

## JCM 303 Fabricated Flanged Coupling Adapters



The JCM 303 Fabricated Flanged Coupling Adapter provides a simple means of joining plain end pipe to flanged fittings, valves and equipment. Fabricated from steel, these fittings are readily available in large or small sizes with a standard AWWA Class D flange. Special or heavier flanges are available on request.

### How To Order

1. Determine pipe O.D. and flange size & type to be joined.

2. Order catalog Number indicating O.D. and flange size selected.

EXAMPLE: For 17.40 O.D. ductile iron pipe to be joined to 16" Class D flange, order: 303-1740 x16

### JCM 303 FLANGED COUPLING ADAPTERS

NOM. PIPE SIZE (IN.)	PIPE O.D. RANGE (IN.)	NOMINAL FLANGE SIZE	CATALOG NUMBER	APPR. WT. EACH (LBS.)
3	3.50	3	303-0350 X 3	19
3	3.96	3	303-0396 X 3	20
4	4.50	4	303-0450 X 4	25
4	4.80 - 5.00	4	303-0480 X 4	26
5	5.56	5	303-0556 X 5	32
6	6.63	6	303-0663 X 6	38
6	6.90 - 7.10	6	303-0690 X 6	40
8	8.63	8	303-0863 X 8	50
8	9.05 - 9.30	8	303-0905 X 8	52
10	10.75	10	303-1075 X 10	58
10	11.10 - 11.40	10	303-1110 X 10	61
12	12.75	12	303-1275 X 12	78
12	13.20 - 13.50	12	303-1320 X 12	84
14	14.00	14	303-1400 X 14	90
14	15.30	14	303-1530 X 14	110
14	15.65	14	303-1565 X 14	110
16	16.00	16	303-1600 X 16	113
16	17.40	16	303-1740 X 16	130
16	17.80	16	303-1780 X 16	137
18	18.00	18	303-1800 X 18	137
18	19.50	18	303-1950 X 18	144
18	19.92	18	303-1992 X 18	144
20	20.00	20	303-2000 X 20	158
20	21.60	20	303-2160 X 20	162
20	22.06	20	303-2206 X 20	162
24	24.00	24	303-2400 X 24	192
24	25.80	24	303-2580 X 24	220
24	26.32	24	303-2632 X 24	220
30	32.00	30	303-3200 X 30	442
36	38.30	36	303-3830 X 36	602
42	44.50	42	303-4450 X 42	771
48	50.80	48	303-5080 X 48	885

Other sizes available upon request.

Epoxy coating and stainless steel bolts are available as an extra.

NOTE: Applications in which pipe may move out of the coupling, correct anchorage of the pipe must be provided.

# JCM 304 Fabricated Reducing Flanged Coupling Adapters

The JCM 304 Reducing Flanged Coupling Adapter is similar in construction to the JCM 303 FCA but has a reducer or increaser combination of coupling and flange.



## How To Order

1. Determine pipe O.D. and flange size to be joined.

3. Insert desired flange size to complete catalog number.

2. Select proper coupling O.D. catalog number.

EXAMPLE:

To join 16" O.D. steel pipe to 4" Class D flange, order: 304-1600 x 4

## 304 FABRICATED FLANGED COUPLING ADAPTERS

NOM. PIPE SIZE (IN.)	PIPE O.D. RANGE (IN.)	CATALOG NUMBER	(X) ADD FLANGE SIZE
4	4.50	304-0450	X
4	4.80 - 5.00	304-0480	X
5	5.56	304-0556	X
6	6.63	304-0663	X
6	6.90 - 7.10	304-0690	X
8	8.63	304-0863	X
8	9.05 - 9.30	304-0905	X
10	10.75	304-1075	X
10	11.10 - 11.40	304-1110	X
12	12.75	304-1275	X
12	13.20 - 13.50	304-1320	X
14	14.00	304-1400	X
14	15.30	304-1530	X
14	15.65	304-1565	X
16	16.00	304-1600	X
16	17.40	304-1740	X
16	17.80	304-1780	X
18	18.00	304-1800	X
18	19.50	304-1950	X
18	19.92	304-1992	X
20	20.00	304-2000	X
20	21.60	304-2160	X
20	22.06	304-2206	X
24	24.00	304-2400	X
24	25.80	304-2580	X
24	26.32	304-2632	X

STANDARD AVAILABLE FLANGE SIZES
2
3
4
6
8
10
12
14
16
18
20
24

### FLANGES:

Standard 125# Class D

Other Flanges available upon request.

OTHER SIZES AVAILABLE UPON REQUEST.

NOTE: Applications in which pipe may move out of the coupling, correct anchorage of the pipe must be provided.



## **JCM 303 Fabricated Flanged Coupling Adapter Typical Specifications**

### **JCM 303 Fabricated Flanged Coupling Adapter**

Flanged Coupling Adapters shall be of a design which utilizes separate flange and coupling end gaskets and provides a means for joining plain end pipe to flanged fittings, valves, meters and equipment. FCA's shall be manufactured from steel with a flange of the same bolt pattern as the flanged fittings. Coupling bolts shall be to AWWA C-111, ANSI 21.11. Flanged Coupling Adapters shall be JCM 303 Flanged Coupling Adapter, JCM 304 Reducing Flanged Coupling Adapter or approved equal.

JCM 300 Series Flanged Coupling Adapters (FCA) are ANSI/NSF Standard 61 Certified.



## **JCM 303 Fabricated Flanged Coupling Adapter Material Specifications**

### **JCM 303 Fabricated Flanged Coupling Adapter**

3" and Larger:

MIDDLE RING: ASTM A513 or ASME SA 675 GR60

FOLLOWERS: AISI C1012 or ASME SA36

FLANGE: AWWA C207 Class D Flange with ANSI 150 lb. drilling.

GASKETS: Specially compounded new rubber polymer for superior shelf life and resistance to permanent set. Recommended for water, salt solutions, mild acids, bases and natural gas.

BOLTS: Corrosion resistant, high strength low alloy (AWWA C-111, ANSI A21.11). Optional stainless steel type 304.

FINISH: Heavy coat of corrosion resistant shop coat primer. Optional fusion epoxy coating per AWWA C-213.



## **JCM 304 Fabricated Flanged Coupling Adapter Typical Specifications**

### **JCM 304 Fabricated Flanged Coupling Adapter**

Flanged Coupling Adapters shall be of a design which utilizes separate flange and coupling end gaskets and provides a means for joining plain end pipe to flanged fittings, valves, meters and equipment. FCA's shall be manufactured from steel with a flange of the same bolt pattern as the flanged fittings. Coupling bolts shall be to AWWA C-111, ANSI 21.11. Flanged Coupling Adapters shall be JCM 304 Fabricated Reducing Flanged Coupling Adapter, or approved equal.

JCM 300 Series Flange Coupling Adapters (FCA) are ANSI/NSF Standard 61 Certified.



## **JCM 304 Fabricated Flanged Coupling Adapter Material Specifications**

### **JCM 304 Fabricated Reducing Flanged Coupling Adapter**

4" and Larger:

MIDDLE RING: ASTM A513 or ASME SA 675 GR60

FOLLOWERS: AISI C1012 or ASME SA36

FLANGE: AWWA C207 Class D Flange with ANSI 150 lb. drilling.

GASKETS: Specially compounded new rubber polymer for superior shelf life and resistance to permanent set. Recommended for water, salt solutions, mild acids, bases and natural gas.

BOLTS: Corrosion resistant, high strength low alloy (AWWA C-111, ANSI A21.11). Optional stainless steel type 304.

FINISH: Heavy coat of corrosion resistant shop coat primer. Optional fusion epoxy coating per AWWA C-213.



## JCM 303 and 304 Fabricated Flanged Coupling Adapter Installation Instructions

1. Clean pipe surface of all dirt, rust, mud or loose scale from pipe ends. Inspect the pipe ends where gaskets will contact the pipe for any gouges, grooves, irregularities or imperfections that will interfere with the gasket seal. Measure the cleaned pipe diameter to confirm proper size of coupling for application. Inspection of the pipe's integrity for product application is the responsibility of the end user. ***\*TIP\*** Difficult to reach or cramped areas on the backside or underside of the pipe can be visually checked by using a mirror.*
2. Install follower ring, gasket and flanged adapter body onto the plain end of pipe. **NOTE:** Flat side of the gasket face meets the follower ring, the tapered side inserts into the adapter body. ***\*TIP\*** To ease installation of the gaskets, pipe should be lubricated with water or soapy-water mixture. Alcohol may be added to water in freezing weather. **DO NOT** use pipe lubricant or grease based products to lubricate.*
3. Insert the valve bolts into the flanged adapter body facing toward the valve or flanged fitting end.
4. Insert the flanged coupling adapter bolts to make up the coupling side. Loosely make up the FCA on the pipe end making certain the pipe extends past the gasket a minimum of one inch after deflection has occurred. Mark the pipe with a reference point to make certain FCA does not slide during tightening.
5. Align bolt holes of the adapter and flange and loosely make up flange connection. Tighten flange bolts and nuts, alternating bolts in a star pattern.

### Recommended Torque:

**5/8" Bolts**  
**3/4" Bolts**

**75 Foot Pounds**  
**90 Foot Pounds**

6. **Lift the middle ring to insure that the gasket is evenly centered in the end.** Tighten flange coupling adapter bolts to make up the coupling side, alternating from side to side drawing the follower flange in evenly until all bolts have been tightened to 50 - 75 Foot Pounds. Check torque of bolts prior to completion.

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