

Bosch Geothermal Flow Centers

Bosch flow centers are built for easy, time-saving installation and are available in a wide variety of combinations to suit the contractor or system designer's needs. Now available as pressurized, non-pressurized, and non-pressurized dual circuit, our flow centers come with the quality you expect from Bosch, and are assembled and leak tested thoroughly. Additionally, all Bosch flow centers come with an industry leading 10 year limited warranty⁽¹⁾.



Bosch flow centers utilize industry standard circulators and our cabinet design allows pump heads to be rotated, or upgraded/downgraded (i.e. adding/removing a pump) to fit most job specifications. Many of our flow centers are so easy to install - no tools are required (no need for pipe wrenches) and any type of transition (FPT, fusion, thread, barb, PVC glue, etc.) can be used with the appropriate Flo-Link[™] fittings. Bosch's full port, 3-way flushing and isolation valves are durable and can withstand the wide range of temperatures experienced in ground loop applications. Panel mounted flow centers eliminate the need for wiring a controller by including panel-mounted controls with a terminal strip for simple wiring of the panel to the heat pump thermostat connections⁽²⁾.

Bosch non-pressurized flow centers utilize 3-way flushing valves with Flo-Link™ connections within the unit thereby allowing the ground loop to be flushed without adding external flush ports. This decreases installation time and costs while increasing reliability. Additionally, piping becomes much simpler with the use of the Flo-Link™ double O-ring which includes transition fittings for almost any application. Top or side connections to the heat pump and ground loop add even more flexibility.

Bosch non-pressurized dual circuit flow centers are specifically engineered to ease installation for applications with two geothermal heat pumps by eliminating the need for T's, additional piping, check valves, and pump sharing relays. Simply connect the ground loop to the 3-way valves and the heat pumps to the side connections. The pump(s) on each side are powered only when that heat pump is running which increases efficiency while decreasing setup time.



Features and Benefits





Bosch Flo-Link™ Pressurized Flow Centers

- ► Flo-Link™ double O-Ring fittings eliminate the possibility of leaks and simplify installation
- ▶ Front flush ports allow easy access d uring installation



- Foam insulation stops condensation, and a high impact polystyrene cabinet prevents rust over time
- Available with either die cast brass or composite valves
- ▶ Offered with constant speed and variable speed pump options



Bosch Non-Pressurized Flow Centers

- Utilizes a water column to provide the necessary suction head for the circulator pump, and to ensure a flooded pump volute
- Comes equipped with a fluid reservoir (tank), flush and service valves, and one or more pumps housed in a foam-insulated cabinet
- ► Includes a sealing cap to ensure a closed system while providing integrated pressure and vacuum relief to prevent the reservoir from being over-pressurized or dropping below atmospheric pressure
- Available with single speed, three speed, and variable speed pumps to provide a variety of options for both the contractor and the system designer



Bosch Non-Pressurized Dual Circuit Flow Centers

Designed for applications with two geothermal heat pumps sharing a common ground loop

- Utilizes a water column to provide the necessary suction head for the circulator pump, and to ensure a flooded pump volute
- ► Comes equipped with a fluid reservoir (tank), six flush and service valves, and can be configured with up to four pumps housed in a foam-insulated powder coated cabinet
- ▶ Built-in check valves in each of the fluid paths to prevent short-circuiting between two heat pumps
- ► Include a sealing cap to ensure a closed system while providing integrated pressure and vacuum relief to prevent the reservoir from being over-pressurized or dropping below atmospheric pressure

Bosch Geothermal Flow Centers Reference Chart



| | CONSTANT SPEED FLO-LINK™ PRESSURIZED FLOW CENTERS | | | | | VARIABLE SPEED (PANEL MOUNTED) FLO-LINK™ PRESSURIZED FLOW CENTERS | | CONSTANT SPEED NON-PRESSURIZED FLOW CENTERS | | VARIABLE SPEED NON-PRESSURIZED FLOW CENTERS | | DUAL CIRCUIT (TWO UNITS) NON-PRESSURIZED FLOW CENTERS | | | | |
|--|--|------------|------------|--------------|------------|--|------------|---|------------|---|------------|--|------------|--------------|------------------|------------------|
| | ORDER NUMBER | | | ORDER NUMBER | | | | ORDER NUMBER | | ORDER NUMBER | | ORDER NUMBER | | ORDER NUMBER | | |
| ORDER NUMBER | 7738005088 | 7738005089 | 7738005090 | 7738005091 | 7738005092 | 7738005093 | 7738005094 | 7738005095 | 7738005096 | 7738005097 | 7738005098 | 7738005099 | 7738005102 | 7738005103 | 7738005086 | 7738005087 |
| PRESSURIZED | Х | х | х | х | х | х | х | Х | Х | х | | | | | | |
| NON-PRESSURIZED | | | | | | | | | | | х | × | х | × | x | х |
| PSC CONSTANT, 3-SPEED MOTOR UP26-99 (NUMBER OF MOTORS) | 1 | 1 | | | 2 | 2 | | | | 1 | 1 | 2 | | 1 | 3 | 4 |
| PSC CONSTANT 1-SPEED MOTOR UP26-116 (NUMBER OF MOTORS) | | | 1 | 1 | | | 2 | 2 | | | | | | | | |
| VARIABLE SPEED MAGNA GEO PUMP PANEL MOUNTED MOTOR (NUMBER OF MOTORS) | | | | | | | | | 1 | 1 | | | 1 | 1 | | |
| 208/230-1PH | х | x | х | х | х | х | х | х | х | х | х | х | х | х | x | х |
| FLO-LINK™ WATER CONNECTIONS | х | х | х | х | х | х | х | х | х | х | х | х | х | х | x | х |
| COMPOSITE VALVES | х | | х | | х | | х | | | | х | х | х | х | X ⁽⁴⁾ | X ⁽⁴⁾ |
| BRASS VALVES | | х | | Х | | Х | | х | Х | Х | | | | | X ⁽⁵⁾ | X ⁽⁵⁾ |
| CAST IRON | х | х | х | х | х | х | х | х | х | х | х | х | х | х | x | х |
| 10 YEAR LIMITED WARRANTY(1) | x | x | х | x | X | х | x | x | х | х | х | x | х | X | х | × |

Accessories⁽³⁾

(3) Additional accessories are available - Please consult your pricing catalog or customer service for details













| GEO-PRIME™ TANK | GEO-BOOSTER™ LOOP PRESSURIZATION SYSTEM (35 PSIG) | PRESSURE BATTERY HDPE EXPANSION TANK (1-1/4" PE FUSION) | HOSE KIT FOR FLO-LINK™ FLOW CENTERS | HOSE KIT W/3-WAY VALVE FOR NON-PRESSURIZED FLOW CENTERS | GEO-METER MECHANICAL (VARIABLE AREA) FLOW METER TOOL | | | | | |
|-----------------|---|--|---|--|---|--|--|--|--|--|
| ORDER NUMBER | | | | | | | | | | |
| 7738003261 | 7738003387 | 7738000091 | 8733904579 | 7738005068 | 7738005069 | | | | | |

Residential Limited Warranty⁽¹⁾ - Up to 10 Years

Coverage of the Bosch Flow Center

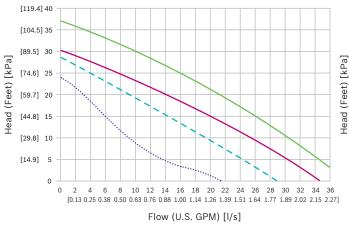
With the residential limited warranty, you receive peace-of-mind knowing you will receive replacement parts protection for up to 10 years. This standard offering covers all components incorporated into the flow center unit at the time of manufacture. All other components or parts that are purchased from Bosch and installed in the field have a 1-year parts warranty from the manufacturer with proof of certificate of occupancy date or proof of certified start up date. Labor-allowance is not included in the residential limited warranty.

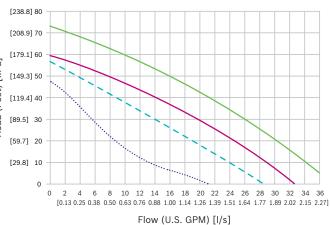
- (4) Composite valves at heat pump connections and drain valves
- (5) Brass 3-way valves at the loop connections

Performance Data

Grundfos Pump Comparison (Single Pumps)

Grundfos Pump Comparison (Two Pumps)





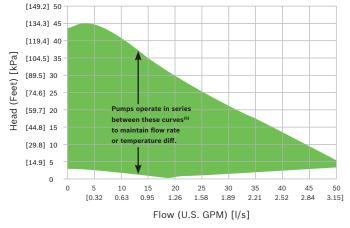
Flow (U.S. GFM) [I/S

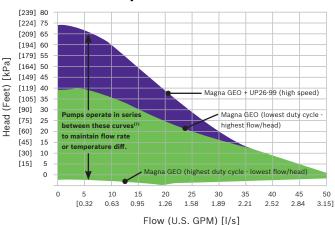
— (2) UP26-116 — (2) UPS26-99 high spd - - (2) UPS26-99 med spd ····· (2) UPS26-99 low spd

Grundfos Magna GEO (Single Pump)(6)

UP26-116 — UPS26-99 high spd — UPS26-99 med spd UPS26-99 low spd

Grundfos Magna GEO Variable Speed with Second Pump in Series





- (6) Above pump curves are for a single pump. When the Magna GEO pump is used with a second pump in series, the second pump is constant speed. The Magna GEO (variable speed) pump adjusts speed (when used with a controller) to maintain flow rate or temperature difference. The controller energizes the constant speed pump when the Magna GEO cannot meet setpoint, and adjusts the Magna GEO pump accordingly.
- (7) When both a variable speed and a constant speed pump are running, the Magna GEO operates between duty cycles as shown above to maintain set flow rate or temperature difference.

Bosch Thermotechnology Corp.

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