

JCM Service Saddles

JCM Service Saddles provide a quick, dependable means of tapping pipe for branch connections of 1/2" through 2-1/2". Use of economical JCM Service Saddles eliminate problems common to direct taps, such as leaking threads or split pipe, and reinforces the critical connection.

JCM Service Saddles are designed for maximum safety and performance. The wrap around design, wide skirt and wide straps support and reinforce the pipe while providing excellent stability to the saddle. The heavy duty design of these saddles provides strength and mass for long term service.

High pressure performance is assured by the broad, pressure activated gasket. Permanently set in a retaining cavity, the contoured gasket produces a positive initial seal which increases with increase in line pressure.

The JCM 402, 404 and 406 saddles, with their wide bodies and large sealed outlet areas, provide an excellent means of repairing holes, pin holes and leaking 3/4" and 1" direct taps.

DESIGNED FOR SAFETY AND PERFORMANCE

HEAVY THREADED OUTLET -

with IPS or CC threads reinforces the critical connection.

BROAD PRESSURE ACTIVATED

GASKET - for low and high pressure performance.

CORROSION RESISTANT COATING

- for long-term service.

WIDE STRAPS -

increase the load bearing area of the straps.

HEAVY DUTY DESIGN -

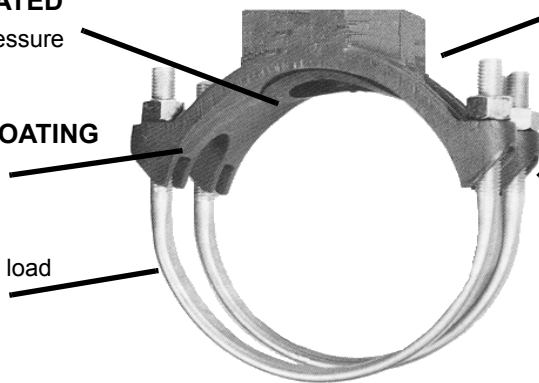
provides strength and mass for long term service.

CLOSED CANTED EARS -

for extra protection against electrolysis and maximum strap bearing.

WIDE BODY WRAP AROUND

DESIGN - support and reinforce the pipe and provide excellent stability.



Material Specifications:

Body: Ductile Iron ASTM A536

Straps: **Models 401, 402** - Electro Galvanized Steel; **Models 403, 404, 405, 406** - Bands, Bolts, Nuts and Washers are 18-8 Type 304 Stainless Steel.

Gasket: Compounded for use with water, salt solutions, mild acids, bases.

Finish: **Models 401, 402, 403, 404** - Standard Shop Coat Primer: Heavy coat of corrosion resistant metal primer. **Models 405, 406** - Fusion Plastic Coating: fusion bonded, high density blue plastic coating, 12 mils minimum thickness with a dielectric strength of over 12,000 volts.

JCM 401 Single Strap Service Saddle
JCM 403 Wide Body Service Saddle
JCM 405 Coated Wide Body Service Saddle



The **JCM 401 Single Strap Service Saddle** is designed for maximum safety, performance and economy. The wrap around design, broad, pressure activated gasket and corrosion electro galvanized steel strap provide for ease of installation, high pressure performance and a long service life. **JCM 407 Coated Single Strap Service Saddle with electro galvanized strap available, contact the JCM Inside Sales Team.**

The **JCM 403 Wide Body Service Saddle** utilizes an extra wide stainless steel strap with the broad, wrap around single strap saddle body to provide extra support and stability as well as to eliminate point loading. The 403 is especially recommended for PVC, thin wall pipe and pipe sensitive to point loading.

The **JCM 405 Coated Wide Body Service Saddle** is designed for maximum safety and performance in tapping all types of pipe in hot and corrosive soils. Extra corrosion resistance is built into this saddle with the heavy resilient plastic coating which is fusion applied to the saddle body.

NOM. PIPE SIZE (IN.)	PIPE O.D. RANGE (IN.)	APPR WT. EACH (LBS.)	CTN. QTY.	JCM 401 SERVICE SADDLE	JCM 403 SERVICES SADDLE	JCM 405 SERVICE SADDLE
				CATALOG NUMBER X TAP CODE	CATALOG NUMBER X TAP CODE	CATALOG NUMBER X TAP CODE
2	2.35 - 2.63	2.5	12	401-0238 X --	403-0238 X --	405-0238 X --
2-1/2	2.70 - 3.13	3.0	12	401-0288 X --	403-0288 X --	405-0288 X --
3	3.25 - 3.50	3.0	12	401-0350 X --	403-0350 X --	405-0350 X --
3 - 4	3.80 - 4.13	3.0	12	N/A	403-0413 X--	405-0413 X --
4	4.25 - 4.50	4.5	10	401-0450 X --	403-0450 X --	405-0450 X --
4	4.50 - 4.80	4.5	10	401-0480 X --	403-0480 X --	405-0480 X --
4	4.74 - 5.45	4.5	10	401-0545 X --	403-0545 X --	405-0545 X --
6	6.50 - 6.63	4.5	10	401-0663 X --	403-0663 X --	405-0663 X --
6	6.63 - 6.90	4.5	10	401-0690 X --	403-0690 X --	405-0690 X --
6	6.84 - 7.60	4.5	10	401-0745 X --	403-0745 X --	405-0745 X --
8	8.50 - 8.63	5.0	10	401-0863 X --	403-0863 X --	405-0863 X --
8	8.63 - 9.05	5.0	10	401-0905 X --	403-0905 X --	405-0905 X --
8	8.99 - 9.79	5.0	10	401-0963 X --	403-0963 X --	405-0963 X --
10	10.60 - 10.75	5.5	6	401-1075 X --	403-1075 X --	405-1075 X --
10	10.75 - 11.10	5.5	6	401-1110 X --	403-1110 X --	405-1110 X --
10	11.10 - 11.40	5.5	6	401-1140 X --	403-1140 X --	405-1140 X --
10	11.00 - 12.25	5.5	6	401-1225 X --	403-1225 X --	405-1225 X --
12	12.60 - 12.75	6.0	6	401-1275 X --	403-1275 X --	405-1275 X --
12	12.75 - 13.20	6.0	6	401-1320 X --	403-1320 X --	405-1320 X --
12	12.75 - 13.50	6.0	6	401-1350 X --	403-1350 X --	405-1350 X --
12	13.10 - 14.38	6.0	4	401-1426 X --	403-1426 X --	405-1426 X --

How To Order

1. Determine O.D. of pipe, outlet size and thread type.
2. Select desired saddle type and tap order code.
3. Look under saddle listing to determine order number. Add tap code after base catalog number.
EXAMPLE: For 6" C.I. Pipe with O.D. of 6.90 with 1" IP thread, order:
401-0745 x 08IP

OUTLET SIZES	TAP CODES IP	TAP CODES CC
1/2"	04	--
3/4"	06	07
1"	08	09

JCM 401/403/405 Single Strap Service Saddles

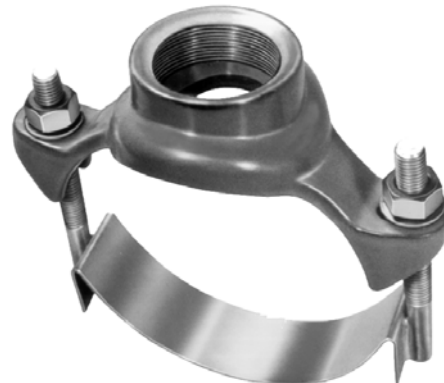
Outlet Sizes 1-1/4", 1-1/2", 2" and 2-1/2"

These wide body service saddles provide maximum stability of critical branches for reliable, high pressure performance. The strong ductile iron body provides 140° to 170° saddle to pipe contact for pipe wall reinforcement.

JCM 401 Single Strap Service Saddle - utilizes an electro-galvanized steel strap and standard shopcoat primer, most suitable for cast iron, ductile iron, asbestos cement, steel and other types of rigid pipe.

JCM 403 Wide Body Service Saddle - provides a 2" wide corrosion resistant stainless steel band and the standard shopcoat primer. Recommended for use of IPS PVC, C-900 PVC, HDPE, fiberglass, sewer pipe, thin wall and other types of non-rigid pipe; also for ductile iron, cast iron, asbestos cement and other types of rigid pipe in somewhat corrosive soils.

JCM 405 Coated Wide Body Service Saddle - provides a 2" wide corrosion resistant stainless steel band and has a highly corrosion resistant Fusion Plastic Coating. This model is recommended for all types of pipe, both rigid and non-rigid, used in hot, acidic and corrosive environments.



NOM. PIPE SIZE (IN.)	PIPE O.D. RANGE (IN.)	APPR WT. EACH (LBS.)	CTN. QTY.	JCM 401 SERVICE SADDLE	JCM 403 SERVICES SADDLE	JCM 405 SERVICE SADDLE
				CATALOG NUMBER X TAP CODE	CATALOG NUMBER X TAP CODE	CATALOG NUMBER X TAP CODE
4	4.25 - 4.50	6.2	10	401-0450 X --	403-0450 X --	405-0450 X --
4	4.50 - 4.80	6.2	10	401-0480 X --	403-0480 X --	405-0480 X --
6	6.50 - 6.63	6.7	10	401-0663 X --	403-0663 X --	405-0663 X --
6	6.63 - 6.90	6.7	10	401-0690 X --	403-0690 X --	405-0690 X --
6	6.84 - 7.60	6.7	10	401-0745 X --	403-0745 X --	405-0745 X --
8	8.50 - 8.63	7.4	10	401-0863 X --	403-0863 X --	405-0863 X --
8	8.63 - 9.05	7.4	10	401-0905 X --	403-0905 X --	405-0905 X --
8	8.99 - 9.79	7.4	10	401-0963 X --	403-0963 X --	405-0963 X --
10	10.60 - 10.75	8.2	6	401-1075 X --	403-1075 X --	405-1075 X --
10	10.75 - 11.10	8.2	6	401-1110 X --	403-1110 X --	405-1110 X --
10	11.10 - 11.40	8.2	6	401-1140 X --	403-1140 X --	405-1140 X --
10	11.00 - 12.25	8.2	6	401-1225 X --	403-1225 X --	405-1225 X --
12	12.60 - 12.75	9.0	6	401-1275 X --	403-1275 X --	405-1275 X --
12	12.75 - 13.20	9.0	6	401-1320 X --	403-1320 X --	405-1320 X --
12	12.75 - 13.50	9.0	6	401-1350 X --	403-1350 X --	405-1350 X --
12	13.10 - 14.38	9.0	4	401-1426 X --	403-1426 X --	405-1426 X --

OUTLET SIZES	TAP CODES IP	TAP CODES CC
1-1/4"	10	11
1-1/2"	12	13
2"	14	15
2-1/2"	16	--

Material Specifications:

Body: Ductile Iron ASTM A536

Straps: **Model 401** - Electro Galvanized Steel; **Models 403, 405** - Bands, Bolts, Nuts and Washers are 18-8 Type 304 Stainless Steel.

Gasket: Compounded for use with water, salt solutions, mild acids, bases.

Finish: **Models 401, 403** - Standard Shop Coat Primer: Heavy coat of corrosion resistant metal primer. **Model 405**- Fusion Plastic Coating: fusion bonded, high density blue plastic coating, 12 mils minimum thickness with a dielectric strength of over 12,000 volts.



JCM 405 Coated Wide Body Service Saddle Typical Specifications

JCM 405 Coated Wide Body Service Saddle

Service Saddles for pipe sizes 2" through 12" shall have a wrap around design with a ductile iron body, fusion plastic coated. The coating thickness shall be a minimum of 12 mils with a dielectric strength of over 12,000 volts. The gasket shall be a broad pressure activated design, molded of virgin rubber and bonded into a cavity in the saddle body, which provides internal as well as external gasket retention.

The strap, bolts, nuts and washers shall be 18-8 stainless steel with all welds passivated for resistance to corrosion. The strap width shall be 2" to provide a wide stance on the pipe.

Service saddles shall be JCM 405 or approved equal.

JCM 400 Series Service Saddles are ANSI/NSF Standard 61 Certified.



JCM 405 Coated Wide Body Service Saddle Material Specifications

JCM 405 Coated Wide Body Service Saddle

JCM Coated Saddles are constructed of ductile iron with a high density fusion plastic coating and have 18-8 Type 304 Stainless Steel straps, nuts and washers for high corrosion resistance. These saddles meet or exceed AWWA C-800 standards for service line fittings.

BODY CASTING: Wrap around design of Ductile Iron, ASTM A-536. Body has a gasket cavity, which provides internal as well as external gasket retention.

GASKET: Molded virgin rubber with a pressure activated hydro mechanical design. Gasket is bonded into a cavity for internal and external retention. Gasket suitable for water, salt solutions, mild acids, bases, and sewage.

STRAP: Stainless steel, 18-8 Type 304, the strap is equal to or greater than the internal diameter of the gasket to provide for proper pipe support and gasket loading. Strap is 14 gauge stainless steel. Strap is passivated for corrosion resistance.

**BOLTS, NUTS
WASHERS:** Stainless steel, 18-8 Type 304, passivated for corrosion resistance. Coated with antiseize compound to reduce friction and galling.

COATING: Casting is coated with fusion bonded high density blue plastic, 12 mils minimum thickness, with a dielectric strength of over 12,000 volts. Water absorption less than .20% (less than nylon) prevents undercutting and blistering.

**PRESSURE
RATING:** Working pressure is 250 PSI hydrostatic. Contact factory if higher working pressure is required.

SIZES: See catalog.



JCM Thermoplastic Powder Coating Working Characteristics

Performance Properties

Flexibility (conical mandrel) (ASTM D 522)	1/8 inch, no cracks (Greater than 32%)
Adhesion (ASTM D 4541)/(ASTM D 3359)	>1,000 psi / (5A) (Scored and unscored/no peeling or removal)
Impact Resistance (ASTM D 2794)	>384 in./lbs.
Hardness (ASTM D 2240) (Shore D)	48
Taber Abrasion (ASTM D 4060)	90 (mg loss, CS10 wheel)* 100 (mg loss, CS17 wheel)*

*(1,000 g load/1,000 cycles)

Chemical and Durability Properties

Solvent and Chemical Resistance	Generally resistant to most acids, alkalies, oils and solvents. Not suitable for hydrocarbon service other than intermittent contact or splash zones.
Salt Spray Resistance (ASTM B-117)	>4,000 hours
Humidity Resistance (ASTM D-2247)	No blistering or loss of gloss after 1,000 hours.

Other Properties

Smoke Development (ASTM E-84)	10 Flame Spread Index 10 Smoke Developed Index
Chip Resistance (ASTM D3170)	8A*
Dielectric Breakdown (ASTM D149)	893+/- 153 volts/mil**
Volume Resistivity (ASTM D 257)	4.67 x 10 ¹³ ohms/cm. (insulator)

* Data obtained using 13 mil coatings

** Data obtained using 20 mil natural coatings. Addition of pigments may cause varying results.

Limitations - Not suitable for hydrocarbon service.

Normal Service: -20° F to 160° F

Immersion Service: <125°F

Special Approvals - Meets ANSI/NSF Standard 61 for potable water service. Classified by UL (Underwriters Laboratories, Inc.)

JCM Industries, Inc. / P. O. Box 1220 / Nash, TX 75569-1220



JCM Service Saddle Installation Instructions

1. Thoroughly clean pipe surface.
2. Check pipe surface for irregularities.
3. Lubricate face of gasket.
4. Mount saddle body in proper position on pipe.
5. Install strap(s) or bolts(s).
6. Check to make certain gasket is in proper position and not in waterway.
7. Tighten nut(s) to following torque values:

<u>Bolt Size</u>	<u>Steel & Rigid Pipe</u>	<u>PVC & Polyethylene Pipe</u>
		HDPE Approx. - subject to temperature and line pressure
1/2"	45 - 50 Ft. Lbs.	45 - 50 Ft. Lbs.
5/8"	70 - 75 Ft. Lbs.	45 - 50 Ft. Lbs.