

GEO-FLO

2024

Product Catalog



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Flo-Link™ Flow Centers

Geo-Flo's most popular flow centers are available in a wide variety of combinations. Flo-Link double O-ring fittings provide leak-free union connections at the flow center, installed without tools. Geo-Flo's full port 3-way flushing and isolation valves are designed for the wide range of temperatures experienced in ground loop applications. The GPM series flow centers utilize reliable 3-way valves with the same features and benefits as the Flo-Link valves, but have threaded FPT connections.

PRESSURIZED							
PN	PUMP	# PUMP(S)	SPEED	CONNECTION	VOLUTE	VALVE	CABINET/INSULATED
1294	UPS26-99	1	THREE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1296	UP26-116	1	SINGLE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
FL1L	UPMXL 25-124	1	VARIABLE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
FL2L	UPMXL 25-124	2	VARIABLE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
FL1N	UPMXL 25-124 INV.	1	VARIABLE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
Flow centers above contain a set of 1-1/4" PE fusion X Flo-Link fittings (loop side)							
1295	UPS26-99	2	THREE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1297	UP26-116	2	SINGLE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
FL2M	UPS26-99/UPMXL	2	THREE/V5	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
FL2P	UPS26-99/UPMXL INV.	2	THREE/V5	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
FLXL1D	SuperBrute UPS60-150	2	THREE	Flo-Link XL	CAST IRON	3-WAY FLUSH/ISO,BR	SHEET METAL/ YES
FLXL1E	VersaFlo UPS32-160	1	THREE	Flo-Link XL	CAST IRON	3-WAY FLUSH/ISO,BR	SHEET METAL/ YES
FLXL1F	VersaFlo UPS40-160	1	THREE	Flo-Link XL	CAST IRON	3-WAY FLUSH/ISO,BR	SHEET METAL/ YES
FLXL2D	SuperBrute UPS60-150	2	THREE	Flo-Link XL	CAST IRON	3-WAY FLUSH/ISO,BR	SHEET METAL/ YES
FLXL2E	VersaFlo UPS32-160	2	THREE	Flo-Link XL	CAST IRON	3-WAY FLUSH/ISO,BR	SHEET METAL/ YES
FLXL2F	VersaFlo UPS40-160	2	THREE	Flo-Link XL	CAST IRON	3-WAY FLUSH/ISO,BR	SHEET METAL/ YES

NOTE: For hose kits see pages 19-22

Flo-Link series foamed flow centers:



FLXL1D



FLXL1E



FLXL2E



PANEL MOUNT (Variable Speed Pre-Wired Packages-Panel Mounted)				
PN	Flow Center	# PUMP(S)	Control	Connection
FL1L-PKT	FL1L	1	TEMPERATURE	Hose kit/PE connections
FL1L-PKB	FL1L	1	TEMPERATURE/FLOW	Hose kit/PE connections
FL2M-PKT	FL2M	2	TEMPERATURE	Hose kit/PE connections
FL2M-PKB	FL2M	2	TEMPERATURE/FLOW	Hose kit/PE connections
Kit includes all of the fittings necessary for connecting to the ground loop (1-1/4" PE fusion) and the heat pump.				
For Heat pumps with double O-ring water connections, add on 3326 (1" FPT X FL double O-ring fitting set.)				



FL1L-PKT



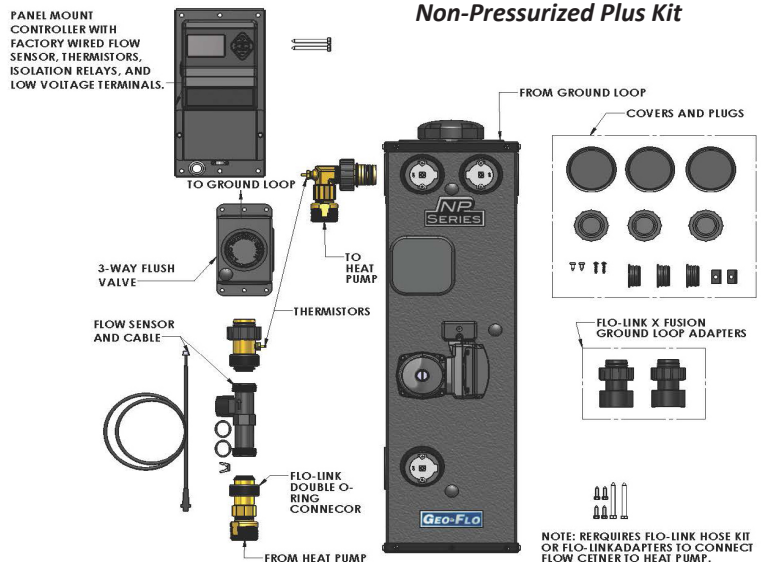
FL1L-PKB

Kit includes all of the fittings necessary for connecting to the ground loop (1-1/4" PE fusion) and the heat pump.

Flo-Link™/NP Base-Flow Centers

NON-PRESSURIZED							
PN	PUMP	# PUMP(S)	SPEED	CONNECTION	VOLUTE	VALVE	CABINET/INSULATED
1271	UPS26-99	1	THREE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1273	UP26-116	1	SINGLE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
NP1L	UPMXL 25-124	1	VARIABLE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
NP1N	UPMXL 25-124 INV.	1	VARIABLE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1272	UPS26-99	2	THREE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1274	UP26-116	2	SINGLE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
NP2M	UPMXL 25-124 + UPS26-99	2	VS/THREE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
NP2P	UPMXL 25-124 INV.	2	VARIABLE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
NP2L	UPMXL 25-124	2	VARIABLE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO, BR	PLASTIC/ YES
NON-PRESSURIZED BASE							
NPB1A	UPS26-99	1	THREE	1" Swivel	CAST IRON	ISOLATION BALL VLV, BR	PLASTIC/ YES
NPB2A	UPS26-99	2	THREE	1" Swivel	CAST IRON	ISOLATION BALL VLV, BR	PLASTIC/ YES
NPB1C	UP26-116	1	SINGLE	1" Swivel	CAST IRON	ISOLATION BALL VLV, BR	PLASTIC/ YES
NPB2C	UP26-116	2	SINGLE	1" Swivel	CAST IRON	ISOLATION BALL VLV, BR	PLASTIC/ YES
NON-PRESSURIZED PLUS							
(PNs include ground loop fittings (PE fusion x Flo-Link) and an additional insulated 3-way valve)							
1338	UPS26-99	1	THREE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1340	UP26-116	1	SINGLE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
NPP1L	UPMXL 25-124	1	VARIABLE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
NPP1N	UPMXL 25-124 INV.	1	VARIABLE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1339	UPS26-99	2	THREE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1341	UP26-116	2	SINGLE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
NPP2M	UPS26-99/UPMXL	2	THREE/VS	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
NPP2P	UPS26-99/UPMXL INV.	2	THREE/VS	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
NON-PRESSURIZED PLUS KIT							
NPP1L-CKB	UPMXL 25-124	1	VARIABLE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
NPP2M-CKB	UPS26-99/UPMXL	2	THREE/VS	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
Kit includes: Ground loop fittings (PE fusion x Flo-Link) and an additional insulated 3-way valve							
Requires: heat pump connections (See NP Plus Hose Kits, or Flo-Link adapters)							

Non-Pressurized Base (NPB) Non-Pressurized (NP)



NOTE: For hose kits see pages 19-22

NON-PRESSURIZED DUAL							
PN	PUMP	# PUMP(S)	SPEED	CONNECTION	VOLUTE	VALVE	CABINET/INSULATED
1304	UPS26-99	2	THREE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	SHEET METAL/ YES
1307	UP26-116	2	SINGLE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	SHEET METAL/ YES
NPD2LA	UPS26-99/UPMXL	2	THREE/VS	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	SHEET METAL/ YES
NPD2NA	UPS26-99/UPMXL INV.	2	THREE/VS	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	SHEET METAL/ YES
NPD2LL	UPMXL 25-124	2	VARIABLE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	SHEET METAL/ YES
NPD2NN	UPMXL 25-124 INV.	2	VARIABLE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	SHEET METAL/ YES
1305	UPS26-99	3	THREE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	SHEET METAL/ YES
1308	UP26-116	3	SINGLE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	SHEET METAL/ YES
NPD3MA	UPS26-99+UPMXL, UPS26-99	3	THREE/VS	Flo-Link	CAST IRON	3-WAY FLUSH/ISO, BR	SHEET METAL/ YES
NPD3ML	UPS26-99 + UPMXL	3	THREE/VS	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	SHEET METAL/ YES
NPD3PN	UPS26-99 + UPMXL INV.	3	THREE/VS	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	SHEET METAL/ YES
1306	UPS26-99	4	THREE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	SHEET METAL/ YES
1309	UP26-116	4	SINGLE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	SHEET METAL/ YES
NPD4LL	UPMXL 25-124	4	VARIABLE	Flo-Link	CAST IRON	3-WAY FLUSH/ISO,BR	SHEET METAL/ YES
NPD4LA	UPS 26-99 + UPMXL	4	THREE/VS	Flo-Link	CAST IRON	3-WAY FLUSH/ISO, BR	SHEET METAL/ YES
NPD4MA	UPS26-99 + UPMXL	4	THREE/VS	Flo-Link	CAST IRON	3-WAY FLUSH/ISO, BR	SHEET METAL/ YES

NOTE: For hose kits see pages 19-22

Non-Pressurized Dual (NPD)



NP REPLACEMENT CAP		
4008	CAP, REPLACEMENT FOR NP SERIES	EACH

FPT Flow Centers- Insulated & Bracket

PRESSURIZED FPT FLOW CENTERS							
PN	PUMP	# PUMP(S)	SPEED	CONNECTION	VOLUTE	VALVE	CABINET/INSULATED
FP1B	UP26-99	1	SINGLE	1" FPT	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1027	UPS26-99	1	THREE	1" FPT	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1055	UP26-116	1	SINGLE	1" FPT	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1077	UP26-116SF	1	SINGLE	1" FPT	STAINLESS	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1033	UPS26-99	1	THREE	1" FPT	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1000	UPS26-99	1	THREE	1" FPT	CAST IRON	3-WAY FLUSH/ISO,BR	ON BRACKET/ NO
1049	UP26-116	1	SINGLE	1" FPT	CAST IRON	3-WAY FLUSH/ISO,BR	ON BRACKET/ NO
1085	UP26-116SF	1	SINGLE	1" FPT	STAINLESS	3-WAY FLUSH/ISO,BR	ON BRACKET/ NO
1004	UPS26-99 115v	1	THREE	1" FPT	CAST IRON	3-WAY FLUSH/ISO,BR	ON BRACKET/ NO
1037	UPS26-99	1	THREE	1" FPT	CAST IRON	ISO. VALVES	ON BRACKET/ NO
1057	UP26-116	1	SINGLE	1" FPT	CAST IRON	ISO. VALVES	ON BRACKET/ NO
1089	UP26-116SF	1	SINGLE	1" FPT	STAINLESS	ISO. VALVES	ON BRACKET/ NO
1069	UPS26-99 115v	1	THREE	1" FPT	CAST IRON	ISO. VALVES	ON BRACKET/ NO
FP2B	UP26-99	2	SINGLE	1" FPT	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1028	UPS26-99	2	THREE	1" FPT	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1056	UP26-116	2	SINGLE	1" FPT	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1076	UP26-116SF	2	SINGLE	1" FPT	STAINLESS	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1031	UPS26-99 115V	2	THREE	1" FPT	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1001	UPS26-99	2	THREE	1" FPT	CAST IRON	3-WAY FLUSH/ISO,BR	ON BRACKET/NO
1050	UP26-116	2	SINGLE	1" FPT	CAST IRON	3-WAY FLUSH/ISO,BR	ON BRACKET/NO
1082	UP26-116SF	2	SINGLE	1" FPT	STAINLESS	3-WAY FLUSH/ISO,BR	ON BRACKET/NO
1005	UPS26-99 115V	2	THREE	1" FPT	CAST IRON	3-WAY FLUSH/ISO,BR	ON BRACKET/NO
1229	UPS26-99	3	THREE	1" FPT	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1231	UP26-116	3	SINGLE	1" FPT	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1235	UP26-116SF	3	SINGLE	1" FPT	STAINLESS	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1233	UPS26-99 115V	3	THREE	1" FPT	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1230	UPS26-99	4	THREE	1" FPT	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1232	UP26-116	4	SINGLE	1" FPT	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1236	UP26-116SF	4	SINGLE	1" FPT	STAINLESS	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1234	UPS26-99 115V (4	THREE	1" FPT	CAST IRON	3-WAY FLUSH/ISO,BR	PLASTIC/ YES
1046	UPS26-99	4	THREE	1" FPT	CAST IRON	ISO. VALVES	ON BRACKET/NO
1062	UP26-116	4	SINGLE	1" FPT	CAST IRON	ISO. VALVES	ON BRACKET/NO
1092	UP26-116SF	4	SINGLE	1" FPT	CAST IRON	ISO. VALVES	ON BRACKET/NO
1071	UPS26-99 115V	4	THREE	1" FPT	CAST IRON	ISO. VALVES	ON BRACKET/NO

NOTE: For hose kits see pages 19-22

Bracket flow centers:



GPM-1 UPS26-99, 230V Grundfos (3-speed), cast iron, iso valves



GPM-1 UPS26-99 115v Grundfos (3-speed), cast iron, On Bracket



GPM-2 UPS26-99 230v Grundfos (3-speed), cast iron, On Bracket

FPT Foamed flow centers:



GPM-1 UPS26-99 230v Grundfos (3-speed), cast iron, Foamed



GPM-2 UPS26-99 230v Grundfos (3-speed), cast iron, Foamed



GPM-3 UPS26-99 230v Grundfos (3 Speed), cast iron, Foamed

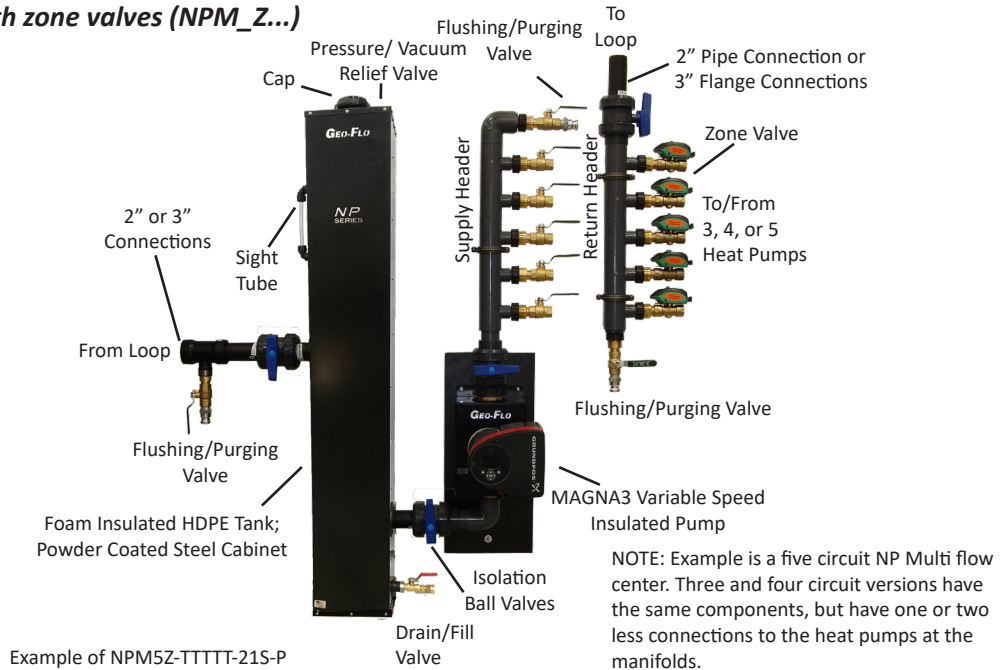
NPM-Flow Centers

Geo-Flo's NP Multi™ is an engineered solution designed to simplify your geothermal applications for multiple heat pumps by providing virtually all of the piping, flushing/purging valves, and pumps/zone valves for three to five heat pumps as part of a factory assembled package.

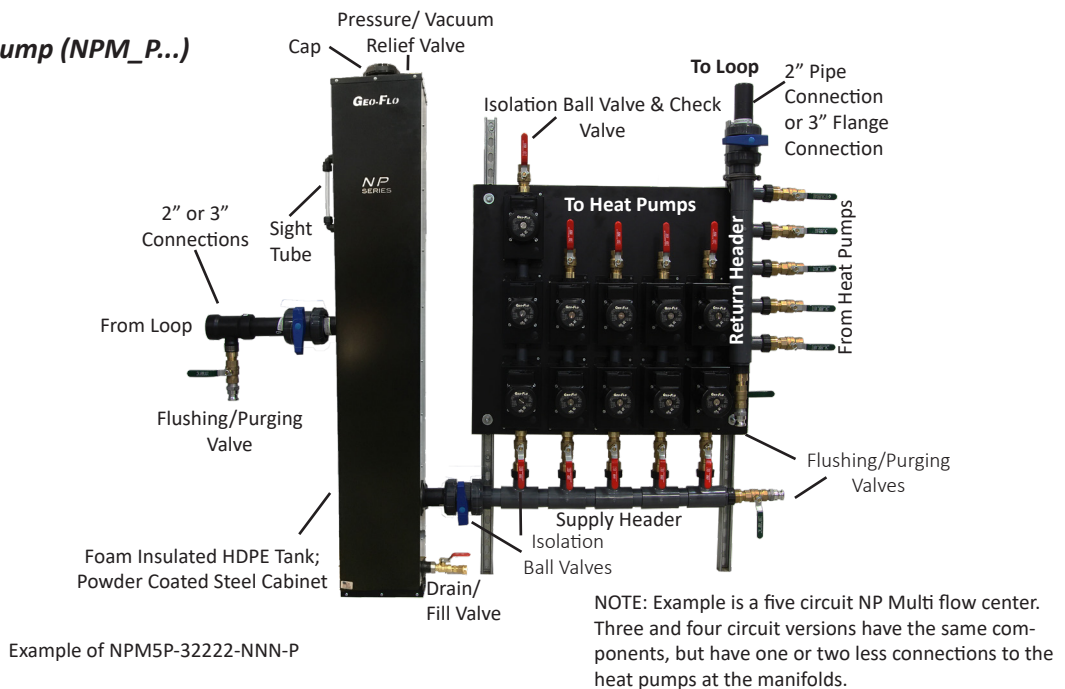
NP SERIES Multi Circuit

Each NP Multi (NPM) flow center consists of a HDPE fluid reservoir (tank) housed in a closed-cell foam-insulated, powder coated steel cabinet. The tank provides a water column to deliver the necessary suction head for the circulator pumps and to ensure a flooded pump volute to prevent the pumps from becoming air-locked. In addition, the reservoir's body is sized to create a low fluid velocity region allowing both air and sediment to separate from the fluid. The sealing cap ensures a closed system while providing integrated pressure and vacuum relief to prevent the reservoir from being over-pressurized or dropping below atmospheric pressure. Union ball valves are included on the tank's supply and return connections for ease of installation and tank isolation during start-up and/or servicing. A fill and drain ball valve at the base of the tank comes standard for initial filling as well as refilling, draining, and sediment removal. The flexible sight tube is useful for quickly determining the fluid level.

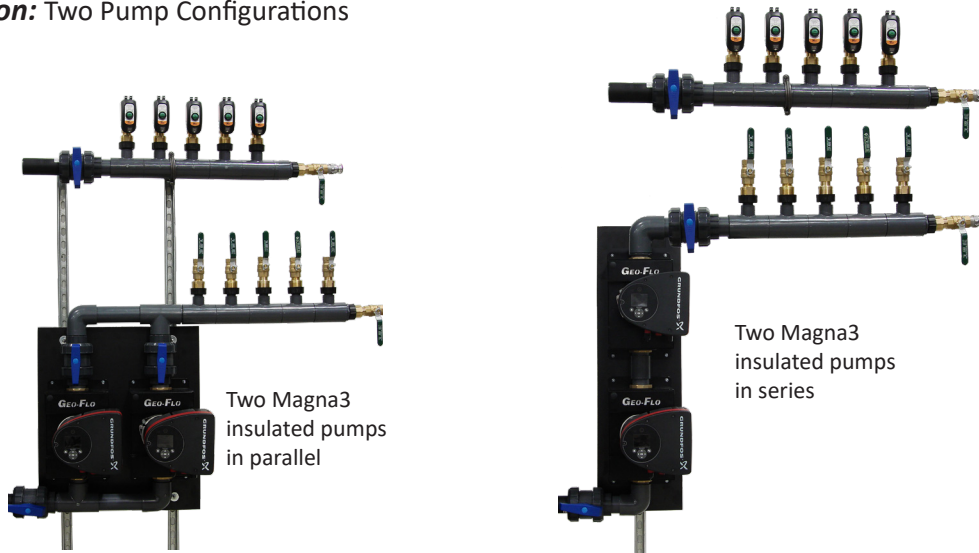
Variable speed pumping with zone valves (NPM_Z...)



Circulators for each heat pump (NPM_P...)



Premium Option: Two Pump Configurations



Two Magna3 insulated pumps in parallel

Two Magna3 insulated pumps in series

NOTE: Examples on this page are five circuit NP Multi flow centers. Two, three, and four circuit versions have the same components, but have less connections to the heat pumps at the manifolds.

Nomenclature

1 - 3 4 5 6 - 10 11 12,13 14
NPM **3** **Z** - **TTTNN** - **2** **2P** - **F**

rev. 26DEC2023

NP Multi

Number of Heat Pumps

- 2 = 2 Circuits
- 3 = 3 Circuits
- 4 = 4 Circuits
- 5 = 5 Circuits
- N = No Header (NPMNZ only)

System Type

- P = Circulator(s) for each heat pump
- Z = Zone valve for ea. heat pump (central variable speed pumping)

System Configuration

- Digit 6 = Heat Pump #1
 - Digit 7 = Heat Pump #2
 - Digit 8 = Heat Pump #3
 - Digit 9 = Heat Pump #4
 - Digit 10 = Heat Pump #5
- See Central Pumping or Distributed Pumping, below.

Central Variable Speed Pumping -- digit 5 = Z

- Use one of the following choices for digits 6 to 10:
 - T = 1" Taco Sentry zone valve (Cv = 8.9)
 - B = 1" Belimo zone valve (Cv = 30)
 - R = Remote valve at heat pump (header with isolation valves)
 - N = This circuit not used
- NOTE:** Circuit field connections are 1" FPT.

Distributed Pumping (circulator for heat pump) -- digit 5 = P (Notes 1,3,4)

- 1 = One UPS26-99
- 2 = Two UPS26-99
- 3 = Three UPS26-99 (Note 2)
- 4 = One UP26-116
- 5 = Two UP26-116
- 6 = Three UP26-116 (Note 2)
- A = One UPMXL 25-124
- B = UPMXL 25-124 + UPS26-99
- C = Two UPMXL 25-124
- D = One UPMXL 25-124 INV PWM
- E = UPMXL 25-124 INV + UPS26-99
- N = This circuit not used (use in digit 8, 9 and/or 10 for NPM2, NPM3, or NPM4)

Ground Loop Connections

- P = 2" Pipe connection* -- with flush valves
- F = 3" ANSI 150# 4-bolt flange -- with flush valves
- * Includes adapters for 2" HDPE pipe & 2" PVC glue

Central Variable Speed Pump

- NN = N/A (when digit 5 = P)
- 1S = Single insulated pump
- 2P = Two insulated pumps in parallel
- 2S = Two insulated pumps in series

Central Variable Speed Pump Model

- N = N/A (when digit 5 = P)
- 0 = Magna3 40-80 variable speed insulated pump (up to 23 ft. of hd. @ 30 gpm; up to 13 ft. of hd. @ 60 gpm)
- 1 = Magna3 40-120 variable speed insulated pump (up to 33 ft. of hd. @ 30 gpm; up to 24 ft. of hd. @ 60 gpm)
- 2 = Magna 3 40-180 variable speed insulated pump (up to 48 ft. of hd. @ 30 gpm; up to 35 ft. of hd. @ 60 gpm)

Series/Parallel Combinations (Magna3)

(2) 40-80 in parallel	up to 23 ft. of hd. @ 60 gpm
(2) 40-120 in parallel	up to 33 ft. of hd. @ 60 gpm
(2) 40-180 in parallel	up to 48 ft. of hd. @ 60 gpm
(2) 40-80 in series	up to 46 ft. of hd. @ 30 gpm
	up to 27 ft. of hd. @ 60 gpm
(2) 40-120 in series	up to 66 ft. of hd. @ 30 gpm
	up to 48 ft. of hd. @ 60 gpm
(2) 40-180 in series	up to 96 ft. of hd. @ 30 gpm
	up to 70 ft. of hd. @ 60 gpm

NOTES:

1. Arrange circuits from the largest to the smallest number of pumps in series. For example, use two pumps in a series for circuit one, two pumps in series for circuit two, and one pump on circuit three.
2. If any circuit has 3 pumps in series, all other circuits must have at least two pumps in series.
3. You cannot mix UP26-99s and UP26-116s on the same NPM
4. Var. spd. pumps (options A to E) include PWM cable.
5. VS pump (UPMXL) options are limited to three consecutive circuits due to the powerhead/terminal box design. If you need more than (3) circuits with UPMXL pumps consult factory.

System Configuration Central Variable Speed Pump

Step #1: Choose Number of Heat Pumps

Number of Heat Pumps	Digits 1 to 5
2	NPM2Z
3	NPM3Z
4	NPM4Z
5	NPM5Z

NOTE: All connections to heat pumps are 1" FPT (supply & return headers).

Step #2: Choose Zone Valves for Each Circuit

Zone Valves (Digits 6-10)	Digit 6	Digit 7	Digit 8	Digit 9	Digit 10
	Heat Pump 1	Heat Pump 2	Heat Pump 3	Heat Pump 4	Heat Pump 5
T = 1" Taco Geo Sentry (Cv = 8.9)	Choose T, B, or R for heat pump 1 (digit 6)	Choose T, B, or R for heat pump 2 (digit 7)	Choose T, B, R, or N for heat pump 3 (digit 8)	Choose T, B, R, or N for heat pump 4 (digit 9)	Choose T, B, R, or N for heat pump 5 (digit 10)
B = 1" Belimo, Cv =30					
R = Remote valve					
N = Not used (digit 8, 9 and/or digit 10 for NPM2, NPM3, or NPM4)					

Example: Digits 6 to 10 would be TTTTT for a NPM5Z with a Taco zone valve for each heat pump.

Step #3: Choose Central Pump Type

Pump Type	Digit 11
1 = Magna3 40-120	Choose 1 or 2
2 = Magna3 40-180	

Step #4: Choose Pump Configuration

Pump Configuration	Digits 12 & 13
1S = Single Insulated Pump w/Isolation Valves	Choose 1S, 2P, or 2S
2P = 2 Insul. Pmps (Parallel) w/Isol. Valves & Check Vlv	
2S = 2 Insul. Pumps (Series) w/Isolation Valves	

Step #5: Choose Ground Loop Connections

Ground Loop Connections	
2"	3"
Digit 14 = P	Digit 14 = F

NOTE: 2" ground loop connections are HDPE fusion or PVC glue;
3" ground loop connections are ANSI 4-bolt flange type.

Step #6: Create Model number

From steps 1 through 5, model number may be completed (see model nomenclature for added dashes after digits 5, 10, and 13).

ZONING WITH CIRCULATORS

System Configuration Zoning with Circulators

Step #1: Choose number of heat pumps.

Number of Heat Pumps	Digits 1 to 5
2	NPM2P
3	NPM3P
4	NPM4P
5	NPM5P

NOTE: All connections to heat pumps are 1" FPT (supply & return headers).

Step #2: Choose pumps for each circuit.

Distributed Pumping (Digits 6-10)	Digit 6	Digit 7	Digit 8	Digit 9	Digit 10	Digits 11, 12, and 13
	Heat Pump 1	Heat Pump 2	Heat Pump 3	Heat Pump 4	Heat Pump 5	
1 = One UPS26-99	Choose 1 to E for heat pump 1 (digit 6)	Choose 1 to E for heat pump 2 (digit 7)	Choose 1 to E for heat pump 3 (digit 8)	Choose 1 to E for heat pump 4 (digit 9)	Choose 1 to E for heat pump 5 (digit 10)	Always NNN for Zoning with Circulators
2 = Two UPS26-99						
3 = Three UPS26-99						
4 = One UP26-116						
5 = Two UP26-116						
6 = Three UP26-116						
A = One UPMXL 25-124*						
B = UPMXL + UPS26-99*						
C = Two UPMXL 25-124*						
D = One UPMXL INV PWM*						
E = UPMXL INV + UPS26-99*						
N = Not used (digits 8, 9 and/or 10 for NPM2, NPM3, or NPM4)						

Example: Digits 6 to 10 would be 22222 for a NPM5P with two UPS26-99 pumps per heat pump.

NOTES:

1. Arrange circuits from the the largest to smallest number of pumps in series. For example, use two pumps in series for circuit one, two pumps in series for circuit two, and one pump on circuit three.
2. If any circuit has (3) UP26 pumps in series, all other circuits must have at least two UP26 pumps in series.
3. All UP26 pumps must be in the same family (e.g. all UPS26-99 or all UP26-116).

Step #3: Choose ground loop connections.

Ground Loop Connections	
2"	3"
Digit 14 = P	Digit 14 = F

NOTE: 2" ground loop connections are HDPE fusion or PVC glue;
3" ground loop connections are ANSI 4-bolt flange type.

Step #4: Create model number.

From steps 1 through 3, model number may be completed (see model nomenclature for added dashes after digits 5, 10, and 13).

*Use inverted profile for heat pumps with DXM2 controls; use standard profile for heat pumps with AXB controls or 24VAC controls. Heat pumps with 24VAC controls required a controller (P/N 3697 or 3698). Variable speed pumps (options A to E) include PWM cable.

Insulated Pumps/Bracketed Pumps-Flow Centers

INSULATED PUMPS						
PN	PUMPS	# PUMP(S)	SPEED	VOLUTE	VALVE SET- INCLUDED	CABINET/INSULATED
1252	UPS26-99	1	THREE	CAST IRON	N/A	SHEET METAL/ YES
1253	UP26-116	1	SINGLE	CAST IRON	N/A	SHEET METAL/ YES
1269	UPS26-99 115V	1	THREE	CAST IRON	N/A	SHEET METAL/ YES
1285	UPS26-99	1	THREE	CAST IRON	ISO. 1" FPT X FL	SHEET METAL/ YES
1285CV	UPS26-99	1	THREE	CAST IRON	ISO. 1" FPT X FL W/CV	SHEET METAL/ YES
1286	UPS26-99 115V	1	THREE	CAST IRON	ISO. 1" FPT X FL	SHEET METAL/ YES
1286CV	UPS26-99 115V	1	THREE	CAST IRON	ISO. 1" FPT X FL W/CV	SHEET METAL/ YES
1383	UPS26-116	1	THREE	CAST IRON	ISO. 1" FPT X FL	SHEET METAL/ YES
1384	UPS26-99	1	THREE	CAST IRON	ISO. 1" FPT X FL	SHEET METAL/ YES
FLP1A-DBC	UPS26-99 (1 PUMP, DBL CABINET)	1	THREE	CAST IRON	N/A	SHEET METAL/ YES
FLP1L	UPMXL 25-124	1	VARIABLE	CAST IRON	N/A	SHEET METAL/ YES
FLP1L-4V	UPMXL 25-124	1	VARIABLE	CAST IRON	ISO. 1" FPT X FL	SHEET METAL/ YES
FLP1N-4V	UPMXL 25-124 INV.	1	VARIABLE	CAST IRON	ISO. 1" FPT X FL	SHEET METAL/ YES
FLP1L-4V-CV	UPMXL 25-124	1	VARIABLE	CAST IRON	ISO. 1" FPT X FL W/CV	SHEET METAL/ YES
FLP2A	UPS26-99	2	THREE	CAST IRON	N/A	SHEET METAL/YES
FLP2A-4V	UPS26-99	2	THREE	CAST IRON	ISO. 1" FPT X FL	SHEET METAL/YES
FLP2C-4V	UPS26-116	2	THREE	CAST IRON	ISO. 1" FPT X FL	SHEET METAL/ YES
FLP2M	UPMXL + UPS26-99(2	VS/THREE	CAST IRON	N/A	SHEET METAL/YES
1360	SuperBrute UPS60-150	1	THREE	CAST IRON	N/A	SHEET METAL/ YES
FLP2A	UPS26-99	2	THREE	CAST IRON	N/A	SHEET METAL/ YES
1318	UPS26-99 115V	2	THREE	CAST IRON	N/A	SHEET METAL/ YES
1319	VersaFlo UPS32-160	1	THREE	CAST IRON	N/A REQUIRES FL XL FITT.	SHEET METAL/ YES
1320	VersaFlo UPS32-160 3X230	1	THREE	CAST IRON	N/A REQUIRES FL XL FITT.	SHEET METAL/ YES
BRACKETED PUMPS (ships disassembled)						
PN	PUMPS	# PUMP(S)	SPEED	VOLUTE	FLANGE SET- INCLUDED	CABINET/INSULATED
9102-3F	UPS26-99 115V	1	THREE	CAST IRON	3/4" FPT	ON BRACKET/ NO
9102-4F	UPS26-99 115V	1	THREE	CAST IRON	1" FPT	ON BRACKET/ NO
PUMP MOUNTING BRACKETS						
4244	Single Pump mounting bracket for UP/UPS 15&26 pumps					EACH
3817	Double Pump mounting bracket for UP/UPS 15&26 pumps					EACH
UPMXL Add-On Kits						
PN	PUMPS	# PUMP(S)	SPEED	VOLUTE	FLANGE SET- INCLUDED	CABINET/INSULATED
9102-3F	UPS26-99 115V	1	THREE	CAST IRON	3/4" FPT	ON BRACKET/ NO
9102-4F	UPS26-99 115V	1	THREE	CAST IRON	1" FPT	ON BRACKET/ NO

UP(S)26-99/UPS26-116



UPMXL 25-124



VersaFlo



Bracketed Pumps (Ships Disassembled)



FLP1L-FLK / FLP1L-FLE



Isolation Valves



Mounting Brackets



Magna3 Variable Speed Flow Centers

Our MAGNA3 variable speed (VS) flow center features the highly efficient Grundfos MAGNA3 permanent magnet ECM pump in a foam insulated housing coupled with our reliable 2", 3-way, 4-position flushing and service valve. Each M3F040-* flow center comes with a choice of 2" socket fusion or 2" FPT fittings for the ground loop and interior loop connections. This modular flow center comes with the valves separated from the insulated pump allowing the contractor the choice of where the flush valves are located with respect to the pump while separating the weight of the entire flow center to more manageable pieces.

rev. 12JAN2023

Nomenclature

1 - 3 4 - 10 11 12 13 14-15
M3F **040-120** **B** **C** **-** **FF**

Magna3 Insulated Pump Series

M3F = Magna3 Flow Center
 M3FH= Magna3 Flow Center High Head

Available Models

040-080
 040-120
 040-180

Voltage

B = 208-230/1/60 (all models)

Connection type (loop and building)

SF = 2" Socket Fusion
 FP = 2" NPT Female Pipe Thread
 FF = 2" Socket Fusion (Loop) 2" NPT Female (Building)

Options

- = Options in digits 14 and 15

Mounting Options

C = Standard product (cast iron volute***), factory-insulated cabinet, wall mounted



NOTE: MAGNA3 variable speed (VS) controls see page 37

Flow Centers-Magna3

Part Number	Description
M3F040-080BC-SF	M3 FC 40-80, 208-230V, 2" HDPE SF CONNECTIONS
M3F040-080BC-FP	M3 FC, 40-80, 208-230V, CI, 2" FPT CONNECTIONS
M3F040-080BC-FF	M3 FC, 40-80, 208-230V, CI, 2" FPT BUILDING, 2" SF LOOP CONNECTIONS
M3F040-120BC-SF	M3 FC 40-120, 208-230V, 2" HDPE SF CONNECTIONS
M3F040-120BC-FP	M3 FC, 40-120, 208-230V, CI, 2" FPT CONNECTIONS
M3F040-120BC-FF	M3 FC, 40-120, 208-230V, CI, 2" FPT BUILDING, 2" SF LOOP CONNECTIONS
M3F040-180BC-SF	M3 FC, 40-180, 208-230V, CI, 2" HDPE SF CONNECTIONS
M3F040-180BC-FP	M3 FC, 40-180, 208-230V, CI, 2" FPT CONNECTIONS
M3F040-180BC-FF	M3 FC, 40-180, 208-230V, CI, 2" FPT BUILDING, 2" SF LOOP CONNECTIONS
M3FH040-080BC-SF	M3 FC, DOUBLE PUMP 40-080, 208-230V, CI, 2" HDPE SF
M3FH040-080BC-FP	M3 FC, DOUBLE PUMP 40-080, 208-230V, CI, 2" FPT
M3FH040-080BC-FF	M3 FC, DOUBLE PUMP 40-080, 208-230V, CI, 2" FPT BLDG, 2" SF LOOP
M3FH040-120BC-SF	M3 FC, DOUBLE PUMP 40-120, 208-230V, CI, 2" HDPE SF
M3FH040-120BC-FP	M3 FC, DOUBLE PUMP 40-120, 208-230V, CI, 2" FPT
M3FH040-120BC-FF	M3 FC, DOUBLE PUMP 40-120, 208-230V, CI, 2" FPT BLDG, 2" SF LOOP
M3FH040-180BC-SF	M3 FC, DOUBLE PUMP 40-180, 208-230V, CI, 2" HDPE SF
M3FH040-180BC-FP	M3 FC, DOUBLE PUMP 40-180, 208-230V, CI, 2" FPT
M3FH040-180BC-FF	M3 FC, DOUBLE PUMP 40-180, 208-230V, CI, 2" FPT BLDG, 2" SF LOOP

NOTE: MAGNA3 variable speed (VS) controls see page 37



Magna3 Flow Center with 2" socket fusion connections



Magna3 Flow Center with FPT connections



Magna3 Flow Center with 2" socket fusion loop connections and FPT building connections

Magna3 Insulated Pump Features:

- Variable speed circulator with integrated controls (ECM motor) for larger installations (models up to 300 GPM)
- Wireless communication to backup pump
- Built-in differential pressure control
- Ready for central pump, primary-secondary, or one-pipe systems
- 2", 3", and 4" connections, depending upon model
- Ball or butterfly isolation valves included (optional check valve for two-pump primary/backup installation)
- Dual head models (65, 80 and 100 series)
- Foam insulated cabinet for condensation protection
- Wall mounted for space savings/floor mounting option for larger models
- BMS options (BACnet, LON, Modbus)
- Factory configurable flow direction (larger models)

Magna3 Insulated Pumps



Magna3 40 series Insulated Pump with 2" isolation ball valves



LEFT: Magna3 65 series Insulated Pump with 2" isolation ball valves

RIGHT: Magna3 Dual Head Insulated Pump with 3" or 4" isolation butterfly valves (65, 80, 100 series)



Nomenclature

1 - 3 4 - 10 11 12 13 14-15

rev. 03OCT2017

M3D 065-150 B F - HR

Magna3 Insulated Pump Series

M3S = Single insulated pump
 M3C = Single insul. pump w/check valve
 M3D = Dual head insulated pumps
 M3H = High head insul. pumps (two pumps in series)

Available Models*

040-080	065-150
040-120	080-100
040-180	100-120
065-120	*Not all models available in all configurations (see table, next page).

Voltage

A = 115/1/60 (up to 065-120 only)
 B = 208-230/1/60 (all models)

Flow Direction (M3D, M3H only)**

HR = Horz. mounting, flow to the right
 HL = Horz. mounting, flow to the left
 VR = Vert. mounting, push/pull, "from loop" on the right (M3H models)
 VL = Vert. mounting, push/pull, "from loop" on the left (M3H models)
 Blank (M3D) = Vertical flow**

**See table on next page for available models.

Options

- = Options in digits 14 and 15
 = No options (nothing after digit 12)

Mounting Options

C = Standard product (cast iron volute***), factory-insulated cabinet, wall mounted
 F = Standard product (cast iron volute***), factory-insulated cabinet, floor mounting stand††
 ***Call for stainless steel options.
 ††Models 065 and larger only

NOTE: MAGNA3 variable speed (VS) controls see page 37

Magna 3 Insulated Pumps-Flow Centers

MAGNA3 INSULATED PUMPS						
Model	Mounting*	M3S	M3C	M3D	M3H	Field Connection
		Single Insulated Pump	Single Insulated Pump w/Check Valve**	Dual Head*** Insulated Pump	High Head*** Insulated Pump	
40-80	Wall Mounted	M3S040-080AC	M3C040-080AC		M3H040-080AC	2" NPT FEMALE
		M3S040-080BC	M3C040-080BC		M3H040-080BC	
40-120	Wall Mounted	M3S040-120AC	M3C040-120AC		M3H040-120AC	
		M3S040-120BC	M3C040-120BC		M3H040-120BC	
40-180	Wall Mounted	M3S040-180AC	M3C040-180AC		M3H040-180AC	
		M3S040-180BC	M3C040-180BC		M3H040-180BC	
65-120	Wall Mounted	M3S065-120AC	M3C065-120AC		M3H065-120AC	
		M3S065-120BC	M3C065-120BC		M3H065-120BC	
	Floor Mounted				M3H065-120BF-VL	
					M3H065-120BF-VR	
					M3H065-120BF-HL	
					M3H065-120BF-HR	
65-150	Wall Mounted	M3S065-150BC	M3C065-150BC	M3D065-150BC	M3H065-150BC	
	Floor Mounted			M3D065-150BF	M3H065-150BF-VL	
					M3H065-150BF-VR	
					M3H065-150BF-HL	
				M3H065-150BF-HR		
80-100	Wall Mounted	M3S080-100BC		M3D080-100BC	M3H080-100BC	
	Floor Mounted	M3S080-100BF		M3D080-100BF	M3H080-100BF-VL	
				M3D080-100BF-HL	M3H080-100BF-VR	
				M3D080-100BF-HR	M3H080-100BF-HL	
					M3H080-100BF-HR	
100-120	Wall Mounted	M3S100-120BC		M3D100-120BC	M3H100-120BC	
	Floor Mounted	M3S100-120BF		M3D100-120BF	M3H100-120BF-VL	
				M3D100-120BF-HL	M3H100-120BF-VR	
				M3D100-120BF-HR	M3H100-120BF-HL	
					M3H100-120BF-HR	

*All insulated pumps with digit 12= "C" include isolation valves and insulated cabinets, designed for wall-mounting. Larger pumps are available with floor stand.

**Check valve required when piping two pumps in parallel. Dual head pumps include built in check valve in volute.

***M3D and M3H insulated pumps with floor stand option may be mounted vertically or horizontally.

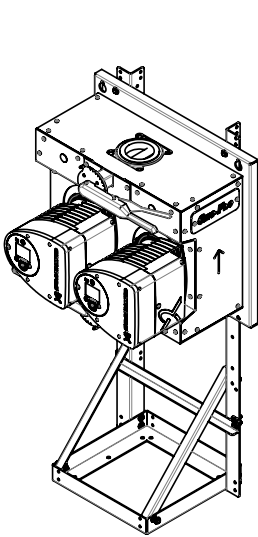
Standard configuration for M3D is vertical. Optional configuration is horizontal (HL, HR) except M3D065-150.

M3H may be vertical (VL,VR) or horizontal (HL,HR). See flow illustrations on next page.

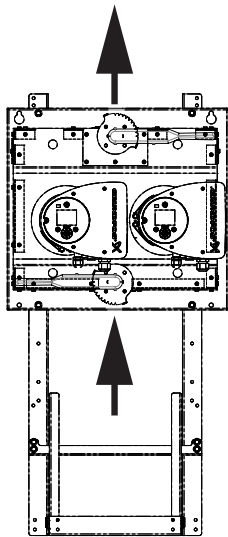
NOTE: MAGNA3 variable speed (VS) controls see page 37



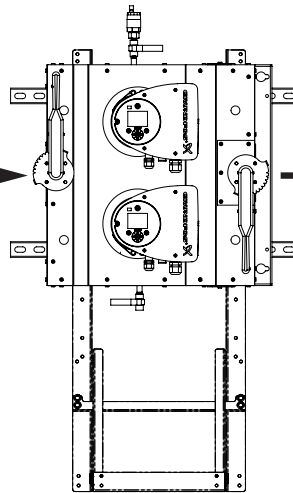
Magna3 Insulated Pump Flow Options



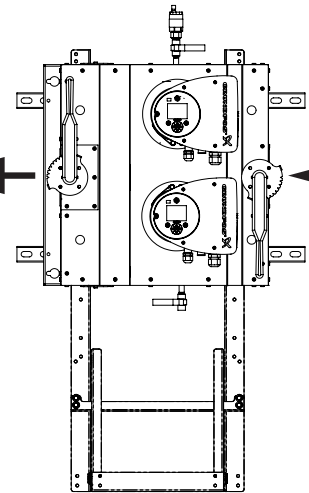
Isometric view of Magna3 insulated pump with floor stand (shown: M3D065-150BF)



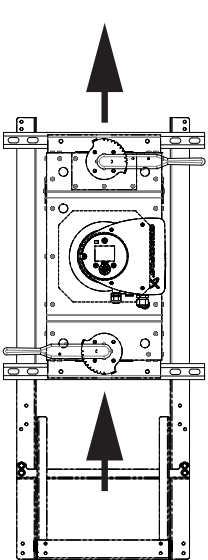
M3D dual head insulated pumps, vertical flow (shown: M3D065-150BF)



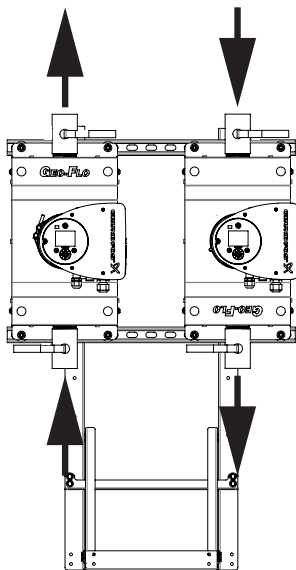
M3D dual head insulated pumps, horizontal right flow (shown: M3D100-120BF-HR) NOTE: M3D065-150 not available with HR flow, use P/N 4596 to adapt plumbing to required direction.



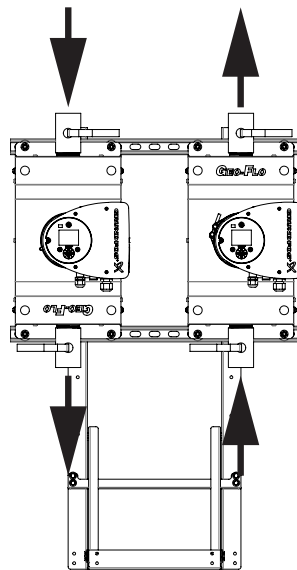
M3D dual head insulated pumps, horizontal left flow (shown: M3D100-120BF-HL)



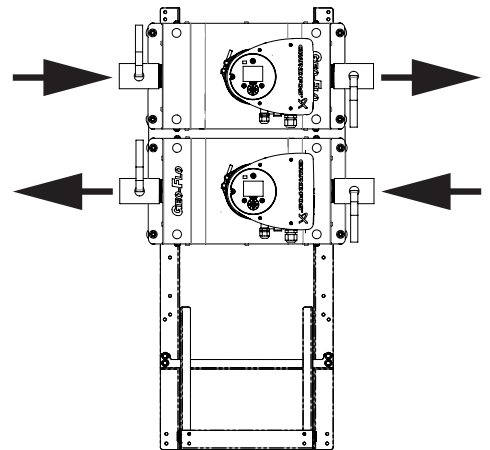
M3S single insulated pump with floor stand (shown: M3S080-100BF)



M3H high head insulated pumps, vertical right flow (shown: M3H065-150BF-VR)

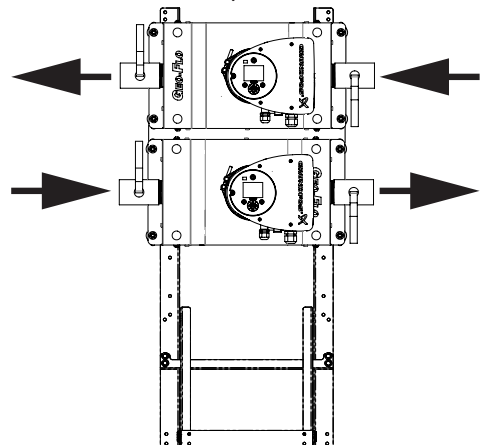


M3H high head insulated pumps, vertical left flow (shown: M3H065-150BF-VL)



Top: M3H high head insulated pumps, horizontal right flow (shown: M3H065-150BF-HR)

Bottom: M3H high head insulated pumps, horizontal left flow (shown: M3H065-150BF-HL)



Replacement Pumps/Blank Off Plates/Repair Kits-Flow Centers

REPLACEMENT PUMPS				
It is not normally practical to change the volute in a foamed-in flow center. PNs with "NV" at the end indicates that the replacement pump is the pump head only and does not include the volute.				
PN	PUMP	VOLTAGE	SPEED	VOLUTE
8900NV	UP26-99	208-230V	SINGLE	NONE
8900	UP26-99F	208-230V	SINGLE	CAST IRON
9425NV	UPS26-99	208-230V	THREE	NONE
9428	UPS26-99F	208-230V	THREE	CAST IRON
9405NV	UP26-116	208-230V	SINGLE	NONE
9405	UP26-116F	208-230V	SINGLE	CAST IRON
9104NV	UPS26-99	115V	THREE	NONE
9104	UPS26-99F	115V	THREE	CAST IRON
9440	UP26-99SF	115V	SINGLE	STAINLESS
9435	UP26-116SF	208-230V	SINGLE	STAINLESS
9417	VersaFlo UPS32-160	230V	THREE	CAST IRON
9451	UPS15-58FC	115V	THREE	CAST IRON
8994	VersaFlo UPS40-160	230V	THREE	CAST IRON
9418	SuperBrute XL UPS60-150	208-230V	THREE	CAST IRON
9457	UPMXL 25-124	208-230V	VARIABLE	CAST IRON
9458	UPMXL 25-124 INV.	208-230V	VARIABLE	CAST IRON
9441	Magna3 40-80	208-230V	VARIABLE	CAST IRON
9444	Magna3 40-120	208-230V	VARIABLE	CAST IRON
9452	Magna3 40-180	115V	VARIABLE	CAST IRON
9432	Magna3 40-180	208-230V	VARIABLE	CAST IRON
9449	Magna3 65-120	208-230V	VARIABLE	CAST IRON
9433	Magna3 65-150	208-230V	VARIABLE	CAST IRON
CALL	Magna3 80-100	208-230V	VARIABLE	CAST IRON
9448	Magna 3 100-120	208-230V	VARIABLE	CAST IRON
9462	WILO STRATOS MAXO 1.25x3-35	115/230V	VARIABLE	CAST IRON
9463	WILO STRATOS MAXO 1.25x3-52	230V	VARIABLE	CAST IRON
9464	WILO STRATOS MAXO 1.5x3-52	230V	VARIABLE	CAST IRON
9465	WILO STRATOS MAXO 2x3-35	230V	VARIABLE	CAST IRON
9466	WILO STRATOS MAXO 2x3-50	115/230V	VARIABLE	CAST IRON
9467	WILO STRATOS MAXO 3x3-52	230V	VARIABLE	CAST IRON
9468	WILO STRATOS MAXO 1.25x3-30	230V	VARIABLE	CAST IRON
9469	WILO STRATOS MAXO 1.25x3-20	115/230V	VARIABLE	CAST IRON
REPLACEMENT PUMP-FLUSH CART				
9424	Munro 1.5 HP 115V/208- 230V			SINGLE
REPLACEMENT PUMP-GEO-BOOSTER				
9423	Geo-Booster replacement pump			
BLANK-OFF PLATES				
3480	Blank-off Plate Kit, Flo-Link Double O-ring flow centers			
3479	Blank-off Plate Kit, 1" FPT flow centers			

Replacement pump head "NV"
(No Volute) part numbers

8900/9405/9428



9457/9458

8994/9417



9418

Magna3



9423

9424



3479/3480



REPAIR KITS

2938	Repair Kit, Composite Valve, Flo-Link Double O-ring
3518	Repair Kit, Brass Valve, Flo-Link Double O-ring
3341	Repair Kit, Brass Valve, FPT Connections
3519	Repair Kit, XL Valve, Flo-Link XL Double O-ring

3341




3518

3519





2938








Geo-Flo hose kits significantly cut installation time by providing all of the fittings needed to connect a geothermal heat pump to a Geo-Flo flow center. Available in 3/4" to 2" sizes, as well as with Flo-Link and Flo-Link XL fittings.

HOSE KITS			
Heat Pump Connection	Flow Center Connection	PN	KIT CONTENTS
<u>3/4 FPT</u>	<u>1" FPT</u>	1100	Kit Contains: (1) 12 ft. 1" ID black hose (PN 2950) (2) Insulating boot (PN 3459) (2) Insulating boot cap (PN 3466) (2) 1/4" MPT PT Plug (PN 2143) (2) 1" MPT x 1" hose barb (flow center connection) (PN 2146) (2) Elbow, 3/4" MPT x 1" hose barb w/ PT port (heat pump connection) (PN 2265) (8) Stainless steel hose clamps (PN 2943) 
<u>1" FPT or 1" Swivel</u>	<u>1" FPT</u>	1101	Kit Contains: (1) 12 ft. 1" ID black hose (PN 2950) (2) Insulating boot (PN 3459) (2) Insulating boot cap (PN 3466) (2) 1/4" MPT PT Plug (PN 2143) (2) 1" MPT x 1" hose barb (flow center connection) (PN 2146) (2) Elbow, 1" MPT x 1" hose barb w/ PT port (heat pump connection) (PN 3447) (8) Stainless steel hose clamps (PN 2943) Notes: Kit available without hose (PN 3813) 
		1101CV	1101 hose kit with check valve at flow center connection
	<u>Flo-Link</u>	<u>Flo-Link</u>	1181
1181CV			1181 hose kit with check valve at flow center connection
<u>Flo-Link</u>	<u>Flo-Link</u>	1354	Kit Contains: (1) 12 ft. 1" ID black hose (PN 2950) (2) Insulating boot (PN 3459) (2) Insulating boot cap (PN 3466) (2) 1/4" MPT PT Plug (PN 2143) (2) Flo-Link x 1" hose barb (flow center connection) (PN 2913) (2) Elbow, Flo-Link x 1" hose barb w/ PT port (heat pump connection) (PN 3263) (8) Stainless steel hose clamps (PN 2943) 
1354CV		1354 hose kit with check valve at flow center connection	

Hose Kits

Heat Pump Connection	Flow Center Connection	PN	KIT CONTENTS
<u>1" FPT or 1" Swivel</u>	<u>Flo-Link</u>	1347	<p>Kit Contains:</p> <ul style="list-style-type: none"> (1) 12 ft. 1" ID black hose (PN 2950) (3) Insulating boot (PN 3459) (3) Insulating boot cap (PN 3466) (2) 1/4" MPT PT Plug (PN 2143) (2) 1/4" brass plug (PN 3711) (1) Flo-Link x 1" hose barb (flow center connection) (PN 3384) (1) Flo-Link elbow x 1" hose barb (flow center connection) (PN 3262) (2) Elbow, 1" MPT x 1" hose barb w/ PT port (heat pump connection) (PN 3447) (8) Stainless steel hose clamps (PN 2943) <p>Notes: Compatible with NP Plus flow centers and heat pumps with 1" FPT connections</p> 
<u>Flo-Link</u>	<u>Flo-Link</u>	1346	<p>Kit Contains:</p> <ul style="list-style-type: none"> (1) 12 ft. 1" ID black hose (PN 2950) (3) Insulating boot (PN 3459) (3) Insulating boot cap (PN 3466) (2) 1/4" MPT PT Plug (PN 2143) (2) 1/4" brass plug (PN 3711) (1) Flo-Link x 1" hose barb (flow center connection) (PN 3384) (1) Flo-Link elbow x 1" hose barb (flow center connection) (PN 3362) (2) Elbow, Flo-Link x 1" hose barb w/ PT port (heat pump connection) (PN 3263) (8) Stainless steel hose clamps (PN 2943) <p>Notes: Compatible with NP Plus flow centers and heat pumps with Flo-Link double O-ring connections.</p> 
<u>1" FPT or 1" Swivel</u>	<u>PE FUSION</u>	1263	<p>Kit Contains:</p> <ul style="list-style-type: none"> (1) 12 ft. 1" ID black hose (PN 2950) (2) Insulating boot (PN 3459) (2) Insulating boot cap (PN 3466) (2) 1/4" MPT PT Plug (PN 2143) (2) 1-1/4" PE Fusion x 1" hose barb (flow center connection) (PN 3665) (2) Elbow, 1" MPT x 1" hose barb w/ PT port (heat pump connection) (PN 3447) (8) Stainless steel hose clamps (PN 2943) 
	<u>1-1/4" PVC</u>	1291	<p>Kit Contains:</p> <ul style="list-style-type: none"> (1) 12 ft. 1" ID black hose (PN 2950) (2) Insulating boot (PN 3459) (2) Insulating boot cap (PN 3466) (2) 1/4" MPT PT Plug (PN 2143) (2) 1-1/4" PVC socket x 1" hose barb (flow center connection) (PN 3831) (2) Elbow, 1" MPT x 1" hose barb w/ PT port (heat pump connection) (PN 3447) (8) Stainless steel hose clamps (PN 2943) 

<u>1" FPT or 1" Swivel</u>	<u>1" MPT</u>	1280	Kit Contains: (1) 12 ft. 1" ID black hose (PN 2950) (2) Insulating boot (PN 3459) (2) Insulating boot cap (PN 3466) (2) 1/4" MPT PT Plug (PN 2143) (2) 1/4" brass plug (PN 3711) (2) 1" MPT x 1" hose barb w/ PT port (flow center connection) (PN 3929) (2) Elbow, 1" MPT x 1" hose barb w/ PT port (heat pump connection) (PN 3447) (8) Stainless steel hose clamps (PN 2943)	
	<u>Flo-Link</u>	1281	Kit Contains: (1) 12 ft. 1" ID black hose (PN 2950) (2) Insulating boot (PN 3459) (2) Insulating boot cap (PN 3466) (2) 1/4" MPT PT Plug (PN 2143) (2) Flo-Link x 1" HB w/ PT port w/ 1/4" brass plug (flow center connection) (PN 3385) (2) Elbow, 1" MPT x 1" hose barb w/ PT port (heat pump connection) (PN 3447) (8) Stainless steel hose clamps (PN 2943)	
	<u>1-1/4" PE W/VALVES</u>	1337	Kit Contains: (1) 12 ft. 1" ID black hose (PN 2950) (2) Insulating boot (PN 3459) (2) Insulating boot cap (PN 3466) (2) 1/4" MPT PT Plug (PN 2143) (2) 1-1/4" PE x 1" hose barb with iso. valve (flow center connection) (PN 4580) (2) Elbow, 1" MPT x 1" hose barb w/ PT port (heat pump connection) (PN 3447) (8) Stainless steel hose clamps (PN 2943)	
<u>1-1/4" FPT</u>	<u>1-1/4" FPT</u>	1251	Kit Contains: (1) 12 ft. 1-1/4" ID black hose (PN 3559) (2) 1/4" MPT PT Plug (PN 2143) (2) 1-1/4" MPT x 1-1/4" HB (flow center connection) (PN 3557) (2) Elbow, 1-1/4" MPT x 1-1/4" hose barb w/ PT port (heat pump connection) (PN 3556) (8) Stainless steel hose clamps (PN 4524)	
	<u>Flo-Link</u>	1385	Kit Contains: (1) 12 ft. 1-1/4" ID black hose (PN 3559) (2) 1/4" MPT PT plug (PN 2143) (2) Flo-Link x 1-1/4" HB (flow center connection) (PN 2942) (2) Elbow, 1-1/4" MPT x 1-1/4" hose barb w/ PT port (heat pump connection) (PN 3556) (8) Stainless steel hose clamps (PN 4524)	
	<u>Flo-Link XL</u>	1261	Kit Contains: (2) 8 ft. 1-1/4" ID black hose (PN 3559) (2) 1/4" MPT PT Plug (PN 2143) (2) Flo-Link XL x 1-1/4" HB (flow center connection) (PN 3652) (2) Elbow, 1-1/4" MPT x 1-1/4" hose barb w/ PT port (heat pump connection) (PN 3556) (8) Stainless steel hose clamps (PN 4524)	
			Notes: Compatible with SuperBrute XL, VersaFlo, and Magna3 flow centers	

Bulk Hose and Clamps

Heat Pump Connection	Flow Center Connection	PN	KIT CONTENTS
2" FPT	Flo-Link XL	3477	Kit Contains: (2) 8 ft. 2" ID black hose (PN 3418) (2) 1/4" MPT PT Plug (PN 2143) (2) Flo-Link XL x 2" hose barb (flow center connection) (PN 3397) (2) Elbow, 2" MPT x 2" hose barb w/ PT port (heat pump connection) (PN 3449) (10) Stainless steel hose clamps (PN 3417) Notes: Compatible with SuperBrute XL, VersaFlo, and Magna3 flow centers
		3477CV	3477 hose kit with check valve at flow center connection
		3477-MPT	3477 hose kit with 2" MPT at flow center connection
	Flo-Link XL	3478	Kit Contains: (2) 8 ft. 2" ID wire-reinforced hose (PN 3418) (2) 1/4" MPT PT Plug (PN 2143) (1) Flo-Link XL x 2" hose barb (flow center connection) (PN 3475) (1) Flo-Link XL x 2" MPT (flow center to strainer connection) (PN 3476) (1) 2" Wye strainer (PN 3462) (1) 2" MPT x 2" hose barb (PN 3416) (2) Elbow, 2" MPT x 2" hose barb w/ PT port (heat pump connection) (PN 3449) (8) Stainless steel hose clamps (PN 3417) Notes: Compatible with SuperBrute XL, VersaFlo, and Magna3 flow centers

BULK HOSE		
Part Number	Description	U.O.M
2945	1" ID Black 150 psi hose, 10 ft. length	LENGTH
2950	1" ID Black 150 psi hose, 12 ft. length	LENGTH
3216	1" ID Black 150 psi hose, 50 ft. length	LENGTH
3418	2" ID Black 200 psi hose, 8 ft. length	LENGTH
2139	1" ID Black 150 psi hose, 450 ft. roll	ROLL
3559	1-1/4" ID Black 150 psi hose, 400 ft. roll	ROLL
4499	1" ID Red 200 psi hose, 450 ft. roll	ROLL/LENGTH
4519	1-1/4" ID Red 200 psi hose, 400 ft. roll	ROLL/ LENGTH



HOSE CLAMPS (STAINLESS STEEL)			
STAINLESS STEEL	3540	SIZE 06 (5/16"-7/8")	EACH
	2943	SIZE 20 (3/4"-1-3/4")	EACH
	3558	SIZE 28 (1-1/4"-2-1/4")	EACH
	3417	SIZE 40 (2"-3")	EACH

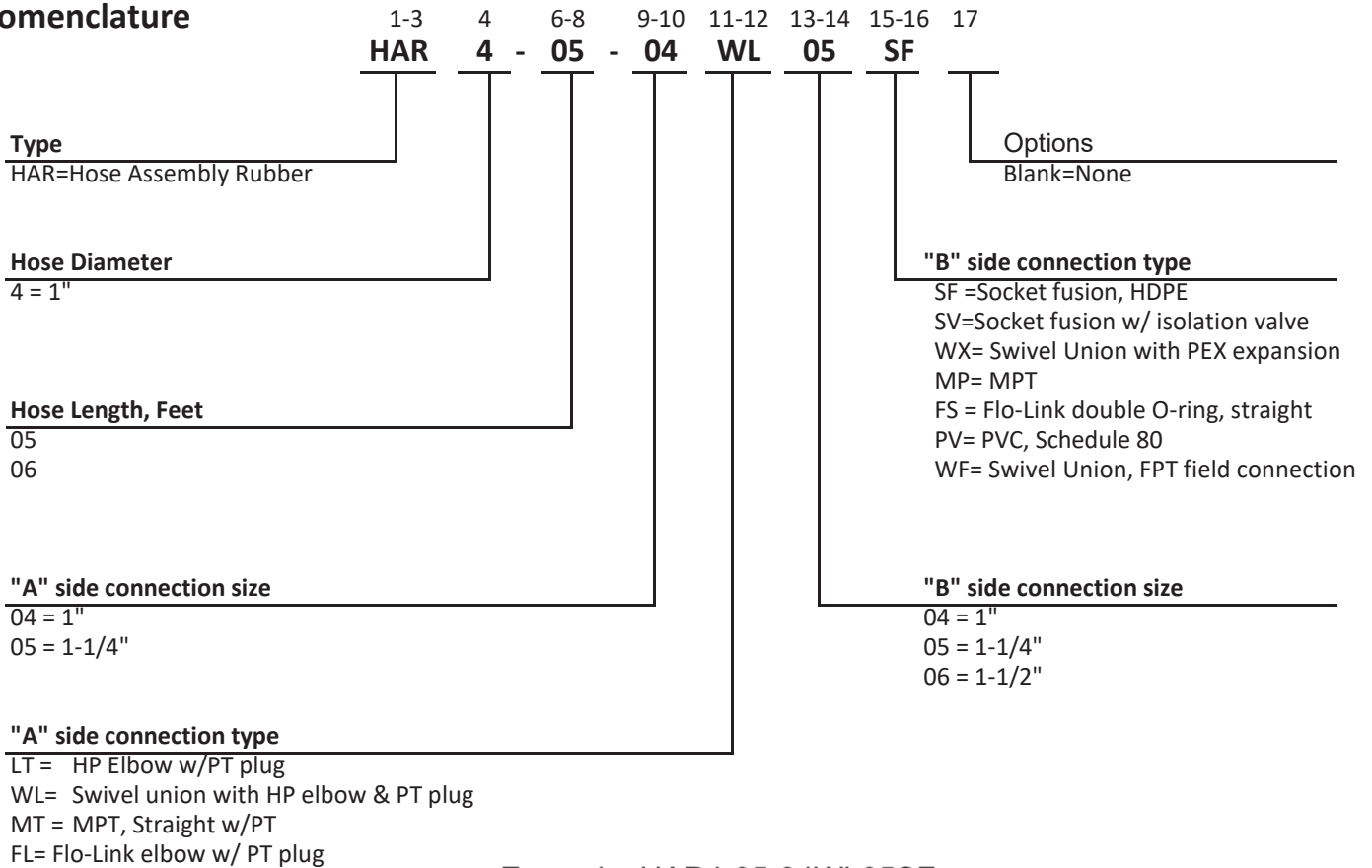


Pre-assembled hose kits are the fast and professional way to provide a flexible connection between a geothermal heat pump and flow center or any other piping connection. The assemblies consist of reinforced rubber hose with factory crimped brass ferrules on your choice of adapter fittings. These assemblies are similar to stainless steel hose kits used in commercial applications without the high cost and additional stiffness.

ASSEMBLED HOSE KITS						
Part Number	Hose Diameter (in)	Hose length (ft)	"A" Connection Size	"A" Connection Type	"B" Connection Size	"B" Connection Type
HAR4-05-04LT04MP	1"	5'	1"	HP Elbow w/PT plug	1"	MPT
HAR4-05-04LT06WX					1-1/2"	Swivel Union w/Pex
HAR4-05-04WL05SF					1-1/4"	Socket Fusion, HDPE
HAR4-05-04WL05SV				Swivel union w/HP elbow & PT plug	1-1/4"	Socket Fusion w/ iso. Valve
HAR4-05-04WL06SF					1-1/2"	Socket Fusion, HDPE
HAR4-05-04WL06SV					1-1/2"	Socket Fusion w/ iso. Valve
HAR4-05-04WL06WX					1-1/2"	Swivel Union w/Pex

NOTE: Not all options are available. Call for items not specifically listed.

Nomenclature



Example: HAR4-05-04WL05SF



Flo-Link™-Fittings

FLO-LINK FITTINGS				
PN	DESCRIPTION	U.O.M.	MATERIAL	
2913	FL X 1" HOSE BARB	SET	BRASS	
3490	FL X 1" HOSE BARB W/CHECK VALVE	SET		
3490-HALF	FL X 1" HOSE BARB W/CHECK VALVE	EACH		
3385	FL X 1" HOSE BARB W/1/4" FPT PORT	SET		
2942	FL X 1-1/4" HOSE BARB	SET		
3769	FL X 1-1/4" HOSE BARB W/1/4" FPT PORT	SET		
3072	FL X 1" MPT	SET		
3389	FL X 1" MPT W/1/4" FPT PORT	SET		
3498	FL (FEMALE) X 1" MPT	SET		
3326	FL X 1" FPT	SET		
3471	FL (FEMALE) X 1" MPT	EACH		
4143	FL X 1" FPT W/CHECK VALVE	SET		
4143-HALF	FL X 1" FPT W/CHECK VALVE	EACH		
3885	FL X 1-1/4" FPT	SET		
3144	FL X 1-1/8" SWEAT W/1/4" FPT PORT*	SET		
4720	FL X 1-1/2" PEX EXP	SET		
2914	FL X MALE CAM ADAPTER	SET		
3203	FL X MALE GARDEN HOSE ADAPTER	SET		
4742	FL X FL COUPLER	EACH		
3248	FL X FEMALE GARDEN HOSE ADAPTER	SET		
3263	FL ELBOW X 1" HOSE BARB W/1/4" FPT PORT*	SET		
3255	FL ELBOW X 1" MPT W/1/4" FPT PORT*	SET		
3433	FL Coupler	EACH		HDPE
3924	FL ELBOW X 1" PE FUSION W/1/4" FPT PORT*	SET		
3096	FL X 3/4" PE SOCKET FUSION	SET		
2912	FL X 1" PE PE SOCKET FUSION	SET		
2911	FL X 1-1/4" PE SOCKET FUSION	SET		
2911-10X	FL X 1-1/4" PE SOCKET FUSION BULK PACK	10 SETS		
3917	FL X 1-1/4" PE PIPE	SET		
3243	FL X 40MM PIPE	SET	PVC	
3425	FL X 1-1/4" PVC SOCKET	SET		

Flo-Link fittings provide a reliable way to connect Flo-Link double O-ring flow centers and heat pumps. The fittings are simply inserted into the female port and secured by hand-tightening the nut. These fittings are available in a variety of materials and styles to allow connection to any type of hose or pipe.

*PT Plug Not Included



Flo-Link XL fittings provide a reliable way to connect Flo-Link XL double O-ring products including SuperBrute XL, VersaFlo, and Magna3 insulated pumps and flow centers. The fittings are simply inserted into the female port and secured by hand-tightening the nut. These fittings are available in a variety of materials and styles to allow connection to any type of hose or pipe.

FLO-LINK XL FITTINGS			
PN	DESCRIPTION	U.O.M.	MATERIAL
3652	FL XL X 1-1/4" HOSE BARB	SET	BRASS
3397	FL XL X 2" HOSE BARB	SET	
3655	FL XL X 1-1/4" MPT	SET	
3476	FL XL X 2" MPT	EACH	
3318	FL XL X 2" FPT	SET	
3395	FL XL X 2" SWEAT	SET	
3380	FL XL X 1" CAM	SET	ALUMINIUM
3486	FL XL X 1-1/2" CAM	SET	
3485	FL XL X 1" FEMALE GARDEN HOSE ADAPTER	SET	
3463	FL XL X 1-1/4" PE SOCKET FUSION	SET	HDPE
3464	FL XL X 1-1/2" PE SOCKET FUSION	SET	
3465	FL XL X 2" PE SOCKET FUSION	SET	
4772	FL XL X FL XL	EACH	



3395



3318



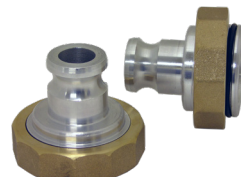
3476/3655



3463/3464/3465



3485



3380/3486



3652/3397



4772

Fittings

ALL FITTINGS			
MATERIAL	PN	DESCRIPTION	U.O.M.
HOSE BARB (HB)			
	Flo-Link (FL)		
BRASS	2913	FL X 1" HB	SET
	3490	FL X 1" HB W/CHECK VALVE	SET
	3385	FL X 1" HB W/1/4" FPT PORT	SET
	2942	FL X 1-1/4" HB	SET
	3769	FL X 1-1/4" HB W/ PT PORT	SET
	Flo-Link XL (FL XL)		
	3652	FL XL X 1-1/4" HB	SET
	3397	FL XL X 2" HB	SET
	Hose Barb		
BRONZE	4738	1" HB X 1-1/4" HB	EACH
	MPT		
BRASS	4310	3/4" MPT X 3/4" HB	EACH
BRONZE	4739	3/4" MPT X 1" HB	EACH
BRASS	2146	1" MPT X 1" HB	EACH
	3929	1" MPT X 1" HB W/1/4" FPT PORT	EACH
	4505	1" MPT X 1" HB W/CHECK VALVE	EACH
	2147	1" MPT X 1-1/4" HB	EACH
	3557	1-1/4" MPT X 1-1/4" HB	EACH
	4514	1-1/4" MPT X 1-1/4" HB W/ CHECK VALVE	EACH
	3416	2" MPT X 2" HB	EACH
	PVC		
PVC	3831	1-1/4" PVC Glue X 1" HB	SET
MPT			
	Flo-Link (FL)		
BRASS	3072	FL X 1" MPT	SET
	3389	FL X 1" MPT W/1/4" FPT PORT	SET
	3498	FL (FEMALE) X 1" MPT	SET
	Flo-Link XL (FL XL)		
	3655	FL XL X 1-1/4" MPT	SET
	3476	FL XL X 2" MPT	EACH
	SWIVEL		
	3731	1" SWIVEL X 3/4" MPT	SET
	3732	1" SWIVEL X 1" MPT	SET
	3726	1-1/4" SWIVEL X 1-1/4" MPT	SET
	3771	1-1/4" SWIVEL X 1-1/4" MPT	EACH
	4323	1-1/4" SWIVEL X 1" MPT	SET
	4544	1" SWIVEL X 1/2" MPT	SET
WATER HEATER ADAPTERS			
BRASS	3721	1" Straight Mechanical Thread X 1" Female SWIVEL	SET
	CAM		
ALUMINUM	3666	1" CAM X 1" MPT -Note: For Flushing	EACH

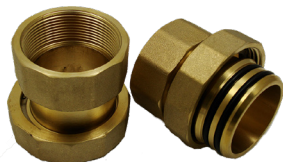


<u>FPT</u>			
	<u>Flo-Link (FL)</u>		
BRASS	3326	FL X 1" FPT	SET
	4143	FL X 1" FPT W/CHECK VALVE	SET
	3885	FL X 1-1/4" FPT	SET
	<u>Flo-Link XL (FL XL)</u>		
	3318	FL XL X 2" FPT	SET
<u>SWEAT</u>			
	<u>Flo-Link (FL)</u>		
BRASS	3144	FL X 1-1/8" SWEAT W/1/4" FPT PORT	SET
	<u>Flo-Link XL (FL XL)</u>		
	3395	FL XL X 2" SWEAT	SET
	<u>SWIVEL</u>		
	3844	1" SWIVEL X 7/8" SWEAT	SET
	3845	1" SWIVEL X 1-1/8" SWEAT	SET
<u>CAM</u>			
	<u>Flo-Link (FL)</u>		
HDPE	2914	FL X MALE CAM ADAPTER	SET
	<u>Flo-Link XL (FL XL)</u>		
ALUMINUM	3380	FL XL X 1" CAM	SET
	3486	FL XL X 1-1/2" CAM	SET
<u>GARDEN HOSE</u>			
	<u>Flo-Link (FL)</u>		
BRASS	3203	FL X MALE GARDEN HOSE ADAPTER	SET
	3248	FL X FEMALE GARDEN HOSE ADAPTER	SET
	<u>Flo-Link XL (FL XL)</u>		
	3485	FL XL X 1" FEMALE GARDEN HOSE ADAPTER	SET
<u>ELBOWS</u>			
<u>PT PLUGS</u>			
BRASS	2143	1/4" PT PLUG	EACH
	2144	1/2" PT PLUG	EACH
	3711	1/4" PLUG	EACH
Note: Use w/ FL or threaded fittings that have a 1/4" FPT port, where a PT plug is not needed.			

Flo-Link X FPT



Flo-Link XL X FPT



2143



2144



3711



Elbows-Fittings

		Flo-Link (FL)	
BRASS	3263	FL ELBOW X 1" HB W/1/4" FPT PORT	SET
	3255	FL ELBOW X 1" MPT W/1/4" FPT PORT	SET
PE/BRASS	3924	FL ELBOW X 1" PE FUSION W/1/4" FPT PORT	SET
		MPT	
BRASS	4309	3/4" MPT X 3/4" HB W/1/4" FPT PORT	EACH
	2265	3/4" MPT X 1" HB W/1/4" FPT PORT	EACH
	3447	1" MPT X 1" HB W/1/4" FPT PORT	EACH
	3481	1" MPT X 1" FPT W/1/4" PT PLUGS	SET
	3448	1" MPT X 1" FPT W/ PT PORT	EACH
	3556	1-1/4" MPT X 1-1/4" HB W/1/4" FPT PORT	EACH
	3660	1-1/4" MPT X 1-1/4" HB W/1/4" PT PLUGS	SET
	3500	1-1/4" MPT X 1-1/4" FPT W/1/4" FPT PORT	SET
	3499	1-1/4" MPT X 1-1/4" FPT W/1/4" FPT PORT	EACH
	3449	2" MPT X 2" HB W/1/4" FPT PORT	EACH
	3482	2" MPT X 2" HB W/1/4" PT PLUGS	SET
FOAM	3461	INSULATING BOOT SET FOR 1" ELBOWS	SET

3255



3263



3924



3461



2265/3447/3449/3556/4309



3499/3448



3482/3660



3481/3500



PE FUSION

		Flo-Link (FL)		
HDPE	3096	FL X 3/4" PE FUSION	SET	
	2912	FL X 1" PE FUSION	SET	
	2911	FL X 1-1/4" PE FUSION	SET	
	2911-10X	FL X 1-1/4" PE FUSION BULK PACK	10 SETS	
			Flo-Link XL (FL XL)	
	3463	FL XL X 1-1/4" PE FUSION	SET	
	3464	FL XL X 1-1/2" PE FUSION	SET	
	3465	FL XL X 2" PE FUSION	SET	

PE FUSION ADAPTERS			
	HOSE BARB		
HDPE/BRASS	PFA34HB	3/4" SOCKET FUSION X 1" HB	EACH
	PFA44HB	1" SOCKET FUSION X 1" HB	EACH
	PFA54HB	1-1/4" SOCKET FUSION X 1" HB	EACH
	PFA64HB	1-1/2" SOCKET FUSION X 1" HB	EACH
	MPT		
HDPE/BRASS	PFA33M	3/4" SOCKET FUSION X 3/4" MPT	EACH
	PFLA33M	ELBOW, 3/4" SOCKET FUSION X 3/4" MPT	EACH
	PFA34M	3/4" SOCKET FUSION X 1" MPT	EACH
	PFLA34M	ELBOW, 3/4" SOCKET FUSION X 1" MPT	EACH
	PFA44M	1" SOCKET FUSION X 1" MPT	EACH
	PFA53M	1-1/4" SOCKET FUSION X 3/4" MPT	EACH
	PFA54M	1-1/4" SOCKET FUSION X 1" MPT	EACH
	PFA54M-CV	1-1/4" SOCKET FUSION X 1" MPT W/ CHECK VALVE	EACH
	PFA55M	1-1/4" SOCKET FUSION X 1-1/4" MPT	EACH
	PFA64M	1-1/2" SOCKET FUSION X 1" MPT	EACH
	PFA66M	1-1/2" SOCKET FUSION X 1-1/2" MPT	EACH
	PFA88M	2" SOCKET FUSION X 2" MPT	EACH
	FPT		
HDPE/BRASS	PFA31F	3/4" SOCKET FUSION X 1/4" FPT	EACH
	PFA32F	3/4" SOCKET FUSION X 1/2" FPT	EACH
	PFLA33F	ELBOW, 3/4" SOCKET FUSION X 3/4" FPT	EACH
	PFA88F	2" SOCKET FUSION X 2" FPT	EACH
PE FUSION ADAPTERS TEES			
HDPE/BRASS	PFTA332F	3/4" FUSION X 3/4" FUSION X 1/2" FPT	EACH
	PFTA442F	1" FUSION X 1" FUSION X 1/2" FPT	EACH
	PFTA4MS2F4	1" MPS X 1/2" FPT X 1" FUSION	EACH
	PFTA4MS32F	1" MPT X 3/4" FUSION X 1/2" FPT	EACH
	PFTA4MS42F	1" MPT X 1" FUSION X 1/2" FPT	EACH
	PFTA551F	1-1/4" FUSION X 1-1/4" FUSION X 1/4" FPT	EACH
	PFTA881F	2" FUSION X 2" FUSION X 1/4" FPT	EACH
	PFTA854M	2" FUSION X 1-1/4" FUSION X 1" MPT	EACH
	PFTA884M	2" FUSION X 2" FUSION X 1" MPT	EACH

Socket Fusion X Hose Barb



Socket Fusion X MPT



Fusion Adapter Tee



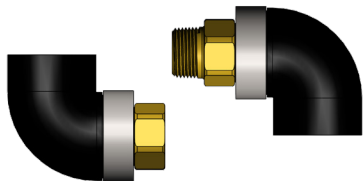
Socket Fusion X Flo-Link



Socket Fusion X FPT



Socket Fusion Elbows



PE Fusion/Elbows-Fittings

FUSION COUPLINGS			
HDPE	PFC33	3/4" X 3/4"	EACH
	PFC43	1" X 3/4"	EACH
	PFC44	1" X 1"	EACH
	PFC53	1-1/4" X 3/4"	EACH
	PFC54	1-1/4" X 1"	EACH
	PFC55	1-1/4" X 1-1/4"	EACH
	PFC64	1-1/2" X 1"	EACH
	PFC65	1-1/2" X 1-1/4"	EACH
	PFC66	1-1/2" X 1-1/2"	EACH
	PFC84	2" X 1"	EACH
	PFC85	2" X 1-1/4"	EACH
	PFC86	2" X 1-1/2"	EACH
	PFC88	2" X 2"	EACH
	3895	BUTT FUSION REDUCER, 3" X 2" IPS	EACH
	4254	BUTT FUSION REDUCER, 4" X 3" IPS	EACH
FUSION ELBOWS			
HDPE	PFL33	3/4" X 3/4"	EACH
	PFL33S	3/4" X 3/4" STREET	EACH
	PFL43	1" X 3/4"	EACH
	PFL44	1" X 1"	EACH
	PFL44-45	1" X 1" 45°	EACH
	PFL44S	1" X 1" STREET	EACH
	PFL53	1-1/4" X 3/4"	EACH
	PFL54	1-1/4" X 1"	EACH
	PFL55	1-1/4" X 1-1/4"	EACH
	PFL55-45	1-1/4" X 1-1/4" 45°	EACH
	PFL55S	1-1/4" X 1-1/4" STREET	EACH
	PFL66	1-1/2" X 1-1/2"	EACH
	PFL66-45	1-1/2" X 1-1/2" 45°	EACH
	PFL88	2" X 2"	EACH
FUSION CAPS			
HDPE	PFP3	3/4"	EACH
	PFP4	1"	EACH
	PFP5	1-1/4"	EACH
	PFP6	1-1/2"	EACH
	PFP8	2"	EACH

Fusion Coupling



Fusion Caps



Fusion Elbow, Street



Fusion Elbow



<u>FUSION TEES</u>			
HDPE	PFT333	3/4" X 3/4" X 3/4"	EACH
	PFT444	1" X 1" X 1"	EACH
	PFT533	1-1/4" X 3/4" X 3/4"	EACH
	PFT544	1-1/4" X 1" X 1"	EACH
	PFT553	1-1/4" X 1-1/4" X 3/4"	EACH
	PFT554	1-1/4" X 1-1/4" X 1"	EACH
	PFT555	1-1/4" X 1-1/4" X 1-1/4"	EACH
	PFT664	1-1/2" X 1-1/2" X 1"	EACH
	PFT666	1-1/2" X 1-1/2" X 1-1/2"	EACH
	PFT853	2" X 1-1/4" X 3/4"	EACH
	PFT854	2" X 1-1/4" X 1"	EACH
	PFT855	2" X 1-1/4" X 1-1/4"	EACH
	PFT864	2" X 1-1/2" X 1"	EACH
	PFT883	2" X 2" X 3/4"	EACH
	PFT884	2" X 2" X 1"	EACH
	PFT885	2" X 2" X 1-1/4"	EACH
	PFT888	2" X 2" X 2"	EACH
<u>PRE-ASSEMBLED FUSION HEADERS</u>			
HDPE	PH53X3	1-1/4" X (3) 3/4" circuits	EACH
	PH54X3	1-1/4" X (4) 3/4" circuits	EACH
	PH55X3	1-1/4" X (5) 3/4" circuits	EACH
	PH56X3	1-1/4" X (6) 3/4" circuits	EACH
<u>PE PIPE</u>			
	<u>Flo-Link (FL)</u>		
HDPE	3917	FL X 1-1/4" PE PIPE	SET
<u>PVC</u>			
	<u>Flo-Link (FL)</u>		
PVC	3425	FL X 1-1/4" PVC GLUE	SET
	3425-10X	FL X 1-1/4" PVC GLUE BULK PACK	10 SETS
<u>COMPRESSION FITTINGS</u>			
HDPE	PCA55F	1-1/4" Compression X 1-1/4" FPT	EACH
HDPE/PVC	PCC55PVC	1-1/4" HDPE Compression X 1-1/4" PVC Compression	EACH

Pre-Assembled Fusion Headers



Fusion Tees



Compression Fittings



VALVES

BRASS, FULL PORT BALL VALVES

3543	1/4" FPT X 1/4" FPT
4848	1/4" FPT X 1/4" MPT
3705	1/2" FPT X 1/2" MPT
4312	3/4" FPT X 3/4" MPT
3968	1" FPT X 1" FPT
3786	1" FPT X 1" MPT
3787	1-1/4" FPT X 1-1/4" MPT
3576	1-1/2" FPT X 1-1/2" FPT
3706	1-1/2" FPT X 1-1/2" MPT
3575	2" FPT X 2" FPT
3707	2" FPT X 2" MPT
4676	1" FPT X 1" CAM
4016	2" ISOLATION W/CHECK, 2" FPT X FLO-LINK XL
4580	VALVE, 1" FULL PORT, 1-1/4" SOCKET FUSION X 1" HOSE BARB

FUSION BALL VALVES

PFV33	3/4" X 3/4"
PFV44	1" X 1"
PFV55	1-1/4" X 1-1/4"
PFV88	2" X 2"
PFV55U	1-1/4" X 1-1/4", true union
PFV88U	2" X 2", true union

BUTTERFLY VALVES

3919	Valve, Butterfly, 3" flange, CI Body, Al Brnz Disc, NBR Seat
3925	Valve, Butterfly, 4" flange, CI Body, Al Brnz Disc, NBR Seat
Note: Valve design eliminates the need for a gasket	

CHECK VALVES

3918	Check Valve, 2" FPT, Spring, Brass, NBR Seat
3490	Fitting set, FL X 1" HB w/check valve
4143	Fitting set, FL X 1" FPT w/ check valve
4505	Fitting, 1" MPT X 1" HB w/ Check Valve
5185	Fitting, 1" HB x 1" HB w/ check valve
PFA54M-CV	Fusion adapter (each), 1-1/4" SF X 1" MPT w/ check valve

Brass Ball Valves



5185



3490



4143



PFV88




Butterfly Valves



STAINLESS FULL PORT BALL VALVES AND ASSEMBLIES

BV4-4H4H-SS	VALVE, 1" FULL PORT, 1" HB X 1" HB, STAINLESS
BV5-5H5H-SS	VALVE, 1-1/4" FULL PORT, 1-1/4" HB X 1-1/4" HB, STAINLESS
BV4-PF-4B4B-SS	VALVE, 1" STAINLESS, POLY FUSION 1" X 1" PE PIPE
BV5-PF-5B5B-SS	VALVE, 1-1/4" STAINLESS, POLY FUSION 1-1/4" X 1-1/4" PE PIPE
BV4-PF-4S4S-SS	VALVE, 1" STAINLESS, POLY FUSION 1" SOCKET FUSION X 1" SOCKET FUSION
BV5-PF-5S5S-SS	VALVE, 1-1/4" STAINLESS, POLY FUSION 1-1/4" SOCKET FUSION X 1-1/4" SOCKET FUSION



FLO-LINK ISOLATION VALVES			
SETS	3790	FL X 1" FPT	3790: 1" FPT 4066: 1" FPT w/chk vlv 3875: 1 1/4" FPT 
	4144	FL X 1" FPT W/CHECK VALVE (SINGLE ASSEMBLY)	
	4066	FL X 1" FPT W/CHECK VALVE (SET)	
	3875	FL X 1-1/4" FPT	
	3792	FL XL X 2" FPT	
	2534	1" FPT Isolation Valve, Standard Port, no handle	
	2535	1-1/4" FPT Isolation Valve, Standard Port, no handle	
	2270	1" FPT Isolation Valve, Flanged, Full Port	
	4500	Valve, Flange X 1" FPT, Brass	
DUAL UNIT CONNECTION KITS	3970	FL Dual Unit Connection Kit	
	4243	FL XL Dual Unit Connection Kit	
FLANGE ADAPTERS			
SETS	2135	1" FPT, Cast Iron, Black	
	2238	1-1/4" FPT, Cast Iron, Black	
KITS	3494	1-1/4" SWT, UP15&UP26	
	3495	1-1/2" SWT, UP15&UP26	
	3445	1-1/2" SWT, UPS40	
	3446	2" SWT, UPS40	
	3528	1" FPT, Cast Iron, Wilo	
FUSION	3893	2" flange x 2" IPS DR11 HDPE pipe*	
	3896	3" flange x 3" IPS DR11 HDPE pipe*	
	4252	4" flange x 4" IPS DR11 HDPE pipe*	
*Requires backup ring and gasket/hardware kit			
BACK UP RING	3894	Back up ring for 2" flange (3893)	
	3897	Back up ring for 3" flange (3896)	
	4253	Back up ring for 4" flange (4252)	
HARDWARE	CALL	Gasket/Hardware kit for 2" flange (3893)	
	CALL	Gasket/Hardware kit for 3" flange (3896)	
	CALL	Gasket/Hardware kit for 4" flange (4252)	
	4244	Single Pump mounting bracket for UP/UPS 15&26 pumps	
	3817	Double Pump mounting bracket for UP/UPS 15&26 pumps	

Dual Unit Connection Kits



2135/2238



Mounting Brackets



2534/2535



4500



Fusion Flange Adapter (shown with backup ring)



3445/3494/3495




2270



3446



FLUSH VALVES AND ASSEMBLIES

MOUNTING HARDWARE INCLUDED	4702	Single, 3-way, 4 position flush/iso. Valve, Insulated cab., Brass	Flo-Link Connections (Requires 2 FL adapter fittings and FL flush adapters)
	3514	Single, 3-way, 4 position flush/iso. Valve, Insulated cab., Composite	
	3522	Double, 3-way, 4 position flush/iso. Valve, Insulated cab., Brass	
	1199	2", 3-way, 4 position flush/iso. Valve, Insulated cab. Brass (Requires:(2) FL XL adapter fittings & FL XL flush adapt.)	
	FLC32S	3" flushing assembly	
	FLC42S	4" flushing assembly	
	2480	2480 Underground Flushing Kit Contains: (2) Brass 3-way flushing valve (1) Pro series box with lid (4) Socket fusion coupling, 1-1/4" (4) Socket fusion fittings, 1" MPT x 1-1/4" fusion (4) PE pipe nipples, 1-1/4" long	

ZONE VALVES







	VMT3F-OP	Taco geo open loop vlv, brass 3/4" FPT, 24V w/end switch, Cv = 10.3**	<table border="1"> <thead> <tr> <th>U.S. GPM</th> <th>Recommended Minimum Cv</th> </tr> </thead> <tbody> <tr><td>3</td><td>2 to 3</td></tr> <tr><td>4.5</td><td>3 to 4</td></tr> <tr><td>6</td><td>4 to 6</td></tr> <tr><td>7.5</td><td>6 to 8</td></tr> <tr><td>9</td><td>7 to 9</td></tr> <tr><td>10</td><td>8 to 10</td></tr> <tr><td>12</td><td>9 to 12</td></tr> <tr><td>15</td><td>11 to 15</td></tr> <tr><td>18</td><td>13 to 18</td></tr> </tbody> </table> <p>Table 1: Recommend Min. Cv Higher Cv = lower pressure drop.</p>	U.S. GPM	Recommended Minimum Cv	3	2 to 3	4.5	3 to 4	6	4 to 6	7.5	6 to 8	9	7 to 9	10	8 to 10	12	9 to 12	15	11 to 15	18	13 to 18
	U.S. GPM	Recommended Minimum Cv																					
	3	2 to 3																					
	4.5	3 to 4																					
	6	4 to 6																					
	7.5	6 to 8																					
	9	7 to 9																					
	10	8 to 10																					
12	9 to 12																						
15	11 to 15																						
18	13 to 18																						
VMT3F-CL	Taco geo closed loop vlv, brass 3/4" FPT, 24V w/end switch, Cv = 10.3**																						
VMT4F-OP	Taco geo open loop vlv, brass 1" FPT, 24V w/end switch, Cv = 8.9**																						
VMT4F-CL	Taco geo closed loop vlv, brass 1" FPT, 24V w/end switch, Cv = 8.9**																						
VMSPR	Powerhead for older (orange) VMSBZ Valves																						
VMBBN4F-SR	Belimo B225+LFR24-S+NC/FO motorized ball vlv, nickle plated brass 1" FPT, spring rtn, 24V w/end sw, Cv=30**																						
VMBBN5F-SR	Belimo B232+AFR24-S+NC/FO motorized ball vlv, nickle plated brass 1-1/4" FPT, spring rtn, 24V w/end sw, Cv=37**																						
**Choose valve based upon Cv (Flow Coefficient) for flow rate (see Table 1). Higher Cv = lower pressure drop.																							

FLOW REGULATORS FOR OPEN LOOP SYSTEMS

3/4" FPT x 3/4" FPT	VFR33F-2	2 GPM
	VFR33F-3	3 GPM
	VFR33F-4	4 GPM
	VFR33F-5	5 GPM
	VFR33F-6	6 GPM
	VFR33F-7	7 GPM
	VFR33F-8	8 GPM
	VFR33F-9	9 GPM

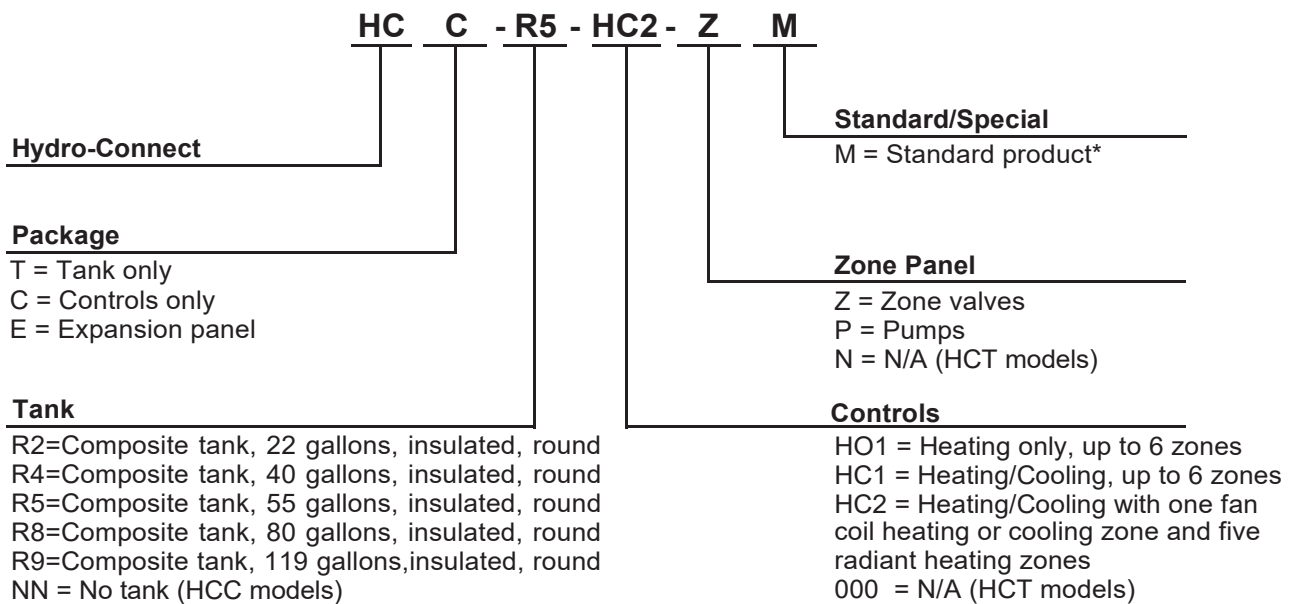


3-way, 4 position flush/iso.valve

1199	3522	3514/4702	FLC32S/FLC42S 3" and 4" flushing assembly: HDPE body, HDPE fusion connections to/from ground loop and building, 2" brass ball valve flushing connections, butterfly isolation valves (sold as a set, as shown)
			
Zone Valves	Belimo	Taco	
		Open Loop	
		Closed Loop	

Geo-Flo's HCT Buffer Tanks are used with geothermal water-to-water heat pumps, air-to-water heat pumps, boilers, and other hot- and chilled-water hydronic systems requiring a buffer tank. These HCT's feature a composite tank that will never corrode, and factory installed, brass, union fluid connections. The tank is insulated with a high R-value urethane foam and covered with a high-impact plastic jacket that resists scratches, dents and condensation formation.

Nomenclature: Buffer Tanks and Hydronic Controls

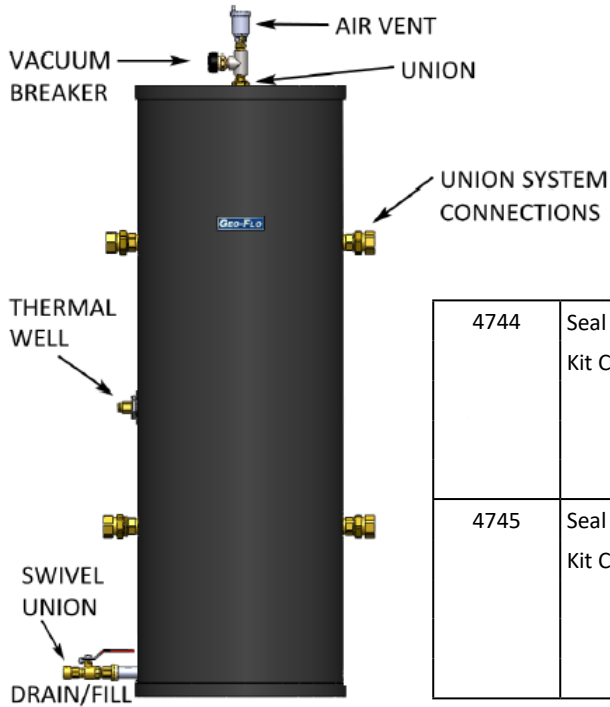


* Standard HCC and HCE products provided with controls mounted on a melamine composite panel. All HCE products provided with controls mounted on a melamine composite panel.

BUFFER TANKS		
HCT TANK	HCT-R2-000-NM	HC Buffer Tank, 22 gallon
	HCT-R4-000-NM	HC Buffer Tank, 40 gallon
	HCT-R5-000-NM	HC Buffer Tank, 55 gallon
	HCT-R8-000-NM	HC Buffer Tank, 80 gallon
	HCT-R9-000-NM	HC Buffer Tank, 119 gallon



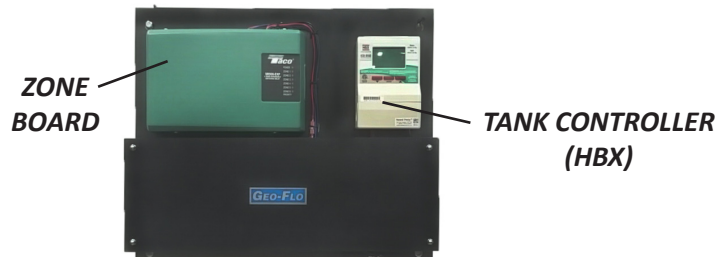
Hydro-Connect Controls (HCC)-Controls



BUFFER TANK REPLACEMENT PARTS	
4695	Vacuum breaker, 1/2 MPT
4697	Auto air vent, 1/2" FPT and 3/4" NPT
4730	Vacuum breaker and Auto Air Vent Assembly

4744	Seal Kit for HCT-R2/4/5 Kit Contains: (1) 1" swivel fitting gasket (1) Replacement O-Ring (air separator assembly) (4) Replacement O-Ring (buffer tank connections-fittings)	
4745	Seal Kit for HCT-R8/9 Kit Contains: (1) 1" swivel fitting gasket (1) Replacement O-Ring (air separator assembly) (4) Replacement O-Ring (buffer tank connections-fittings)	

CONTROL PANEL



HYDRO-CONNECT CONTROLS		
HCC CONTROLS	HCC-NN-HO1-PM	Heating Only, Pump Controls
	HCC-NN-HO1-ZM	Heating Only, Zone Valve Controls
	HCC-NN-HC1-PM	Heating/Cooling, Pump Controls
	HCC-NN-HC1-ZM	Heating/Cooling, Zone Valve Controls
	HCC-NN-HC2-PM	Heating/Cooling with Fan Coil, Pump Controls
	HCC-NN-HC2-ZM	Heating/Cooling with Fan Coil, Zone Valve Control
EXPANSION PANELS		
HCE EXPANSION PANELS	HCE-NN-HO1-PM	HC Expansion Panel for HO1, Pump Controls
	HCE-NN-HO1-ZM	HC Expansion Panel for HO1, Zone Valve Controls
	HCE-NN-HC1-PM	HC Expansion Panel for HC1, Pump Controls
	HCE-NN-HC1-ZM	HC Expansion Panel for HC1, Zone Valve Controls
	HCE-NN-HC2-PM	HC Expansion Panel for HC2, Pump Controls
	HCE-NN-HC2-ZM	HC Expansion Panel for HC2, Zone Valve Controls
HBX CONTROLLER		
HBX CONTROLLER	5005	CONTROLLER, HBX ECO-0600

MAGNA 3 EXTERNAL CONTROLLER AND ACCESSORIES	
EXTERNAL CONTROLLER FOR MAGNA3	
4062	UPC GEO external controller, 0-10VDC output Use external controller for Magna3 Delta-T control for primary-secondary applications to provide heating and cooling Delta-T set points.
3986	10k thermistor, 1/4" NPT insertion type (4062 controller requires two thermistors)
3760	AC wall adapter for 4062 (Optional if 24VAC is available near 4062 controller location)
3807	Barrel connector for 3760 (Optional if 24VAC is available near 4062 controller location)
BMS INTERFACE MODULES FOR MAGNA3/ DONGLE FOR GRUNDFOS GO	
CIM100	LonWorks Network Interface Module
CIM200	Modbus RTU Network Interface Module
CIM300	BACnet MS/TP Network Interface Module
PUMP ENABLE CONTROL-Pump off unless at least one heat pump is calling	
3808	Pump enable control (up tp 5 units w/ one insulated pump or flow center", NEMA enclosed
MAGNA 3 ACCESSORIES	
4313	Temperature sensor, Grundfos, RPI w/1/2" adapter for delta T



VARIABLE SPEED CONTROLLER KITS	
3697	Temperature Control - (2) 1/4" MPT immersion thermistors included
3698	Flow and Temperature Control -Hose barb Hose kit connections 1"HB (also available as 1" MPT) (Thermistors and flow sensor included)
3766	Flow and Temperature Control -PVC Glue PVC connections 1" PVC Glue (also available as 1" MPT) (Thermistors and flow sensor included)

Variable Speed Controller Kits



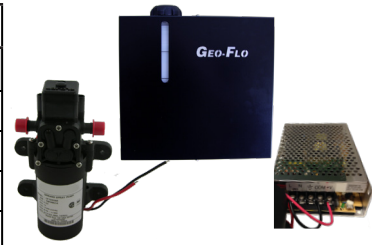
0-10V TO PWM CONTROLLER		
4841	Controller, ECM, 0-10 VDC to PWM, W/ enclosure	
DUAL UNIT KIT/FLOW CENTER SHARING/PUMP ENABLE RELAY		
3561	Pump sharing relay (2 units; 1 flow center)	
3562	Pump sharing relay (2 units; 1 flow center) w/ NEMA enclosed	

Geo-Booster/Geo-Prime/Geo-Gooser-Air, Dirt, and Pressure Management

AIR, DIRT, AND PRESSURE MANAGEMENT

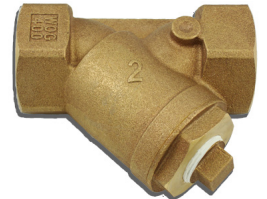
GEO-BOOSTER

3551	Geo-Booster (loop pressurization system, 35 psig)
9423	Geo-Booster replacement pump
3535	Geo-Booster power supply
3432	Cap, 2-1/4, GEO-BOOSTER & GEO-PRIME



WYE STRAINER- Bronze- #20 mesh, 304 SS strainer

3656	1-1/4" FPT
3462	2" FPT



GEO-GOOSER

3502	Geo-Gooser loop pressurization device
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GEO-PRIME

1245	Geo-Prime Tank
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GHS HYDRAULIC SEPARATOR

All flange connections are standard ANSI Class 150 flanges. (gaskets and hardware not included)

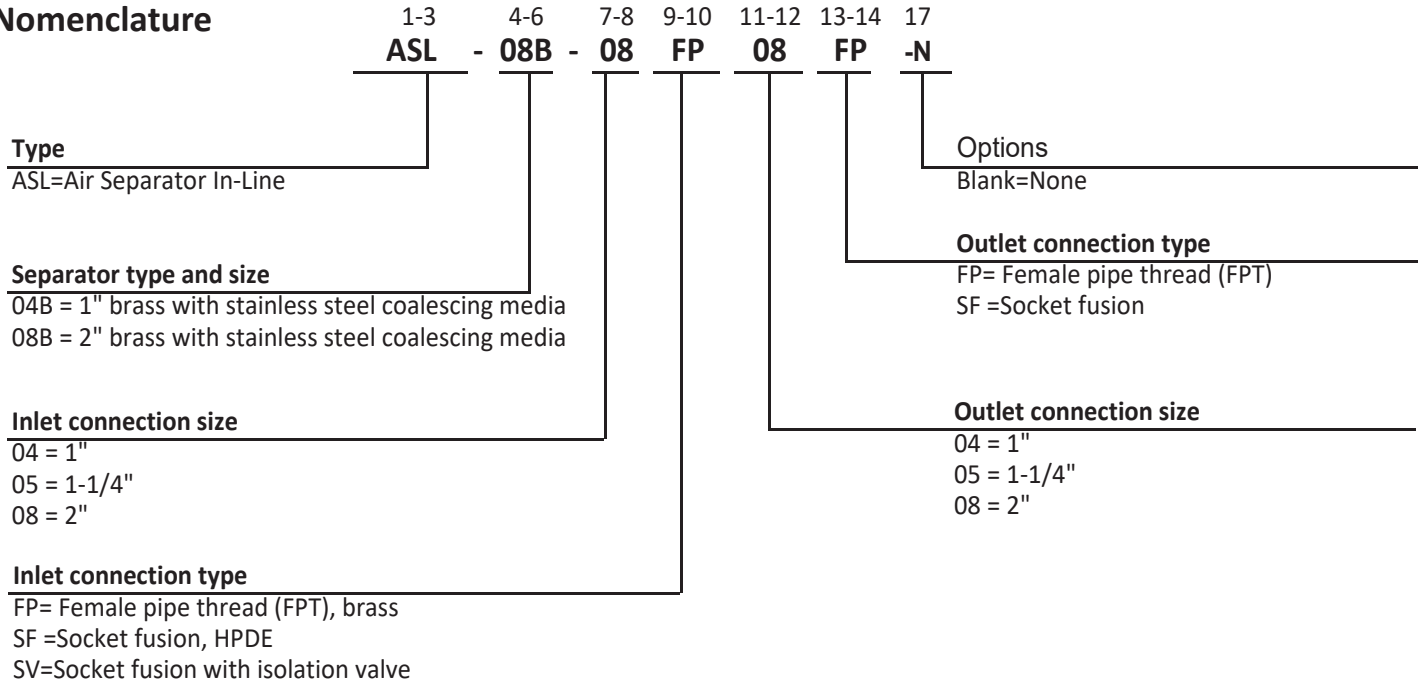
Flow rate on each side of hydraulic separator, not combined flow

Part Number	Left Connections	Right Connections	Max. Flow Rate
GHS-06-2F2F	2" Flange	2" Flange	40 U.S. GPM
GHS-06-2F2N		2" NPT female	
GHS-06-2F2P		2" HDPE pipe	
GHS-06-2N2F	2" NPT female	2" Flange	
GHS-06-2N2N		2" NPT female	
GHS-06-2N2P		2" HDPE pipe	
GHS-06-2P2F	2" HDPE pipe	2" Flange	
GHS-06-2P2N		2" NPT female	
GHS-06-2P2P		2" HDPE pipe	
GHS-06-3F3F	3" Flange	3" Flange	90 U.S. GPM

Air, Dirt, and Pressure Management-Air Separators

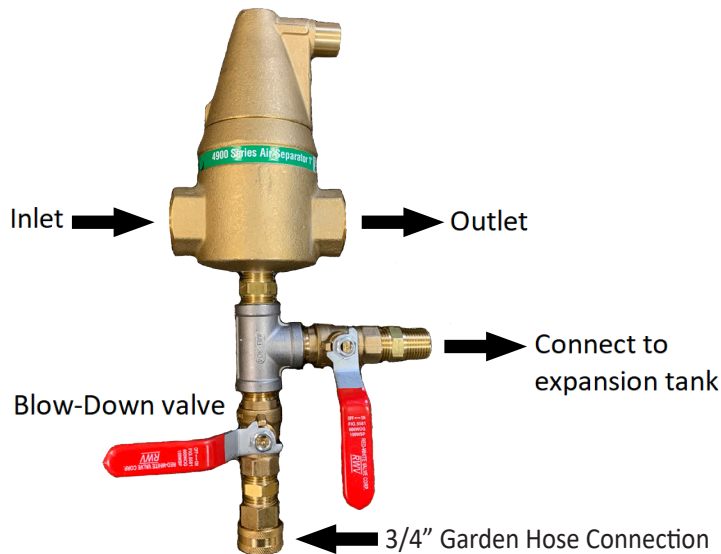
Geo-Flo's air separators eliminate any air that remains in the loop after system startup or maintenance. The stainless steel coalescing media inside the separator even traps small micro-bubbles and vents all air to the atmosphere preventing issues with system performance including noise and pump damage. The factory assembled air separators include a blow-down valve to allow dirt particles captured in the media to be removed, and a convenient connection for an expansion tank or water/anti-freeze make-up system such as the Geo-Booster.

Nomenclature



AIR SEPARATORS					
Part Number	Separator Type and Size	Inlet conn. Size	Inlet conn. Type	Outlet conn. Size	Outlet conn. Type
ASL-04B-04FP04FP	1"	1"	FPT	1"	FPT
ASL-04B-05SF05SF	1"	1-1/4"	Socket Fusion	1-1/4"	Socket Fusion
ASL-04B-05SV05SF	1"	1-1/4"	Socket Fusion W/ISO. Valve	1-1/4"	Socket Fusion
ASL-08B-08FP08FP	2"	2"	FPT	2"	FPT
ASL-08B-08SF08SF	2"	2"	Socket Fusion	2"	Socket Fusion

NOTE: Not all options are available.
Call for items not specifically listed.



Example of ASL-04B-04FP04FP

Expansion Tanks-Air, Dirt, and Pressure Management

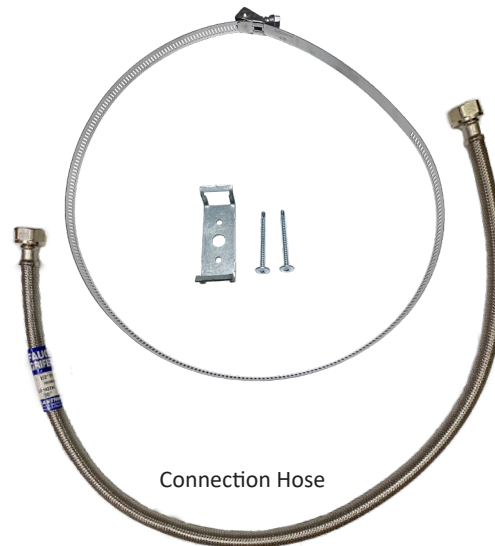
Expansion tanks are typically used on geothermal systems to prevent the system pressure from dropping too low when the HDPE loop pipe expands during cooling season (heat rejected to the loop). Geo-Flo recommends installing a thermal break between the system connection and any steel expansion tank to prevent the tank from sweating and corroding. For more detailed information on expansion tanks for geothermal systems, see the Literature link on our website www.geo-flo.com.

EXPANSION TANKS			
PN	DESCRIPTION	CAPACITY (GALLONS)	CONNECTION SIZE
3230	Expansion Tank, HDPE, .75 GAL	.75	1-1/4" socket fusion
ETN-FX-HTX15	Expansion Tank, NON-ASME, 2.1 GAL	2.1	1/2" MPT
ETN-FX-HTX30	Expansion Tank, NON-ASME, 4.8 GAL	4.8	
ETN-FX-HTX60	Expansion Tank, NON-ASME, 6 GAL	6	
ETN-FX-HTX90	Expansion Tank, NON-ASME, 15 GAL	15	3/4" MPT



Expansion Tanks

Mounting Kits



Connection Hose



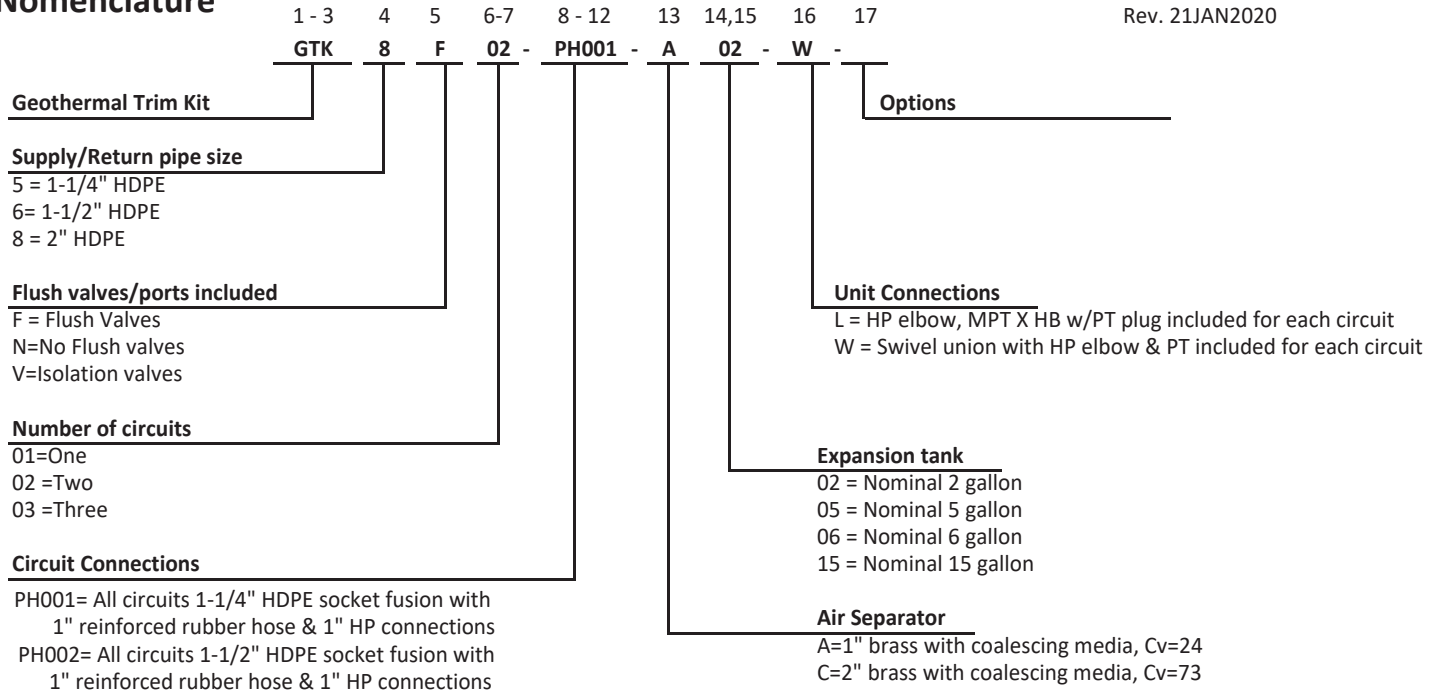
3230

MOUNTING KITS		
PN	Description	Compatible Expansion Tank
4579	Expansion Tank Mounting Kit	ETN-FX-HTX15
4680	Expansion Tank Mounting Kit. 4.4-7.6G	ETN-FX-HTX30
		ETN-FX-HTX60
		ETN-FX-HTX90
CONNECTION HOSES		
4645	Hose, 1/2" FIP X 1/2" FIP, 30" long, PVC core, Stainless Steel braid	ETN-FX-HTX30 ETN-FX-HTX60 ETN-FX-HTX90

Geothermal Trim Kits (GTKs) are assemblies of all of the components necessary to properly maintain a geothermal system. These GTKs include flush/isolation valves, an air separator, an expansion tank, and required fittings to connect to the ground loop and heat pump. The multi-circuit GTKs include factory fused and assembled headers with check valves saving hours of field labor.

Nomenclature

Rev. 21JAN2020



Notes:

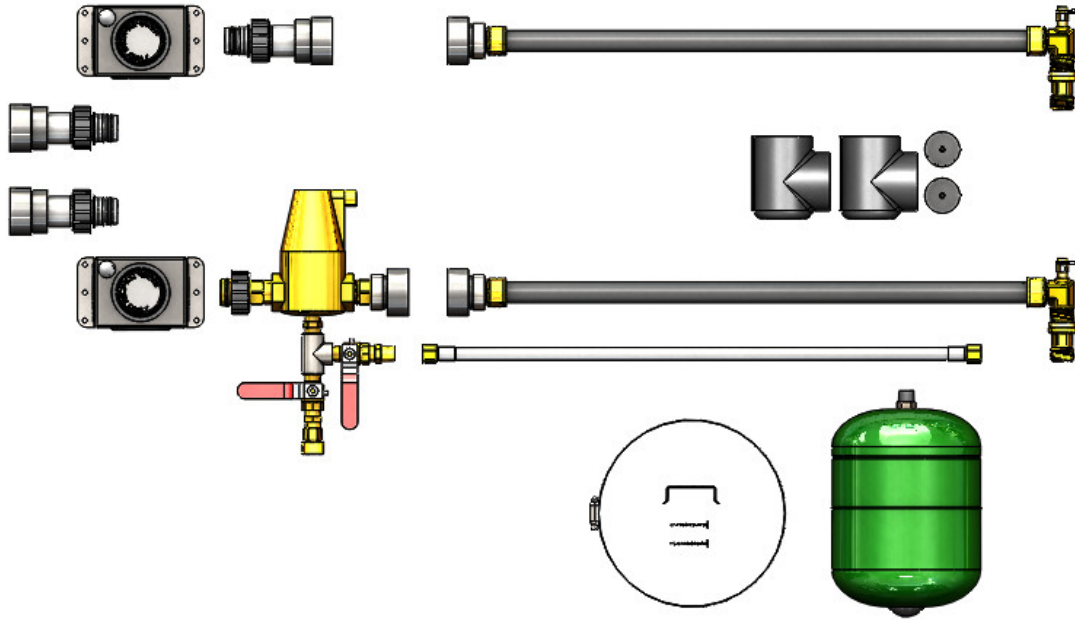
1. Circuits on return header have check valve included.
2. All circuits have isolation valves on supply and return headers.
3. HP Elbow size based on circuit connections.
4. GTK5 & 6 use 1" 3-way valves, and 1" air separator; GTK8 uses 2" 3-way valves and 2" air separator

GEOHERMAL TRIM KITS (GTK)							
PART NUMBER	SUPPLY/RETURN PIPE SIZE	FLUSH VALVES/ PORTS INCLUDED	# OF CIRCUITS	CIRCUIT CONNECT.	AIR SEPARATOR	EXPANSION TANK	UNIT CONNECT.
GTK5F01-PH001-A02-W	1-1/4" HDPE	FLUSH VALVES	1	1-1/4" HDPE	1"	2 GAL	SWIVEL UNION W/ HP ELBOW & PT INCLUDED PER CIRCUIT
GTK5V01-PH001-A02-W	1-1/4" HDPE	ISO. VALVES		SOCKET			
GTK6F01-PH001-A02-W	1-1/2" HDPE	FLUSH VALVES		FUSION			
GTK6F01-PH002-A02-W	1-1/2" HDPE	FLUSH VALVES		1-1/2" HDPE SF			
GTK6V01-PH001-A02-W	1-1/2" HDPE	ISO. VALVES		1-1/4" HDPE SF			
GTK6V01-PH002-A02-W	1-1/2" HDPE	ISO. VALVES		1-1/2" HDPE SF			
GTK8F02-PH001-C05-W	2" HDPE	FLUSH VALVES	2	1-1/4" HDPE	2	5 GAL	
GTK8F03-PH001-C05-W	2" HDPE	FLUSH VALVES	3	SOCKET FUSION			

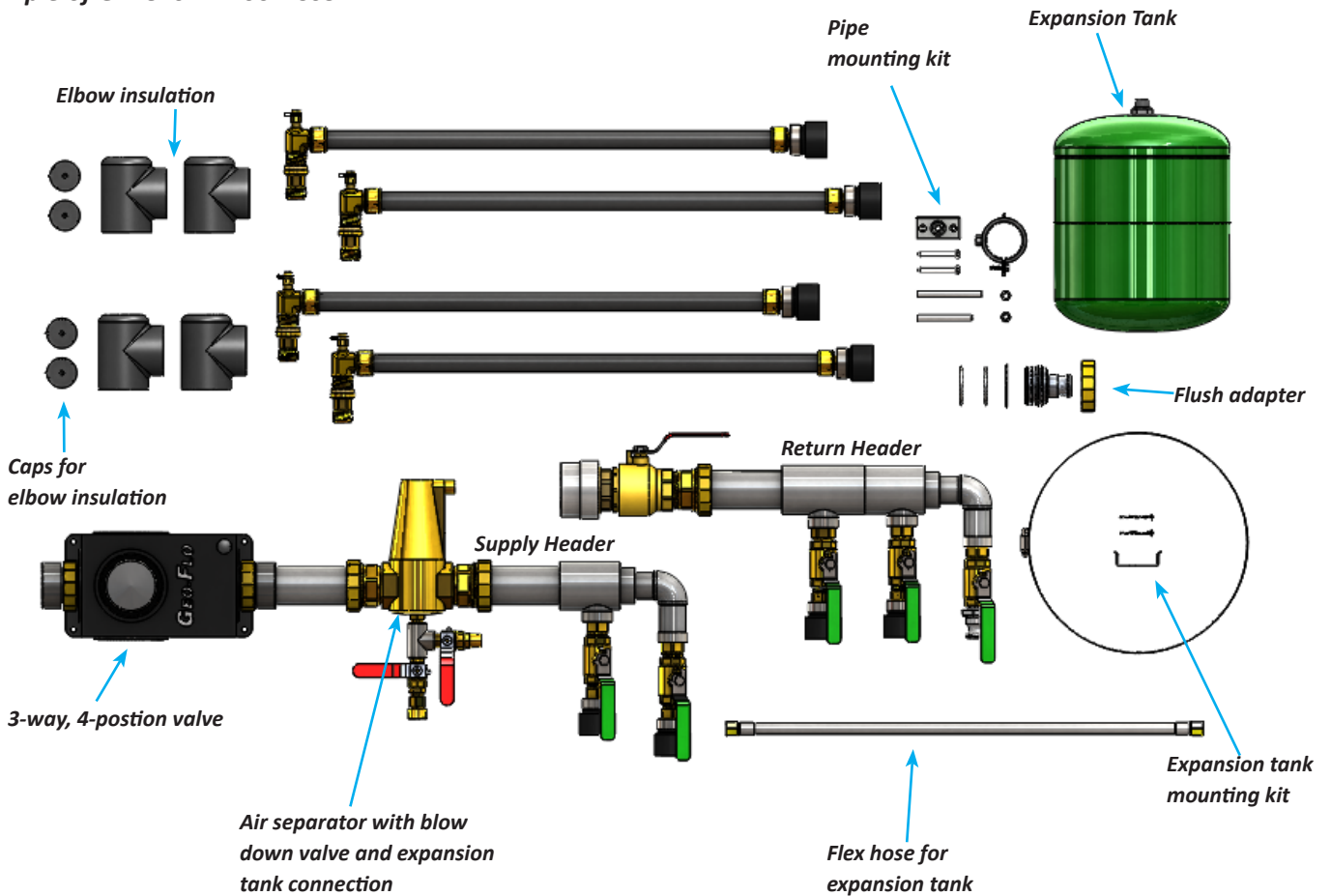
NOTE: Not all options are available. Call for items not specifically listed.

Geothermal Trim Kits

Example of GTK6F01-PH002-A02-W



Example of GTK8F02-PH001-C05-W



TOOLS			
<u>LOOP TOOLS AND ACCESSORIES</u>			
Loop Tools	3762	Mechanical (variable area) flow meter tool	EACH
	Contains: Tool with fittings, 90° CAM X FL adapter, straight CAM X FL adapter, competitor adapter, and carrying case		
	3767	Adapter kit for competitor flow meter tool (allows competitor tool to be used with NP flow centers)	EACH
	3753	Variable area flow meter, 2 to 20 GPM, 1" FPT	EACH
	3502	Geo-Gooser loop pressurization device	EACH
<u>PRESSURE GAUGES, 0-100 PSIG</u>			
0-100 psig	2473	2" dial	EACH
	5171	3.5" dial	EACH
	3565	3.5" dial w/ PT adapter	EACH
<u>GAUGE ADAPTER PT PLUG W/GUARD</u>			
	2634	1/16" Gauge adapter PT Plug with guard	EACH
	2145	1/8" Gauge adapter PT Plug with guard	EACH
	3571	Thermometer, digital w/case	EACH
	3566	Hydrometer	EACH
	3727	AC Magnetic Field indicator	EACH

Loop Tools and Accessories

3767



3762



3502



3753



3566



3571



3727



2145/2634



2473/3572/3565



Flushing and Service Kits-Tools

FLUSHING AND SERVICE KITS			
Flushing and Service Kits	3509	Geo-Gooser and flush kit Includes: (1) Geo-Gooser (PN 3502) (2) FL X Garden hose (female) adapter (PN 3248) (2) 1" MPT X FL female (PN 3471)	KIT
	3553	Geo-Gooser and flush kit with CAM elbows Includes: (1) Geo-Gooser (PN 3502) (2) FL X Garden hose (female) adapter (PN 3248) (2) 1" MPT X FL female (PN 3471) (1) Set of CAM level male 90° (flush fitting) (PN 2914)	KIT
	3798	Geo service kit Includes: (1) Geo-Gooser (PN 3502) (1) Pressure gauge with needle adapter (PN 3585) (1) Thermometer (PN 3571) (1) Hydrometer (alcohols) with case (PN 3566)	KIT
	3564	Geo-Service and flush kit Includes: (1) Geo-Gooser (PN 3502) (2) FL X Garden hose (female) adapter (PN 3248) (2) 1" MPT X FL female (PN 3471) (1) Pressure gauge with needle adapter (PN 3565) (1) Thermometer (PN 3571) (1) Hydrometer (alcohols) with case (PN 3566) (1) Set of CAM level male 90° (flush fitting) (PN 2914)	KIT

Flushing Service Kits

3509 3553



3798 3564



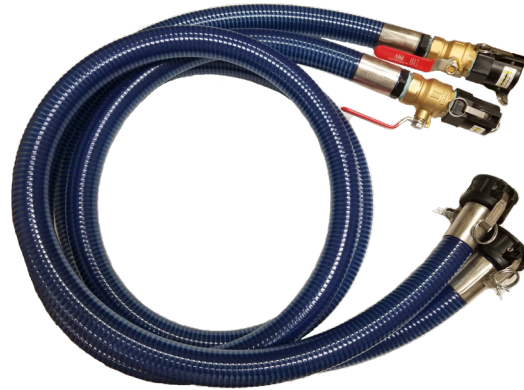
The Geo-Flo Flush Cart is the professional's choice to purge air and flush debris from residential and light commercial geothermal ground loops. The Flush Cart includes all the important features required to safely flush and purge the loop including power flushing, power draining, pump and dump, and debris filtering. Its compact design utilizes standard components which allows for easy field service. The 1.5 HP self-priming 115V pump is mounted above the cart's axle, providing a well balanced system that is easy to maneuver.

FLUSH CART			
Flush Carts	3789	Flush Cart w/ 10ft. hoses, 1" CAM fittings (loop side) & 1-1/4" ball valves Note: Available without ball valves (pn 3563)	EACH
FLUSH CART ACCESSORIES			
Flush Cart Hose Assemblies	3639	(2) 10ft hoses, 1" CAM fittings (loop side)	EACH
	3788	(2) 10ft hoses, 1" CAM fittings (loop side), 1-1/4" ball valves	EACH
	4786	(2) 10ft <i>rubber</i> hoses, 1" CAM fittings (loop side), 1-1/4" ball valves	EACH
	3793	(2) 20ft hoses, 1-1/2" CAM fittings (loop side)	EACH
Note: Ships with (2) CAM male X male adapters. 20 ft hose assembly set may be used as an extension set or with FL XL flow centers			
Filter bags	3832	1 micron	EACH
	3594	100 micron	EACH
Fittings (for flushing)	3666	1" CAM X 1" MPT	EACH
Pump Motor	4967	MOTOR, MUNRO LP150BG, 1-1/2 HP, 1 x 115/230 V, 2 CAP	EACH
Gasket Kit (Munro)	4970	GASKET KIT, SQUARE AND DIFFUSER, MUNRO LP SERIES	EACH



Flush cart hoses with 1-1/4" ball valves

3788

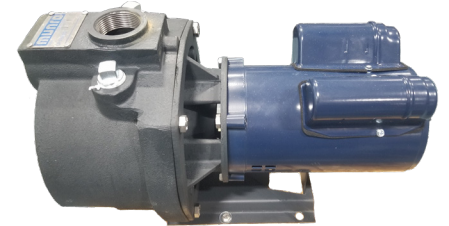


Flush cart accessories/replacements

3666

Filter Bags

Munro Pump (Replacement PN 9424)



Flush Cart

Fusion Tool Kits-Tools

Geo-Flo assembles professional fusion tool kits, and provides all the tools necessary for a successful geothermal heat pump installation. Geo-Flo's socket fusion tools, designed for fusing polyethylene piping and fittings, offer reliability, compact design and temperature control for success in the heat fusion process. Features include a precision machined heater body, well-insulated handle, temperature adjustment and thermometer.



FUSION TOOL KITS			
Fusion tool kit	TFK35	3/4" and 1-1/4" Includes: Complete fusion tool set (3/4" and 1-1/4") Heating tool with bag, socket faces, cold rings, chamfer tools, tool box, 1-1/4" ratchet cutter, digital thermometer, thermocouple	KIT
	TFK45	1" and 1-1/4" Includes: Complete fusion tool set (1" and 1-1/4") Heating tool w/ cover, socket faces, cold rings, chamfer tool, tool box, 1-1/4" ratchet cutter, digital thermometer, thermocouple	KIT
	TFK358	3/4", 1-1/4", and 2" Complete fusion tool set (3/4", 1-1/4", and 2") Heating tool with bag, socket faces, cold rings, chamfer tools, tool box, up to 2" ratchet cutter, digital thermometer, thermocouple	KIT
	TFK345	3/4", 1", and 1-1/4" Includes: Complete fusion tool set (3/4", 1", and 1-1/4") Heating tool with bag, socket faces, cold rings, chamfer tools, tool box, 1-1/4" ratchet cutter, digital thermometer, thermocouple	KIT
	TFK34568	3/4", 1", 1-1/4", 1-1/2" and 2" Includes: Complete fusion tool set (3/4", 1", 1-1/4", 1-1/2" and 2") Heating tool with bag, socket faces, cold rings, chamfer tools, tool box, up to 2" ratchet cutter, digital thermometer, thermocouple	KIT

FUSION TOOLS			
Fusion Heater Tools/ Accessories	TFH1	Heat Fusion Tool- single face	EACH
	TFH1-R	Heat Fusion Tool- single face, Reconditioned	EACH
	TFH2	Heat Fusion Tool- double face	EACH
	TFH2-R	Heat Fusion Tool- double face, Reconditioned	EACH
	TFHB	Fusion tool heater bag	EACH
	TFT	Fusion Timer	EACH
	TMB	Fusion tool mounting bracket	EACH
	TFHK-H	Fusion Iron Tool- double handle	EACH
	5206	Digital Thermometer, thermocouple, dual channel	EACH
	5208	Thermocouple, Type K, flat probe	EACH
	TTDT1	Digital thermometer and Thermocouple- Kit	EACH
Fusion Rebuild Kit	TFHK-1	Heat fusion tool kit - Rebuild single face	EACH
	TFHK-2	Heat fusion tool kit - Rebuild double face	EACH
	5090	Thermometer, PT50, 150-750F	EACH
Socket Faces	TSF3	3/4" IPS	SET
	TSF4	1" IPS	SET
	TSF5	1-1/4" IPS	SET
	TSF6	1-1/2" IPS	SET
	TSF8	2" IPS	SET
Cold Ring Vice Grip Clamp	TCR3	3/4" IPS	EACH
	TCR4	1" IPS	EACH
	TCR5	1-1/4" IPS	EACH
	TCR6	1-1/2" IPS	EACH
	TCR8	2" IPS	EACH
Chamfer Tool	TCG3	3/4" IPS	EACH
	TCG4	1" IPS	EACH
	TCG5	1-1/4" IPS	EACH
	TCG6	1-1/2" IPS	EACH
	TCG8	2" IPS	EACH
Replacement Blades	TCGB	Replacement blade for all depth gauge/chamfer tools	EACH
Pipe Cutters	TPC4	PE, PEX, & rubber hose cutter - up to 1"	EACH
	TPC5	PE ratchet cutter, up to 1-1/4"	EACH
	TPC8	PE ratchet cutter, up to 2"	EACH



MISCELLANEOUS	
POND LOOP SPACED COIL	
3647	Pond loop spaced coil, 3/4" PE X 300'

Spaced coils are designed to enhance convective flow through the coil via factory-installed spacers. The assembly is bound with nylon ties, and strapped to pallet for shipping. These coils are typically 0.5 to 1 ton [1.76 to 3.52 kW] of heat rejection/heat absorption capacity per coil (must be verified with Pond Coil Calculator at www.geo-flo.com).



MOUNTING PADS- high density rubber equipment pads	
4055	24" x 36", boxed- individual
4056	28" x 36", boxed- individual
4027	24" x 36", bulk- pallet
4028	28" x 36", bulk- pallet

Geo-Flo's geothermal equipment pads are made of high density SBR recycled rubber, which provides a high degree of vibration and sound absorption for compressor-bearing units installed indoors.

Equipment Pad Features:

- Absorbs low frequency sound/vibration (particularly suited for compressors)
- Environmentally friendly recycled material (SBR bonded black recycled rubber)
- High density (60 lbs/cu. ft.)
- Anti-skid texture
- Non-porous, both sides
- Rated for packaged unit weight (very little compression)



Geothermal System Design Calculators are available free of charge on the website at www.geo-flo.com. This comprehensive suite of calculators provides geothermal and hydronic design tools, concentrating on the hydronic portions of the system. From pressure drop calculation to pump sizing to flushing requirements, the design suite is just the starting point for services continually being developed. Calculators available on the website are as follows:

Geo-Flo Calculators

ALL	PRESSURE DROP CALCULATORS	PUMP SIZING CALCULATORS	SERVICE CALCULATORS	GENERAL CALCULATORS
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PRESSURE DROP CALCULATORS			
SINGLE UNIT	TWO UNIT (NPD) FLOW CENTER	SINGLE UNIT INSIDE HEADER	TWO UNITS ONE FLOW CENTER
MULTI-UNIT, CENTRAL PUMPING	MULTI-UNIT NPM FLOW CENTER	PIPE SEGMENT	MULTI-UNIT, DISTRIBUTED PUMPING
LOAD SIDE CALCULATOR	RADIANT FLOOR CALCULATOR		

PUMP SIZING CALCULATORS	
PUMP SIZING CALCULATOR	PUMP SIZING MAGNA3

SERVICE CALCULATORS			
CV CALCULATOR	FLUSH CART CALCULATOR	HEAT PUMP FLOW RATE CALCULATOR	HE-HR CALCULATOR
FLOW RATE-PRESSURE DROP	REYNOLDS NUMBER	ANTIFREEZE ADDITION CALCULATOR	ANTIFREEZE CALCULATOR

GENERAL CALCULATORS			
BUFFER TANK CALCULATOR	EXPANSION TANK SIZING-GEO	EXPANSION TANK SIZING-RADIANT SYSTEM	POND COIL CALCULATOR

GEO-FLO CORPORATION WARRANTY STATEMENT

Geo-Flo Corporation produces flow centers for many O.E.M. customers (geothermal heat pump manufacturers), as well as for HVAC distributors and commercial representatives. Warranties vary by O.E.M., and are not stated in this document. For warranty coverage and details, owners should contact their installing contractor. Contractors should contact their HVAC distributor, commercial representative, or heat pump manufacturer for warranty information.

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www.geo-flo.com

2024 Catalog

Doc # N/A 2024 Catalog
REV.0/8JAN2024

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REV.0/8JAN2024

Updates Table

Date	Description of Changes	Pages
MAR2024	Updated photo for PN 3565	43
	Replaced PN 4514 with 5185 on the table, & 3918 pic with 5185	32
	Removed (OBSOLETE) PN 3920, added 4500 to the table and pic	33
	Updated pic and added PN FLC32S/FLC42S	34
	Updated pics for PNs 3760 & 3807	37
	Updated pic for PN ASL-04B-04FP04FP	39
	Updated pic for PN 4579	40
	Updated Geothermal Trim Kits (GTKs) Nomenclature	41
	Added individual PNs to Flushing and Service Kits	44
	Updated photo for the Fusion Tool Kits, added to the tablePN TFK45	46
	Added Fusion Rebuild Kit to the table PNs TFHK-1, TFHK-2, TFHK, TFK-TB, TFT, TFHK-H, 5090 & pics of PNs TFHK-2, 5090, TFKTB on the side	47
FEB2024	Changed to 2024 cover page	Cover
	Removed PN FL2N	2
	Added PNs NPB1C & NPB2C	4
	Update NMP Nomenclature	9
	Added on FLP1L-FLE & FLP1L-FLK table and photos, Removed PN 1317 (OBSOLETE) replaced with FLP2A	12
	Moved page title from the left to the right of the page	13
	Moved page title from the right to the left of the page	14
	Corrected second PN from M3H065-120AC to M3H065-120BC	16
	Removed PN 8951 from pic, added PN 9452 & discription to table	18
	Added individual PNs to kit contents items, added connectionto text	19-22
	Corrected hose size from 10ft to 12ft for PN 1181	19
	On PN 1281, added brass plug with Flo-Link x 1" HB w/PT port for PN 3385, added photos for PNs 1280 & 1281	21
	Corrected hose from 1-1/4" to 2" for PN 3477, corrected elbow count from 1 to 2 and hose clamps from 8 to 10 for PN 3478	22
	Updated the HAR Hose Assembly Rubber nomenclature, added PNs HAR4-05-04LT06WX & HAR4-05-04WL06WXto the table	23
	Added PNs 3433 & 4143-HALF to the table, & 3433 photo	24
	Added PN 3771 to table	26
	Removed from table (OBSOLETE) PN 3320	27
	Removed from table and photos (OBSOLETE) PN 3450 & 3483	28
Corrected PN from PFAL33M to PFLA33M & PFAL33F to PFLA33F, Removed from table (OBSOLETE) PN PFTA4M32F & PFTA4M42F and replaced them with PFTA4MS32F & PFTA4MS42F, then added to the table PN PFTA4MS2F4, PFA64HB, PFA34M, PFLA34M, PFA54M & PFA66M	29	
Added PNs PFC64, PFC66, PFC86, PFL44-45, PFL54, PFL66, PFL66-45, PFP6 to the table	30	

Updates Table Overflow (do not print this page)

FEB2024	Added PNs PFT664, PFT666, PFT853, PFT854, PFT864, PFT883, Moved Fusion Caps table and photo to page 30, Added 3721 photo	31
JAN2024	Updated all dates and REV from 2023 to 2024	Various
Oct2023	Corrected description of the 1297 from UP26-99 to UP26-116.	2
SEPT2023	Updated images of the 3766, 3698, 3697	37
	Flipped descriptions between PN 3726 & 4323	26
FEB2023	Added hose kit PNs 1280, 1281, 1337, 3477CV, 3477-MPT	21,22
	Added valve PNs 4144, 4580, BV4-4H4H-SS, BV5-5H5H-SS, BV4-PF-4B4B-SS, BV5-PF-5B5B-SS, BV4-PF-4S4S-SS, BV5-PF-5S5S-SS	32,33
	Added Flow Center PNs FL1N, FL2L, FLP1A-DBC, FLP1L, FLP2M, FLP2A, FLP2A-4V, FLP2C-4V, FP1B, FPP1U-115-4V, NPD4LL	12
	Added Magna3 Flow Center High Head Option PNs	14,16
	Added Wilo Stratus Pumps PN (9462-9469)	18
	Added Flush Cart PNs 4786, 4967, 4970	45
	Added fusion fittings- PFA31F, PFC65, PFV55	Various
	Added misc. PNs 4008, 3817, 4730, 4772, 5005	Various
	Updated Flush Cart to black	45
	Updated fusion product pictures	46,47
	Updated catalog cover	Cover
FEB2021	Added PN 4841 Controller, Ecm, 0-10 Vdc To Pwm, W/ Enclosure	37
	Added PN 4848 Valve, 1/4" MPT X 1/4" FPT, Brass	32
	Added NP Basic line	4
	Added PNs TFK345 AND TFK34568	46
	Added PNs 9102-3F and 9102-4F	12
	Added Magna3 Variable Speed Low Centers	1+
	Changed layout	Various
	Updated cover design	Cover
JUL2020	Obsoleted PNs 9104-3/4F; Replaced with 9102-3/4F	15
MAY2020	Updated NPM graphics	7
	Updated NPM nomenclature	8
MAR/ APR2020	Added PNs VMT3F-CL and VMT4F-CL	31
	Updated descriptions of fittings w/ 1/4" PT plug or w/1/4" FPT ports	21, 23-25
	Corrected descriptions of PNs NP2M/NP2P	6
14FEB2020	Added PNs PFEAB54M, PFTA854M, FLP1L-4V-CV	Various
	Replaced CAD graphics	Various
	Corrected descriptions for PNs 3318 and 3320	22

Updates Table Overflow (do not print this page)

16JAN2020	Updated catalog to reflect UPMXL/Magna Geo switch over	Various
	Added Assembled Hose Kit line to catalog	19-20
	Updated Buffer Tanks and Hydro Connect Controls	32-33
	Added Air Separator line to catalog	36
	Added Geothermal Trim Kit line to catalog	38-39
	Total catalog update (formatting)	All
14JAN2019	Removed PICCV valves from catalog	41
	Added hose kit 1263	46
	Updated hose clamp description to stainless steel	45,46,47
	Removed part numbers 9451-3F and 9451-4F from catalog	63
	Updated various product pictures	Various
	Removed M3D065-150 BF-HL from catalog	38,39
	Added note for horizontal flow (use pn 4596)	38,39
	Updated "flo-link" to "FL"-added note to reflect	48,50,51
	Added note indicating XL FL Fittings are not included	59
	Updated Belimo Zone Valve pictures	41
	Removed "NEW" from parts no longer considered "new"	Various
	Changed "triton style" to "electrofusion style"	48
	Updated Controller kits with new flow sensor	8
	Updated product pictures	Various
	Formatting changes, new color scheme, new cover	Various
	Updated index to reflect above changes	73-78

Updates Table Overflow (do not print this page)

14NOV2017	Formatting changes, new valves section, product updates	Various
	Misc. corrections to typos, part # updates	Various
	Add Magna GEO options to NP Multi with circulators	21,23
	Reformatted Magna3 section, added drawings & accessories	37
	Added 3" & 4" flushing assemblies	40
	Added commercial accessories (expansion tanks, air separators, etc.)	44
	Updated Flo-Link x Flo-Link hose kit part #; added hose kit w/check vlv	45
	Updated 1/4" brass plug to hex drive (changed P/N from 3027 to 3711)	51
	Added 1" MPT x 1-1/4" swivel adapter set	51
	Updated picture of 2146 1" MPT x 1" hose barb	52
	Added 3/4" thread x hose barb adapter and elbow	51,52
	Added 1-1/4" and 2" union fusion ball valves	52
	Added pump mounting brackets for UP/UPS 15 & 26 pumps	53
	Added 1-1/4" FPT flange set	53
	Added HDPE tee, 2" fusion x 2" fusion x 1" MPT (MPT is on tee side)	55
	Added fusion x thread elbows	55
	Added SuperBrute insulated pump	59,62
	Added bracketed pumps for heating only systems	63
30DEC2016	Updated table for heat pump controls to reflect NP series product updates (addition of NP Plus and NPV Plus Kit)	8
	Added NP Plus flow centers	13,14
	Removed 1326 and 1327 NPV Kits (replaced by NPV Plus Kits)	14
	Added 1285CV (insulated pump w/built-in check valve)	39
	Pricing updates on Belimo valves	39
	Added 4" flange x HPDE fusion adapter and backup ring	43
	Corrected P/N of Flo-Link x Flo-Link hose kit (changed to 3278)	
	Discontinued NP hose kit, p/N 3829 (replaced by NP Plus and standard hose kit)	46
	Added hose kits 1346 & 1347 for NP Plus	46
	Added 4066 Flo-Link x 1" FPT isolation valve set with check valve	47
	Added 3769 Flo-Link x 1-1/4" hose barb w/fitting for P/T port	47
	Added 4243 Dual unit connection kit for Flo-Link XL flow centers	50
	Added 5254, Butt fusion coupling, 4" x 3" IPS	52
	Added PFA32F, fusion adapter, 3/4" socket fusion x 1/2" FPT	53
	Pricing updates on pond coils	53
Updated picture of 3514 valve box	54	
Updated picture of flush cart hoses	61	
Added Magna GEO inverse profile replacement pump	65	

Updates Table Overflow (do not print this page)

08JUN2016	Updated NP Multi options to include two circuit version	18-22
	Updated header picture for NP Multi with 2 pumps in series	19
	Added Magna3 High Head Options (M3H)	36,37
	Part # of 10k thermistor changed from 3684 to 3986	37
	Updated picture of 1284 insulated pump	38,55,58
	Added new hose kit, P/N 3279 (Flo-Link dbl O-ring @ heat pump)	43
	Moved additional hose lengths/rolls from page 49 to page 45	45,49
	Added Flo-Link x 1" FPT adapter set with check valve (P/N 4143)	46
	Moved dual unit connection kit from page 53 to page 49.	49,53
	Moved swivel x MPT connectors from page 53 to page 49.	
	Added 1-1/4" fusion x 3/4" MPT adapter (P/N PFA53M)	52
	Added Magna3 replacement pumps	65
	Updated Calculators information to include new additions	67
	Updated index to reflect above changes	70
30DEC2015	Updated "about Geo-Flo"	4
	Added NP Multi Series flow centers	18
	Added Dual Head Magna3 pump curves	29
	Added 1/4", 1/2", 1", and 1-1/4" ball valves	42
	Updated picture of Flo-Link XL to 1" CAM adapter to latest picture	48
	Updated picture of 1" MPT x 1-1/4" barb to latest picture	50
	Added 1-1/4" MPT x 1-1/4" barb and 2" MPT x 2" barb adapters	50
	Added 2 to 20 gpm flow meter	50,61
	Updated picture of flow regulator to latest picture	50
	Updated part number of insulated pump from 1338 to 1286CV	59
	Updated flush cart features (added feature allows loop pressure drop measurement)	60
	Added Geo Service Kit and Geo Service/Flush Kit to Tools section	61
	Added Geo-Booster replacement pump and power supply	64
	Updated Calculators information to include new additions	66
Updated index to reflect above changes	69	

Updates Table Overflow (do not print this page)

26JUN2015	Updated Geo-Booster picture with new black cabinet	6,11
	Added compatibility chart/info. for variable speed flow centers	8
	Added inverse profile variable speed flow centers	8,10,14,17
	Moved Magna GEO flow center var. spd. controllers to one page	8,10,14,17
	Added NP Dual variable speed flow centers	17
	Updated Magna3 pictures	31
	Added external controller for Delta-T for primary-secondary applic.	32
	Added dongle for iPhone/Android for use with Grundfos GO	32
	Updated Belimo valve offering	33
	Updated pictures of various items	37,41,47,48
	Added 1/4" brass plug	44
	Added equipment mounting pads	49
	Added Hydro-Connect Integrated buffer tank and accessories	51-54
	Updated bronze replacement pump to stainless steel	59
	Updated Design Calculators with new information	61
	Added index	64
30DEC2014	Updated 115V UP26-99 (sngl spd) pumps to UPS26-99 (3-spd)	Various
	Added note about transition to black cabinet for Geo-Booster	6, 10
	Added NPV Kits	12
	Added pump curves for NPD series flow centers	19
	Added commercial application section	25
	Added Grundfos Magna3 part numbers/model nomenclature	29
	Added insulated pumps/zone valves to commercial section	31
	Added GHS series hydraulic separators	32
	Added commercial fittings/adapters to commercial section	35
	Added Flo-Link x 1-1/4" pipe (use with Triton style fittings)	39
	Added Flo-Link x 1" fusion elbow w/PT tap	
	Part # change from 3390 to 3929 (1" MPT x 1" hose barb w/PT ftg)	42
	Added 3" x 2" butt fusion coupling	44
	Added 2" fusion ball valve and 2" fusion x 2" FPT adapter	45
	Added 1-1/4" compression fittings	46
	Added dual unit connection kit for Flo-Link flow centers	
	Added pressure gauge with 2" dial	49
	Added gauge adapter with 1/16" diam. needle	
	Added UPS26-99 3-speed 115V replacement pump	52
	Added UP26-116SF (stainless steel volute) replacement pump	
Updated Design Calculators to include new commercial Calculators	54	

Updates Table Overflow (do not print this page)

03APR2014	Updated 230V UP26-99 (sngl spd) pumps to UPS26-99 (3-spd)	Various
	Updated insulated pumps to black cabinets	7, 10, 36
	Flow center P/Ns 1294 through 1299 now include a set of 1-1/4" PE fusion by Flo-Link adapters.	9
	New lower price for Geo-Booster (P/N 3551)	10, 23
	Added NP series with bronze volute option (1 & 2 pump versions)	12
	Added Flo-Link x 1-1/4" FPT adapter set (P/N 3885)	28
	Added Flo-Link x 1-1/4" isolation valve set (P/N 3875)	28
	Changed 1" hose roll (P/N 2139) from 400 ft. to 450 ft. roll (price per foot did not change)	31
	Added Taco Geo Sentry motorized ball valves	32
	Added PFA34HB (3/4" socket fusion x 1" hose barb)	34
	Added isolation valve set and flange set pictures	42
27DEC2013	Misc. formatting changes, typo fixes, minor updates	Various
	Added Flo-Link Service Kits	29
	Added 1-1/4" fitting sets (P/N 3660 & 3556)	31
	Updated flush cart replacement filter description	37
	Added warranty statement	45
15OCT2013	Added important note about white to black cabinet changeover and UP26-99 single speed to UPS26-99 3-speed pump changeover	1
	Updated "About Geo-Flo" time line	4
	Updated pressurized flow centers to black cabinet	5-9
	Updated Geo-Prime tank to black cabinet	7, 10
	Added panel mount variable speed flow center	8
	P/Ns 1027, 1028, 1229, and 1230 changed from single speed to 3-speed pump (UPS26-99)	9
	P/Ns 1000, 1001, 1023, and 1252 changed from single speed to 3-speed pump (UPS26-99)	10
	Added NP series dual circuit flow center	13
	Added Grundfos Magna3 Performance curves	19
	Added info. about new Magna3 insulated pumps	24
	Corrected typo in gray headers (FPT-->MPT)	25, 26
	Added 1-1/4" wye strainer	31
	Added FPT version of motorized solenoid valve	
	Removed grout as a Geo-Flo product offering	34
	P/Ns 1037, 1038, 1045, 1046 changed from single speed to 3-speed pump (UPS26-99)	35
Added info. on ETL listing for flush cart	36	
Corrected typo for UPS26-99 replacement pump part number	40	
Added blank-off plates (for converting from 2 to 1 pump flow cntr)	41	

Updates Table Overflow (do not print this page)

Date	Description of Changes	Pages
08JUL2013	Added note about transition to black cabinets	Various
	Added product pictures	8, 9
	Added 50Hz NP series flow centers	11
	Added Wilo Stratos 2 x 3-35 commercial flow center	19
	Added insulating boot set	23
	Added NP series hose kit	
	Added Flo-Link x 40mm PE pipe adapter set	24
	Added Flo-Link XL isolation valve sets	25
	Added new 1-1/4" PVC glue x 1" hose barb set	27
	Corrected VFR part numbers	
	Updated isolation flange module pictures (new powder-coated rails)	31
	Added large insulated pumps for load-side of water-to-water units	
	Added one (1) micron filter to flush cart options	32
	Updated picture of item # 3727	33
	Added new replacement pumps without volutes	36
	Added additional flange kits and flow center valve repair kits	37
Updated Calculator information to include new Calculators	38	
11APR2013	Discontinued digital flow meter tool	10, 11
	Added Wilo Stratos insulated pumps with isolation valves	20
	Added 2" valve box	
	Added connection kits without hose (listed with 1101 & 1181)	21
	Added Flo-Link x 1" FPT isolation valve set	23
	Added fusion adapter tee, 2" fusion x 2" fusion x 1/4" FPT	28
	Added fusion adapter, 1" socket fusion x 1" MPT	
	Added pump enable relay (up to 5 units)	29
	Added Wilo external off interface module	
	Updated insulated pumps to include isolation valves	30
	Added Magna GEO insulated (var. spd.) pump with isolation valves	
	Corrected part number for water heater adapters	31
	Added hose assembly with 1-1/2" loop side CAM fittings	
	Added AC Magnetic Field Indicator tool	32
Added Wilo replacement pumps	35	
30JAN2013	Added hoses with 1-1/4" ball valves for flush cart	31
	Added gauge adapter for P/T plug	32
	Added 1" MPT x 1" CAM adapter	32
	Added replacement blade for chamfer tools	33
	Added UPS26-99 to replacement pump section	35
	Added flange sets	35
14JAN2013	First published	All

