JCM 438 All Stainless Steel Threaded Outlet Tapping Sleeve

For taps and connections on larger pipe, thin wall pipe and pipe requiring extra reinforcement.

The JCM 438 All Stainless Steel Threaded Outlet Tapping Sleeve is especially recommended for service connections, air relief valve connections, taps on larger A/C, Cast Iron, Ductile Iron, PVC and Reinforced Concrete Pipe. The heavy gasket section and full sleeve support of this fitting offer much more stability, pipe reinforcement and strength than a strapped saddle, yet they are competitively priced. Readily available for pipe 4" and larger requiring IPS outlets of 3/4" through 4".

How To Order
1. Determine O.D. of pipe and outlet size.
2. Check listing to determine order number. If size is not listed, order by pipe O.D. size.

EXAMPLE:
For 24" Cast Iron with 25.80 O.D. with 3"IP outlet, order: 438-2580 x 17IP.

438 ALL STAINLESS STEEL THREADED OUTLET TAPPING SLEEVE (IPS Outlet)

NOM. PIPE SIZE (IN.)	SLEEVE O.D. RANGE (IN.)	SLEEVE NUMBER X OUTLET SIZE	APPR. WT. EACH (LBS.)
4	4.50 4.80	438-0450 X -- 438-0480 X --	21 21
6	6.63 6.90	438-0663 X -- 438-0690 X --	23 23
8	8.63 9.05	438-0863 X -- 438-0905 X --	31 33
10	10.75 11.10	438-1075 X -- 438-1110 X --	38 40
12	12.75 13.20	438-1275 X -- 438-1320 X --	48 51
14	14.59 - 15.08 15.23 - 15.80 16.30 - 16.73	438-1475 X -- 438-1530 X -- 438-1650 X --	54 57 60
16	17.33 - 17.87 18.62 - 19.19	438-1740 X -- 438-1875 X --	64 68
18	19.41 - 20.01 20.93 - 21.57	438-1950 X -- 438-2130 X --	72 77
20	21.51 - 22.15 23.46 - 24.16	438-2160 X -- 438-2400 X --	80 87
24	25.71 - 26.41 28.14 - 28.84	438-2580 X -- 438-2834 X --	95 104
30	31.62 - 32.22	438-3200 X --	115
36	38.10 - 38.75	438-3830 X --	139
42	44.10 - 44.70	438-4450 X --	160
48	50.40 - 51.00	438-5080 X --	183
54	56.60 - 57.25	438-5710 X --	205

OTHER SIZES AVAILABLE UPON REQUEST.

OUTLET SIZE	ORDER CODE IP
3/4"	06
1"	08
1-1/4"	10
1-1/2"	12
2"	14
2-1/2"	16
3	17
4	18

JCM 438 All Stainless Steel Threaded Outlet Tapping Sleeve available with CC Threaded Outlet (additional charge.

JCM 438 All Stainless Steel Threaded Outlet Tapping Sleeve Material Specifications:

Body, Threaded Outlet, Bolts: Stainless Steel, 18-8 Type 304. Optional 316 Stainless Steel available.

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

JCM 438 All Stainless Steel Threaded Outlet Tapping Sleeve Typical Specifications

JCM 438 Stainless Steel Threaded Outlet Tapping Sleeve

Service fittings shall be the high strength Stainless Steel 18-8 Type 304 (optional 316 stainless steel), which conforms to and reinforces the pipe. Sleeve shall be minimum 8" wide and be sized to fit and reinforce the pipe circumference.

Sleeve outlet shall have a minimum 3/4" wide Buna-N gasket recessed in a machined groove around the threaded outlet.

Service fitting shall be furnished with 18-8 Type 304 stainless steel bolts, nuts and washers.

Service fittings shall be JCM 438 Stainless Steel Threaded Outlet Tapping Sleeve or approved equal.

JCM 400 Series Tapping Sleeves are ANSI/NSF Standard 61 Certified.

JCM 438 All Stainless Steel Threaded Outlet Tapping Sleeve Material Specifications

JCM 438 Stainless Steel Threaded Outlet Tapping Sleeve

BODY:	Stainless Steel 18-8 Type 304. Optional 316 Stainless Steel.
BOLTS:	Stainless Steel 18-8 Type 304. Optional 316 Stainless Steel.
GASKET:	Compounded for use with water, salt solutions, mild acids, bases and sewage. Suitable for temperatures through 212^{O} F.
SERVICE RATING:	3/4" - 4" outlets: 250 PSI. Higher service rating available for specific applications and sizes.

JCM 438 Stainless Steel Threaded Outlet Tapping Sleeve Installation Instructions

* Thoroughly clean pipe surface. Check the size and range of the tapping sleeve to verify correct size product.

* Check surface where gasket will seat to make certain pipe is free of flaws, gouges and extreme irregularities.

* Lubricate pipe and face of gasket with soap-water or gasket lubricating solution. **Do not** use grease or pipe lubricant.

* Position outlet half of body on pipe, making sure outlet is aligned with branch line to be connected. Never position so that rotation is required.

* Position back half of body and install bolts.

* Tighten outside bolts first, working toward the center.

* Tighten bolts evenly. Alternate from one side of sleeve to the other. Tighten bolts to the following toque levels:

  Pipe sizes 6" - 12" - 100 ft. lbs. of torque
  Pipe sizes 14" & larger - 125 ft. lbs. of torque

  NOTE: For test and working pressure above 250 PSI bolts must be tightened to 150 - 170 ft. lbs. of torque. (Contact JCM for proper application.)

On Thin Wall, PVC (SDR21, 26), and Flexible Pipe	**50 - 55 ft. lbs. minimum**
HDPE SDR11, SDR17 - 6" - 12"	**60 ft. lbs. minimum**
HDPE SDR11, SDR17 - 14" and Larger	**90 ft. lbs. minimum**

* Check inside of sleeve neck to make certain gasket is properly seated and not protruding where tapping cutter may damage it.

* Test assembly seals using test plug provided on sleeve or test connection on tapping machine. Note: No more than 10% above line pressure on HDPE or maximum pipe working pressure rating. When assured that all seals are tight and test is completed, re-check bolt torques and proceed with tapping operation.

Note: Tapping operation must not force the pipe away from the gasket seal.

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RECOMMENDATIONS FOR INSTALLATION OF FITTINGS WITH STAINLESS STEEL BOLTS AND NUTS

This JCM Quality Fitting Is Equipped With 18-8 Stainless Steel Bolts And Nuts For Superior Corrosion resistance. It is the nature of stainless steel fasteners to gall and freeze if not properly handled. This undesirable characteristic is due to the inherent properties of the material.

The galling and freezing action is often triggered by the presence of metal chips, burrs and grains of sand on the threads of the bolts and nuts.

Extra care has been taken by JCM prior to assembly and packing of this fitting to assure a trouble-free installation.

1. The nuts and bolts are made from material of different hardness so that they have different strengths.
2. The nuts are coated with a special (antiseize) coating.
3. Each nut isassembled by hand to be sure that it went on the bolt freely.
4. The bolts and nuts are handled carefully to avoid damage to the threads.
5. The bolts and nuts are made to exacting specifications to assure that the correct material is used and that the thread form is correct.

However, it must be pointed out that during field installation, the threads **MUST BE KEPT CLEAN AND FREE FROM NICKS.**

When a mild steel or bronze bolt is used, the low ultimate strength of the material allows the nut to tear itself free.

Not so with 18-8 Stainless Steel. The ultimate strength of the material is so great, that it increases rapidly with cold work. However, once foreign matter such as a grain of sand wedges the threads, or the thread form is altered by over-torquing, the nuts cannot be removed.

The specially coated nuts supplied by JCM help to eliminate the galling caused by overtorquing, but **the bolts must be kept clean and not pitched or thrown into the tool bucket during installation. Should additional lubrication be required, a Molybdenum-Base lubricant is recommended.**

NOTE: Installation of this fitting with a pneumatic wrench may cause seizure of the nut. **A JCM 901 Master Wrench or Deep Socket and Ratchet is recommended.**

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