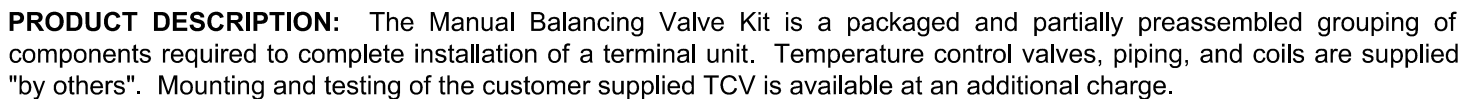




* 3/8" Coil Size available in SWT ONLY.
 ** ProPress fittings supplied for additional fee.

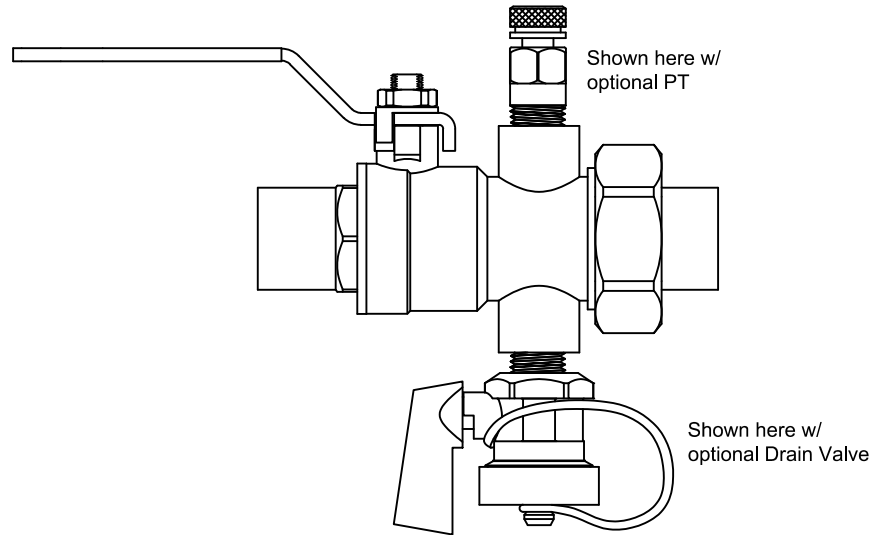


PRO Hydronic Specialties, L.L.C.
www.prohydronicsspecialties.com

Form Number: SUBB3BBH-PRO
Revision 6 - 6/2021



IBU Series Specifications Integral Ball Valve/Union



PRODUCT DESCRIPTION: The IBU is an integral ball valve and union. The IBU uses a full-port ball valve with a union ended brass body that provides two (2) ¼" taps for accessories to be installed. All taps are plugged unless otherwise specified. Memory stops are available upon request. Fixed end connections may be SWT or FNPT. Union side connections available include MNPT, FNPT, and SWT, and a variety of reductions.

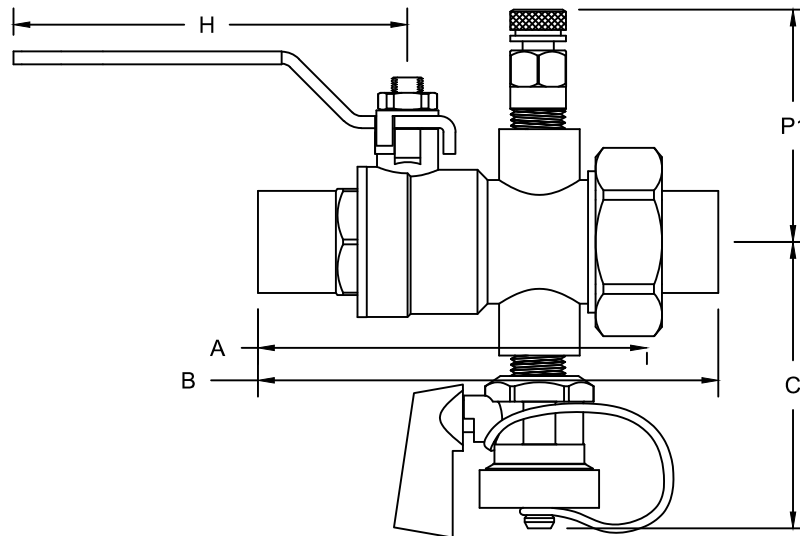
STANDARD MATERIAL SPECIFICATIONS	
Body	Forged Brass ASTM B283-06 or ASTM B763-08A
O-Ring	EPDM
Tail Piece	Brass ASTM B124-09, B228-06, or B763-08A
Union Nut	Brass ASTM B455
Handle	Chrome Plated Steel
Stem	Brass ASTM B124-09 - Blow-Out Proof
Ball	Chrome Plated Brass - Full Port
Ball Seat	Teflon
STANDARD OPERATING SPECIFICATIONS	
Maximum Working Pressure:	600 WOG / CWP
Maximum Operating Temperature:	250° F
Specification information is provided to assist and is given without obligation or warranty. The Company reserves the right to make changes in design, materials, and/or specifications without notice or liability.	

PRODUCT SPECIFICATIONS:

- Devices shall have a full port isolation valve to provide unrestricted flow
- Devices shall be designed to accept a memory stop
- Devices shall have a union end which allows for quick and convenient connection



IBU Series Dimensions Integral Ball Valve/Union



MODEL	SIZE	A	TAIL PIECE	B	Lbs	C	H	P1	* Cv
IBU1	½" - SWT	3.5	- M	5.1	1.2	2.5	3.8	2.0	19
			½" - F	4.2	1.2				
			- S	4.2	1.1				
	½" - FPT	3.2	- M	4.7	1.2				
IBU2	¾" - SWT	3.8	½" - F	3.8	1.2	2.7	3.8	2.2	35
			- S	3.8	1.1				
			- M	5.3	1.5				
			½" - F	4.9	1.6				
			- S	4.5	1.4				
			¾" - F	4.6	1.5				
	¾" - FPT	3.3	- S	4.6	1.4				
			- M	4.8	1.5				
			½" - F	4.4	1.6				
			- S	4.1	1.4				
IBU3	1" - SWT	4.1	½" - M	6.5	2.1	2.7	5.0	2.2	49
			¾" - M	6.5	2.1				
			- S	5.2	1.9				
			- M	6.5	2.2				
			1" - F	5.3	2.0				
			- S	5.4	1.9				
	1" - FPT	3.7	½" - M	5.7	2.1				
			¾" - M	5.7	2.1				
			- S	4.5	1.9				
			- M	5.7	2.2				

Note: Dimensions listed do not include ProPress or any other special fittings or adapters. All dimensions and materials are subject to minor variations. Consult with factory for confirmation of dimensions and material specifications at the time of order. Sweat size listed is nominal and will differ from the actual, measurable size.

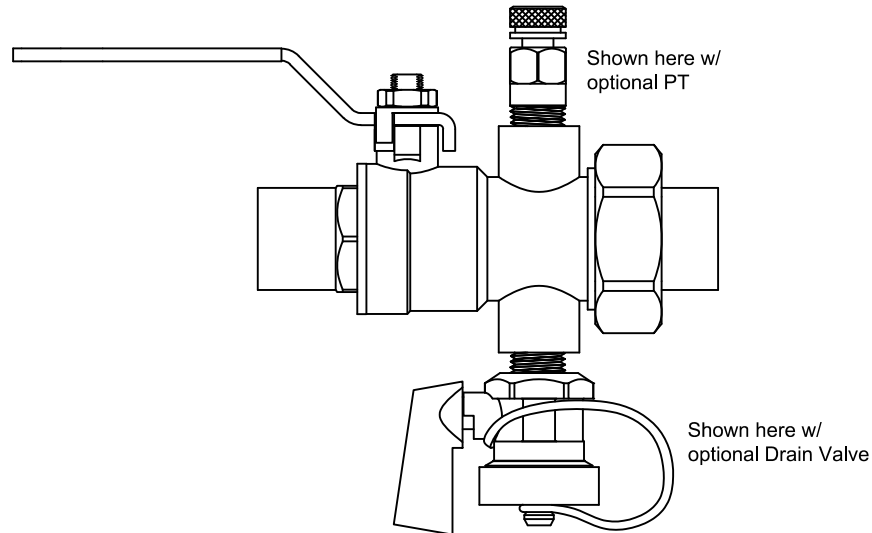
MODEL	SIZE	A	TAIL PIECE	B	Lbs	C	H	P1	* Cv
IBU4	1¼" - SWT	5.2	½" - M	7.0	3.6	3.2	4.6	2.5	102
			¾" - M	7.0	3.8				
			1" - M	7.0	3.8				
			- M	7.0	3.9				
	1¼" - FPT	4.5	1¼" - F	6.0	3.6				
			- S	6.2	3.4				
			½" - M	6.2	3.2				
			¾" - M	6.5	3.3				
			1" - M	6.5	3.4				
			- M	6.5	3.4				
IBU5	1½" - SWT	5.8	¾" - M	7.5	4.6	3.5	5.5	2.7	266
			1" - M	8.0	4.9				
			1¼" - M	8.1	5.0				
			- M	8.1	4.9				
	1½" - FPT	5.2	1½" - F	7.0	4.6				
			- S	7.0	4.4				
			¾" - M	7.1	4.4				
			1" - M	7.5	4.8				
			1¼" - M	7.5	4.8				
			- M	7.5	4.7				
IBU6	2" - SWT	7.1	1" - M	10.1	8.0	3.5	6.3	3.0	297
			1¼" - M	10.0	7.7				
			1½" - M	10.0	7.7				
			- M	10.0	7.7				
	2" - FPT	6.0	2" - F	8.2	7.1				
			- S	8.5	6.7				
			1" - M	8.9	7.8				
			1¼" - M	8.9	7.4				
			1½" - M	8.9	7.4				
			- M	8.9	7.4				

* Cv = Estimated with union connection same as inlet, no reductions.



IBU Series Submittal

Integral Ball Valve/Union



IBU - X - X - X - X - XX - XX

MODEL DESIGNATION	BODY SIZE	BODY CONNECTION	TAIL PIECE SIZE	TAIL PIECE CONNECTION	FIRST OPTION	SECOND OPTION
IBU - Integral Ball Valve / Union	1 - 1/2" 2 - 3/4" 3 - 1" 4 - 1 1/4" 5 - 1 1/2" 6 - 2"	F - FPT S - SWT	1 - 1/2" 2 - 3/4" 3 - 1" 4 - 1 1/4" 5 - 1 1/2" 6 - 2"	F - FPT S - SWT M - MPT	PT - Press/Temp Port XP - Extended P/T AV - Manual Air Vent H1 - 1/4" Hose-End Drain Valve XH - Extended Handle XM - Extended Handle w/ Memory Stop	PT - Press/Temp Port XP - Extended P/T AV - Manual Air Vent H1 - 1/4" Hose-End Drain Valve XH - Extended Handle XM - Extended Handle w/ Memory Stop

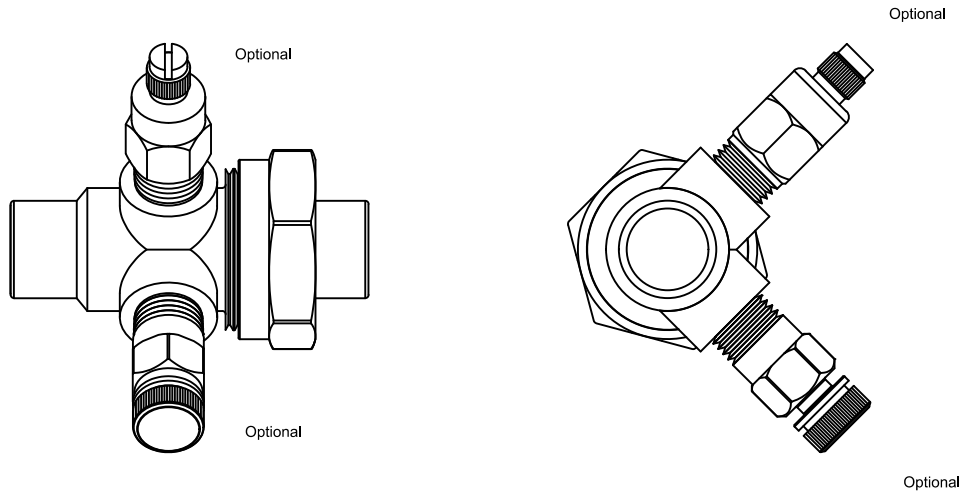
JOB NAME:		CUSTOMER:	
ENGINEER:		REF/PO#:	
CONTRACTOR:		SUBMITTED BY:	
		DATE:	
		DATE:	

PART # (See table above)	TAGGING/JOB INFORMATION	QUANTITY



AU Series Specifications

Accessory Union



Product Description: The AU brass accessory union provides for component isolation. Port section contains two ¼" ports that come predrilled from the factory and are positioned 90° apart. The union side incorporates an o-ring for maximum sealing protection. Accessory union comes standard with ¼" plugs installed in the ports. Union side and port side connections available in NPTM, NPTF, and SWT. Rated at 600 WOG @ -22°F to 325°F.

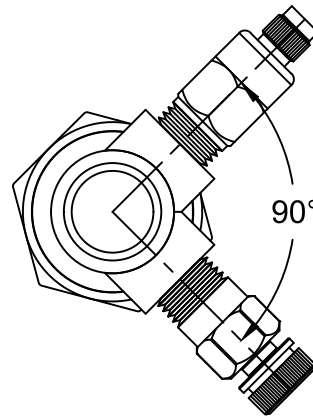
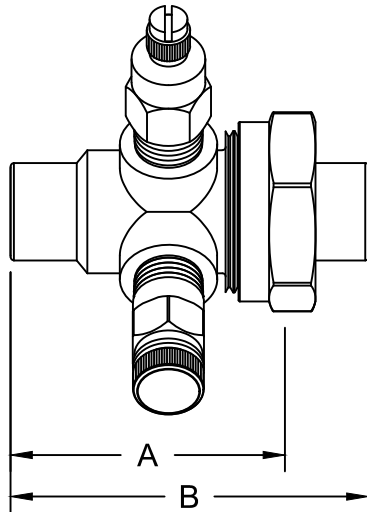
STANDARD MATERIAL SPECIFICATIONS	
Accessory Union	Forged Brass ASTM B283-06
O-Ring	EPDM
Tail Piece	Brass ASTM B124-09, B228-06, or B763-08A
Specification information is provided to assist and is given without obligation or warranty. The Company reserves the right to make changes in design, materials, and/or specifications without notice or liability.	

PRODUCT SPECIFICATIONS:

- ¼" ports shall be located 90° distal on a rotational axis
- Integrated ports shall provide functionality for numerous options



AU Series Dimensions Accessory Union

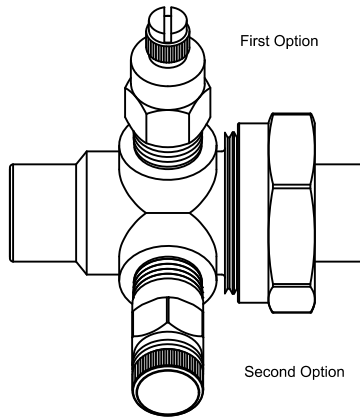


MODEL	SIZE	A	LENGTH "B" / WEIGHT OF <i>PRO</i> -AU AND TAIL PIECE CONNECTION																	
AU1M AU1S AU1F	½"	2.7 2.1 2.0	½" M		lbs	½" S		lbs	½" F		lbs									
			4.2	0.6	3.3	0.6	3.3	0.6												
			3.7	0.5	2.8	0.4	2.8	0.5												
			3.6	0.6	2.7	0.5	2.7	0.5												
AU2M AU2S AU2F	¾"	2.5 2.1 2.1	½" M		lbs	½" S		lbs	½" F		lbs	¾" M		lbs	¾" S		lbs	¾" F		lbs
			4.0	0.7	3.2	0.6	3.6	0.8	4.2	0.7	3.2	0.6	3.3	0.7						
			3.7	0.6	2.9	0.5	3.3	0.6	3.8	0.6	2.9	0.5	2.9	0.6						
			3.6	0.7	2.8	0.6	3.2	0.8	3.8	0.7	2.8	0.6	2.9	0.7						
AU3M AU3S AU3F	1"	2.6 2.4 2.1	½" M		lbs	¾" M		lbs	¾" S		lbs	1" M		lbs	1" S		lbs	1" F		lbs
			4.6	1.1	4.6	1.1	3.4	0.9	4.6	1.2	3.6	0.9	3.5	1.0						
			4.5	1.0	4.5	1.0	3.3	0.7	4.5	1.0	3.5	0.8	3.4	0.8						
			4.1	1.0	4.1	1.1	3.0	0.8	4.1	1.1	3.3	0.9	3.1	0.9						
AU4M AU4S AU4F	1¼"	3.0 3.0 2.3	½" M		lbs	¾" M		lbs	1" M		lbs	1¼" M		lbs	1¼" S		lbs	1¼" F		lbs
			4.7	1.7	5.0	1.8	5.0	1.9	5.0	1.9	4.1	1.5	4.0	1.6						
			4.7	1.5	4.9	1.7	4.9	1.7	5.0	1.8	4.1	1.4	4.0	1.5						
			4.1	1.6	4.3	1.8	4.3	1.8	4.4	1.9	3.4	1.5	3.3	1.6						
AU5M AU5S AU5F	1½"	3.0 3.0 2.7	¾" M		lbs	1" M		lbs	1¼" M		lbs	1½" M		lbs	1½" S		lbs	1½" F		lbs
			4.9	2.3	5.5	2.6	5.5	2.7	5.5	2.5	4.2	2.1	4.3	2.3						
			4.9	2.2	5.5	2.6	5.5	2.6	5.5	2.5	4.2	2.0	4.2	2.2						
			4.6	2.3	5.1	2.7	5.1	2.7	5.1	2.6	3.9	2.2	3.9	2.3						
AU6M AU6S AU6F	2"	3.4 2.8 2.8	1" M		lbs	1¼" M		lbs	1½" M		lbs	2" M		lbs	2" S		lbs	2" F		lbs
			6.2	4.3	6.2	4.0	6.2	4.0	6.2	4.1	4.8	3.1	4.6	3.4						
			5.8	4.0	5.8	3.6	5.8	3.6	5.8	3.7	4.2	2.7	4.0	3.0						
			5.8	4.5	5.7	4.2	5.7	4.1	5.8	4.2	4.2	3.2	3.9	3.5						

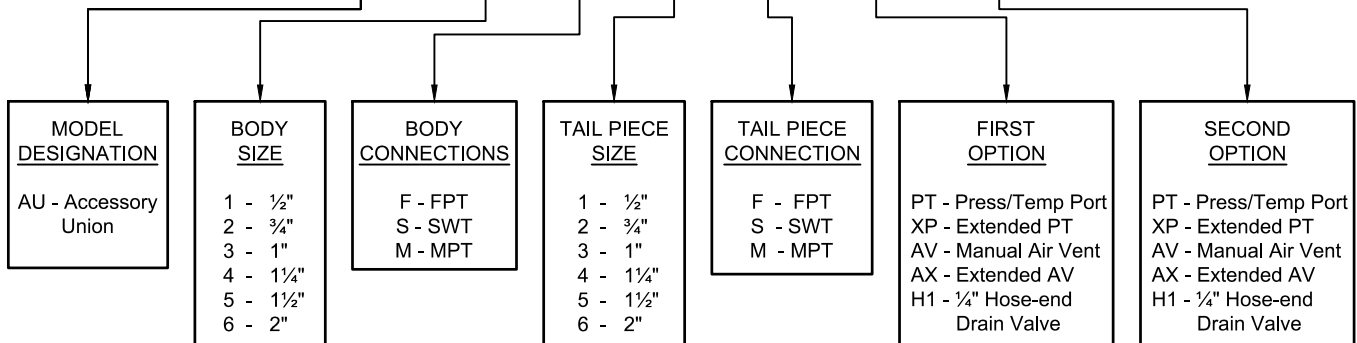
Note: Dimensions listed above do not include ProPress or any other special fittings or adapters. All dimensions, weights, and materials are subject to minor variations. Consult with factory for confirmation of dimensions, weights, and material specifications. Sweat size listed is nominal and will differ from the actual, measurable size.



AU Series Submittal Accessory Union



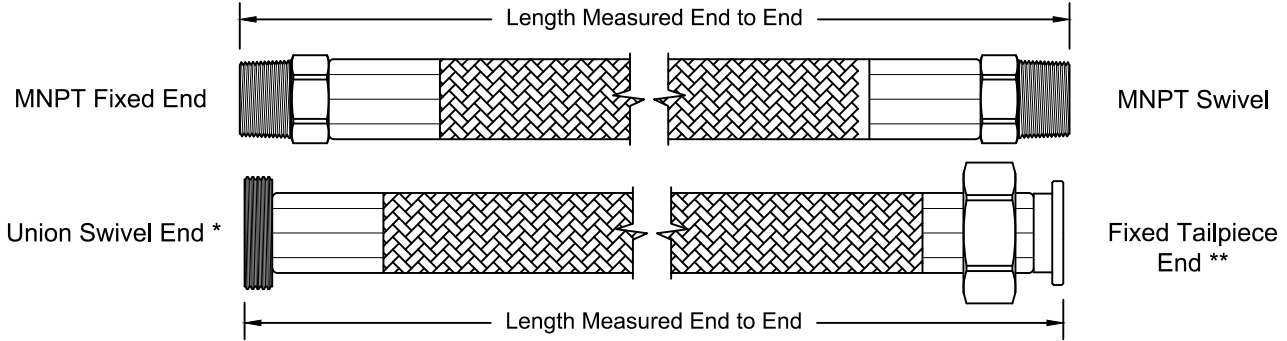
AU - X - X - X - X - XX - XX



JOB NAME:		REPRESENTATIVE:	
ENGINEER:		REF/PO#:	DATE:
CONTRACTOR:		SUBMITTED BY:	DATE:
PART # (See table above)	TAGGING/JOB INFORMATION	QUANTITY	



HSS Series Specifications Stainless Steel Braided Hose



PRODUCT DESCRIPTION: The Model HSS is a stainless steel braided hose that is abrasion resistant. The HSS has a CPE inner tube with brass end connections and stainless steel ferrules for the ½" - 1" hose sizes, and an EPDM inner tube with stainless steel ferrules and plated steel end connections for the 1¼" - 2" hose sizes. The flexible hose eases installation and is designed to withstand high pressures and varying temperatures. The standard end connections are MNPT Fixed x MNPT Swivel for ½" to 2", and FNPT Swivel for ½" to 2". Other available end connection options are FNPT Swivel, Union Swivel *, and Fixed Tailpiece** and accessory union connections; available for the ½" to 2" hose sizes. The Model HSS is BUY AMERICAN COMPLIANT.

* The Swivel Union comes standard with an EPDM O-ring, tailpiece, and union nut which must be specified at the time of order. The swivel union easily converts line connection types and offers line size reductions. The tailpieces are available in FNPT, MNPT, and Sweat ends.

** The Fixed Tailpiece hose end connection is designed to connect directly to union ended coil kit components (AFLB, AFLD, AU, CBV, IBU, or IVY). The tailpiece end eliminates multiple connections.

PRODUCT SPECIFICATIONS	
Tube	CPE (Chlorinated Polyethylene) for ½" - 1" sizes - SAE J1019 EPDM (Ethylene Propylene Diene Monomer) for 1¼" - 2" sizes - SAE 20R1-D1
Reinforcement	304L Stainless Steel braid cover meets UL-94 requirements
Ferrules	Type 304L stainless Steel
End Fittings	½" - 1" I.D. - Brass 1¼" - 2" I.D. - Steel Plated
End Connections	Fixed MNPT, FNPT, Swivel MNPT, Swivel FNPT (½"-2"), Swivel Union (½" - 2"), Fixed Tailpiece (½"-2")
Temperature Ratings	-40°F to 257°F (-40°C to 125°C) NOTE HOSE IS NOT INTENDED FOR STEAM APPLICATIONS. Meets UL-94 Requirements Fire Retardant Material (CPE)
Specification information is provided to assist and is given without obligation or warranty. The Company reserves the right to make changes in design, materials, and/or specifications without notice.	

Size	Length	Working PSI	Bend Radius	** Cv
½"	12, 18, 24, 30, 36	500	5"	7
¾"	12, 18, 24, 30, 36	500	7"	20
1"	12, 18, 24, 30, 36	500	10"	43
1¼"	12, 18, 24, 30, 36	200	12"	76
1½"	12, 18, 24, 30, 36	200	15"	130
2"	12, 18, 24, 30, 36	200	20"	280

Length is measured End to End on all hose connection types.

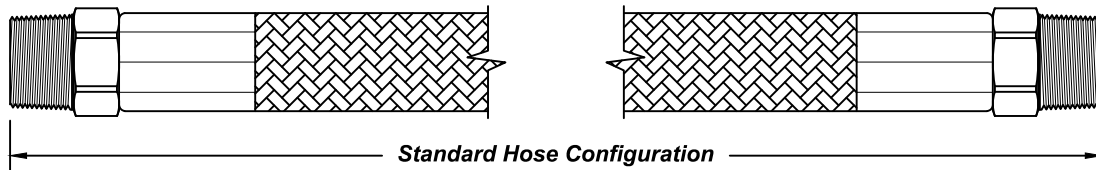
** Cv listed in chart above is for a 24" length hose. The Cv is estimated and can vary according to installation.



HSS Series Options Stainless Steel Braided Hose

Fixed MNPT

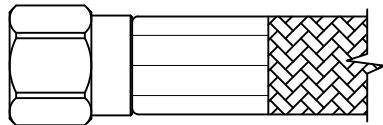
Swivel MNPT



Additional End Connections

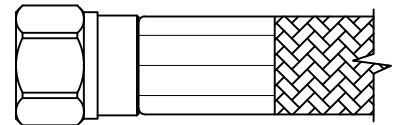
Swivel FNPT

Available in ½" thru 2"



Swivel FJIC

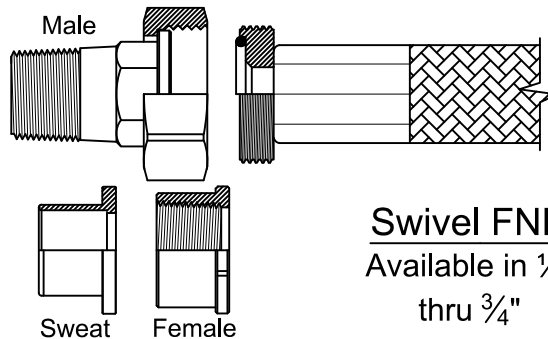
Available in ½" thru 1"



Swivel Union

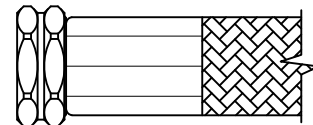
Available in ½" thru 1"

The Swivel Union must have the tailpiece connection size and type specified at time of order. Tailpiece options include FPT, SWT, MPT, and a variety of reductions.



Swivel FNH

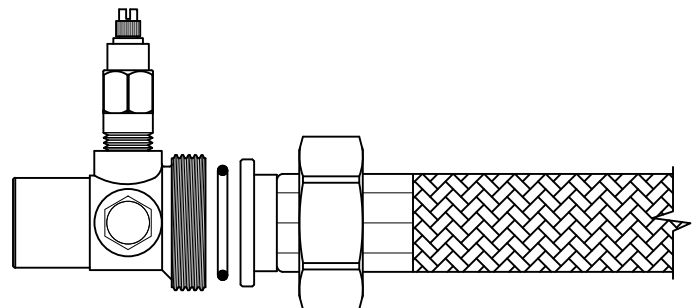
Available in ½" thru ¾"



Fixed Tailpiece

Available in ½" thru 2"

The Fixed Tailpiece end connects directly to PRO Hydronic Specialties' union ended products.

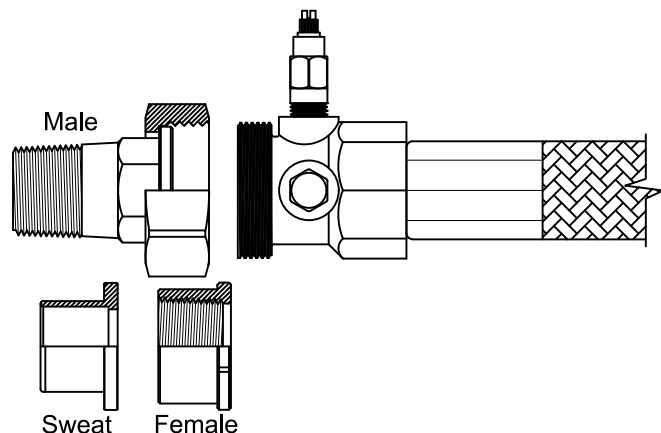


Swivel Accessory Union

Available in ½" thru 2"

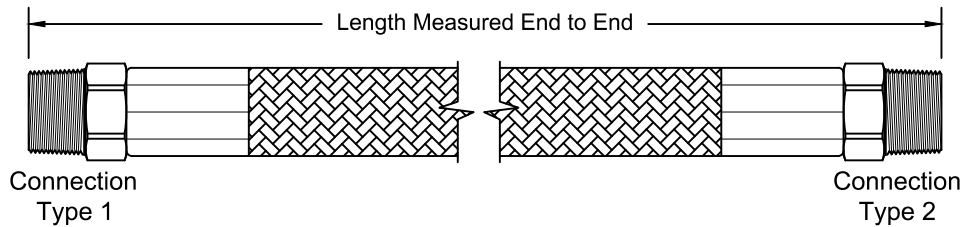
The Swivel Accessory Union must have the tailpiece connection size and type specified at time of order.

Tailpiece options include FPT, SWT, MPT, and a variety of reductions.





HSS Series Submittal Stainless Steel Braided Hose



HSS - X - XX - X - X - X - X

MODEL DESIGNATION	HOSE SIZE	HOSE LENGTH	CONNECTION TYPE 1	END DESCRIPTION 1	CONNECTION TYPE 2	END DESCRIPTION 2
HSS - Hose, Stainless Steel	1 - 1/2" 2 - 3/4" 3 - 1" 4 - 1 1/4" 5 - 1 1/2" 6 - 2"	12" 18" 24" 30" 36" <i>or specify a non-standard length in inches</i>	F - Female M - Male T - Tailpiece * U - Union ** UA - Accessory Union JF - Female JIC ** GH - Female Garden Hose **	F - FIXED S - SWIVEL * Tailpiece is ALWAYS Fixed. ** Is ALWAYS Swivel.	F - Female M - Male T - Tailpiece * U - Union ** UA - Accessory Union JF - Female JIC ** GH - Female Garden Hose **	F - FIXED S - SWIVEL * Tailpiece is ALWAYS Fixed. ** Is ALWAYS Swivel.

When ordering, at least one hose end connection must be a swivel.

JOB NAME:	REPRESENTATIVE:	
ENGINEER:	REF/PO#:	DATE:
CONTRACTOR:	SUBMITTED BY:	DATE:
PART # (See table above)		QUANTITY