

INSTALLATION HARDWARE REFERENCE GUIDE FOR INSERTION TURBINE FLOW METERS

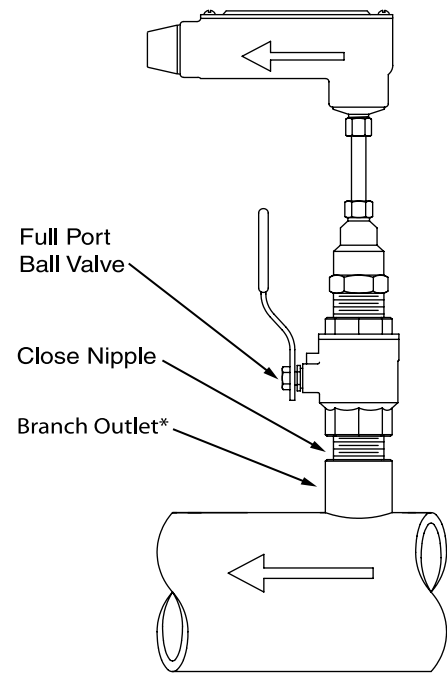


All ONICON insertion type meters can be installed and removed via a 1" or larger full port ball valve without system shutdown. The terms "Standard" and "Hot Tap" refer to the installation method of the isolation valve kit only.

Standard Installation Hardware: For new construction or scheduled shutdown. Once kit is installed, the flow meter can be installed or removed without system shutdown.

Hot Tap Installation Hardware: For applications which require the access hole in the pipe to be drilled through the valve using a wet tap drilling machine while the hydronic system is pressurized and operating.

The most commonly ordered installation kits are listed below. For a complete list of installation kits offered by ONICON refer to the next two pages.



* Weld-on fitting, copper tee or saddle

Pipe Material	Kit Description	Items Included With Kit	Item Number
Carbon Steel/Black Iron	Standard flow meter installation kit for 1¼" and larger <u>welded</u> steel pipe	<ul style="list-style-type: none"> • 1" full port bronze ball valve • 1" brass close nipple • 1" weld-on carbon steel branch outlet 	INSTL1
	Standard flow meter installation kit for 1¼" to 2½" <u>threaded</u> steel pipe	<ul style="list-style-type: none"> • 1" full port bronze ball valve • 1" brass close nipple • (pipe dia x 12" long) threaded nipple with 1" NPT outlet 	INSTL7
	Hot tap flow meter installation kit for 1¼" and larger <u>welded</u> steel pipe	<ul style="list-style-type: none"> • 1¼" full port bronze ball valve • 1¼" brass close nipple • 1¼" x 1" brass reducing bushing • 1¼" weld-on carbon steel branch outlet 	INSTL2
Copper Tube (priced by size)	Standard flow meter installation kit for 1" to 2" copper tube	<ul style="list-style-type: none"> • 1" full port bronze ball valve • 1" brass close nipple • 1½" SWT x 1" NPT bushing • Copper tee with 1½" outlet 	INSTL3
	Standard flow meter installation kit for 2½" to 3" copper tube	<ul style="list-style-type: none"> • 1" full port bronze ball valve • 1" brass close nipple • 1½" SWT x 1" NPT bushing • Copper tee with 1½" outlet 	INSTL4
	Standard flow meter installation kit for 4" copper tube	<ul style="list-style-type: none"> • 1" full port bronze ball valve • 1" brass close nipple • 1½" SWT x 1" NPT bushing • 4" x 4" x 1½" copper tee 	INSTL9
	Hot tap flow meter installation kit for 2½" to 6" copper tube	<ul style="list-style-type: none"> • 1¼" full port bronze ball valve • 1¼" brass close nipple • 1¼" x 1" brass reducing bushing • SS clamp-on saddle with 1¼" outlet 	INSTL22

STANDARD INSTALLATION HARDWARE FOR INSERTION FLOW METERS



All ONICON insertion flow meters can be installed and removed via a 1" or larger full port ball valve without system shutdown.

The terms "Standard" and "Hot Tap" refer to the installation kit types only.

How to use this price list:

1. Select the type of installation hardware required, either Standard (pg 8) or Hot Tap (pg 9).
2. Choose the pipe material.
3. Choose the Installation Kit based on material preference and/or pipe size.

• **Standard Installation Hardware:** For new construction or scheduled shutdown. Once the kit is installed, the flow meter can be installed or removed without system shutdown.

• **Hot Tap Installation Hardware:** For applications which require the access hole in the pipe to be drilled through the valve using a wet tap drilling machine while the hydronic system is pressurized and operating.

* Saddles may include a 1" bushing.

TYPE	PIPE MATERIAL	KIT DESCRIPTION	ITEMS INCLUDED IN KIT	ITEM NUMBER
STD	Carbon Steel/ Black Iron (welded pipe)	Installation kit for 1¼" and larger <u>welded</u> steel pipe	<ul style="list-style-type: none"> • 1" full port bronze ball valve • 1" brass close nipple • 1" weld-on carbon steel branch outlet 	INSTL1
		Stainless steel installation kit for 1¼" and larger <u>welded</u> steel pipe	<ul style="list-style-type: none"> • 1" full port SS ball valve • 1" SS close nipple • 1" weld-on carbon steel branch outlet 	INSTL5
STD	Carbon Steel/ Black Iron (threaded pipe)	Installation kit for 1¼" - 2½" <u>threaded</u> steel pipe	<ul style="list-style-type: none"> • 1" full port bronze ball valve • 1" brass close nipple • (pipe dia. x 12" long) threaded nipple 1" NPT outlet 	INSTL7
		Stainless steel installation kit for 1¼" to 2½" <u>threaded</u> steel pipe	<ul style="list-style-type: none"> • 1" full port SS ball valve • 1" SS close nipple • (pipe dia. x 12" long) threaded nipple 1" NPT outlet 	INSTL8
STD	Copper Tube	Installation kit for 1" to 2" copper tube	<ul style="list-style-type: none"> • 1" full port bronze ball valve • 1" brass close nipple • 1½" SWT x 1" NPT bushing • Copper tee with 1½" outlet 	INSTL3
		Installation kit for 2½" to 3" copper tube	<ul style="list-style-type: none"> • 1" full port bronze ball valve • 1" brass close nipple • 1½" SWT x 1" NPT bushing • Copper tee with 1½" outlet 	INSTL4
		Installation kit for 4" copper tube	<ul style="list-style-type: none"> • 1" full port bronze ball valve • 1" brass close nipple • 1½" SWT x 1" NPT bushing • 4" x 4" x 1½" copper tee 	INSTL9
STD	Cement-Lined Ductile Iron	Installation kit for 3" to 6" cement-lined ductile iron	<ul style="list-style-type: none"> • 1" full port bronze ball valve • 1" brass close nipple • Clamp-on saddle with 1" outlet* 	INSTL10
		Installation kit for 8" to 16" cement-lined ductile iron	<ul style="list-style-type: none"> • 1" full port bronze ball valve • 1" brass close nipple • Clamp-on saddle with 1" outlet* 	INSTL11
		Stainless steel installation kit for 3" to 16" cement-lined ductile iron	<ul style="list-style-type: none"> • 1" full port SS ball valve • 1" SS close nipple • SS clamp-on saddle with 1" outlet* 	INSTL12
STD	PVC	Installation kit for 1½" to 6" PVC pipe	<ul style="list-style-type: none"> • 1" full port bronze ball valve • 1" brass close nipple • Bronze clamp-on saddle with 1" outlet* 	INSTL13
		Installation kit for 8" to 12" PVC pipe	<ul style="list-style-type: none"> • 1" full port bronze ball valve • 1" brass close nipple • Bronze clamp-on saddle with 1" outlet* 	INSTL14
		Stainless steel/PVC installation kit for 2" to 4" PVC pipe (for process and industrial applications)	<ul style="list-style-type: none"> • 1" full port SS ball valve • 1" SS close nipple • Sch. 80 PVC saddle with 1" outlet 	INSTL15
		Stainless steel/PVC installation kit for 6" PVC pipe (for process applications)	<ul style="list-style-type: none"> • 1" full port SS ball valve • 1" SS close nipple • Sch. 80 PVC saddle with 1" outlet 	INSTL16
		Stainless steel installation kit for 8" to 12" PVC pipe	<ul style="list-style-type: none"> • 1" full port SS ball valve • 1" SS close nipple • SS clamp-on saddle with 1" outlet* 	INSTL17
STD	Stainless Steel	Stainless steel installation kit for stainless steel pipe	<ul style="list-style-type: none"> • 1" full port SS ball valve • 1" SS close nipple • 1" SS weld-on branch outlet 	INSTL18

HOT TAP INSTALLATION HARDWARE FOR INSERTION FLOW METERS

All ONICON insertion flow meters can be installed and removed via a 1" or larger full port ball valve without system shutdown. The terms "Standard" and "Hot Tap" refer to the installation kit types only.



How to use this price list:

1. Select the type of installation hardware required, either Standard (pg 8) or Hot Tap (pg 9).
2. Choose the pipe material.
3. Choose the Installation Kit based on material preference and/or pipe size.

- **Standard Installation Hardware:** For new construction or scheduled shutdown. Once the kit is installed, the flow meter can be installed or removed without system shutdown.
- **Hot Tap Installation Hardware:** For applications which require the access hole in the pipe to be drilled through the valve using a wet tap drilling machine while the hydronic system is pressurized and operating. *** Saddles may include a 1 1/4" bushing**

TYPE	PIPE MATERIAL	KIT DESCRIPTION	ITEMS INCLUDED IN KIT	ITEM NUMBER
HTAP	Carbon Steel/ Black Iron (welded pipe)	Hot tap installation kit for 1 1/4" and larger <u>welded</u> steel pipe	<ul style="list-style-type: none"> • 1 1/4" full port bronze ball valve • 1 1/4" brass close nipple • 1 1/4" x 1" brass reducing bushing • 1 1/4" weld-on carbon steel branch outlet 	INSTL2
		Stainless steel hot tap installation kit for 1 1/4" and larger <u>welded</u> steel pipe	<ul style="list-style-type: none"> • 1 1/4" full port SS ball valve • 1 1/4" SS close nipple • 1 1/4" x 1" SS reducing bushing • 1 1/4" weld-on carbon steel branch outlet 	INSTL6
HTAP	Carbon Steel/ Black Iron (threaded pipe)	Hot tap installation kit for <u>threaded</u> steel pipe (1 1/2" and up)	<ul style="list-style-type: none"> • 1 1/4" full port bronze ball valve • 1 1/4" brass close nipple • 1 1/4" x 1" brass reducing bushing • Bronze/ductile iron clamp-on saddle with 1 1/4" outlet 	INSTL19
		Stainless steel hot tap installation kit for <u>threaded</u> steel pipe (1 1/2" and up)	<ul style="list-style-type: none"> • 1 1/4" full port SS ball valve • 1 1/4" SS close nipple • 1 1/4" x 1" SS reducing bushing • Bronze/ductile iron clamp-on saddle with 1 1/4" outlet 	INSTL20
HTAP	Copper Tube	Hot tap installation kit for 2" copper tube	<ul style="list-style-type: none"> • 1 1/4" full port bronze ball valve • 1 1/4" brass close nipple • 1 1/4" x 1" brass reducing bushing • Ductile iron & SS clamp-on saddle with 1 1/4" outlet 	INSTL21
		Hot tap installation kit for 2 1/2" to 6" copper tube	<ul style="list-style-type: none"> • 1 1/4" full port bronze ball valve • 1 1/4" brass close nipple • 1 1/4" x 1" brass reducing bushing • SS clamp-on saddle with 1 1/4" outlet* 	INSTL22
HTAP	Cement-Lined Ductile Iron	Hot tap installation kit for 3" to 6" cement-lined ductile iron	<ul style="list-style-type: none"> • 1 1/4" full port bronze ball valve • 1 1/4" brass close nipple • 1 1/4" x 1" brass reducing bushing • Clamp-on saddle with 1 1/4" outlet* 	INSTL23
		Hot tap installation kit for 8" to 16" cement-lined ductile iron	<ul style="list-style-type: none"> • 1 1/4" full port bronze ball valve • 1 1/4" brass close nipple • 1 1/4" x 1" brass reducing bushing • Clamp-on saddle with 1 1/4" outlet* 	INSTL24
		Stainless steel hot tap installation kit for 3" to 6" cement-lined ductile iron	<ul style="list-style-type: none"> • 1 1/4" full port SS ball valve • 1 1/4" SS close nipple • 1 1/4" x 1" SS reducing bushing • SS clamp-on saddle with 1 1/4" outlet* 	INSTL25
		Stainless steel hot tap installation kit for 8" to 16" cement-lined ductile iron	<ul style="list-style-type: none"> • 1 1/4" full port SS ball valve • 1 1/4" SS close nipple • 1 1/4" x 1" SS reducing bushing • SS clamp-on saddle with 1 1/4" outlet* 	INSTL26
HTAP	PVC	Hot tap installation kit for 1 1/2" to 6" PVC pipe	<ul style="list-style-type: none"> • 1 1/4" full port bronze ball valve • 1 1/4" brass close nipple • 1 1/4" x 1" brass reducing bushing • Bronze clamp-on saddle with 1 1/4" outlet* 	INSTL27
		Hot tap installation kit for 8" to 12" PVC pipe	<ul style="list-style-type: none"> • 1 1/4" full port bronze ball valve • 1 1/4" brass close nipple • 1 1/4" x 1" brass reducing bushing • Bronze clamp-on saddle with 1 1/4" outlet* 	INSTL28
		Stainless steel hot tap installation kit for 2" to 6" PVC pipe	<ul style="list-style-type: none"> • 1 1/4" full port SS ball valve • 1 1/4" SS close nipple • 1 1/4" x 1" SS reducing bushing • SS clamp-on saddle with 1 1/4" outlet* 	INSTL29
		Stainless steel hot tap installation kit for 8" to 12" PVC pipe	<ul style="list-style-type: none"> • 1 1/4" full port SS ball valve • 1 1/4" SS close nipple • 1 1/4" x 1" SS reducing bushing • SS clamp-on saddle with 1 1/4" outlet* 	INSTL30
HTAP	Stainless Steel	Hot tap installation kit for stainless steel pipe	<ul style="list-style-type: none"> • 1 1/4" full port SS ball valve • 1 1/4" SS close nipple • 1 1/4" x 1" SS reducing bushing • 1 1/4" weld-on SS branch outlet 	INSTL31

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