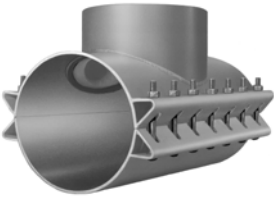









## JCM Carbon Steel Fabricated Tapping Sleeve Selection Guide

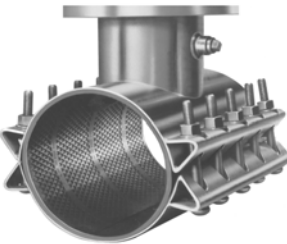

PRODUCT	NUMBER & TYPE	APPLICATION, SIZES AND INFORMATION
	411 Plain Outlet Sleeve	Most economical sleeve for dry taps and connections to be made without a valve. Also excellent as a base sleeve for special sleeves. Available with reducing and size on size outlets for all types of pipe, 6" and larger.
	412 Flanged Outlet Tapping Sleeve  422 Flanged Outlet Tapping Sleeve for PVC & Steel Pipe  413 Flanged Outlet Tapping Cross	<p>The standard sleeve for quick, economical taps on all types of pipe, standard or high pressure service. Most available of all types in standard or special sizes. Available with reducing and size on size outlets, pipe sizes 6" and larger. Special outlets readily available.</p> <p>Specially designed tapping sleeve for the exact O.D. of steel pipe, IPS PVC and C-900. Sizes 4" -12".</p> <p>Quick economical cross for all types of pipe 8" and larger. Outlets must be minimum of three nominal sizes smaller than run. Made similar to the 412, the sleeve length is extended to provide more pipe support.</p>
	414 Mechanical Joint Tapping Sleeve & Cross	The sleeve with side and end gaskets to provide extra margin of safety on lines which are subject to problems of beam loads. Available with size on size and reducing outlets. Competitive with cast sleeves in larger and special sizes. Excellent availability.
	415 Concrete Steel Cylinder Tapping Sleeve	Designed to tap all types and brands of concrete steel cylinder pipe. Sleeve reinforces pipe prior to cutting of pipe reinforcing rod. Extra heavy retained gasket and easily installed gland provide a locked in, positive seal. Available with reducing outlets in pipe sizes 16" and larger.
	416 Weld On Outlets  417 Weld on Tapping Sleeve	<p>Outlets, partial sleeves and complete sleeves for pipe sizes 6" and larger with size on size and reducing outlets. These outlets are designed for steel pipe with wall thickness of 1/4" and greater.</p> <p>Split weld on sleeve designed to reinforce pipe to be tapped. Standard sleeve thickness 1/4".</p>

## JCM Carbon Steel Fabricated Tapping Sleeve Selection Guide

PRODUCT	NUMBER & TYPE	APPLICATION, SIZES AND ADDITIONAL INFORMATION
	<p>418 Threaded Outlet Tapping Sleeve</p>	<p>For taps and connections in larger sizes of pipe (service connections, taps for air relief valves). Heavy gasket section and full sleeve offer better performance than strapped saddle, yet competitively priced. Available with IPS outlets, pipe sizes 4" and larger, outlets 3/4" - 4", in standard shop coat alloy bolts or epoxy coated/stainless steel bolts.</p>
	<p>419 Fabricated Carbon Steel Tapping Sleeve with Mechanical Joint Outlet*</p> <p>429 Fabricated Carbon Steel Tap Sleeve with MJ Outlet* for IPS PVC, C-900 PVC and Steel Pipe sizes</p>	<p>New from JCM Fabricated Carbon Steel Tapping Sleeve with TRUE Mechanical Joint Outlet. Durable construction, alignment set pins and "monocast" mechanical joint outlet provides a competitive option for using MJ valves in lieu of tapping valves. Available in shopcoat or epoxy, standard or stainless steel hardware. Sizes 4" and larger up through 12" outlets. JCM 429 is provided standard epoxy coated.</p> <p><b>JCM Mechanical Joint Outlets meet AWWA C-111/ANSI 21.11 Standard Dimensions</b></p> <p><small>*Licensed by PowerSeal Corporation U. S. Patent No. 6,227,234</small></p>
	<p>440 Line Stop Fitting</p>	<p>Designed for use on 150 PSI piping systems, the heavier materials and extra bolting power built into these sleeves eliminate flexing and provides extra sealing capability necessary for long term performance. The heavy all stainless construction and full circumferential sealing gasket means these non-compromising sleeves will be trouble free and become a permanent part of the piping system just as the mechanical joint fittings already in use.</p> <p>Sizes 4" - 8" fabricated of Stainless Steel          Sizes 10" - 12" fabricated of Carbon Steel</p>

**JCM Tapping Sleeves meet or exceed the ANSI/AWWA C-223 and the MSS-SP 124 Standards as applicable.**

## JCM Stainless Steel (304) Tapping Sleeve Selection Guide

PRODUCT	NUMBER & TYPE	APPLICATION, SIZES AND ADDITIONAL INFORMATION
	438 All Stainless Steel Threaded Outlet Tapping Sleeve	All stainless steel construction for taps and connections of larger sizes of pipe in corrosive, acidic environments. The 438 is available construction of either 304 or 316 Stainless Steel. Heavy gasket section and full sleeve offer better performance than strapped saddle, yet competitively priced. Available with IPS outlets, pipe sizes 4" and larger, outlets 3/4" - 4"
	432 All Stainless Steel Tapping Sleeve  462 Stainless Steel Tapping Sleeve with Carbon Steel Flange	The sleeve for taps requiring full circumferential seal with high safety factor. Strong stainless construction with independent bolting for higher bolt torque capabilities. Sizes 4" - 24".
	452 All Stainless Steel Tapping Sleeve with Outlet Seal Gasket  464 Stainless Steel Tapping Sleeve with Outlet Seal Gasket Carbon Steel Flange	Stainless steel tapping sleeve for large diameter pipe and high pressure applications. Stainless construction provides superior corrosion resistance for long term service. Sizes 6" and larger.
  	439 All Stainless Steel Sleeve with Mechanical Joint Outlet*  469 Stainless Steel Sleeve with Carbon Steel Mechanical Joint Outlet*  459 All Stainless Steel Sleeve with Mechanical Joint Outlet*  465 Stainless Steel Sleeve with Outlet Seal Gasket and Carbon Steel Mechanical Joint Outlet*	<b>True mechanical joint</b> outlet tapping sleeve reduces application costs and inventory by utilizing MJ gate valve in lieu of tapping valve. All stainless steel construction provides corrosion resistance. Unique load bearing set pins transfer load and prevents movement or misalignment during or after the tap. Available in full circumferential gasket style or outlet seal gasket style. Sizes: Outlets 4" - 12", pipe sizes 4" and larger.  <b>JCM Mechanical Joint Outlets meet AWWA C-111/ANSI 21.11 Standard Dimensions</b>  <small>*Licensed by PowerSeal Corporation U. S. Patent No. 6,227,234</small>

JCM Tapping Sleeves meet or exceed the ANSI/AWWA C-223 and the MSS-SP 124 Standards as applicable.

## JCM Stainless Steel (316) Tapping Sleeve Selection Guide

Tapping Sleeves featured are available constructed of ALL 316 Stainless Steel material. Four digit model numbers reflect JCM standard tapping sleeve design style and outlet configuration. Fittings are available in same O.D. ranges and outlet sizes as their corresponding model numbers indicate. These fittings are priced on application. Contact JCM Inside Sales Team for information.

PRODUCT	NUMBER & TYPE	APPLICATION, SIZES AND ADDITIONAL INFORMATION
	6438 All 316 Stainless Steel Threaded Outlet Tapping Sleeve	All 316 stainless steel construction for taps and connections of larger sizes of pipe in corrosive, saltwater and extreme acidic environments. Heavy gasket section and full sleeve offer better performance than strapped saddle. Available with IPS outlets, pipe sizes 4" and larger, outlets 3/4" - 4"
	6432 All 316 Stainless Steel Tapping Sleeve	The sleeve for taps requiring full circumferential seal with high safety factor. Strong stainless construction with independent bolting for higher bolt torque capabilities. Sizes 4" - 24".
	6452 All 316 Stainless Steel Tapping Sleeve with Outlet Seal Gasket	Stainless steel tapping sleeve for large diameter pipe and high pressure applications. Stainless construction provides superior corrosion resistance for long term service. Sizes 6" and larger.
	6439 All 316 Stainless Steel Sleeve with Mechanical Joint Outlet*	<p><b>True mechanical joint outlet</b> tapping sleeve reduces application costs and inventory by utilizing MJ gate valve in lieu of tapping valve. All stainless steel construction provides corrosion resistance. Unique load bearing set pins transfer load and prevents movement or misalignment during or after the tap. Available in full circumferential gasket style or outlet seal gasket style. Sizes: Outlets 4" - 12", pipe sizes 4" and larger.</p> <p><b>JCM Mechanical Joint Outlets meet AWWA C-111/ANSI 21.11 Standard Dimensions</b></p> <p>*Licensed by PowerSeal Corporation U. S. Patent No. 6,227,234</p>
	6459 All 316 Stainless Steel Sleeve with Mechanical Joint Outlet*	

JCM Tapping Sleeves meet or exceed the ANSI/AWWA C-223 and the MSS-SP 124 Standards as applicable.