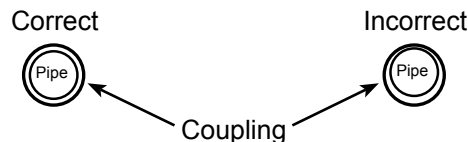
- Flexible couplings do not restrain axial movement of pipe.
- Flexible couplings are designed to float on pipe ends and are not designed to support the pipe.

INSTALLATION INSTRUCTIONS

1. Measure pipe O.D. to ensure it is within the coupling range.
2. Thoroughly clean each pipe end to a smooth, bare surface sufficiently longer than coupling length.
3. Slide the proper end ring onto each pipe end.
4. Lubricate the pipe ends and the gaskets before assembly to assist proper gasket seating. Use a non-petroleum based lubricant (suitable for potable water). In cold conditions, warm gasket to room temperature before installation to improve elasticity.
5. Place the proper gasket on each pipe end with the beveled edge facing the pipe end.
6. Slide center sleeve onto one pipe end, then center the sleeve over the pipe ends.

Sleeve Length	5"	6"	7"	10"
Optimum Pipe End Gap	.50"	.50"	1.00"	1.00"

7. **Extremely Important: Block and shim pipe ends and coupling as needed to ensure that the coupling remains at an equal distance from the pipe circumference.**



8. Push gaskets (by hand) into center sleeve evenly. Position end rings against the gaskets. Insert and tighten all bolts finger tight. Evenly tighten bolts in an alternating sequence, being certain that end rings remain parallel to one another. Use of a torque wrench is highly recommended and required to ensure proper torque.

1/2" Bolts = 40 - 50 ft. lbs.

5/8" Bolts = 60 - 70 ft. lbs.

9. Restrain if necessary. Test and recheck bolt torque before backfilling. If a leak develops during testing, tighten bolts to stop leak; however, extreme torque can overstress coupling components.

Stainless Steel Insert Stiffeners

For HDPE Pipe

End tapered for easy insertion

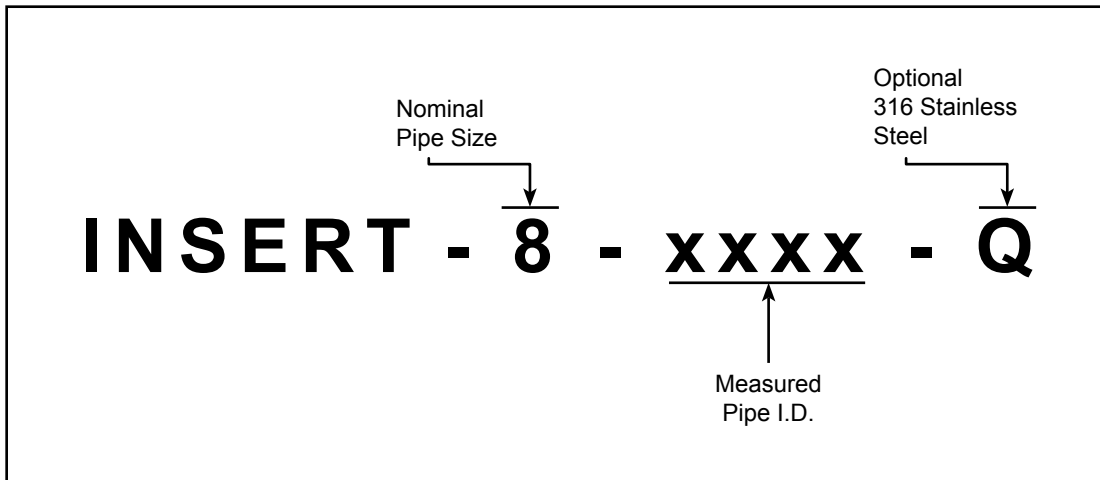


For stainless steel insert stiffeners prevent HDPE pipe from losing rigidity on the end while also keeping the gasket or restraint functioning properly on the pipe. With one end tapered and a lip on the other, the solid design is easy to install and can't be over-inserted.

Lip prevents over-insertion

Features:

- Solid design on 6" and larger sizes. 3" and 4" design may be solid or wedged.
- Type 304 stainless steel per ASTM A240 (with optional 316 stainless steel)
- Chemically passivated to restore natural corrosion-resistant state
- Durable, ergonomic design allows for a simple installation and long-lasting life



NOM. PIPE SIZE	*CATALOG NUMBER	LENGTH	GAUGE / THICKNESS	APPROX. WT. LBS.
3"	INSERT-3-xxx	6" - 8"	14	1.7
4"	INSERT-4-xxx		20	1.0
6"	INSERT-6-xxx	7-3/8"	18	2.1
8"	INSERT-8-xxx		18	2.8
10"	INSERT-10-xxxx		18	3.5
12"	INSERT-12-xxxx		18	4.1
14"	INSERT-14-xxxx		16	5.7
16"	INSERT-16-xxxx		16	6.5
18"	INSERT-18-xxxx		16	7.4
20"	INSERT-20-xxxx		16	8.2
24"	INSERT-24-xxxx		16	9.6
30"	INSERT-30-xxxx		12	20.4
36"	INSERT-36-xxxx		12	25.0

* When ordering, the pipe inside diameter is required. For example, when ordering for an 8" pipe with an I.D. of 7.305", the part number is INSERT-8-731.

Contact factory for sizes larger than 36" or high pressure applications.

O.D. Chart

PIPE SIZE	PVC/HDPE (Steel Size) O.D.	PVC/HDPE C900 O.D.	DUCTILE / CAST IRON			ASBESTOS-CEMENT			STEEL		COPPER
			Classes		O.D.	Class	Machined End O.D.	Rough Barrel O.D. Min - Max	Type	O.D.	O.D.
			Pit	Spun							
1/2"	.84								STD.	.84	.625
3/4"	1.05								STD.	1.05	.875
1"	1.32								STD.	1.32	1.125
1-1/4"	1.66								STD.	1.66	1.375
1-1/2"	1.90								STD.	1.90	1.625
2"	2.38				2.50				STD.	2.38	2.125
2-1/2"	2.88								STD.	2.88	2.625
3"	3.50	4.80	A		3.80	100	3.74	4.00	O.D.	3.00	3.125
			B, C, D	50 - 350	3.96	150	3.84	4.10	STD.	3.50	
						200	3.84	4.29			
3-1/2"								STD.	4.00	3.625	
4"	4.50	4.80	A	50 - 350	4.80	100	4.64	4.79 - 5.14	O.D.	4.00	4.125
			B, C, D		5.00	150	4.81	4.97 - 5.27	STD.	4.50	
						200	4.81	5.22 - 5.57			
4-1/2"								STD.	5.00		
5"								STD.	5.56	5.125	
6"	6.63	6.90	A	50 - 350	6.90	100	6.91	7.05 - 7.40	O.D.	6.00	6.125
			B, C, D,		7.10	150	6.91	7.07 - 7.37	STD.	6.63	
			E, F		7.22	200	6.91	7.26 - 7.56			
7"								STD.	7.63		
8"	8.63	9.05	A, B,	50 - 300	9.05	100	9.11	9.22 - 9.57	O.D.	8.00	
			C, D,	350	9.30	150	9.11	9.27 - 9.57	STD.	8.63	
			E, F		9.42	200	9.11	9.39 - 9.74			
9"								STD.	9.63		
10"	10.75	11.10	A, B,	50 - 200	11.10	100	11.24	11.42 - 11.77	O.D.	10.00	
			C, D,	250 - 350	11.40	150	11.66	11.82 - 12.12	STD.	10.75	
			E, F		11.60	200	11.66	11.77 - 12.12			
12"	12.75	13.20	A, B,	50 - 200	13.20	100	13.44	13.69 - 14.04	O.D.	12.00	
			C, D,	250 - 350	13.50	150	13.92	14.08 - 14.38	STD.	12.75	
			E, F		13.76	200	13.92	14.03 - 14.38			
14"	14.00	15.30	A, B,	50 - 100	15.30	100	15.07	15.40 - 15.80	STD.	14.00	
			C, D,	150 - 300	15.65	150	16.22	16.38 - 16.73			
			E, F		15.98	200	16.22	16.48 - 16.88			
16"	16.00	17.40	A, B,	50 - 100	17.40	100	17.14	17.54 - 17.94	STD.	16.00	
			C, D,	150 - 300	17.80	150	18.46	18.62 - 18.97			
			E, F		18.16	200	18.46	18.79 - 19.19			
18"	18.00	19.50	A, B	50 - 100	19.50	100	19.90	20.44	STD.	18.00	
			C, D	150 - 250	19.92	150	20.94	21.20			
						200	22.18				
20"	20.00	21.60	A, B,	50 - 100	21.60	100	22.12	22.50	STD.	20.00	
			C, D	150 - 250	22.06	150	23.28	23.54			
						200	24.66				
22"								STD.	22.00		
24"	24.00	25.80	A, B,	50 - 100	25.80	100	26.48	27.17	STD.	24.00	
			C, D	150 - 250	26.32	150	27.96	28.22			
						200	29.62				
30"	30.00	32.00	A		31.74				STD.	30.00	
			B	50 - 350	32.00						
			C		32.40						
			D		32.74						
36"	36.00	38.30	A		37.96				STD.	36.00	
			B	50 - 350	38.30						
			C		38.70						
			D		39.16						
42"		44.50	A		44.20				STD.	42.00	
			B	50 - 350	44.50						
			C		45.10						
			D		45.58						
48"		50.80	A		50.50				STD.	48.00	
			B	50 - 350	50.80						
			C		51.40						
			D		51.98						
54"		57.56	A		56.66				STD.	54.00	
			B		57.10						
			C	50 - 350	57.56						
			D		57.80						
60"		61.61		50 - 350	61.61				STD.	60.00	
			A		62.80						
			B		63.40						
			C		64.20						
			D		64.82						

Note: Due to variations in outside diameters and specifications, dimensions listed above are approximate. For this reason, determine the pipe O.D. before ordering.

Section M

Ford® Cast Couplings and Adapters

Warranty

All merchandise is warranted to be free from defects in material and factory workmanship for one year from date of shipment from our factory. We will provide, free of charge, new products in equal quantities for any that prove defective within one year from date of shipment from our factory. Manufacturer shall not be liable for any loss, damage, or injury, direct or consequential, arising out of the use of or the inability to use the product. Before using, user shall determine the suitability of the product for user's intended use and user assumes all risk and liability whatever in connection therewith. No claims for labor or consequential damage will be allowed. The foregoing may not be changed except by agreement signed by an officer of the manufacturer.

No other warranties are applicable or may be implied, including the implied warranty of merchantability and the implied warranty of fitness for particular purpose and any warranty relating to infringement or the like, all of which are disclaimed.

Please Note:

Consult the Ford Meter Box Company, Inc. website (www.fordmeterbox.com) for the most recent catalog information. The Ford Meter Box Company considers the information in this catalog to be correct at the time of publication. Items and option availability, including specifications, are subject to change without notice. Please verify that your product information is current.



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