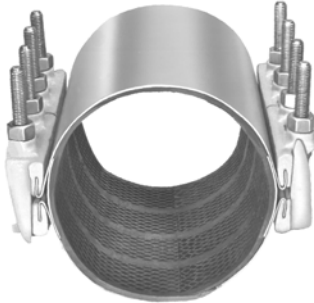


# JCM

## JCM Universal Clamp Couplings with Removable Lug Models 172, 174



### **NEW - NOW**

### **JCM UNIVERSAL CLAMP COUPLINGS**

*With*

### **REMOVABLE LUG SYSTEM**



### **NEW JCM 170 Series Universal Clamp Couplings with Removable Lug System Simple and Easy to Use**

The JCM 170 Series Universal Clamp Coupling with Removable Lug System provides:

**Easy to Remove Lug** - simply slide the open ear lug section off the stainless band receiver pleat, install the clamp around the pipe and slide the lug back into place. A simple transfer of bolt torque energy from the bolt to the stainless steel band locks the lug into place and prevents band pull out.

**Heavy Duty Ductile Iron Lug** - Ductile Iron ASTM A-536, JCM quality is not sacrificed. These clamps offer the same Great JCM Quality and Delivery.

**Certifiable Stainless Steel Band** - 18-8 Type 304 Stainless Steel Band provides the full circumferential seal on the pipe wall. The recessed, molded in stainless steel bridge plate completes the corrosion resistant shield.

**Full Line of Diameters and Widths** - JCM 170 Series is available in the exact sizes and ranges as the JCM Models 101, 102, 103 and 104 and are the same, **great low price!** Single band, multi-band and tapped outlets are readily available.

**JCM 170 Series Universal Clamp Couplings with Removable Lug System Overcome common pipe repair and connection problems such as:**

**Cramped Underground Utility Applications  
Rockbound Soil Conditions  
Restricted, Narrow Space Piping Galleries  
Limited Excavation Applications**

**JCM INDUSTRIES, INC.**

## JCM 172 Extended Range Universal Clamp Couplings

### JCM 172 Extended Range Universal Clamp Coupling - Double/Multi-Band

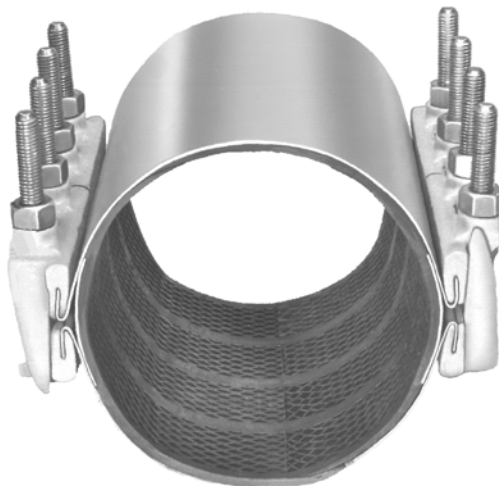
JCM 172 Extended Range Universal Clamp Couplings are designed especially for systems with both asbestos-cement and cast iron pipe, or with oversized pipe. This extended range, multi-band clamp provides a full circumferential seal and extra wide range. Only 6 clamps are needed to fit all cast-iron and asbestos-cement pressure pipe in sizes 4" through 12". Extra range and safety factor make this clamp particularly suited for pipe sizes 10" and larger.

JCM 172 Extended Range/Multi-Band clamps are designed to accommodate the working characteristics of large diameter pipe. In the repair applications to large diameter pipe, there are several factors to be considered to maintain pipe integrity and return to 100% service capacity. Factors which are critical to the application include: size and type of pipe, severity of damage, working pressure or service requirements, location or repair and time factor. JCM 172 UCC design criteria accommodate these factors by providing the following strength features...

**Heavy Duty Lug** - provides the safety factor and solid platform to support the increased bolt torque levels required to compress the gasket and seal the damaged area.

**Large Bolts** - supply bolting power and high torque ability to fully compress the full circumferential gasket.

**Thick Stainless Steel Band** - increases pressure holding capability and provides even, consistent compression over the gasket area.



# JCM 172 Extended Range Universal Clamp Couplings

## DOUBLE BAND CLAMPS

NOM. PIPE SIZE (IN.)	CLAMP O.D. RANGE (IN.)	WIDTH	CLAMP NUMBER	APPR. WT. EA. (LBS.)
4	4.44 - 5.24	6	172-0450- 6	16
		7-1/2	172-0450- 7	20
		12	172-0450-12	32
		15	172-0450-15	40
		18	172-0450-18	48
4	4.74 - 5.57	30	172-0450-30	80
		6	172-0480- 6	16
		7-1/2	172-0480- 7	20
		12	172-0480-12	32
		15	172-0480-15	40
6	6.62 - 7.42	18	172-0480-18	48
		30	172-0480-30	80
		6	172-0663- 6	16
		7-1/2	172-0663- 7	20
		12	172-0663-12	32
6	6.84 - 7.64	15	172-0663-15	40
		18	172-0663-18	48
		30	172-0663-30	80
		6	172-0690- 6	16
		7-1/2	172-0690- 7	20
8	8.62 - 9.42	12	172-0690-12	32
		15	172-0690-15	40.
		18	172-0690-18	48
		30	172-0690-30	80
		6	172-0863- 6	17
8	8.99 - 9.79	7-1/2	172-0863- 7	21
		12	172-0863-12	34
		15	172-0863-15	43
		18	172-0863-18	51
		30	172-0863-30	85
10	10.72 - 11.72	12	172-1075-12	53
		18	172-1075-18	80
		30	172-1075-30	132
10	11.04 - 12.24	12	172-1110-12	53
		18	172-1110-18	80
		30	172-1110-30	132
12	12.72 - 13.92	12	172-1275-12	55
		18	172-1275-18	80
		30	172-1275-30	138
12	13.14 - 14.34	12	172-1320-12	55
		18	172-1320-18	83
		30	172-1320-30	138
12	13.65 - 14.65	12	172-1365-12	55
		18	172-1365-18	83
		30	172-1365-30	138

## DOUBLE BAND CLAMPS

NOM. PIPE SIZE (IN.)	CLAMP O.D. RANGE (IN.)	WIDTH	CLAMP NUMBER	APPR. WT. EA. (LBS.)
14	15.20 - 16.20	12	172-1530-12	58
		18	172-1530-18	87
		30	172-1530-30	145
14 - 16	16.00 - 17.00	12	172-1600-12	59
		18	172-1600-18	89
		30	172-1600-30	148
16	17.20 - 18.20	12	172-1740-12	60
		18	172-1740-18	90
		30	172-1740-30	150
16 - 18	18.40 - 19.40	12	172-1846-12	62
		18	172-1846-18	93
		30	172-1846-30	155
18 - 20	19.40 - 20.40	12	172-1950-12	63
		18	172-1950-18	95
		30	172-1950-30	158
18 - 20	20.40 - 21.40	12	172-2050-12	64
		18	172-2050-18	97
		30	172-2050-30	161
20 - 22	21.40 - 22.40	12	172-2160-12	66
		18	172-2160-18	99
		30	172-2160-30	165
20 - 22	22.50 - 23.60	12	172-2260-12	67
		18	172-2260-18	101
		30	172-2260-30	168

## MULTI-BAND CLAMPS

24	23.80 - 25.00	12	172-2400-12	88
		18	172-2400-18	132
		30	172-2400-30	220
24	25.50 - 26.70	12	172-2580-12	90
		18	172-2580-18	135
		30	172-2580-30	225
24	27.90 - 29.10	12	172-2800-12	93
		18	172-2800-18	140
		30	172-2800-30	233
24 - 30	29.80 - 31.00	12	172-3000-12	96
		18	172-3000-18	144
		30	172-3000-30	240
30	31.70 - 32.90	12	172-3200-12	98
		18	172-3200-18	147
		30	172-3200-30	245
36	37.85 - 39.20	12	172-3830-12	117
		18	172-3830-18	175
		30	172-3830-30	292



**JCM Removable Lug  
Universal Clamp Couplings  
Installation Instructions  
Models 171, 172, 173, 174**

1. Clean and scrape pipe. Remove any dirt or debris that would interfere with the complete sealing of the gasket around the pipe. Lubricate the pipe with soapy water. **Do not use oil base pipe lubricant.** *Trick of the Trade: Place a mark on the pipe to each side of the damaged area equal to the width of the clamp. This presents a visual mark to center the repair clamp over the damage area (1/2 of this distance is center).*
2. Inspect pipe for integrity, size and outside diameter. Confirm the proper size and range of repair clamp.  
**For 171 - 173 Single Band Clamps** - Loosen the nuts (do not completely remove) and swing the oval neck bolt free from the open ear finger lug. To remove the lug, slide the open ear bolt lug to the side (if necessary, lug end may be tapped with hammer to assist removal). Take care not to bend or cause any damage to the stainless band that may prevent reinstallation of the finger lug.  
**For 172 - 174 Double and Multi Band Clamps** - Only one lug section is removable. The removable section is identified by the open weld ports in which the stainless steel band is visible. When identified, proceed with process described for the 171 - 173 single band above.
3. Open the clamp, slide the band around the pipe. Reinstall the open ear finger lug by inserting the band receiver pleat into the open slot of the lug and fully sliding the lug back into its original position. Place the clamp in position and tuck tapered gasket in place, mesh finger lugs and rotate clamp in direction of arrow to smooth tapered gasket flap. Engage bolts and tighten finger tight to hold in place.
4. Tighten all bolts evenly to the following torque values:  

**5/8" Bolts to 70 Foot Pounds**  
**3/4" Bolts to 90 Foot Pounds**
5. Complete installation of fitting and confirm minimum bolt torque levels have been maintained. For JCM 173 and 174 Tapped Clamps, proceed with tapping process.

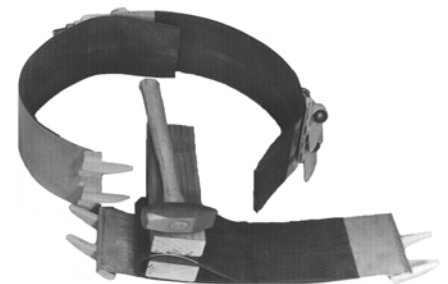
Years of field experience, special applications and product testing have revealed many subtleties regarding application and installation of repair clamps. For maximum performance under adverse conditions take advantage of the JCM “Tricks of the Trade.”

- Always clean and lubricate pipe with water or soapy water. This will help overcome friction when rotating the clamp to smooth the gasket. Do not use oil base pipe lubricant.
- Place a reference mark on the pipe back from the damaged area to help in centering clamp over break. Clamp provide maximum performance when centered over damage area.
- Breaks involving deflected pipe require a wider clamp. JCM lugs will articulate, permitting clamp to better conform to pipe.
- Damage involving large holes or massive pitted areas - use stainless steel or galvanized metal plate over large holes (under repair clamp) to provide the gasket something to seal against.
- Drill holes in the ends of splits or cracks to relieve forces which could cause splits to continue.
- Clamp performance drops when gap between pipe ends is larger than 1/2". Use a stainless steel spacer to fill or to place over gap.
- Leave sufficient pressure on a broken line to prevent intrusion of foreign matter to prevent excessive line contamination.
- With pressure reduced, spraying water will cease as soon as water level rises above break.
- Lubricating clamp bolts will ease clamp installation and assure proper torquing of bolts.

### **Making Larger Clamp From Smaller Clamps**

Longer than normal gasket tapers permit joining of Universal Clamp Couplings of like width and type to make a larger clamp. For instance, a 6" and 8" clamp can be joined to make a 14" clamp. This provide you with “on hand” capability to make repairs on larger pipe sizes.

- Determine which clamps are available to make needed clamp, usually 2 or 3 clamps are sufficient. It is recommended that clamps to be joined be not more than one nominal size apart. Join clamps with ranges that when combined include O.D. of pipe to be repaired. For Example: Required clamp is 14" to fit 16.44 O.D. Combining a 171-0905-12 (range 8.99 to 9.39) and a 171-0690-12 (range 6.84 to 7.25) will make a clamp with a range of 15.84 to 16.64.
- Prior to joining clamps, reduce the curvature of the recessed bridge plate (as shown in photo) to slightly less than curvature of pipe to be repaired. This is done by laying bridge plate between two 2" x 4"s and hitting with a small sledge hammer.
- Install as a multi-band clamp, making sure to tighten bolts evenly keeping gaps between lugs approximately even.





**JCM 171 and 172  
Universal Clamp Couplings  
Removable Lug System  
Typical Specifications**

**JCM 171 Universal Clamp Couplings - JCM 172 Multi-Band Clamps (sizes 4" through 8")**

All full circumferential single and multi-band repair clamps 1-1/2" and larger shall have a minimum material standard of certifiable prime 304 Stainless Steel band; heavy duty, low profile Ductile Iron Lugs (ASTM A536) with mutually supporting sliding fingers. Open ear lug shall be removable from the band to facilitate sliding band under pipe or installing in confined spaces; 5/8" corrosion resistant alloy bolts, per AWWA Standard C-111, ANSI 21.11, (or Stainless Steel 18-8 Type 304 bolts) and a gridded gasket with tapered lap joint ends and a 304 stainless steel quarter hardened bridge plate molded flush into the gasket. Gaskets in sizes 3" and larger shall be 1/4" thick. Clamp shall be similar to JCM 171 Universal Clamp Coupling with Removable Lug, JCM 172 Universal Clamp Coupling with Removable Lug or approved equal.

**JCM 171 Universal Clamp Couplings - JCM 172 Multi-Band Clamps (sizes 10" and larger)**

All full circumferential single and multi-band repair clamps 10" and larger shall have a minimum material of 17 gauge certifiable prime 304 Stainless Steel band; heavy duty Ductile Iron Lugs (ASTM A536) with mutually supporting sliding fingers. Open ear lug shall be removable from the band to facilitate sliding band under pipe or installing in confined spaces; 3/4" corrosion resistant alloy bolts, per AWWA Standard C-111, ANSI 21.11, (or Stainless Steel 18-8 Type 304 bolts) and a 1/4" thick gridded gasket with tapered lap plate molded flush into the gasket. The attachment shall withstand a minimum of 100 ft. lbs. of torque per bolt. Clamp shall be similar to JCM 171 Universal Clamp Coupling, JCM 172 Universal Clamp Coupling or approved equal.

JCM 100 Series Universal Clamp Couplings are ANSI/NSF Standard 61 Certified.



**JCM 171 and 172  
Universal Clamp Couplings  
Removable Lug System  
Material Specifications**

**JCM UNIVERSAL CLAMP COUPLINGS**

**BAND:** Type 304 Stainless Steel

**LUGS:** Ductile Iron ASTM A-536

**BOLTS:** Corrosion resistant low alloy per AWWA C-111, ANSI A21.11.  
Optional Stainless Steel 18-8 Type 304.

**GASKETS:** Compounded for use with water, salt solutions, mild acids and bases. Other gaskets available upon request.