JCM 425 Service Saddle for Concrete Steel Cylinder Pipe

Service Saddle for 3/4” through 2” Taps and Connections on Concrete Steel Cylinder Pipe, Reinforced Concrete Pipe, Large Diameter Cast Iron and Ductile Iron.

The JCM 425 Service Saddle is specifically designed for making safe, dependable taps into Concrete Steel Cylinder Pipe and Concrete Coated Steel Pipe. The threaded outlet, available in sizes 3/4” through 2” IP or CC, provides critical reinforcement to branch connections for service lines. These saddles can also be used to install air and vacuum valves, pitot tubes, injection lines and other equipment.

The following are important features and benefits this saddle offers:

*Provides critical reinforcement of pipe prior to removal of the prestress wire from the outlet area. This is a required feature to maintain pipe integrity on larger taps and many small taps. The separate bolt-in outlet makes possible this essential installation step.
*The adjustable outlet accommodates variation in concrete coating from no coating to a thickness of 1-1/8”. Special outlets are available for embedded cylinder pipe and thicker coatings of concrete.
*High and low pressure performance are assured by a broad, pressure-activated gasket. Permanently set in a retaining cavity, the contoured gasket produces a positive initial seal which increases with increases in line pressure.

For coating thickness of 1-1/8” or less.

For coating thickness of over 1-1/8”.
Outlet for Embedded Cylinder Pipe. Prices upon request.

425 SERVICE SADDLE FOR CONCRETE STEEL CYLINDER PIPE

NOM. PIPE SIZE (IN.)	STEEL CYLINDER O.D.*	CONCRETE O.D. RANGE	CATALOG NUMBER X TAP CODE
16	17.25 - 20.15	19.25 - 20.15	425-2015 X --
18	19.50 - 22.75	21.75 - 22.75	425-2275 X --
20	21.70 - 24.65	23.64 - 24.65	425-2465 X --
24	25.75 - 29.15	27.62 - 29.15	425-2915 X --
30	31.88 - 35.75	33.88 - 35.75	425-3575 X --
36	37.75 - 41.00	39.75 - 41.00	425-4100 X --
36	40.50 - 43.00	41.50 - 43.00	425-4300 X --
42	43.75 - 47.25	45.75 - 47.25	425-4725 X --
42	46.00 - 49.50	48.00 - 49.50	425-4950 X --
48	49.50 - 53.00	51.50 - 53.00	425-5300 X --
48	53.40 - 56.50	55.38 - 56.50	425-5650 X --

*Longer outlet bolts are required for making taps on pipe with less than 1/4” coating

OUTLET TAP CODES		
OUTLET SIZE	IP THREAD	CC THREAD
3/4”	06	07
1”	08	09
1-1/4”	10	11
1-1/2”	12	13
2”	14	15

Material Specifications:

Body, Outlet, Washers: Ductile Iron ASTM A536
Outlet Bolts: Corrosion resistant, high strength low alloy (AWWA C-111, ANSI A21.11)
Straps: Steel per ASTM A-36. Optional Stainless Steel 18-8 Type 304.
Gasket: Buna-N compounded for use with water, salt solutions, mild acids, bases, gas.
Coating: Heavy coating of corrosion resistant shop coat primer. Optional Fusion Epoxy Coating available.

Grout Diapers for Service Saddles

These diapers make the recommended grouting of the service saddle a very quick procedure. Diapers are 11” wide with two 5/8” straps and are constructed of one layer of Typar backed by a 6 mil ply of polyethylene film. Order by pipe size.

GROUT DIAPERS

SADDLE SIZE
16” - 24”
30” - 36”
42” - 48”

JCM 425 Service Saddle for Concrete Steel Cylinder Pipe Typical Specification

JCM 425 Service Saddle for Concrete Steel Cylinder Pipe

Service Saddles with 3/4" - 2" outlets for concrete steel cylinder pipe shall have a design which permits installation of the sleeve prior to removal of the reinforcing wire and grouting of the outlet after the service tap. Service Saddles shall be JCM 425 Service Saddles as manufactured by JCM Industries, Inc., or approved equal.

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

JCM 425 Service Saddle for Concrete Steel Cylinder Pipe Installation Instructions

1. Clean pipe in area where saddle is to be installed. Remove any large lumps of concrete extending beyond the normal contour of the pipe surface. Check all measurements to be certain saddle is correct size for the pipe. Check the saddle to make certain you have all necessary bolts, nuts and washers. **Remove outlet gland from saddle body.**

2. Position the saddle body on the pipe where the tap is to be made. Mark the area of the body opening and a 1” diameter area at the top of saddle in the “U” section between the strap receivers (this is to provide the grout opening for regrouting around the outlet). This is the area where the concrete coating is to be removed.

3. Set the saddle body aside. Connect the marked grout opening area to marked saddle opening area. Carefully strip away the concrete in the marked area, exposing the reinforcing wires and steel cylinder. Check to see if there is a weld seam in the area where the saddle gasket will seat. If there is, relocate the saddle slightly to avoid the seam. **DO NOT CUT THE REINFORCING WIRE UNTIL AFTER THE SADDLE BODY IS INSTALLED.**

4. Check the fit of the saddle body and tapped outlet to make certain that the stripped area is large enough to allow proper seating of the outlet and regrouting around the outlet from the top of the saddle body.

5. Install the 4 oval neck outlet bolts in the saddle body (if not already installed) using the plastic washers to hold them in place. Install the straps taking care to maintain the saddle body in its proper place. Install the straps taking care to maintain the saddle body in its proper position. The cast hemispherical washers are designed to provide proper alignment for tightening of the straps. If the straps do not fit the contour of the pipe, remove and reform them until they fit into the saddle. Tighten the straps evenly, alternating from one side of the saddle to the other. Tighten to approximately 70 - 100 foot pounds.

6. Check the outlet fit once more. If everything is proper, carefully cut and remove the exposed reinforcing wires. Clean the steel cylinder of any remaining concrete and check the area where the gasket will seat to make certain it is free of seams, gouges or laminations.

Continued on reverse

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JCM 425 Service Saddle for Concrete Steel Cylinder Pipe Installation Instructions Continued

7. Check the saddle gasket to make certain it is undamaged and in its retaining groove.

8. Match up the flat on the outlet with the flat side of the saddle body and install the outlet in the saddle using the 4 draw bolts previously installed around the saddle body opening. If the strap studs interfere with the outlet, they can be cut while in place. Tighten the 4 draw bolts evenly to approximately 60 - 70 foot pounds.

9. Install the valve or corporation stop using a good thread sealant. Test all seals prior to making the tap.

10. Regrout around the outlet and over the entire saddle assembly to provide protection to the cylinder and saddle. A mixture of 2 parts sand to 2 parts cement is recommended.