

Taco Comfort Solutions®

A Taco Family Company



Residential Catalog
Heating & Plumbing Products

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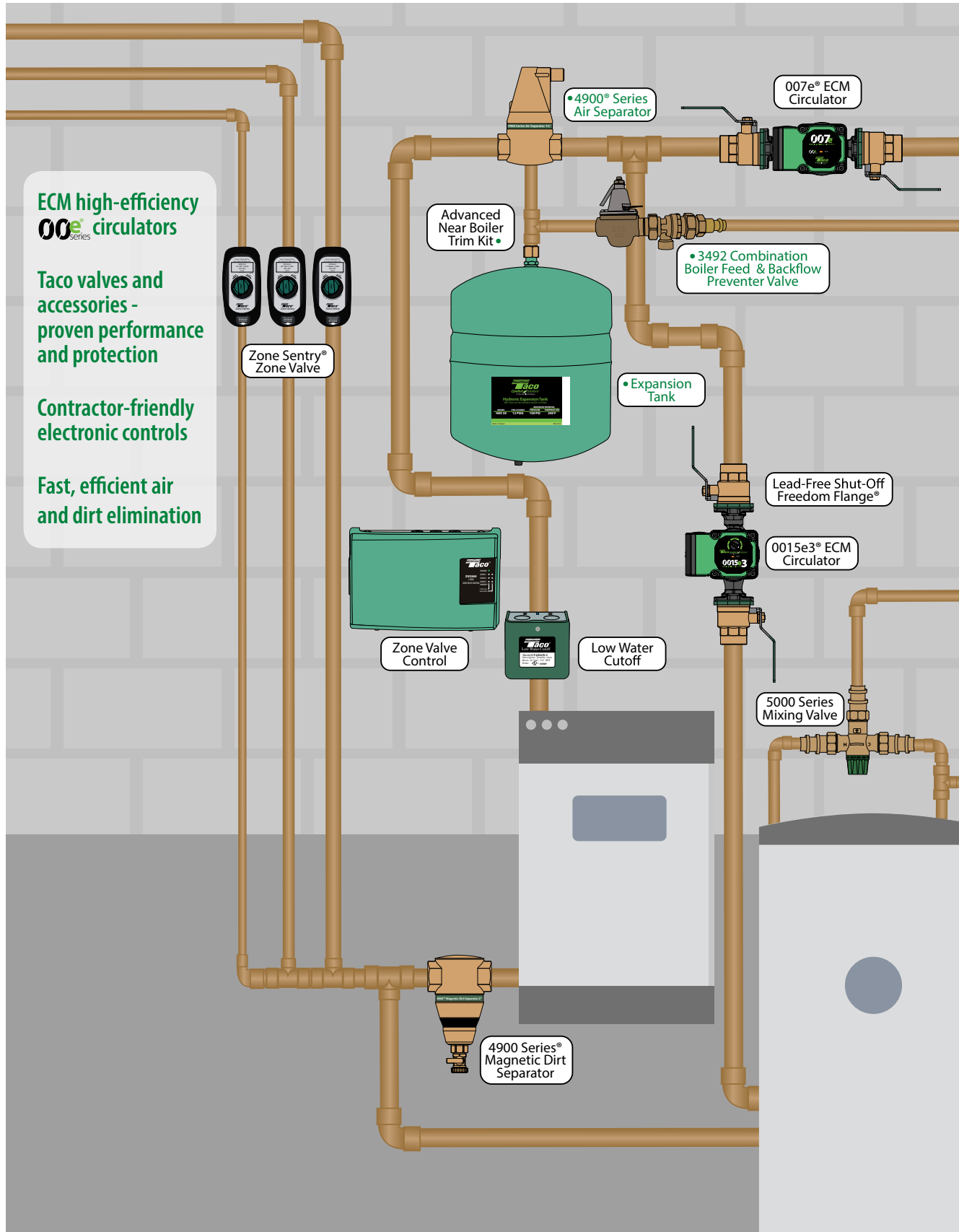
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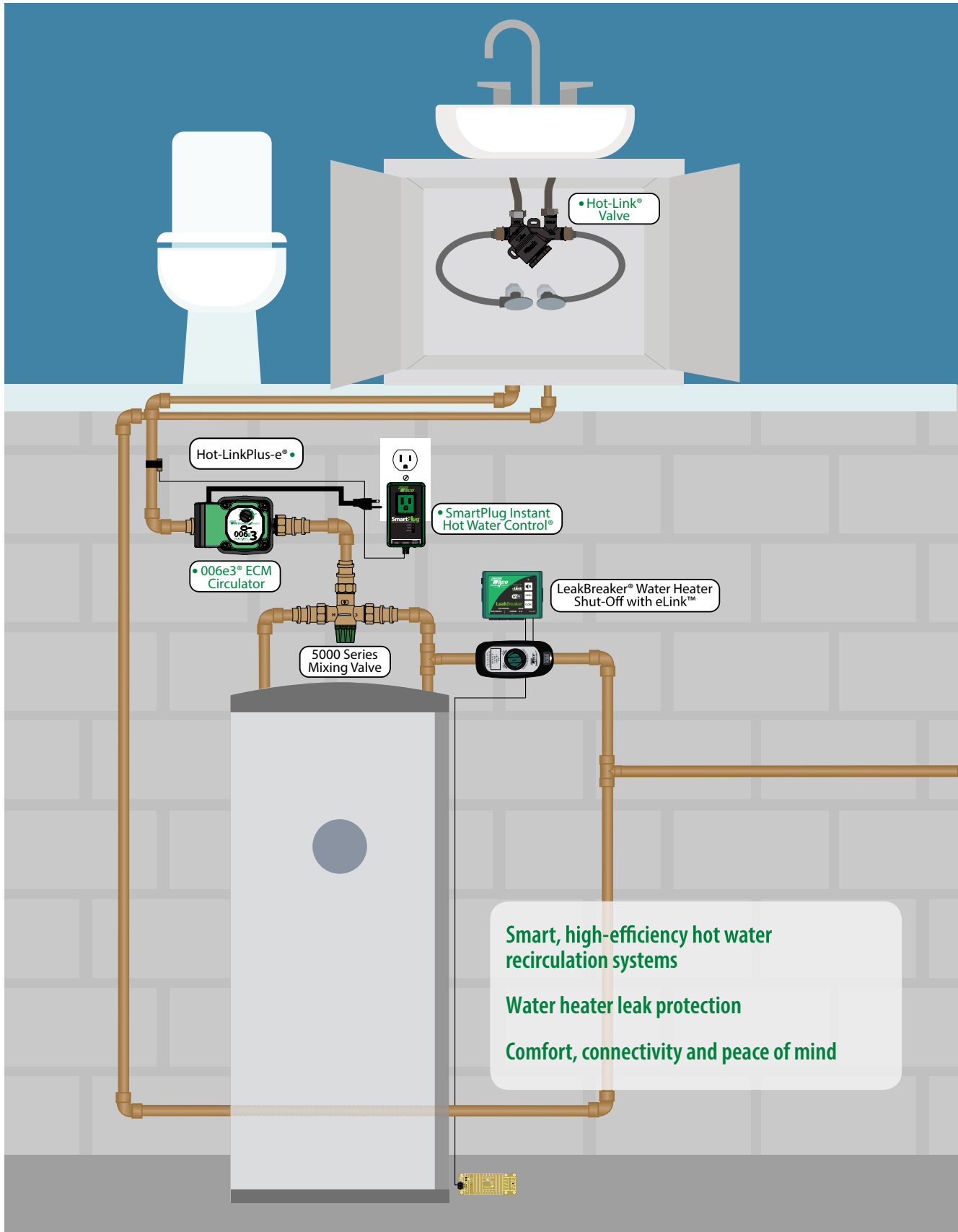
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Hydronic System Solutions



Plumbing System Solutions



System M Air-to-Water Heat Pump System

The ideal solution for homeowners who want to reduce their carbon footprint while increasing their indoor comfort. System M is a radically innovative air-to-water heat pump system that provides comfortable, efficient heating, cooling, and plenty of domestic hot water to homeowners without the use of fossil fuels — so it doesn't create CO₂. This complete, packaged system is simple to install, simple to operate, and a simply unique solution for low-carbon heating and cooling. Simply put, System M is a Milestone. System M also enables the addition of even more comfortable heating and cooling options, like radiant floor heating, towel warmers, or integration into a central cooling system.

Outdoor Heat Pump



Pump Specifications

44,000 BTU/h heating capacity
3-1/2 tons cooling capacity
Max COP > 4
Outdoor unit produces 29 dB(A)
@ 10m; equivalent to a whisper
Outdoor temperature range:
-7°F (-22°C) to 113°F (45°C)

Features

- Inverter-driven, variable speed scroll compressor with wide operation range & superior reliability
- High volumetric efficiency (HVE) valve boosts heating and cooling efficiency
- Maintenance-free, variable speed, ECM fan motor
- Sleek, award-winning design
- Tangential air discharge and innovative fan blade ensure whisper quiet operation and optimal air flow
- No refrigerant license needed
- Integrates seamlessly with indoor HydroBox
- Monobloc design
 - Encloses all heat pump components
 - Factory sealed R410A refrigerant in outdoor unit
 - Heating/ cooling transferred to indoor unit via water
- Manufactured in Germany by Glen Dimplex – the world's largest manufacturer of electrical heating appliances

Optional 85 Gallon Indirect Domestic Hot Water Tank

- All stainless steel construction
- Optimized large coil heating surface specifically designed for use with heat pumps
- Over 2" of R-12 insulation results in less than 1°/hour heat loss
- Thermoplastic jacket won't dent or corrode
- First hour rating of 168, continuous rating of 92 (gal/hr)
- Integrated 4.5 kW immersion element provides temperature boost for thermal disinfection & back-up heat source

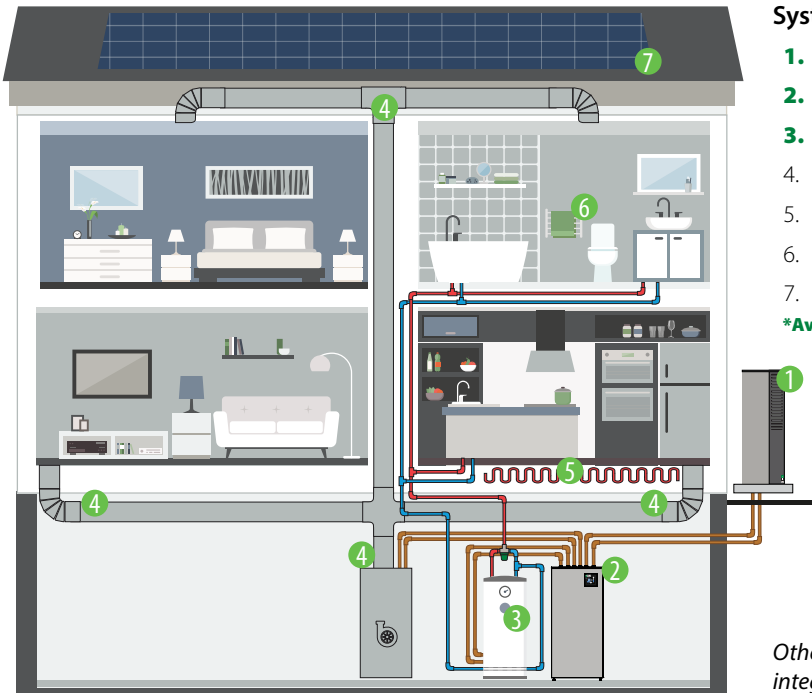
Indoor Hydrobox



Features

- Fully assembled indoor HydroBox cuts installation time in half by eliminating the work to design:
 - Hydraulic separation
 - Buffer tank integration
 - Air elimination
 - Proper flow to heat pump
 - Isolation valves
 - Expansion tank & pressure relief
 - DHW priority & bypass of buffer tank
 - Variable speed control of the ECM circulators
- Easy installation; just 6 pipe connections
- Fully insulated piping for chilled water installations
- Simplified, roomy wiring hub
- Internet ready – just plug the unit into the home's router
- Intuitive touch screen display
- Easy access to all components if servicing is required
- Integrated 30-gallon buffer tank:
 - Allows system to always be ready for a heating or cooling demand
 - Provides flywheel for large mass radiant systems
 - Makes the outdoor heat pump run more efficiently
 - Reduces short cycling due to micro loads
 - Integrated 6 kW immersion heater extends heat pump operating range

Complete Home Comfort



System Design Example

1. **System M Outdoor Heat Pump***
2. **System M Indoor HydroBox***
3. **Indirect Water Tank***
4. Air Handler & Ductwork
5. Hydronic Radiant Flooring
6. Hydronic Towel Heater
7. Solar Panels

**Available System M Components*

Other HVAC system integrations are possible



0018e® ECM High-Efficiency Circulator

The 00e® series - 0018e featuring Bluetooth® is a versatile, variable speed, high-efficiency wet rotor circulator with an ECM permanent magnet motor ideal for closed loop hydronic heating, open loop or domestic water applications. Download the Taco 0018e Mobile App to see and control real-time system performance. Run system operation & validation reports including performance diagnostics & history. Know the most efficient setting based on real-time feedback and alleviate the problems of over-pumping. You design systems with precision. The 0018e offers the performance & control to match.

It's time to take control!



ECM Circulator

2-Way Communication with the Taco 0018e ECM Circulator Mobile App featuring Bluetooth®



Features

- 18' Shut-off head, 16 gpm max flow
- ECM High-Efficiency motor uses up to 85% less electricity
- Easy-to-use dial
- 0018e mobile app for real-time performance display, system control and reporting
- 4 different operating modes:
 - Infinitely Variable Fixed Speed
 - Constant Pressure — Variable Speed
 - Proportional Pressure — Variable Speed
 - activeADAPT® — Self-Adjusting, proportional pressure, variable speed
- Multi-color LED
- **SureStart®** automatic unblocking & air purge
- **BIO Barrier®** protects pump from system contaminants (Cast Iron only)
- Nut-grabber flanges for easier fit-up
- Dual electrical knock-outs and 6" stranded wire leads included for easy wiring
- Integral Flow Check (IFC®) included
- Whisper quiet operation
- Double insulated — no ground required
- Cast Iron models available with standard or universal flange
- Stainless Steel models available with universal flange or 1" union connection
 - Customizable 1/2" & 3/4" union fitting sets available in sweat, NPT or press (Sold Separately)

0018e-2F2	Cast Iron 2 Bolt Flange
0018e-2F4	Cast Iron Universal 2-Way Flange
0018e-SF4	Stainless Steel Universal 2-Way Flange
0018e-SU	Stainless Steel Union Connection



Certified to NSF/ANSI/CAN 61 & 372

Stainless Steel models only



0018e REPLACEMENT CHART (6-3/8" FLANGE TO FLANGE DIMENSION)

TACO	GRUNDFOS	ARMSTRONG	XYLEM/B & G	WILO
005	UP 15-10F	Astro 230CI	ecocirc 19-14 auto	Star S 16F
006	UP 15-10FR	Astro 230CI-R	ecocirc 19-14 vario	Star S 16FX
007	UP 15-42F	Astro 250CI	NRF-22	Star S 21RFC
008	UP 15-42FR	Astro 250CI-R	NRF-25	Star S 21FX
00R	UPS 15-42F	Astro 20	NRF-9F/LW	Star S 21F
00R	UPS 15-58FC	Astro 25	ecocirc 20-18+	Stratos ECO 16RFC
(3-Speed)	UPS 15-58FRC	Astro 30	ecocirc 20-18	
0015	ALPHA 15-55F	Astro 30-3		
(3-Speed)	ALPHA 15-55FR	Astro 50-3		
	UPSe 15-58	Compass 20-20		
	ALPHA 15-58			

0015e3® ECM High-Efficiency Circulator

Taco 0015e3® is a variable speed, high-efficiency, wet rotor circulator with an ECM permanent magnet motor. It is available in cast iron for closed loop hydronic heating, or stainless steel for open loop or domestic water applications. With 3 easy settings, the 0015e3 delivers performance, reliability and ease of installation that made the 00® famous.

Features

- 18' Shut-off head, 16 gpm max flow
- Replaces all 3-speed hydronic circulators in its class
- High-efficiency ECM motor uses up to 85% less electricity
- **SureStart®** automatic unblocking and air purging mode
- **BIO Barrier®** protects pump from system contaminants (Cast Iron only)
- **Green Mode** active system monitoring and automatic power optimization
- Nut-grabber feature on flanges for easier fit-up
- Dual electrical knockouts, 6" stranded wire leads included for easy wiring
- Integral Flow Check (IFC®) included
- Double insulated — No ground wire required
- Whisper quiet operation
- Cast Iron models available with standard or universal flange
- Stainless Steel models available with universal flange or 1" union connection -
- Customizable 1/2" & 3/4" union fitting sets available in sweat, NPT or press (Sold Separately)



0015e3-2F2	Cast Iron 2 Bolt Flange
0015e3-2F4	Cast Iron Universal 2-Way Flange
0015e3-SF4	Stainless Steel Universal 2-Way Flange
0015e3-SU	Stainless Steel Union Connection



Certified to
NSF/ANSI CAN 61
& 372

Stainless Steel
models only

Replaces ALL 3-speed hydronic circulators in its class

TACO	GRUNDFOS	ARMSTRONG	XYLEM/B & G	WILO
005	UP15-10	Astro 225	ecocirc 19-16	Star S 16
006	UP15-42	Astro 230	NBF-22/NRF-22	Star S 21
007	UPS15-55	Astro 250	NBF-25/NRF-25	Stratos ECO 16
008	UPS15-58	Astro 20	NBF-9/NRF-9F/LW	
0015	Alpha 15-55	Astro 25	SSF-9U/LW	
0015 3-Speed	Alpha2 15-55	Astro 30	ecocirc 20-18	
007e	UPSe 15-58	Astro 30-3		
		Astro 50-3		
		Compass H20-20		

007e® ECM High-Efficiency Circulator*

The Taco 007e® is a variable speed, high-efficiency wet rotor circulator with an ECM permanent magnet motor. It is ideal for hydronic systems zoned with circulators or zone valves, or used on potable water systems for domestic water recirculation. The 007e delivers the performance equivalent of the classic 007, plus the reliability and easy installation that made the 00® famous. **Install it, forget it.®**



007e-2F2	Cast Iron 2 Bolt Flange
007e-2F4	Cast Iron Universal 2-Way Flange
007e-SF4	Stainless Steel Universal 2-Way Flange
007e-SU	Stainless Steel Union Connection

* NOT AVAILABLE IN CANADA

Features

- 10' Shut-off head, 16 gpm max flow
- ECM performance equivalent to the legendary 007 circulator
- High-efficiency ECM motor uses up to 85% less electricity
- **SureStart®** automatic unblocking and air purging mode
- **BIO Barrier®** protects pump from system contaminants (Cast Iron only)
- **Green Mode** active system monitoring and automatic power optimization
- Nut-grabber feature on flanges for easier fit-up
- Dual electrical knockouts, 6" stranded wire leads included for easy wiring
- Integral Flow Check (IFC®) included
- Double insulated — No ground wire required
- Whisper quiet operation
- Cast Iron models available with standard or universal flange
- Stainless Steel models available with universal flange or 1" union connection - Customizable 1/2" & 3/4" union fitting sets available in sweat, NPT or press (Sold Separately)



Certified to NSF/ANSI/CAN 61 & 372

Stainless Steel models only



Replaces ALL 3-speed hydronic circulators in its class

TACO	GRUNDFOS	XYLEM/B & G	WILO
007	UPS 15-42 UPS 15-58 ALPHA 15-55F UPSe 15-58	ecocirc 19-14 auto ecocirc 19-14 vario NRF-22 NRF-25	Star S 16F Star S 21F Stratos-ECO

VR1816 ECM High-Efficiency Circulator*

The 00e Series® VR1816 circulator is a variable speed, high-efficiency wet rotor circulator with an ECM permanent magnet motor. Operating modes include infinitely variable fixed speed, constant pressure and proportional pressure.

Features

- 18' shut-off head, 16 gpm max flow
- **SureStart**® automatic unblocking and air purging mode
- Multi-color LED displays
- Easy to use dial
- Integral Flow Check (IFC®) included
- **BIO Barrier**® protects pump from system contaminants
- 2-way flange model

* NOT AVAILABLE IN CANADA

Part#	Description
VR1816-HY2-FC2A00	2 Bolt Flange
VR1816-HY2-4C2A00	Universal 2-Way Flange



Operating Modes

Infinitely Variable Fixed Speed (Min/Max):

— Ideal for zoning with circs, fine tune to GPM required

Constant Pressure, Variable Speed:

— Best suited for zoning with zone valves

Proportional Pressure, Variable Speed :

— Best suited for panel radiators with thermostatic radiator valves (TRV's)

VT2218 ECM High-Efficiency Circulator

Taco 00e Series® VT2218 Delta-T Variable Speed circulator is a temperature sensing, self-adjusting, variable speed, high-efficiency wet rotor circulator with an ECM permanent magnet motor. Operating modes include Delta-T differential temperature, 4 fixed speeds, set point heat, set point cool and boiler protection.

Features

- 22' shut-off head, 18 gpm max flow
- ECM high-efficiency motor
- Easy to use 3 button programming to change modes and temp/speed settings
- Power range from 9-58 watts
- Nut-grabber flanges
- Full speed override for system fill and purging
- Full LCD display showing:
 - Mode, speed or temperature setting, gpm, supply and return temperatures
 - Error code diagnostics
- Sensors and Integral Flow Check (IFC®) included
- **BIO Barrier**® protects pump from system contaminants
- **SureStart**® automatic unblocking mode

5 Operating Modes

Delta-T — Differential Temperature with settings from 5–50°F (20°F factory pre-set)

Constant Speed — 4 fixed speed settings

Set Point Heat — Increases speed to increase temperature - Range = 50–220°F

Set Point Cool — Increases speed to lower temperature - Range = 32–100°F

Boiler Protection — Used as a bypass pump to maintain a minimum boiler return temperature to prevent flue gas condensation - Range = 100–160°F

Part#	Description
VT2218-HY2-FC1A00	2 Bolt Flange
VT2218-HY2-4C1A00	Universal 2-Way Flange



0026e™ ECM High-Efficiency Circulator

The 0026e™ is a high-performance, variable speed, wet-rotor circulator with high-efficiency ECM permanent magnet technology. With 5 easy settings, its variable speed performance curves are equivalent to the Taco 0010, 0011, 0012, 0012 3-Speed, 0013, 0013 3-Speed & 0014. Ideal for large residential and light commercial hydronic heating, chilled water cooling and domestic hot water systems. The 0026e reduces power consumption by up to 85% compared to equivalent AC permanent split capacitor circulators. With a maximum of 26 feet of head and 44 gpm, it is available in either Cast Iron or NSF certified Stainless Steel.

Features

- 5 easy dial settings to match system requirements — activeADAPT®, LOW, MEDIUM, HIGH or 0-10V DC analog or PWM digital signal external input
- **BIO Barrier®** protects the pump from system contaminants
- **SureStart®** automatic unblocking and air purging mode
- Replaces all single speed and 3-speed circulators in its class
- Multi-color LED: power on, mode setting and error code diagnostics
- Use with a Taco ZVC Zone Valve Control or SR Switching Relay for ON/OFF operation
- Nut-grabber feature on flanges for easier fit up
- Dual electrical knockouts and removable quick-connect terminal strip for easy wiring
- Whisper quiet operation
- Rotatable control cover to simplify installation



Pump Replacement Chart
(6-1/2" Flange-to-Flange Dimension)

Taco	Bell & Gossett	Armstrong	Grundfos	Wilo
2400-10	PL 50	E 13	UP 50-75	Stratos:
2400-20	PL 30	E 11	UPS 50-44	1.25 x 3 – 25
2400-30	Series e (e-601)	E 10	UP 43-75	1.25 x 3 – 20
2400-40	Series 60 (601)	E 7	UP(S) 26-99	
110	Series HV	S 25	UP 26-96	Top S:
111	Series PR	H 52	UP 26-64	1.25 x 15
112	Series HV	H 51	UPS 32-40	1.25 x 25
113	Series 100	H 32	UPS 32-80	1.50 x 20
0010	NRF 36	Astro 280	Magna 32-60	
0011	ECOCircXL 20-35	Astro 210	Alpha2 26-99	Top Z:
0012	ECOCirc XL 36-45	Compass ECM		1.5 x 15
0013				1.5 x 20
0014				

NOTE: Flange size and flange-to-flange dimensions will vary by competitive model and may require some piping changes.

0026e-F2	Cast Iron
0026e-SF2	Stainless Steel



0034e® ECM High-Efficiency Circulator

The 0034e® is a high-performance, variable speed, wet-rotor circulator with high-efficiency ECM permanent magnet technology. With 5 easy settings, its variable speed performance curves are equivalent to the Taco 009, 0010, 0011, 0012, 0012 3-Speed, 0013, 0013 3-Speed & 0014. Ideal for large residential and light commercial hydronic heating, chilled water cooling and domestic hot water systems. The 0034e reduces power consumption by up to 85% compared to equivalent AC permanent split capacitor circulators. With a maximum of 34 feet of head and 50 gpm, it is available in either Cast Iron or NSF certified Stainless Steel.

Features

- 5 easy dial settings to match system requirements — activeADAPT®, LOW, MEDIUM, HIGH or 0-10V DC analog or PWM digital signal external input
- **BIO Barrier®** protects the pump from system contaminants
- **SureStart®** automatic unblocking and air purging mode
- Replaces all single speed and 3-speed circulators in its class
- Multi-color LED: power on, mode setting and error code diagnostics
- Use with a Taco ZVC Zone Valve Control or SR Switching Relay for ON/OFF operation
- Nut-grabber feature on flanges for easier fit up
- Dual electrical knockouts and removable quick-connect terminal strip for easy wiring
- Whisper quiet operation
- Rotatable control cover to simplify installation



Pump Replacement Chart
(6-1/2" Flange-to-Flange Dimension)

Taco	Bell & Gossett	Armstrong	Grundfos	Wilo
2400-10	PL 50	E 11	TP(E) 32-40	Stratos:
2400-20	PL 45	E 10	UP 50-75	1.25 x 3 – 35
2400-30	PL 36	E 8	UPS 43-100	1.25 x 3 – 30
2400-40	PL 30	E 7	UPS 50-44	1.25 x 3 – 25
110	E90 1AAB	S 25	UP 43-75	1.25 x 3 – 20
111	Series 60 (601)	H 63	UP(S) 43-44	
112	Series HV	H 52	UP 26-116	Top S:
113	Series PR	H 51	UP(S) 26-99	1.25 x 15
009	Series HV	Astro 290	UP 26-96	1.25 x 25
0010	Series 100	Astro 280	UP 26-64	1.25 x 35
0011	NRF 45	Astro 210	UPS 32-40	1.50 x 20
0012	NRF 36	1050 1B	UPS 32-80	
0013	ECOCirc XL 36-45	1050 1 1/4B	Magna 32-100	Top Z:
0014		Compass ECM	Magna 32-60	1.5 x 15
VR3452			Alpha2 26-99	1.5 x 20

NOTE: Flange size and flange-to-flange dimensions will vary by competitive model and may require some piping changes.

0034e-F2	Cast Iron
0034e-SF2	Stainless Steel



0034ePlus® ECM High-Efficiency Circulator

The 0034ePlus® is a high-performance, variable speed, wet-rotor circulator with high-efficiency ECM permanent magnet technology. An intuitive digital user interface lets you choose between a variety of operating modes; activeADAPT®, five Constant Pressure curves, five Proportional Pressure curves, Min/Max fixed speed or speed control through 0-10V DC or PWM external input. Ideal for large residential and light commercial hydronic heating, chilled water cooling and domestic hot water systems. The 0034ePlus reduces power consumption by up to 85% compared to equivalent AC permanent split capacitor circulators. With a maximum of 34 feet of head and 50 gpm, it is available in either Cast Iron or NSF certified Stainless Steel.

Features

- Simple 3-button control
- Digital LED screen displays; Watts, GPM, Head, RPM and diagnostic error codes
- Five operating modes to match any system requirements — activeADAPT®, Constant Pressure, Proportional Pressure, Min/Max Fixed Speed or speed control through 0-10V DC or PWM external input
- **BIO Barrier®** protects the pump from system contaminants
- **SureStart®** automatic unblocking and air purging mode
- Replaces all single speed and 3-speed circulators in its class
- Use with a Taco ZVC Zone Valve Control or SR Switching Relay for ON/OFF operation
- Nut-grabber feature on flanges for easier fit-up
- Dual electrical knockouts and removable quick-connect terminal strip for easy wiring
- Whisper quiet operation
- Rotatable control cover to simplify installation



Pump Replacement Chart
(6-1/2" Flange-to-Flange Dimension)

Taco	Bell & Gossett	Armstrong	Grundfos	Wilo
2400-10	PL 50	E 11	TP(E) 32-40	Stratos:
2400-20	PL 45	E 10	UP 50-75	1.25 x 3 – 35
2400-30	PL 36	E 8	UPS 43-100	1.25 x 3 – 30
2400-40	PL 30	E 7	UPS 50-44	1.25 x 3 – 25
110	E90 1AAB	S 25	UP 43-75	1.25 x 3 – 20
111	Series 60 (601)	H 63	UP(S) 43-44	
112	Series HV	H 52	UP 26-116	Top S:
113	Series PR	H 51	UP(S) 26-99	1.25 x 15
009	Series HV	Astro 290	UP 26-96	1.25 x 25
0010	Series 100	Astro 280	UP 26-64	1.25 x 35
0011	NRF 45	Astro 210	UPS 32-40	1.50 x 20
0012	NRF 36	1050 1B	UPS 32-80	
0013	ECOCirc XL 36-45	1050 1 1/4B	Magna 32-100	Top Z:
0014		Compass ECM	Magna 32-60	1.5 x 15
VR3452			Alpha2 26-99	1.5 x 20

NOTE: Flange size and flange-to-flange dimensions will vary by competitive model and may require some piping changes.

0034eP-F2	Cast Iron
0034eP-SF2	Stainless Steel



VR3452

The VR3452 is a high-efficiency, energy-saving, ECM circulator. With flow rates up to 52 gpm and pump head up to 34 feet, the VR3452 bridges the gap between our residential ECM circulators and the larger VR15 through VR30 models. Available voltages are 110-120/1 and 200-240/1, which can both be used with 50Hz or 60Hz. The VR3452 is available either with or without a communication module, which takes a 0-10 VDC or ModBus signal.



**For Indoor
Use Only**



**Proportional
Pressure**



**Constant
Pressure**



**Fixed
Speed**

Features

- High-efficiency ECM motor uses up to 85% less electricity
- LED displays watts, flow & RPM
- Compact size for easy handling and installation
- Plug & play simplicity
- Robust construction for long life
- Industry standard flange configuration and lay length
- Low noise operation
- Cataphoresis coated volute
- Communication module (Standard on-FC1A01 models):
 - Ethernet communication
 - Modbus RTU communication
 - Analog control input 0 - 10 V
 - 3 analog inputs/outputs
 - 1 relay output
 - Main, standby, parallel pump operation
- Night Turnback Feature option

Models

Part #	Variable Speed, ECM Delta-P	Communications Module
VR3452-HY1-FC1A01	IFC, 115/60/1	With Module
VR3452-HB1-FC1A01	IFC, 230/60/1	With Module

VR3452 Cross Reference (Cast Iron, Single Phase Models Only)

Taco	Xylem / B & G	Grundfos	Wilo
2400-10	PL 50	TP(E) 32-40	1.25 x 3 — 35
2400-20	PL 45	UP 50-75	1.25 x 3 — 30
2400-30	PL 36	UPS 43-100	1.25 x 3 — 25
2400-40	PL 30	UPS 50-44	1.25 x 3 — 20
113	E90 1AAB	UP 43-75	
112	Series 00 (601)	UP(S) 43-44	
111	Series HV	UP 26-116	
0014	Series PR	UP(S) 26-99	
0013	Series HV	UP 26-96	
0012	Series 100	UP 26-64	
0010	NRF 45	UPS 32-40	
0011	NRF 36	UPS 32-80	
	ECOCirc XL 36-45	Magna 32-100	
		Magna 32-60	

VR Series ECM High-Efficiency Circulators

The Taco 00e® VR series are ECM high-efficiency, wet-rotor, self-sensing commercial circulators ideal for HVAC and potable water applications. The wide range of models with Low, Medium, or High head options provide differential head pressures up to 65 ft. and flow ranges up to 375 GPM. BMS communication with Modbus, BACnet, 0-10Vdc, and PWM come standard while high-efficiency ECM technology reduces power consumption up to 85%.

Features

- Intuitive user interface with real-time feedback
- Constant speed, constant pressure, proportional pressure, and activeADAPT®; self-adjusting proportional pressure
- BMS communication; Modbus, BACnet, 0-10Vdc, PWM
- Parallel pump control; cascading, auto-rotate & main/ standby
- Standard #125 ANSI flanges (Companion flange kit sold separately)
- Stainless steel NSF/ANSI 61 & 372 commercial hot certified



Pump Specifications

Max. Operating Pressure:
175 PSI (12 bar)
Water Temperature Range:
36° - 230°F (2° - 110°C)
Ambient Temperature Range:
32° - 104°F (0° - 40°C)
Ambient Humidity:
Less than 95%, for indoor use only

Materials of Construction

Casing (HVAC)..... Cast iron
Casing (DHW) 304 Stainless
Impeller PES GF-30
Shaft.....ANSI 420
BearingCarbon Sleeve Type

Minimum Inlet Pressure

emp.	VR15-20	VR25-30
112°F (50°C)	7.3 PSIA / 0.5 Bar	4.36 PSIA / 0.3 Bar
176°F (80°C)	11.6 PSIA / 0.8 Bar	14.5 PSIA / 1.0 Bar
230°F (110°C)	20.3 PSIA / 1.4 Bar	20.3 PSIA / 1.4 Bar

Dimensions & Weights

Model	ER	CEI	Flange
VR15L	140	0.46	1-1/2"
VR15M	133	0.47	
VR15H	131	0.48	
VR20L	141	0.42	2"
VR20M	135	0.45	
VR20H	130	0.47	
VR25L	134	0.47	2-1/2"
VR25M	129	0.49	
VR25H	125	0.50	
VR30L	127	0.51	3"
VR30M	118	0.57	
VR30H	128	0.27	



INSULATION SHELL INCLUDED



Stainless Steel
models only

00® Series Cartridge Circulators

Every Taco 00® cartridge circulator is designed to make the job easier. With no mechanical seal, the self-lubricating design provides unmatched reliability. **Every 00® features a field-replaceable cartridge** that contains all the moving parts. Replacing the cartridge rebuilds the circulator! Our IFC® Cartridge Circulators feature an Integral Flow Check, eliminating additional installation costs associated with separate in-line flow checks. What could be better than lower cost and better performance?

Features

- Standard high capacity output, compact design
- Quiet, efficient operation
- Direct drive, low power consumption
- Unique replaceable cartridge design - field serviceable
- Self-lubricating
- No mechanical seal
- Unmatched reliability, maintenance free
- Universal flange-to-flange dimension
- Anti-condensate baffle (ACB) to protect motor windings (0011, 0012, 0013)
- Integral Flow Check (IFC) available
- Priority zoning relay available
- Most available in 230 volt

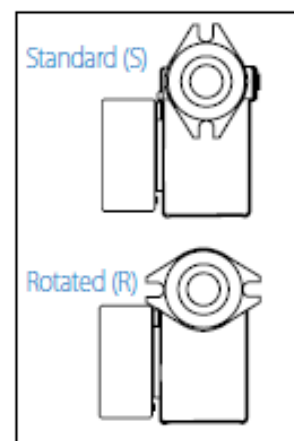


Certified to
NSF/ANSI CAN 61
& 372



007-SF5 Stainless Steel Circulator

Flange Orientation



Priority Zoning Circulator

00-Series Circulators (Models and Applications)

Stainless Steel	Cast Iron Without Check Valve	Cast Iron With Check Valve	Flange Orientation	Application
005-SF2	005-F2	005-F2-2IFC	S	Small Residential
----	006-F4	006-F6-IFC	R	DHW Recirculation / Air Handlers
007-SF5	007-F5	007-F5-7IFC	S	Residential
----	007-F5-5	007-F5-8IFC	R	Residential
008-SF6	008-F6	----	S	Radiant
008-SF6-2	----	00R-F6-1IFC	R	Radiant
009-SF5	009-F5	009-F5-IFC	R	High Head Pressure/ Steep Curve
0010-SF3	0010-F3	0010-F3-1IFC	S	Light Commercial
0011-SF4	0011-F4	0011-F4-2IFC	R	High Velocity / Head Pressure
0012-SF4	0012-F4	----	S	High Velocity
0012-SF4-1	0012-F4-1	----	S	High Velocity
0013-SF3	0013-F3	0013-F3-1IFC	R	High Velocity / Head Pressure
0014-SF1	0014-F1	0014-F1-1IFC	R	Medium Velocity
	007-ZF5-9	007-ZF5-3IFC	S	Priority Zoning Circulator

*** Replacement Gaskets: Part #007-007RP for all models except 0012. For 0012 models, use 0012-020RP.**

3-Speed, 00® Series Circulators

The 0015 IFC, 3-Speed Pump is specifically designed for the higher flow and head requirements of any hydronic heating system. The 0015 delivers the highest starting torque in its class and a removable, high-flow Integral Flow Check (IFC®) that prevents gravity flow, reduces installation costs and improves pump performance.

The 0013 IFC, 3-Speed Pump is specifically designed for a wide range of high flow/high head requirements. Its' 3-Speed switching capability provides fine tuning control to meet system design conditions.

The 0012 IFC, 3-Speed Pump is designed for high flow/low head applications, it's ideal for large BTU boilers, primary boiler loops and large recirculation systems.

The 0010 IFC, 3-Speed Service Pump is designed as an ideal replacement circulator for service contractors to use on any emergency "no-heat" call. Simply install it and set the speed to match the original pump performance. This pump features the Universal Flange Design.



Stainless Steel
models only

Low-Lead
Compliant



0010 and 0015

Features

- 3-speed switch
- Fine tune to system requirements
- Highest performance & starting torque in class
- Heavy duty construction for longer life
- Removable high-flow Integral Flow Check (IFC®)
 - Prevents gravity flow
 - Reduces installation costs
 - Improves pump performance
- Replaceable cartridge design
- Quiet, efficient operation
- Self-lubricating, no mechanical seal
- Wide range of applications
- Cast iron or stainless steel, flanged construction

Part

Taco 3-Speeds	Flange Orientation		Flange-to-Flange	Grundfos	B & G
0015-MSF3-IFC	CI	S	6-3/8"	UPS15-58FC	NRF-25
0015-MSF3-1IFC	CI	R			
0015-MSSF3-IFC	SS	S			
0015-MSSF3-1IFC	SS	R			
0010-MSF2-IFC	CI	U	6-3/8"	---	NRF-9F/LW LRF-20 100, NRF-22/23
0012-MSF2-IFC	CI	S			
0012-MSSF2-IFC	SS	S			
0013-MSF2-IFC	CI	R			
0013-MSSF2-IFC	SS	R	6-1/2"	UPS26-99FC UPS26-150F UPS26-100F UPS50-44F	NRF-36 NRF-45 PR, PL-30

2400 Enhanced Series High Capacity Circulators

The enhanced 2400 Series High Capacity Circulators include a 3-piece, carbon/silicon-carbide, rotating mechanical seal configuration and a pressure-balanced impeller. Typical applications include hydronic heating, in-floor radiant, snow melt, high pressure drop boilers, outdoor wood boilers, chilled water cooling, geothermal heat pumps, primary / secondary loops and hydro-air fan coils. The Stainless Steel 2400 Series should be used for open, domestic water re-circulation systems.

Features

- Compact, space saving design
- Powerful close-coupled, maintenance free motor
- Superior efficiency, high starting torque
- Permanently lubricated, sealed for life bearings
- Rugged 1/2" stainless steel shaft
- Carbon/silicon-carbide mechanical seal for long life
- Noryl® impeller
- Universal flange-to-flange dimensions (Ideal for retrofits)
- Anti-condensate design for chilled water
- Dual electrical knock-outs
- Dual pressure taps, suction/discharge



Model Nomenclature

S: Stainless steel, flanged NSF 61 & 372

Y: 230V / 60 / 1 Motor

Performance Data

Maximum Flow: 90 GPM

Maximum Head: 46 Feet

Minimum Fluid Temp: 40°F (4°C)

Maximum Fluid Temp: 225°F (107°C)

Maximum Working Pressure: 150 psi

Part

Cast Iron	Stainless Steel	Hz	Ph	115V Amps	*230V Amps	RPM	HP
2400-10-3P	2400-10S-3P	60	1	1.9	NA	3450	1/6
2400-20-3P	2400-20S-3P	60	1	1.9	1.0	3450	1/6
2400-30-3P	2400-30S-3P	60	1	1.9	1.0	3450	1/6
2400-40-3P	2400-40S-3P	60	1	1.9	1.0	3450	1/6
2400-45-3P	2400-45S-3P	60	1	3.6	1.7	3450	1/3
2400-50-3P	2400-50S-3P	60	1	4.9	2.4	3450	1/2
2400-50/2-3P	2400-50S/2-3P	60	1	4.9	2.4	3450	1/2
2400-60-3P	2400-60S-3P	60	1	1.9	1.0	3450	1/6
2400-65-3P	2400-65S-3P	60	1	3.6	1.7	3450	1/3
2400-70-3P	2400-70S-3P	60	1	4.9	2.4	3450	1/2
2400-70/3-3P	2400-70S/3-3P	60	1	4.9	2.4	3450	1/2
Motor Type		Open Drip Proof, Permanent Split Capacitor, Thermally Protected					

Noryl® is a registered trademark of General Electric Co.

***230V Amps Available**

Lead-Free Shut-off Freedom Flange®

The Taco® Lead-Free Shut-Off *freedom* FLANGE® is a combination full port shut-off ball valve and swivel companion flange for most Taco circulators. The simple quarter turn, lever handle operation allows for easy isolation, removal and service of circulators without draining the system. Each flange set includes bolts and nuts. Available in sizes 1/2" to 1-1/2", in NPT, Sweat, and Press connections, rated for 240°F, 150# WP. The swivel-flange provides easier installation and positioning of the pump and lever handle in the most convenient location.



Low-Lead Compliant

Features

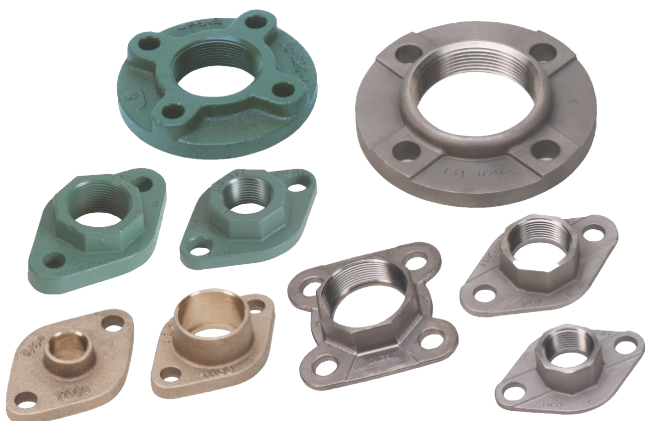
- Easy 1/4-turn Open/Close operation
- Positive shut-off, leak free design
- Swivel-Flange allows 360° rotation
- Solid lead-free brass construction
- Chrome/Brass/Stainless steel valve ball
- High quality seats
- Full port ball valve for unrestricted flow
- Available Sizes 1/2" - 1-1/2" NPT
1/2" - 1-1/2" Sweat
3/4" - 1-1/2" Press
- Includes Bolts and Nuts

Companion Flange Chart

Size	# of Bolts	Standard or High Velocity	Bronze NPT	Bronze SWT	Stainless NPT	Ductile Cast Iron NPT	PRESS Isolation Flange	SWT Isolation Flange	NPT Isolation Flange	Pumps Covered
1/2"	2	STD	---	110-522BSFL	---	---	---	SFL-050S	SFL-050T	0026e
3/4"	2	STD	---	110-523BSFL	110-251SF	110-251F	SFL-075P	SFL-075S	SFL-075T	0034e, 0034ePlus, VR3452, VT2218, 0018e, VR1816, 0015e3, 007e, 005, 007-0011, 0013-0015, 110-113, 2400-10,20,45,50
1"	2	STD	---	110-524BSFL	110-252SF	110-252F	SFL-100P	SFL-100S	SFL-100T	
1-1/4"	2	STD	---	110-525BSFL	110-253SF	110-253F	SFL-125P	SFL-125S	SFL-125T	
1-1/4"	2	HV	---	---	194-1540SF	194-1540F	---	SFL-125S-0012	SFL-125T-0012	2400-30, 40
1-1/2"	2	STD	---	110-522BSFL	110-254SF	110-254F	SFL-150P	SFL-150S	SFL-150T	0026e, 0034e, 0034ePlus, VR3452, VT2218, 0018e, VR1816, 0015e3, 007e, 005, 007-011, 0013-0015, 110-113, 2400-10,20,45,50
1-1/2"	2	HV	---	---	194-1542SF	194-1542F	---	SFL-150S-0012	SFL-150T-0012	0012, 2400-30, 40
2"	2	HV	---	---	---	194-2124F	---	---	---	0012
2"	4	HV	185-086S	---	---	185-086C	---	---	---	2400-60, 65, 70
2-1/2"	4	HV	185-112S	---	---	185-112C	---	---	---	2400-70/3
3"	4	HV	185-113S	---	---	185-113C	---	---	---	2400-70/3

Freedom Flange®

The Taco freedom FLANGE® fits 00®, 110 Series, 2400 Series and all small 00e® ECM high-efficiency circulators. Be free from scraped knuckles and jury-rigged tools of yesteryear! Their Easy-On / Easy-Off and sweat designs make quick work of pump installation and maintenance. Available in Cast Iron, Stainless Steel or Bronze.



freedom **FLANGE®**

Zone Sentry® Zone Valves

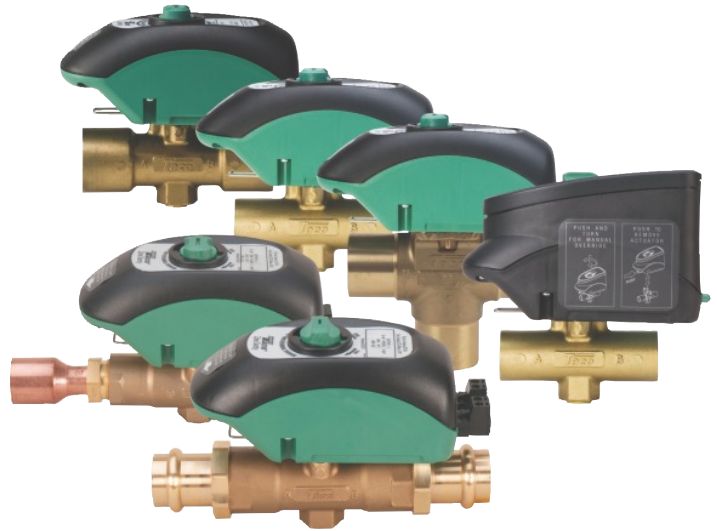
The Taco Zone Sentry® Zone Valve enhances the overall performance of any zone valve system. The unique patented technology in the Zone Sentry utilizes a microcircuit based logic to control a gear driven electronic actuator which drives a ball valve based body design. All this adds up to a zone valve that leads the industry in energy efficiency, flow capacity (Cv), shutoff pressure rating, ease of installation, diagnostic capability and the number of valves (12) that can be used on a standard 40VA transformer. The Taco Zone Sentry zone valves are available in sweat, threaded, press connect, inverted flare and 3-way configurations.

Zone Sentry® Zone Valves (Closed Systems)

Part #	Description	Cv	Size
Z050P2-2	1/2" Press, 2-Way	3.4	1/2"
Z075P2-2	3/4" Press, 2-Way	9.5	3/4"
Z100P2-2	1" Press, 2-Way	7.5	1"
Z075F2-2	3/4" Inverted Flare (Includes Fittings), 2-Way	4.4	3/4"
V075C2A2ZALNVE2A1	Multi-Volt, 2-Way	10.3	3/4" SWT
V100C2A2ZALNVE2A1	Multi-Volt, 2-Way	8.9	1" SWT
Z050C2-2	2-Way	4.9	1/2" SWT
Z075C2-2	2-Way	10.3	3/4" SWT
Z100C2-2	2-Way	8.9	1" SWT
Z050T2-3	2-Way	4.9	1/2" NPT
Z075T2-3	2-Way	10.3	3/4" NPT
Z100T2-3	2-Way	8.9	1" NPT
Z050C3-2	3-Way	1.5	1/2" SWT
Z075C3-2	3-Way	3.3	3/4" SWT
Z100C3-2	3-Way	3	1" SWT
Z050T3-2	3-Way	1.5	1/2" NPT
Z075T3-2	3-Way	3.3	3/4" NPT
Z100T3-2	3-Way	3	1" NPT
ZA024Q4A2	Zone Actuator Head (Normally Closed)	---	ALL SIZES
ZB024Q4A2	Zone Actuator Head (Normally Open)	---	ALL SIZES

Features

- Simple to install in any direction or orientation
- Up to 12 zone valves per 40 VA transformer
- Uses only 1.44 watts while power is on
- High flow, low head-loss characteristics
- Universal compatibility
- Push-button engage and disengage design eliminates gear and spring damage
- Plug-in screw terminals for easy installation and operation
- External LED status light
- Fewer moving parts for extended product life
- Use with water or water / glycol up to 50% glycol
- Electrical rating... 24 VAC, 60 Hz, 11.4 watts charging 1.44 watts with power on
- Multi-Volt Electrical... 110-277 VAC, 50/60 Hz, 4 watts charging - 1.5 watts with power on



NSF Version also available.

Geo-Sentry® Zone Valves

Part #	Description NORMALLY CLOSED (A)	Cv	Size
V075C2G2ZA024Q4A2	Geo-Sentry / 2-Way	10.3	3/4" SWT
V100C2G2ZA024Q4A2	Geo-Sentry / 2-Way	8.9	1" SWT
V075T2G2ZA024Q4A2	Geo-Sentry / 2-Way	10.3	3/4" NPT
V100T2G2ZA024Q4A2	Geo-Sentry / 2-Way	8.9	1" NPT
V075C3G1ZA024Q4A2	Geo-Sentry / 3-Way	3.3	3/4" SWT
V100C3G1ZA024Q4A2	Geo-Sentry / 3-Way	3	1" SWT
V075T3G1ZA024Q4A2	Geo-Sentry / 3-Way	3.3	3/4" NPT
V100T3G1ZA024Q4A2	Geo-Sentry / 3-Way	3	1" NPT

Specifications

Maximum Operating Pressure: 300 PSI (2,100 kPa)
Maximum Shutoff Pressure: 125 PSI (875 kPa)
Fluid Temperature Range: 20° to 240°F,
 (-7° to 115°C) @135°F
Heat Anticipator Setting: 0.5 amps
End Switch Rating: 1 amp @ 24 VAC

QuickTop Zone Valve®

Taco® QuickTop Zone Valves provide a convenient way to create individual zones or equipment isolation in closed loop hydronic systems. Utilizing one pump with multiple zone valves, flow can be started or stopped through the system providing individual room or area comfort, control and energy savings. The QuickTop Zone Valve is offered with 1/2", 3/4" or 1" sweat connections, and comes with Taco's trusted quality & reliability.



Specifications

Static Pressure Rating.....	300 PSI
Close-off Pressure.....	15 - 20 PSI
Ambient Temperature.....	32° - 125° F
Fluid Temp. Range.....	32° - 200° F
Service.....	Water or Water/Glycol up to 50% Glycol, Closed Systems
Motor Running Time.....	Power On: 10 - 20 seconds Spring Return: 4 - 5 seconds
Voltage.....	24 VAC ±10%, 60Hz
Power Consumption.....	5 W, 7.2 VA
Motor Wire Leads.....	24V, 18" yellow
Humidity.....	5% - 95%, non-condensing
End Switch.....	1 x SP SPST, red wire

Application

Taco® QuickTop Zone Valves provide on-off, normally closed control in closed hydronic systems. The valves can be used in a wide variety of heating & cooling applications. Use with baseboard, fan coils, radiators, convectors, air handlers, heat pumps and radiant applications.

For Indoor Use Only

Part #	Description	Cv
QT050C2	1/2" Sweat	2.5
QT075C2	3/4" Sweat	3.5
QT100C2	1" Sweat	5.0

Heat Motor Zone Valves

Taco Heat Motor Zone Valves provide a convenient way to create individual zones or equipment isolation in a hydronic heating system. Utilizing one pump along with multiple zone valves, flow can be started, stopped, or diverted through the system to provide individual room or area comfort control. Heat Motor Zone Valves are available in a variety of sizes and styles to meet the broad demands of today’s systems.

Choosing The Right Valve...



570 Gold Series (570, 571, 572, 573)

The Gold Series is the industry standard for hydronic heating applications. The quiet and dependable operation has made this valve an industry leader for decades. The manual open lever and twist off head makes installation and service easy.

Features

- Proven performance – millions in use. Taco Zone Valves are the industry’s top choice for consistent performance
- Rugged dependability
- Silent operation
- Twist-off head
- Bellows or Globe Valve Construction ensures positive shut-off and leak proof operation
- Patented construction
- Easy to install
- Manual open (bypass) lever
- 24 VAC powered with isolated end switch
- 100% factory tested

Available Models– 570

Part #	Description
571-2	3/4" Sweat Zone Valve 2-Way
572-3	1" Sweat Zone Valve 2-Way
573-2	1-1/4" Sweat Zone Valve 2-Way
555-050RP	Power Unit For 570 Series Valves

Eliminated Model	Alternate Model
555-2	Z050C2
556-2	Z075C2
557-2	Z100C2
560-5	Z050C3
561-5	Z075C3
562-5	Z100C3

Zone Controls: Switching Relays

The Taco Switching Relay is the best choice for all your zoning needs, with advanced timer and boiler functions, external diagnostic lights, switchable priority and contractor friendly PC board layouts. Combined with the time proven reliability of the 00e Series® circulators and thermostats, total system integration is achieved.

Features

- Front diagnostic lights
- Simplified wiring
- Premium sealed relays
- Fuse protected (with spare)
- Isolated end-switch
- Contractor friendly PC board layout
- Universal thermostat compatibility
- 24 volt power output for hard-wired thermostats
- Field replaceable transformer

Additional - EXP Features

- Add-on power control plug
- Built-in; post purge and pump exercise functions
- Switchable primary circulator output
- Two boiler contacts, utilizes full functionality of Mod-Con boilers
- Expandable to 20 zoning panels (120 zones if all are 6 zone panels)
- Interface with EXP Zone Valve Controls
- Common contact for simplified powered thermostat wiring



***SEE INSIDE OF CONTROL COVER FOR WIRING DIAGRAM**

Switching Relays	
Part #	Description
SR501-4	1-zone switching relay
SR502-4	2-zone switching relay with priority
SR503-4	3-zone switching relay with priority
SR504-4	4-zone switching relay with priority
SR506-4	6-zone switching relay with priority

Expandable Switching Relays	
Part #	Description
SR501-EXP-4	1-zone switching relay
SR503-EXP-4	3-zone switching relay with priority
SR504-EXP-4	4-zone switching relay with priority
SR506-EXP-4	6-zone switching relay with priority

SEE TACOCOMFORT.COM FOR TACO ZONE CONTROLS [WIRING GUIDE](#)

Zone Controls: Zone Valve Controls

Simplify the wiring nightmare! Taco Zone Valve Controls' easy-to-follow PC board layout eliminates the problems caused by incorrect wiring, while the external indicator lights provide instant diagnostic feedback. Combined with Taco Zone Sentry® Zone Valves and Thermostats, the system's performance and dependability is maximized.



***SEE INSIDE OF CONTROL COVER FOR WIRING DIAGRAM**

Zone Valve Controls						
Enclosure Dimensions						
Part #	Number of Zones	Transformer Rating	Transformer Voltage	Width	Height	Depth
ZVC403-4	3-zone w/priority	40 VA	120 VAC input	10-1/4"	7"	2-3/4"
ZVC404-4	4-zone w/priority	40 VA	120 VAC input	10-1/4"	7"	2-3/4"
ZVC405-4	5-zone w/priority	80 VA	120 VAC input	12-1/4"	8"	3"
ZVC406-4	6-zone w/priority	80 VA	120 VAC input	12-1/4"	8"	3"

Expandable Zone Valve Controls						
Enclosure Dimensions						
Part #	Number of Zones	Transformer Rating	Transformer Voltage	Width	Height	Depth
ZVC404-EXP-4	4-zone w/priority	80 VA	120 VAC input	12-1/4"	8"	3"
ZVC406-EXP-4	6-zone w/priority	80 VA	120 VAC input	12-1/4"	8"	3"

* The pump end switches are rated 1/6 hp, 5 amps at 120 VAC. The main and priority end switch connections are rated 24 VAC, 1 amp. All thermostat and zone valve connections supply a 24 VAC class 2 output.

Add-On Power Controls (For use with all EXP Controls)	
Part #	Description
PC700-2	Boiler Reset Control
PC702-1	2-Stage Boiler Reset Control
PC705-2	Variable Speed Pump Injection Mixing Control

Features

- Front diagnostic lights
- Switchable priority
- Built-in priority protection
- Simplified wiring
- Works with 2, 3, or 4-wire Zone Valves
- Fuse protected
- Two pump end-switches can control up to 3 pumps; system, secondary and DHW
- Contractor friendly PC board layout
- Universal thermostat compatibility
- 24 volt power output for hard-wired thermostats
- Field replaceable transformer

Additional - EXP Features

- Add-on power control plug
- Built-in; post purge and pump exercise functions
- Two boiler contacts, utilizes full functionality of Mod-Con boilers
- Expandable to 20 zoning panels (120 zones if all are 6 zone panels)
- Interface with EXP Switching Relays

SEE TACOCOMFORT.COM FOR TACO ZONE CONTROLS [WIRING GUIDE](#)

Zone Controls: Hydro Air Fan Control

Taco Hydro Air Fan Controls are the ideal interface between the thermostat and air handler. The Fan Controls provide advance diagnostic capabilities, universal thermostat compatibility, a simplified wiring layout, and automatic multi-speed switching while increasing year round comfort and operating efficiency.



Air Fan Control						
Part #	Power Input	Boiler Relay Rating	Pump Relay Rating	Width	Hight	Depth
HAFC-201-4	24 VAC, 60 HZ, CLASS 2	24 VAC, 1 A	1/6 HP	4-7/8"	6-5/8"	6-5/8"

5000 Series Heating Only Mixing Valves*

Taco's 5000 Series Heating Only version of mixing valves provides the high performance temperature stability required for today's radiant heating systems. **Additional versions and sizes also available!**



All union models are available with a stainless steel temperature gauge as shown here.



5000 Series

Thermostatic Mixing Valves		
Part #	Description	CV
MIXING VALVES Heating Only (Not Certified to NSF Standard) Adjustment 85-176F – All Union Valves Include Built-In Check Valves		
5002-HX-C3	Thermostatic Mixing / Temperature Valve, 1/2" Union Sweat	2.3
5003-HX-C3	Thermostatic Mixing / Temperature Valve, 3/4" Union Sweat	2.3
5004-HX-C3	Thermostatic Mixing / Temperature Valve, 1" Union Sweat	2.3
5003-HX-C3-G	Thermostatic Mixing / Temperature Valve, 3/4" Union Sweat w/Temp Gauge	2.3
5004-HX-C3-G	Thermostatic Mixing / Temperature Valve, 1" Union Sweat w/Temp Gauge	2.3

NSF Versions in sizes 3/8"-1-1/4" also available. See Plumbing Products Section of Catalog.

***NOT AVAILABLE IN CANADA**

iSeries® Electronic Mixing Valve

iSeries Electronic Mixing Valves		
Part #	Connection Size	Cv
I075C2R-2	Outdoor Reset 3/4" SWT, 2-Way	10.3
I100C2R-2	Outdoor Reset 1" SWT, 2-Way	8.9
I075C3R-1	Outdoor Reset 3/4" SWT 3-Way	3.3
I100C3R-1	Outdoor Reset 1" SWT, 3-Way	3.0
I075U3R-1	Outdoor Reset 3/4" SWT Union, 3-Way	5.8
I100U3R-1	Outdoor Reset 1" SWT Union, 3-Way	6.6
I075T4R-1	Outdoor Reset 3/4" NPT, 4-Way	7.0
I100T4R-1	Outdoor Reset 1" NPT, 4-Way	9.3
I125T4R-1	Outdoor Reset 1-1/4" NPT, 4-Way	17.5
I075C2S-2	Setpoint 3/4" SWT, 2-Way	10.3
I100C2S-2	Setpoint 1" SWT, 2-Way	8.9
I075C3S-1	Setpoint 3/4" SWT, 3-Way	3.3
I100C3S-1	Setpoint 1" SWT, 3-Way	3.0
I075U3S-1	Setpoint 3/4" SWT Union, 3-Way	5.8
I100U3S-1	Setpoint 1" SWT Union, 3-Way	4.0

Taco iSeries Mixing Valves are a breakthrough in precision, cost-effective temperature control for heating systems. The iSeries valves are available in two versions, providing either outdoor reset control or fixed water supply temperature by modulating the position of a 2-way, 3-way or 4-way valve. Additionally, iSeries valves protect the boiler against flue gas condensation.



Near Boiler Trim Kits

Save time purchasing the parts & pieces for your next boiler job. With a Taco® Near Boiler Trim Kit, everything you need is included in one easy-to-carry box. All three configurations, Premium, Advanced & Select are available in 1" or 1¼" connection sizes. Each comes with an air separator, combination boiler feed valve & backflow preventer, 4½ gallon expansion tank, and the brass nipples and connections needed for assembly.



Premium*



Listing 1081- 2014

Advanced



Listing 1012- 2009



Listing B64.3 - 11

Select*



Listing 1012 - 2009



Listing B64.3 - 11

Features & Benefits

- Select kit combinations suit all preferences
- All fittings & connections included
- Designed for easy installation
- 1" & 1¼" sizes available
- 4½ gallon expansion tank included
- Suitable for use in closed loop systems with water or up to 50% water/ glycol solution.
- Warranty protection
- Expansion tank 5 year
- All other pieces 1 year

Model Name	Size	Part #
Premium	1"	TTK-100C-PRM
	1-¼"	TTK-125C-PRM
Advanced	1"	TTK-100T-ADV
	1-¼"	TTK-125T-ADV
Select	1"	TTK-100T-SEL
	1-¼"	TTK-125T-SEL

* NOT AVAILABLE IN CANADA

4900 Series® Magnetic Dirt Separators

Taco's 4900 Series® Magnetic Dirt Separators increase system life and efficiency by removing ferrous material and other harmful, loose particles from closed loop hydronic heating systems. A powerful, service-free magnetic ring and convenient blow down valve are included for quick and easy system maintenance.

Part #	Conn.
49MD-075T-2	3/4" NPT
49MD-100T-2	1" NPT
49MD-125T-2	1-1/4" NPT
49MD-150T-2	1-1/2" NPT
49MD-200T-2	2" NPT
49MD-075C-2	3/4" SWT
49MD-100C-2	1" SWT
49MD-125C-2	1-1/4" SWT
49MD-150C-2	1-1/2" SWT



4900 Series® Air Separators

Taco's family of air elimination products deliver the most complete and effective means of air removal on the market. The ultimate micro bubble separation of the 4900 Series Air Separator eliminates the damaging effects and irritating noise caused by unwanted system air. Available in 3/4" – 2" sizes, they require no minimum run of pipe and have a convenient 1/2" tapping for easy installation of an expansion tank.

Features

- Patented Pall Ring design
- Eliminates air induced system noise
- Minimal pressure loss
- Vent can be closed
- Large surface contact area
- Protective vent plate
- Rugged dependability
- Maximum air removal
- Convenient expansion tank connection tapping
- No minimum run of pipe requirement
- Bi-directional flow

Part #			
Size	NPT	Sweat	Press
3/4"	49-075T	49-075C	49-075P
1"	49-100T	49-100C	49-100P
1-1/4"	49-125T	49-125C	49-125P
1-1/2"	49-150T	49-150C	N/A
2"	49-200T	N/A	N/A



4900 Series Air Separator now also available in press connect!

Air Scoop®

Taco Air Scoop's enlarged design with internal baffles slows the water velocity in order to separate the air from solution. The air scoop also provides an economic and silent way to integrate air elimination with the connection of either a plain steel or diaphragm expansion tank.



Size And Connections

Taco Air Scoops are available in 1" through 3" cast iron threaded and 4" cast iron flanged. Each Air Scoop has a vent connection on top for the installation of a 1/8" Taco 400 or 416 Hy-Vent, and a 1/2" bottom tapping for a diaphragm expansion tank. The 1-1/2" through 4" Air Scoops also have an additional top tapping for the connection of a plain steel expansion tank.

Dimensions

Part #	Size	Cv
431-6	1"	31.4
432-6	1-1/4"	54
433-5	1-1/2"	61
434-5	2"	107
435-5	2-1/2"	140
436-5	3"	276
*437-1	4"	600

**This size has 125 lb. flanged ends.*

Ratings

Maximum Operating Pressure: 125 PSI (862 kPa)
Maximum Operating Temperature: 300°F (135°C)
Media: Water or water / glycol
Recommended Flow Rate: 4 ft. / sec.

Features

- One piece cast iron construction
- Never requires any servicing
- Engineered baffle separates air from water

Automatic Air Vents



Taco automatic air vents have been the industry standard for over 30 years. No matter the application, Taco has the size and style vent to provide unmatched reliable service. Attached to the boiler or used throughout the system, Taco vents automatically purge unwanted air from any hydronic installation, allowing the system to run more efficiently.

***Suitable for use in low pressure steam systems.**
****Outlet connection fits 3/4" ID Flex tubing.**

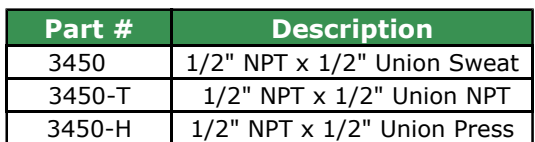
Dimensions

Part #	Description	A	Bubble Breaker	Max. System Conditions	Max. Venting Pressure
417-3	*Taco-Vent® Coin Vent	1/8" NPT	No	*125 psi, 240°F	125 psi
400-4	Hy-Vent®	1/8" NPT	Yes	150 psi, 240°F	50 psi
416-2	Slim-Line Hy-Vent®	1/8" NPT	Yes	150 psi, 240°F	115 psi
426-3	Hy-Vent®	1/4" NPT	Yes	150 psi, 240°F	50 psi
418-4	Hy-Vent®	1/2 x 3/4" NPT	No	150 psi, 240°F	50 psi
419-1	High Pressure Hy-Vent®	1/2 x 3/4" NPT	No	250 psi, 240°F	150 psi
409-3	**Commercially Rated Brass Vent	3/4" NPT	No	150 psi, 240°F	150 psi
414-1	Waste Connector	1/4" NPT	----	150 psi, 240°F	----

The integral design of the Taco 3450 Combi-Valve combines a cartridge style backflow preventer with a pressure regulating cartridge style boiler feed valve into a unique one-piece body configuration. Taco's 3450 combination dual check backflow with atmospheric vent and boiler feed valve with purge auto-reset, dial-in pressure setting and adjustable indicator sets a new standard for performance and serviceability.

- Auto reset from fast-fill
- ASSE 1081-2014
- Simple pressure adjustment
- Large adjustment range, 10-50 psi
- Serviceable cartridge for both the backflow and feed valve
- Adjustable 360 view of pressure indicator
- Serviceable without draining the system
- One-piece body construction
- Stainless steel strainer

Max. Inlet Pressure:.....150 psi (10.3 Bar)
Min. Delta P Inlet to Outlet:.....15 psi (1 Bar)
Recommended Setting Range:.....10-50 psi
+/-3 psi
(7-3.4 bar)
Factory Setting:.....12 psi (.8)
Adjustment Capability:.....8.5-65 psi
(.6-4.5 bar)
Max. Flow Rate:.....25 gpm
(8 ft / sec)
95 l/m
Max. Temperature:.....210°F (99°C)



*** NOT AVAILABLE IN CANADA**

Taco's cartridge style pressure reducing valve sets a new standard for performance and serviceability. All the parts are contained in a one piece cartridge which can be easily removed and serviced without reducing the system pressure. A fast-fill mode that automatically returns to the normal mode when the set pressure is reached and delivers increased flow to speed system fill times. Its unique dial-in pressure setting allows for easy adjustment throughout the 10-50 psi range, without the need for an external gauge. Now available with 1/2" union press connection.



Max. Inlet Pressure: 250 psi
Adjustment Range: 10-50 psi
Max. Temp: 210° F
Factory Setting: 12 psi
Media: Water

Part #	Description
3350	1/2" NPT x 1/2" Union Sweat
3350-H	1/2" NPT x 1/2" Union Press
3350-T	1/2" NPT x 1/2" NPT

- Automatic pressure reset from fast-fill
- Easy external dial-up pressure setting
- Set pressure indicator
- Simple serviceability with the unique one-piece cartridge
- Internal check allows the cartridge to be replaced without draining the system
- Integral strainer
- ASSE 1003

Boiler Feed, Pressure Valves, Dual Controls, Backflow Preventers and Combination Boiler Feed & Backflow Preventer Valves

Taco Boiler Feed Valves have set the standard for dependable service. The Backflow Preventer offers added protection, preventing the system from emptying if supply pressure should fail. Coupling dependable service with added protection into one quality product is Taco's Combination Boiler Feed & Backflow Preventer Valve. The Dual Control combines the Boiler Feed with an in-line Pressure Relief Valve.

Features

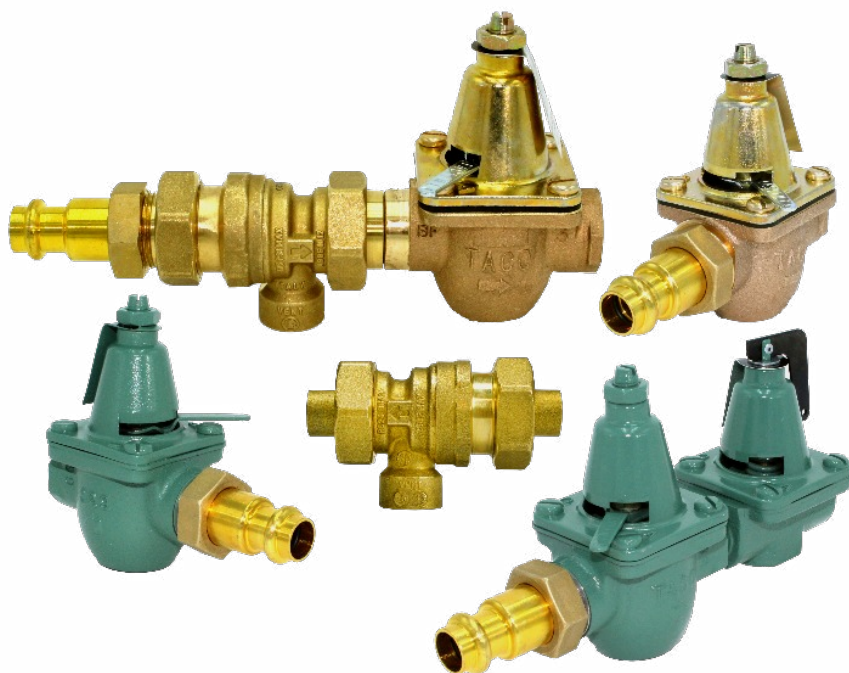
- Fast-fill rate on all models
- Exclusive fast-fill lever lock
- Built-in check to prevent emptying the system if incoming pressure fails
- Adjustable set pressure of 10 to 25 psi
- Pressure setting adjustment separated from fast-fill lever for easy, fast adjustment
- Both the Backflow Preventer and the Combination Boiler Feed & Backflow Preventer Valve carry these certifications:



Listing 1012- 2009



Listing B64.3 - 11



Boiler Feed Valve

Part #	Body	Inlet	Outlet
329	Cast Iron	1/2" Union SWT	1/2" NPT
329-T	Cast Iron	1/2" Union NPT	1/2" NPT
329-H	Cast Iron	1/2" Union Press	1/2" NPT
335	Brass	3/4" NPT	3/4" NPT
335U-050-C	Brass	1/2" Union SWT	1/2" NPT
335U-050-T	Brass	1/2" Union NPT	1/2" NPT
335U-050-H	Brass	1/2" Union Press	1/2" NPT
335U-075-C	Brass	3/4" Union SWT	3/4" NPT
335U-075-T	Brass	3/4" Union NPT	3/4" NPT

Max. Temp 212°F (100°C)

Dual Controls

Part #	Body	Inlet	Outlet
334	Cast Iron	1/2" Union SWT	1/2" NPT
334-T	Cast Iron	1/2" Union NPT	1/2" NPT
334-H	Cast Iron	1/2" Union Press	1/2" NPT

Max. Temp 212°F (100°C)

Combination Boiler Feed & Backflow Preventer Valve

Part #	Body	Inlet	Outlet
3492-050-C	Cast Iron/Brass	1/2" Union SWT	1/2" NPT
3492-050-T	Cast Iron/Brass	1/2" Union NPT	1/2" NPT
3492-050-H	Cast Iron/Brass	1/2" Union Press	1/2" NPT
3492-050-BC	Brass	1/2" Union SWT	1/2" NPT
3492-050-BT	Brass	1/2" Union NPT	1/2" NPT
3492-050-BH	Brass	1/2" Union Press	1/2" NPT
3493-075-BC	Brass	3/4" Union SWT	3/4" NPT
3493-075-BT	Brass	3/4" Union NPT	3/4" NPT

Max. Temp 212°F (100°C)

Backflow Preventer

Part #	Body	Inlet	Outlet
3192-C	Brass	1/2" Union SWT	1/2" Union SWT
3192-T	Brass	1/2" Union NPT	1/2" Union NPT
3193-C	Brass	3/4" Union SWT	3/4" Union SWT
3193-T	Brass	3/4" Union NPT	3/4" Union NPT

Max. Temp 250°F (121°C)

TacoSetter Inline Balancing Valve

The TacoSetter Inline balancing valve offers a quick, easy and accurate method of adjusting the flow rates through closed loop systems. Correct balancing of hydronic systems ensures optimum energy distribution resulting in more efficient and economical operation.

Features

- Set the flow with the turn of a dial
- Fast & accurate adjustment without the need for diagrams, tables or measuring devices
- Direct flow reading in GPM
- Horizontal, vertical or inclined installation
- Use with water or up to 50% water/glycol solution

Performance Data

Max. Operating Temp: 212°F (100°C)
Max. Operation Pressure: 145psi (10 bar)
Measuring Accuracy: +10% of indicated value
Not suitable for potable water
Use with water or 50% water/glycol solution



Balancing Made Easy

Model Performance & Spec Chart

Part #	Connection Size	Flow Range (gpm)	Max Flow (gpm)
7201-3	1" Union	1 – 4	4
7202-3	1" Union	2 – 8	8

Union Connection Fittings (Sold Separately)

Fitting Assembly Description	Product Code
½" Union Sweat	UFS-050S
½" Union FNPT	UFS-050T
½" Union Press	UFS-050P
¾" Union Sweat	UFS-075S
¾" Union FNPT	UFS-075T
¾" Union Press	UFS-075P
1" Union Sweat	UFS-100S
1" Union Press	UFS-100P

TacoSetter Bypass Balancing Valve

The TacoSetter Bypass balancing valve offers an easy and accurate method of adjusting the flow rates for closed loop systems. Correct balancing of hydronic systems ensures optimum energy distribution, resulting in more efficient and economical operation. The unique bypass design offers easy & accurate flow reading with convenient memory stop.

Features

- Set the flow with the turn of a dial
- Fast & accurate adjustment without the need for diagrams, tables or measuring devices
- Direct flow reading in GPM
- Horizontal, vertical or inclined installation
- Use with water or up to 50% water/glycol solution

Performance Data

Max. Operating Temp: 212°F (100°C)
Max. Operation Pressure: 145psi (10 bar)
Measuring Accuracy: +10% of indicated value
Not suitable for potable water
Use with water or 50% water/glycol solution

Model Performance & Spec Chart

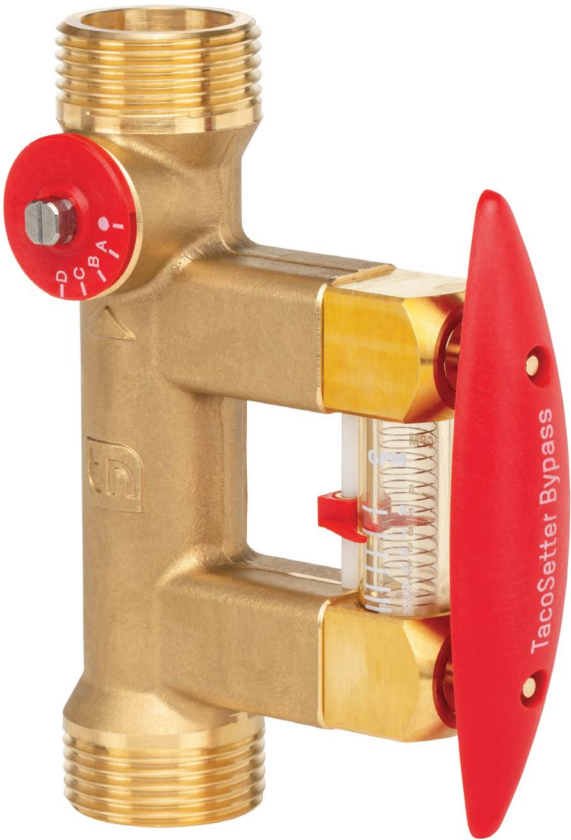
Part #	Connection Size	Flow Range (gpm)	Max Flow (gpm)
7204-3	1" Union	1 – 4	4
7205-3	1" Union	2 – 8	8
7206-3	1-¼" Union	3 – 10	10

1" Fittings (Sold Separately)

Description	Part Number
½" Union Sweat	UFS-050S
½" Union FNPT	UFS-050T
½" Union Press	UFS-050P
¾" Union Sweat	UFS-075S
¾" Union FNPT	UFS-075T
¾" Union Press	UFS-075P
1" Union Sweat	UFS-100S
1" Union Press	UFS-100P

1 ¼" Fittings For Model 7206-3 (Sold Separately)

Description	Part Number
1" Union MNPT	UFS125-100T



Unique Bypass Design
for Easy & Accurate
Flow Reading

Low Water Cutoff (LWCO)

Features

- 120 and 24 VAC models
- Automatic and manual reset
- 1/2" and 3/4" NPT connection sizes
- Foam compensating
- Automatic delay on make (DOM)
- Automatic delay on break (DOB)
- Direct probe to control connection
- NEMA 4 remote probe
- Extended length remote probes
- External LEDs
- Test button
- Service LED
- Tri-barrier terminal blocks
- Probe connections

Low Water Cutoffs: Auto Reset

Part #	Description
LTR0243T-1	24 VAC Testable 1 - piece 3/4" NPT Connection
LTR0243L-1	24 VAC Testable 1 - piece 3/4" NPT Connection Special Lochinvar Harness
LTA0243S-2	24 VAC Testable 3/4" NPT Probe
LTA1203S-2	120 VAC Testable 3/4" NPT Probe
LFA0243S-1	24 VAC 3/4" NPT Probe Foam Compensating with Test Button
LFA1203S-1	120 VAC 3/4" NPT Probe Foam Compensating with Test Button



Low Water Cutoffs: Manual Reset

Part #	Description
LTRM0243T-1	24 VAC Testable 1 - piece 3/4" NPT Connection
LTRM0243L-1	24 VAC Testable 1 - piece 3/4" NPT Connection Special Lochinvar Harness
LFM0243S-1	24 VAC 3/4" NPT Probe Foam Compensating with Test Button
LFM1240S-1	120 VAC 3/4" NPT Probe Foam Compensating with Test Button

Electric Water Feeder

Part #	Description
EWF024-1	24 VAC
EWF120-1	120 VAC

(LWCO) Cross-Reference Guide - A

Taco	McDonnell & Miller	Hydrolevel	Honeywell
LFA1203S-1	PS-801-120 PSE-801-120 PS-800-120 PS-850-120 900 900C	450 CG450 CGT450 OEM170TD	RW700A1031 RW700A1056 RW700A1080
LFM1203S-1	PS-801-M-120 PS-851-M-120 PS-851-SP-M-120 PS-850-M-120 900M 901M 902M	550 550SV 750 OEM170MC OEM170M	RW700B1054 RW700B1039 RW700B1021
LFA0243S-1	PS-802-24 PSE-802-24 PS-800-24 PS-850-24	400 CG400 OEM24TD	RW700A1098
LFM0243S-1	PS-802-M-24 PS-852-M-24 PS-852-SP-M-24 PS-850-M-24	500 500SV 700 OEM24MC	—
LFA1203R-1	750-T-120 750-120	650R	—
LFM1203R-1	750-MT-120 750-M-120	550R	—

(LWCO) Cross-Reference Guide - B

Taco	McDonnell & Miller	Hydrolevel	Honeywell
LTA0243S-2	PS-852-24 PS-852-SP-24 750-MT-SP-24 750P-MT-24 750P-MT-U-24	24 24SV 600 600SV OEM24C	—
LTA1203S-2	RB-120 RB-122E PS-851-120 PS-851-SP-120 750P-MT-120 750P-MT-SP-120 750P-MT-U-120 901 RB-120II RB-122	170 170SV 1150 650 650SV OEM170C OEM170	RW700A1007 RW700A1006
LTR0243T-1	RB-24E RB-24	1100	—
EWF120	WFE-120 WF2-U-120V WF-2-120 WF-4-120	VRTX-120 V-120-1&2	VW400A1004
EWF024	WFE-24 WF2-U-24V WF-2-24 WF-4-24	VRTX-24 V-24-1&2	VW800A1004

Bold/Italics (Indicates Discontinued Part Number)

0018e® ECM High-Efficiency Circulator

The 00e® series - 0018e featuring Bluetooth® is a versatile, variable speed, high-efficiency wet rotor circulator with an ECM permanent magnet motor ideal for closed loop hydronic heating, open loop or domestic water applications. Download the Taco 0018e Mobile App to see and control real-time system performance. Run system operation & validation reports including performance diagnostics & history. Know the most efficient setting based on real-time feedback and alleviate the problems of over-pumping. You design systems with precision. The 0018e offers the performance & control to match.

It's time to take control!



2-Way Communication with the Taco 0018e ECM Circulator Mobile App featuring Bluetooth®

ECM Circulator



Features

- 18' Shut-off head, 16 gpm max flow
- ECM High-Efficiency motor uses up to 85% less electricity
- Easy-to-use dial
- 0018e mobile app for real-time performance display, system control and reporting
- 4 different operating modes:
 - Infinitely Variable Fixed Speed
 - Constant Pressure — Variable Speed
 - Proportional Pressure — Variable Speed
 - activeADAPT® — Self-Adjusting, proportional pressure, variable speed
- Multi-color LED
- **SureStart®** automatic unblocking & air purge
- **BIO Barrier®** protects pump from system contaminants (Cast Iron only)
- Nut-grabber flanges for easier fit-up
- Dual electrical knock-outs and 6" stranded wire leads included for easy wiring
- Integral Flow Check (IFC®) included
- Whisper quiet operation
- Double insulated — no ground required
- Cast Iron models available with standard or universal flange
- Stainless Steel models available with universal flange or 1" union connection
 - Customizable 1/2" & 3/4" union fitting sets available in sweat, NPT or press (Sold Separately)

0018e-2F2	Cast Iron 2 Bolt Flange
0018e-2F4	Cast Iron Universal 2-Way Flange
0018e-SF4	Stainless Steel Universal 2-Way Flange
0018e-SU	Stainless Steel Union Connection



Certified to NSF/ANSI CAN 61 & 372

Stainless Steel models only



0018e REPLACEMENT CHART (6-3/8" FLANGE TO FLANGE DIMENSION)

TACO	GRUNDFOS	ARMSTRONG	XYLEM/B & G	WILO
005	UP 15-10F	Astro 230CI	ecocirc 19-14 auto	Star S 16F
006	UP 15-10FR	Astro 230CI-R	ecocirc 19-14 vario	Star S 16FX
007	UP 15-42F	Astro 250CI	NRF-22	Star S 21RFC
008	UP 15-42FR	Astro 250CI-R	NRF-25	Star S 21FX
00R	UPS 15-42F	Astro 20	NRF-9F/LW	Star S 21F
00R	UPS 15-58FC	Astro 25	ecocirc 20-18+	Stratos ECO 16RFC
(3-Speed)	UPS 15-58FRC	Astro 30	ecocirc 20-18	
0015	ALPHA 15-55F	Astro 30-3		
(3-Speed)	ALPHA 15-55FR	Astro 50-3		
	UPSe 15-58	Compass 20-20		
	ALPHA 15-58			

0015e3® ECM High-Efficiency Circulator

Taco 0015e3® is a variable speed, high-efficiency, wet rotor circulator with an ECM permanent magnet motor. It is available in cast iron for closed loop hydronic heating, or stainless steel for open loop or domestic water applications. With 3 easy settings, the 0015e3 delivers performance, reliability and ease of installation that made the 00® famous.

Features

- 18' Shut-off head, 16 gpm max flow
- Replaces all 3-speed hydronic circulators in its class
- High-efficiency ECM motor uses up to 85% less electricity
- **SureStart®** automatic unblocking and air purging mode
- **BIO Barrier®** protects pump from system contaminants (Cast Iron only)
- **Green Mode** active system monitoring and automatic power optimization
- Nut-grabber feature on flanges for easier fit-up
- Dual electrical knockouts, 6" stranded wire leads included for easy wiring
- Integral Flow Check (IFC®) included
- Double insulated — No ground wire required
- Whisper quiet operation
- Cast Iron models available with standard or universal flange
- Stainless Steel models available with universal flange or 1" union connection -
- Customizable 1/2" & 3/4" union fitting sets available in sweat, NPT or press (Sold Separately)



0015e3-2F2	Cast Iron 2 Bolt Flange
0015e3-2F4	Cast Iron Universal 2-Way Flange
0015e3-SF4	Stainless Steel Universal 2-Way Flange
0015e3-SU	Stainless Steel Union Connection



Certified to
NSF/ANSI CAN 61
& 372

Stainless Steel
models only



Replaces ALL 3-speed hydronic circulators in its class

TACO	GRUNDFOS	ARMSTRONG	XYLEM/B & G	WILO
005	UP15-10	Astro 225	ecocirc 19-16	Star S 16
006	UP15-42	Astro 230	NBF-22/NRF-22	Star S 21
007	UPS15-55	Astro 250	NBF-25/NRF-25	Stratos ECO 16
008	UPS15-58	Astro 20	NBF-9/NRF-9F/LW	
0015	Alpha 15-55	Astro 25	SSF-9U/LW	
0015 3-Speed	Alpha2 15-55	Astro 30	ecocirc 20-18	
007e	UPSe 15-58	Astro 30-3		
		Astro 50-3		
		Compass H20-20		

007e® ECM High-Efficiency Circulator*

The Taco 007e® is a variable speed, high-efficiency wet rotor circulator with an ECM permanent magnet motor. It is ideal for hydronic systems zoned with circulators or zone valves, or used on potable water systems for domestic water recirculation. The 007e delivers the performance equivalent of the classic 007, plus the reliability and easy installation that made the 00® famous. **Install it, forget it.®**



007e-2F2	Cast Iron 2 Bolt Flange
007e-2F4	Cast Iron Universal 2-Way Flange
007e-SF4	Stainless Steel Universal 2-Way Flange
007e-SU	Stainless Steel Union Connection

* NOT AVAILABLE IN CANADA

Features

- 10' Shut-off head, 16 gpm max flow
- ECM performance equivalent to the legendary 007 circulator
- High-efficiency ECM motor uses up to 85% less electricity
- **SureStart®** automatic unblocking and air purging mode
- **BIO Barrier®** protects pump from system contaminants (Cast Iron only)
- **Green Mode** active system monitoring and automatic power optimization
- Nut-grabber feature on flanges for easier fit-up
- Dual electrical knockouts, 6" stranded wire leads included for easy wiring
- Integral Flow Check (IFC®) included
- Double insulated — No ground wire required
- Whisper quiet operation
- Cast Iron models available with standard or universal flange
- Stainless Steel models available with universal flange or 1" union connection
 - Customizable 1/2" & 3/4" union fitting sets available in sweat, NPT or press (Sold Separately)



Stainless Steel models only



Replaces ALL 3-speed hydronic circulators in its class

TACO	GRUNDFOS	XYLEM/B & G	WILO
007	UPS 15-42 UPS 15-58 ALPHA 15-55F UPSe 15-58	ecocirc 19-14 auto ecocirc 19-14 vario NRF-22 NRF-25 ecocirc 20-18	Star S 16F Star S 21F Stratos-ECO

006e3[®] ECM High-Efficiency Hot Water Circulator



Three settings. One reputation.

The 00e[®]series-006e3 is an infinity variable, high-efficiency wet rotor circulator with an ECM permanent magnet motor. With 3 easy settings, the 006e3 delivers performance, reliability and ease of installation that made the 00[®] famous.

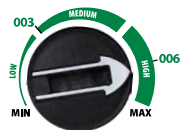


Replacement Chart

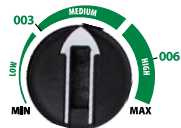
Taco	Grundfos	Armstrong	B&G / Xylem	Laing
003	UP 15-18	Astro 225 BS	ecocirc e ³ -4	E1 Series
006	UP 15-18	Astro 225 SSU	ecocirc e ³ -6	E3 Series
	UP 15-16	Astro 220 SSU	NBF-8,9,10,12 SSF-9, 12	

Setting Selection Guide

Based on 3/4" supply, 1/2" return copper pipe



HIGH - 500 ft pipe



MEDIUM - 350 ft pipe



LOW - 200 ft pipe or less

NOTE: Figures are for reference purposes only. Refer to ASTM guidelines for piping flow & velocity standards. For PEX, refer to pipe manufacturer guidelines.

Model Number (Part Number)	Details
006e3 (VM1212-DY1-UP2A00)	6" wire leads
Model Number (VM1212-DY1-UP2A01)	Line Cord

- 13" Shut-off head. 11 gpm max flow
- Easy to use dial:
 - Low, Medium, High
 - 003 & 006 performance point references
- Rugged high-performance composite casing
- 3 Color LED indicator light:
 - Blue: Operating mode
 - White: **SureStart[®]**
 - Red: Error diagnostic
- Whisper quiet operation
- 1" union connection with optimal 1/2" & 3/4" fittings sets sold separately (See chart below)
- Double insulated, no ground wire required

Materials of Construction

Casing: Composite
 Stator Housing: Composite
 Cartridge: Composite
 Impeller: Composite
 Shaft: Ceramic
 Bearings: Carbon
 Thrust Bearing: Ceramic
 O-Ring & Gaskets: EPDM

Choose the right fitting for the job!

Image	Fitting Assembly Description	Part#
	1/2" Union Sweat	UFS-050S
	1/2" Union FNPT	UFS-050T
	1/2" Union Press	UFS-050P
	3/4" Union Sweat	UFS-075S
	3/4" Union FNPT	UFS-075T
	3/4" Union Press	UFS-075P

Fittings Sold Separately

Fitting sets include (2) gaskets, (2) union nuts and (2) tail pieces

0026e™ ECM High-Efficiency Circulator

The 0026e™ is a high-performance, variable speed, wet-rotor circulator with high-efficiency ECM permanent magnet technology. With 5 easy settings, its variable speed performance curves are equivalent to the Taco 0010, 0011, 0012, 0012 3-Speed, 0013, 0013 3-Speed & 0014. Ideal for large residential and light commercial hydronic heating, chilled water cooling and domestic hot water systems. The 0026e reduces power consumption by up to 85% compared to equivalent AC permanent split capacitor circulators. With a maximum of 26 feet of head and 44 gpm, it is available in either Cast Iron or NSF certified Stainless Steel.

Features

- 5 easy dial settings to match system requirements — activeADAPT®, LOW, MEDIUM, HIGH or 0-10V DC analog or PWM digital signal external input
- **BIO Barrier®** protects the pump from system contaminants
- **SureStart®** automatic unblocking and air purging mode
- Replaces all single speed and 3-speed circulators in its class
- Multi-color LED: power on, mode setting and error code diagnostics
- Use with a Taco ZVC Zone Valve Control or SR Switching Relay for ON/OFF operation
- Nut-grabber feature on flanges for easier fit up
- Dual electrical knockouts and removable quick-connect terminal strip for easy wiring
- Whisper quiet operation
- Rotatable control cover to simplify installation



Pump Replacement Chart
(6-1/2" Flange-to-Flange Dimension)

Taco	Bell & Gossett	Armstrong	Grundfos	Wilo
2400-10	PL 50	E 13	UP 50-75	Stratos:
2400-20	PL 30	E 11	UPS 50-44	1.25 x 3 – 25
2400-30	Series e (e-601)	E 10	UP 43-75	1.25 x 3 – 20
2400-40	Series 60 (601)	E 7	UP(S) 26-99	
110	Series HV	S 25	UP 26-96	Top S:
111	Series PR	H 52	UP 26-64	1.25 x 15
112	Series HV	H 51	UPS 32-40	1.25 x 25
113	Series 100	H 32	UPS 32-80	1.50 x 20
0010	NRF 36	Astro 280	Magna 32-60	
0011	ECOCircXL 20-35	Astro 210	Alpha2 26-99	Top Z:
0012	ECOCirc XL 36-45	Compass ECM		1.5 x 15
0013				1.5 x 20
0014				

NOTE: Flange size and flange-to-flange dimensions will vary by competitive model and may require some piping changes.

0026e-F2	Cast Iron
0026e-SF2	Stainless Steel



0034e® ECM High-Efficiency Circulator

The 0034e® is a high-performance, variable speed, wet-rotor circulator with high-efficiency ECM permanent magnet technology. With 5 easy settings, its variable speed performance curves are equivalent to the Taco 009, 0010, 0011, 0012, 0012 3-Speed, 0013, 0013 3-Speed & 0014. Ideal for large residential and light commercial hydronic heating, chilled water cooling and domestic hot water systems. The 0034e reduces power consumption by up to 85% compared to equivalent AC permanent split capacitor circulators. With a maximum of 34 feet of head and 50 gpm, it is available in either Cast Iron or NSF certified Stainless Steel.

Features

- 5 easy dial settings to match system requirements — activeADAPT®, LOW, MEDIUM, HIGH or 0-10V DC analog or PWM digital signal external input
- **BIO Barrier®** protects the pump from system contaminants
- **SureStart®** automatic unblocking and air purging mode
- Replaces all single speed and 3-speed circulators in its class
- Multi-color LED: power on, mode setting and error code diagnostics
- Use with a Taco ZVC Zone Valve Control or SR Switching Relay for ON/OFF operation
- Nut-grabber feature on flanges for easier fit up
- Dual electrical knockouts and removable quick-connect terminal strip for easy wiring
- Whisper quiet operation
- Rotatable control cover to simplify installation



Pump Replacement Chart
(6-1/2" Flange-to-Flange Dimension)

Taco	Bell & Gossett	Armstrong	Grundfos	Wilo
2400-10	PL 50	E 11	TP(E) 32-40	Stratos:
2400-20	PL 45	E 10	UP 50-75	1.25 x 3 – 35
2400-30	PL 36	E 8	UPS 43-100	1.25 x 3 – 30
2400-40	PL 30	E 7	UPS 50-44	1.25 x 3 – 25
110	E90 1AAB	S 25	UP 43-75	1.25 x 3 – 20
111	Series 60 (601)	H 63	UP(S) 43-44	
112	Series HV	H 52	UP 26-116	Top S:
113	Series PR	H 51	UP(S) 26-99	1.25 x 15
009	Series HV	Astro 290	UP 26-96	1.25 x 25
0010	Series 100	Astro 280	UP 26-64	1.25 x 35
0011	NRF 45	Astro 210	UPS 32-40	1.50 x 20
0012	NRF 36	1050 1B	UPS 32-80	
0013	ECOCirc XL 36-45	1050 1 1/4B	Magna 32-100	Top Z:
0014		Compass ECM	Magna 32-60	1.5 x 15
VR3452			Alpha2 26-99	1.5 x 20

NOTE: Flange size and flange-to-flange dimensions will vary by competitive model and may require some piping changes.

0034e-F2	Cast Iron
0034e-SF2	Stainless Steel



0034ePlus® ECM High-Efficiency Circulator

The 0034ePlus® is a high-performance, variable speed, wet-rotor circulator with high-efficiency ECM permanent magnet technology. An intuitive digital user interface lets you choose between a variety of operating modes; activeADAPT®, five Constant Pressure curves, five Proportional Pressure curves, Min/Max fixed speed or speed control through 0-10V DC or PWM external input. Ideal for large residential and light commercial hydronic heating, chilled water cooling and domestic hot water systems. The 0034ePlus reduces power consumption by up to 85% compared to equivalent AC permanent split capacitor circulators. With a maximum of 34 feet of head and 50 gpm, it is available in either Cast Iron or NSF certified Stainless Steel.

Features

- Simple 3-button control
- Digital LED screen displays; Watts, GPM, Head, RPM and diagnostic error codes
- Five operating modes to match any system requirements — activeADAPT®, Constant Pressure, Proportional Pressure, Min/Max Fixed Speed or speed control through 0-10V DC or PWM external input
- **BIO Barrier®** protects the pump from system contaminants
- **SureStart®** automatic unblocking and air purging mode
- Replaces all single speed and 3-speed circulators in its class
- Use with a Taco ZVC Zone Valve Control or SR Switching Relay for ON/OFF operation
- Nut-grabber feature on flanges for easier fit-up
- Dual electrical knockouts and removable quick-connect terminal strip for easy wiring
- Whisper quiet operation
- Rotatable control cover to simplify installation

0034eP-F2	Cast Iron
0034eP-SF2	Stainless Steel



Pump Replacement Chart
(6-1/2" Flange-to-Flange Dimension)

Taco	Bell & Gossett	Armstrong	Grundfos	Wilo
2400-10	PL 50	E 11	TP(E) 32-40	Stratos:
2400-20	PL 45	E 10	UP 50-75	1.25 x 3 – 35
2400-30	PL 36	E 8	UPS 43-100	1.25 x 3 – 30
2400-40	PL 30	E 7	UPS 50-44	1.25 x 3 – 25
110	E90 1AAB	S 25	UP 43-75	1.25 x 3 – 20
111	Series 60 (601)	H 63	UP(S) 43-44	
112	Series HV	H 52	UP 26-116	Top S:
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009	Series HV	Astro 290	UP 26-96	1.25 x 25
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0011	NRF 45	Astro 210	UPS 32-40	1.50 x 20
0012	NRF 36	1050 1B	UPS 32-80	
0013	ECOCirc XL 36-45	1050 1 1/4B	Magna 32-100	Top Z:
0014		Compass ECM	Magna 32-60	1.5 x 15
VR3452			Alpha2 26-99	1.5 x 20

NOTE: Flange size and flange-to-flange dimensions will vary by competitive model and may require some piping changes.



VR Series ECM High-Efficiency Circulators

The Taco 00e® VR series are ECM high-efficiency, wet-rotor, self-sensing commercial circulators ideal for HVAC and potable water applications. The wide range of models with Low, Medium, or High head options provide differential head pressures up to 65 ft. and flow ranges up to 375 GPM. BMS communication with Modbus, BACnet, 0-10Vdc, and PWM come standard while high-efficiency ECM technology reduces power consumption up to 85%.

Features

- Intuitive user interface with real-time feedback
- Constant speed, constant pressure, proportional pressure, and activeADAPT®; self-adjusting proportional pressure
- BMS communication; Modbus, BACnet, 0-10Vdc, PWM
- Parallel pump control; cascading, auto-rotate & main/ standby
- Standard #125 ANSI flanges (Companion flange kit sold separately)
- Stainless steel NSF/ANSI 61 & 372 commercial hot certified



Pump Specifications

Max. Operating Pressure:
175 PSI (12 bar)
Water Temperature Range:
36° - 230°F (2° - 110°C)
Ambient Temperature Range:
32° - 104°F (0° - 40°C)
Ambient Humidity:
Less than 95%, for indoor use only

Materials of Construction

Casing (HVAC)..... Cast iron
Casing (DHW) 304 Stainless
Impeller PES GF-30
Shaft.....ANSI 420
BearingCarbon Sleeve Type

Minimum Inlet Pressure

emp.	VR15-20	VR25-30
112°F (50°C)	7.3 PSIA / 0.5 Bar	4.36 PSIA / 0.3 Bar
176°F (80°C)	11.6 PSIA / 0.8 Bar	14.5 PSIA / 1.0 Bar
230°F (110°C)	20.3 PSIA / 1.4 Bar	20.3 PSIA / 1.4 Bar

Dimensions & Weights

Model	ER	CEI	Flange
VR15L	140	0.46	1-1/2"
VR15M	133	0.47	
VR15H	131	0.48	
VR20L	141	0.42	2"
VR20M	135	0.45	
VR20H	130	0.47	
VR25L	134	0.47	2-1/2"
VR25M	129	0.49	
VR25H	125	0.50	
VR30L	127	0.51	3"
VR30M	118	0.57	
VR30H	128	0.27	



Certified to
NSF/ANSI CAN 61
& 372
Stainless Steel
models only

LeakBreaker® Water Heater Shut-Off

The Taco LeakBreaker is a water heater leak protection device that protects against flood damage from the containment failure of a water heater. It consists of a control unit, valve with actuator and sensor. This resettable, testable protection device can be installed on any style water heater to shut-off the incoming water supply, preventing additional water flow to a damaged water heater. The multi-color LED light and audible alarm lets you know the status of LeakBreaker at all times. LeakBreaker with eLink™ uses Wi-Fi® to communicate with the cloud, enabling status alerts to be sent directly to the users whenever a change occurs. eLink, Taco Comfort Solutions' wireless connectivity platform, provides users with real-time product information, direct to their mobile device or desktop.

Features

- eLink™ sends text and/or email alerts
- WLAN 802.11 — b/g/n Compatible
- Re-Settable and Testable
- Quick Connect Wiring
- Operates on Batteries or Power Supply
 - Power Supply with Battery Backup on eLink Model
- Multi-Color LED Status Light
- Audible Alarm
- Alarm Mute
- 2 N/O; N/C Dry Contacts
- Full Port Valve
- Easy Removable Actuator

Part#	eLink	Description
LBW-075-H-1LF	Yes	3/4" NPT, WiFi
LB-075-H-1LF	No	3/4" NPT

Featuring **eLink™**
Taco Connectivity



Installation of the control unit, valve and sensor is a snap.

LeakBreaker is available with and without eLink capability.



SmartPlug Instant Hot Water Control®

The patented SmartPlug lets you upgrade any hot water recirculation pump with a power cord to "Smart" operation. Simply connect the SmartPlug to any 110V power outlet then plug the circulator power cord into the SmartPlug. Using a sensor that mounts to the hot water supply pipe, the SmartPlug will record the daily hot water usage pattern in a home and adjust the circulator run time automatically. Hot water will always be available when needed.

No Programming, Timers or Aquastats Required • Sensor Included

Options / Features

"Smart" Mode: When set to "Smart" mode, the SmartPlug monitors and records the home's hot water usage pattern over a 7 day period. The SmartPlug will use the preceding week's usage pattern to automatically cycle the circulator ON, so hot water is always available when it's needed. The recording and repeating process is continuous, week after week.

"Pulse" Mode: When set to "Pulse" mode, the SmartPlug will continuously cycle the circulator ON for 5 minutes, then OFF for 10 minutes to maintain hot water at all fixtures.

Vacation Mode: After 36 hours of no hot water usage, the SmartPlug will automatically turn the circulator OFF and remain off until hot water usage is detected.

Exercise Function: While in vacation mode the SmartPlug will cycle the circulator for 10 seconds every 7 days to prevent any corrosion or scale build up.



LED Indicator lights:

Green: Power

Yellow: Mode Setting

Red: Error code diagnostics



Part

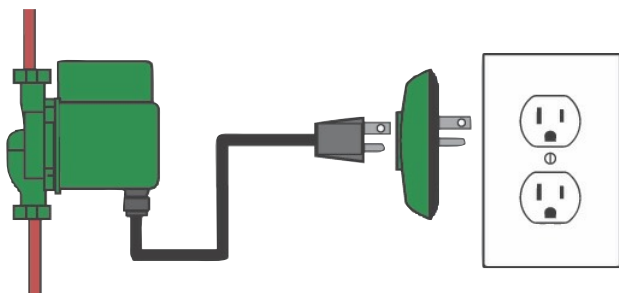
SP115-1

Benefits

- **Easy to install:** Upgrades any recirculation pump to "Smart" operation.
- **Water conservation:** The average residence can save up to 12,000 gallons* of water per year by eliminating the wait for hot water to arrive at fixtures and taps.
- **Comfort and convenience:** Hot water is available in seconds. No timers or programming required.
- **Efficiency:** "Smart" setting maximizes hot water comfort and energy savings.
- **Reliability:** The SmartPlug, when combined with a Taco domestic hot water circulator, provides whisper quiet operation and industry leading electronics for proven performance and dependability.

***Source: Department of Energy study**

 **US FOR INDOOR USE ONLY**



For use with any Taco domestic hot water circulator with a 110 Volt Line Cord.

SmartPlus-e® Hot Water Recirculation System

A bundle of efficiency for instant **hot water** when you need it.

SmartPlus-e®

ECM High-Efficiency **Hot Water** Recirculation System

Part Number

SPE-1

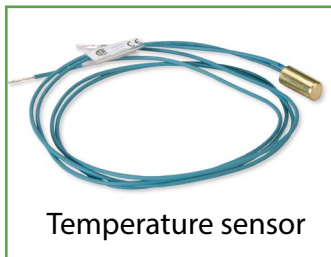
Perfect for systems with a tank water heater and dedicated hot water return line, the SmartPlus-e combines the high-efficiency of the 006e3® ECM circulator and the intelligence of the award-winning SmartPlug Instant Hot Water Control®. A one-two punch that delivers instant hot water comfort while saving energy and water – up to 12,000 gallons a year! With **SureStart®** automatic unblocking and air purging, you can expect years of trouble-free performance from Taco, the leader in reliability. –**Install it, forget it®**.



Ideal for systems with a **tank water heater & dedicated hot water return line**

- Quick & easy Installation:
 - 3 easy settings
 - Multiple connection options available
 - No aquastat, no timer, no programming
- High-efficiency ECM motor uses up to 85% less electricity
- Saves time & energy
 - Learns hot water usage patterns
 - Maximizes hot water comfort & energy savings
- SmartPlug Instant Hot Water Control®
 - **Smart Mode**
 - **Pulse Mode**
 - **Vacation Mode**
 - **Exercise Function**
- Unmatched customer service & technical support

SmartPlus-e Bundle Includes:



Hot LinkPlus-e® Hot Water Recirculation System

A bundle of efficiency for instant **hot water** when you need it.

HotLinkPlus-e®

ECM High-Efficiency **Hot Water** Recirculation System

Part Number	HLPe-1
-------------	--------

Enjoy instant hot water comfort while avoiding a major renovation. The Hot-LinkPlus-e system installs easily into existing plumbing with a tank water heater. No dedicated hot water return line is needed! The system combines the ECM high-efficiency 006e3® hot water circulator with the award-winning SmartPlug Instant Hot Water Control® and Hot-Link® Valve for maximum comfort and efficiency. Enjoy water savings of up to 12,000 gallons per year. You can expect trouble-free performance reinforced by **SureStart®** automatic unblocking and air purging. Ideal for retrofits, the Hot-LinkPlus-e requires no programming and is built with the reliability that's made Taco famous.

-Install it, forget it.®



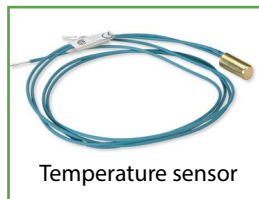
Instant hot water for existing plumbing systems; **no dedicated return line needed**

- Fully automatic
 - Never needs programming
- Ideal for retrofits
 - No dedicated return line needed
 - Uses existing plumbing
- Saves time & energy
 - Learns hot water usage patterns
 - Conserves by providing instant hot water
- SmartPlug Instant Hot Water Control®
 - **Smart Mode**
 - **Pulse Mode**
 - **Vacation Mode**
 - **Exercise Function**
- High-efficiency ECM motor uses up to 85% less electricity
- Unmatched customer service & technical support

Hot-LinkPlus-e Bundle Includes:



6ft.
power
cord



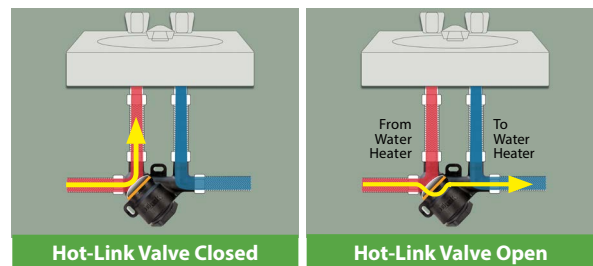
Temperature sensor



3/4" NPT male &
female union fittings



Flex hoses



Hot-Link Valve Closed

Hot-Link Valve Open



Hot Link® Hot Water Recirculation System



Ingenious instant hot water

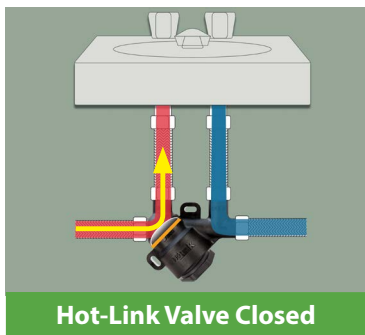


**Instant hot water.
No additional plumbing
or electrical needed!**

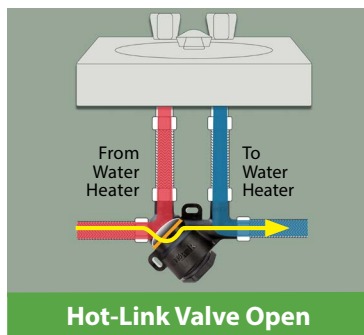
Hot-Link® is a quick, easy retrofit using the existing plumbing. Mount the valve under the sink furthest from the water heater and the pump at the water heater. The valve's unique thermal disc technology sends cooled water to the water heater so hot water lines remain hot.

Cleaning made easy.

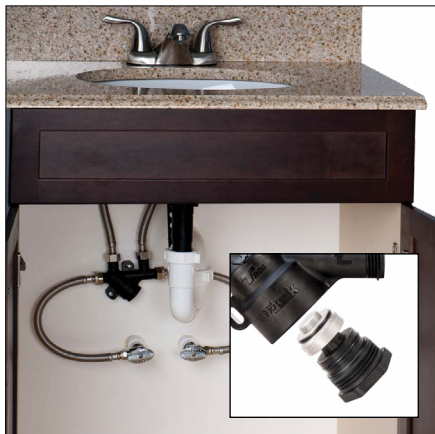
There's no need to remove the Hot-Link valve from the piping to keep it clean. Our exclusive clean-in-place design makes short work of keeping the system operating properly.



Hot-Link Valve Closed



Hot-Link Valve Open



Part Number

HLS-2

Features:

- Exclusive clean in place under sink valve design
 - Extends valve life
 - Reduces customer calls to replace "plugged" valves
- Creates a domestic hot water recirculation system without dedicated return loop piping
- Easy to retrofit to existing plumbing system
- Conserves water by greatly reducing the time it takes to get hot water
- Analog pump timer allows you to set the system to work during peak hours or to work continuously
- 3 Year Warranty

The HotLink System Includes:

- Hot-Link Valve
- Hot-Link Circulator
- (2) Braided Flex Hoses
- (2) 3/4" NPT Brass Half Unions (Male x Female)

Materials of Construction

Circulator:

Casing (Volute)	Stainless Steel
Stator Housing.....	Steel
Cartridge.....	Stainless Steel
Impeller	Noryl®
Shaft.....	Ceramic
Bearings.....	Carbon
O-Ring.....	EPDM

Hot Link Valve:

Body	Nylon
Thermal Disc Actuator.....	Bi-Metal
O-Ring Seals	EPDM
Integral Flow Check (IFC*):	
Body Plunger	Acetal
O-Rings	EPDM
Screen.....	304 SS
Stem.....	Nylon
Actuator Cartridge.....	Stainless Steel
Braided Flex Hoses.....	Stainless Steel

TacoGenie® Hot Water Recirculation System

Hot water without the waste! Activate TacoGenie only when you need it. It's easy to install – no new piping required. The TacoGenie operates 24 hours a day, saving water, energy and money. TacoGenie only runs when you tell it to, and it's smart enough to know when the water currently in the line is hot enough. TacoGenie can be activated with the push of a button, or with an optional wireless remote transmitter/receiver or optional hard-wired motion sensor.

TacoGenie®

TacoGenie Water Recirculation System				
Part #	Connection Sizes	Motor		
		Voltage	RPM	HP
006-CT	1/2" Male NPT	115/60/1	3250	1/40
006-CT-USK	1/2" Male NPT, With Plumbing Kit	115/60/1	3250	1/40
008-CT	1/2" Male NPT	115/60/1	3250	1/25
008-CT-USK	1/2" Male NPT, With Plumbing Kit	115/60/1	3250	1/25
0011-CF	3/4" Shut-Off Flange	115/60/1	3250	1/8
0011-CF-USK	3/4" Shut-Off Flange, With Plumbing Kit	115/60/1	3250	1/8

TacoGenie — Accessories		
Part #	Description	What It Does
554-7	Remote Transmitter	To Start System With Wireless Remote Control
554-8	Individual Remote Transmitter	For Wireless Remote Control At Multiple Locations
554-3	Individual Starter Button	For Hard-Wired Starter Control At Multiple Locations
554-4	Motion Sensor Starter Kit	For Automatic Motion Detection Start

TacoGenie — Sizing		
Part #	008-CT-USK	0011-CF-USK
Standard Plumbing And Distance Between Tankless Water Heater And Fixture Where TacoGenie Is Installed	Under 60 Ft.	Over 60 Ft.
Re-Circulation Plumbing And Square Footage Of House	Under 2,500 Sq. Ft.	Over 2,500 Sq. Ft.

C = TacoGenie
T = Threaded
F = Flanged
USK = Under Sink Kit



RF Wireless Starter Kit (554-7)



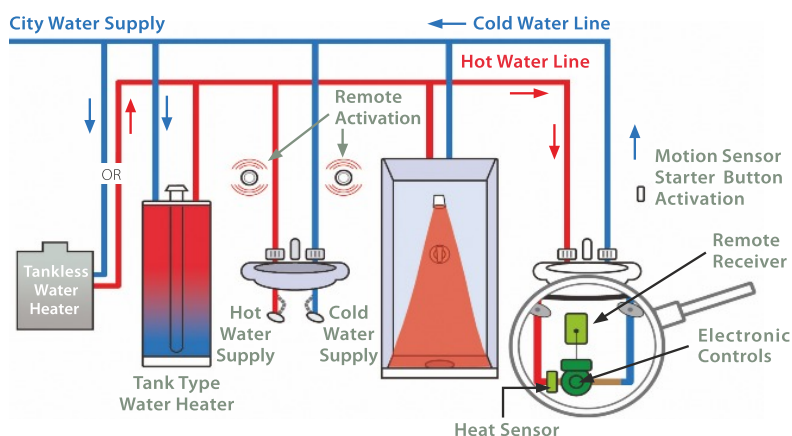
Motion Sensor (554-4)



Standard with USK* (Under Sink Kit) option



Available in 006, 008 and 0011 circulators



For Standard Piping (No Return Line)

SmartPlus® Hot Water Recirculation System

The Taco SmartPlus circulator is designed to deliver instant hot water comfort and convenience while conserving water and energy. By recirculating “cooled” hot water back to the water heater, the wait for hot water is decreased to seconds. The SmartPlus is designed for use with dedicated return line systems.

SmartPlus recirculation pumps can work in one of two modes of operations. The “Smart” mode learns the home’s hot water usage over a 7 day period and uses this pattern to cycle the pump. Pulse mode runs the circulator every 10 minutes to maintain hot water. The run time is adjustable from 1 to 10 minutes.

SmartPlus® HOT WATER RECIRCULATION

Features and Benefits

- **Vacation Function** — After 36 hours of inactivity, the pump will automatically TURN OFF and remain off until hot water usage is detected again.
- **Exercise Function** — While in vacation mode the pump will cycle on once every 7 days and run for 10 seconds to prevent any corrosion or scale buildup.
- **Factory installed 6’ line cord**
- **Remote Sensor Included**
- **Quiet, Efficient Operation**
- **Unique Replaceable Cartridge Design - Field Serviceable**
- **Self-Lubricating / No Mechanical Seal**
- **Unmatched Reliability - Maintenance Free**
- **Water Conservation** — The average residence can save up to 12,000 gallons of water per year.
- **Comfort and Convenience** — Once the pump is set to the desired operating mode it never needs to be set again. Hot water is always available in seconds.
- **Efficiency** — Smart/Pulse operation maximizes hot water comfort and energy savings
- **Reliability** — The SmartPlus® provides quiet operation and industry leading electronics with Taco’s 00® circulator proven performance and dependability.



The smart way to instant **hot** water comfort and resource conservation



Part #	Connection
008-IQSF6	Flanged
008-IQSF6-IFC	Flanged

Pump Selection Charts Below

The following information is provided as a guide only. Select the circulator based on the supply and return pipe size, pipe line length, and circulator model. Do not oversize the pump or high velocity noise and erosion corrosion of the system piping may result.

1/2" Supply and Return Lines

Part #	Supply Pipe Maximum Length (Ft.)	Total Maximum Pipe Length (Ft.)
008	250	450

3/4" Supply and Return Lines

Part #	Supply Pipe Maximum Length (Ft.)	Total Maximum Pipe Length (Ft.)
008	300	600

Plumb n' Plug® Hot Water Recirculation System

The Plumb n' Plug Cartridge Circulators are designed to conserve water, increase comfort and reduce the delivery time of hot water to outlet fixtures by periodically re-circulating hot water through the system. An average residence can save up to 25 gallons of wasted water per day. Factory pre-wired 6 foot line cord with optional 24 hour analog or 7 day digital programmable clock timers allow for easy installation. Simply Plumb it in, then Plug it in.

Features and Benefits

Analog Timer (Part# 265-1)

- Factory installed 6' line cord and 24 hour/15 minute interval analog timer
- Optional 95°F –115°F aquastat available
- Quiet, efficient operation
- Unique replaceable cartridge design, field serviceable
- Unmatched reliability, maintenance free

Digital Timer (Part# 265-3)

- Digital timer, 7 day programmable LCD display
- Easy-to-Use program buttons
- On/Off intervals as short as 1 minute
- 2,500 hour capacitor backup, saves settings

Aquastat (Part# 563-1)



Available in Stainless Steel or Bronze

Part# Nomenclature

BC: Bronze, 1/2" Sweat
B: Bronze, 3/4" Sweat
ST: Stainless Steel, 3/4" FNPT
SC: Stainless Steel, Union Connection
PNP: Plumb n' Plug
SF: Stainless Steel, Flanged



Analog Timer		Digital Timer		Analog Timer		Digital Timer	
Part #	Connection	Part #	Connection	With Integral Flow Check (IFC)®			
003-BC4-PNP	1/2" Sweat	003-BC4-8PNP	1/2" Sweat	Part #	Connection	Part #	Connection
003-B4-PNP	3/4" Sweat	003-B4-2PNP	3/4"Sweat	003-BC4-3PNP	1/2"Sweat	003-BC4-11PNP	1/2"Sweat
003-ST4-PNP	3/4" FNPT	003-ST4-2PNP	3/4" FNPT	003-BC4-2PNP	3/4" Sweat	003-BC4-10PNP	3/4"Sweat
003-SC4-1PNP	Union	003-SC4-3PNP	Union	005-SF2-1PNP	SS Flanged	006-BC7-SPNP	1/2"Sweat
005-SF2-PNP	SS Flange	006-BC4-4PNP	1/2" Sweat	006-BC7-1PNP	1/2" Sweat	006-BC7-4PNP	3/4"Sweat
006-BC4-PNP	1/2" Sweat	006-B4-2PNP	3/4" Sweat	006-BC7-PNP	3/4" Sweat	----	----
006-B4-PNP	3/4" Sweat	006-ST4-2PNP	3/4" FNPT	----	----	----	----
006-ST4-PNP	3/4" FNPT	006-SC4-3PNP	Union	----	----	----	----
006-SC4-1PNP	Union	----	----	----	----	----	----

00® Series NSF Circulators

Every Taco 00 cartridge circulator is designed to make the job easier. With no mechanical seal, the self-lubricating design provides unmatched reliability. **Every 00 features a field-replaceable cartridge** that contains all the moving parts. Replacing the cartridge rebuilds the circulator! Our IFC® cartridge circulators feature an Integral Flow Check, eliminating additional installation costs associated with separate in-line flow checks.

Features

- Standard high capacity output, compact design
- Quiet, efficient operation
- Direct drive, low power consumption
- Unique replaceable cartridge design, field serviceable
- Self-lubricating
- No mechanical seal
- Unmatched reliability, maintenance free
- Universal flange-to-flange dimension
- Integral Flow Check (IFC) available
- Most available in 230 volt
- Connection Sizes: 3/4", 1", 1-1/4" and 1-1/2"



Low-Lead
Compliant



007-SF5 (Stainless Steel)

00 Series NSF Circulators

Part#	Construction	Connection	Part#	Construction	Connection
003-BC4	Bronze	1/2" Sweat	007-SF5	Stainless Steel	Flanged-Standard
003-B4	Bronze	3/4" Sweat	008-SF6	Stainless Steel	Flanged-Standard
003-ST4	Stainless Steel	3/4" NPT	008-SF6-2	Stainless Steel	Flanged-Rotated
003-SC4-1	Stainless Steel	Union	009-SF5	Stainless Steel	Flanged-Rotated
005-SF2	Stainless Steel	Flanged-Standard	0010-SF3	Stainless Steel	Flanged-Standard
006-BC4	Bronze	1/2" Sweat	0011-SF4	Stainless Steel	Flanged-Rotated
006-B4	Bronze	3/4" Sweat	0012-SF4	Stainless Steel	Flanged-Standard
006-ST4	Stainless Steel	3/4" NPT	0012-SF4-1	Stainless Steel	Flanged-Standard
006-SC4-1	Stainless Steel	Union	0013-SF3	Stainless Steel	Flanged-Rotated
008-BC6	Bronze	3/4" NPT	0014-SF1	Stainless Steel	Flanged-Rotated

00[®] Series 3-Speed NSF Circulators

All 00 3-speeds include our replaceable cartridge design and an Integral Flow Check (IFC[®]) which prevents gravity flow, reduces installation costs and improves system performance. The stainless steel 00 3-speeds are NSF/ANSI 372 listed for low lead compliance.

Features

- 3-speed switch
- Fine tune to system requirements
- Highest performance & starting torque in class
- Heavy duty construction for longer life
- Removable high-flow Integral Flow Check (IFC[®])
 - Prevents gravity flow
 - Reduces installation costs
 - Improves pump performance
- Replaceable cartridge design
- Quiet, efficient operation
- Self lubricating, no mechanical seal
- Wide range of applications
- Stainless Steel, flanged construction
- Connection Sizes: 3/4", 1", 1-1/4" and 1-1/2"

Models 0012 & 0013 3-Speed



Model 0015 3-Speed



Pump Models

Part #	Type	Flange
0015-MSSF3-IFC	SS	S
0015-MSSF3-1IFC	SS	R
0012-MSSF2-IFC	SS	S
0013-MSSF2-IFC	SS	R



Low-Lead
Compliant

2400 Series Stainless Steel, High Capacity Circulators

The enhanced 2400 Series High Capacity Circulators include a new 3 piece rotating mechanical seal (carbon/silicon-carbide) configuration and a pressure-balanced impeller. The Stainless Steel 2400 Series should be used for open loop, domestic water recirculation systems.

Features

- Compact, space saving design
- Powerful close-coupled, maintenance free motor
- Superior efficiency, high starting torque
- Permanently lubricated, sealed for life bearings
- Rugged 1/2" Stainless Steel Shaft
- Carbon/Silicon-Carbide mechanical seal for long life
- Universal flange to flange dimensions — Ideal for retrofits
- Anti-Condensate design for chilled water
- Dual electrical knock-outs
- Dual pressure taps, suction / discharge
- Noryl® Impeller

Part Numbers and Electrical Data

Stainless Steel	Hz	Ph	115V Amps	230V Amps	RPM	HP
2400-10S-3P	60	1	1.9	NA	3450	1/6
2400-20S-3P	60	1	1.9	1.0	3450	1/6
2400-30S-3P	60	1	1.9	1.0	3450	1/6
2400-40S-3P	60	1	1.9	1.0	3450	1/6
2400-45S-3P	60	1	3.6	1.7	3450	1/3
2400-50S-3P	60	1	4.9	2.4	3450	1/2
2400-50S/2-3P	60	1	4.9	2.4	3450	1/2
2400-60S-3P	60	1	1.9	1.0	3450	1/6
2400-65S-3P	60	1	3.6	1.7	3450	1/3
2400-70S-3P	60	1	4.9	2.4	3450	1/2
2400-70S/3-3P	60	1	4.9	2.4	3450	1/2
Motor Type	Open Drip Proof, Permanent Split Capacitor, Thermally Protected					



Stainless Steel Models Only



Low-Lead
Compliant

Model Nomenclature

S: Stainless Steel, Flanged, NSF 61 & 372

Y: 230V / 60 / 1 Motor

Performance Data

Maximum Flow: 90 GPM

Maximum Head: 46 Feet

Minimum Fluid Temp: 40°F (4°C)

Maximum Fluid Temp: 225°F (107°C)

Maximum Working Pressure: 150 psi

Noryl® is a registered trademark of
General Electric Co.

For Indoor Use Only

Freedom Flange®

The Taco freedom FLANGE fits 00®, 110 Series, 2400 Series and all small 00e® ECM high-efficiency circulators. Be free from scraped knuckles and jury-rigged tools of yesteryear! Their Easy-On / Easy-Off and sweat designs make quick work of pump installation and maintenance. Available in Stainless Steel, Bronze, or Brass.



Shut-off Freedom Flange®



Low-Lead Compliant



Stainless Steel Freedom Flange®



Bronze Freedom Flange®



freedom **FLANGE®**

Size	# of Bolts	Standard or High Velocity	Bronze NPT	Bronze SWT	Stainless NPT	Ductile Cast Iron NPT	PRESS Isolation Flange	SWT Isolation Flange	NPT Isolation Flange	Pumps Covered
1/2"	2	STD	---	110-522BSFL	---	---	---	SFL-050S	SFL-050T	0026e, 0034e, 0034ePlus, VR3452, VT2218, 0018e, VR1816, 0015e3, 007e, 005, 007-0011, 0013-0015, 110-113, 2400-10,20,45,50
3/4"	2	STD	---	110-523BSFL	110-251SF	110-251F	SFL-075P	SFL-075S	SFL-075T	
1"	2	STD	---	110-524BSFL	110-252SF	110-252F	SFL-100P	SFL-100S	SFL-100T	
1-1/4"	2	STD	---	110-525BSFL	110-253SF	110-253F	SFL-125P	SFL-125S	SFL-125T	
1-1/4"	2	HV	---	---	194-1540SF	194-1540F	---	SFL-125S-0012	SFL-125T-0012	2400-30, 40
1-1/2"	2	STD	---	110-522BSFL	110-254SF	110-254F	SFL-150P	SFL-150S	SFL-150T	0026e, 0034e, 0034ePlus, VR3452, VT2218, 0018e, VR1816, 0015e3, 007e, 005, 007-011, 0013-0015, 110-113, 2400-10,20,45,50
1-1/2"	2	HV	---	---	194-1542SF	194-1542F	---	SFL-150S-0012	SFL-150T-0012	0012, 2400-30, 40
2"	2	HV	---	---	---	194-2124F	---	---	---	0012
2"	4	HV	185-086S	---	---	185-086C	---	---	---	2400-60, 65, 70
2-1/2"	4	HV	185-112S	---	---	185-112C	---	---	---	2400-70/3
3"	4	HV	185-113S	---	---	185-113C	---	---	---	2400-70/3

5000 Series Mixing Valve

Control hot water temperatures to your domestic system with mixing valves available for point of use (ASSE1017) and point of distribution (ASSE1070) installations. The expanded line up of 5000 and 5120 series is the ultimate performer for increasing domestic hot water availability and safety.



5000 Lead-Free Series



5120 Lead-Free High Flow Series



5120 Lead-Free Series



5123-WH-N Series (Direct Mount)



All union models are available with a stainless steel temperature gauge as shown here.



Thermostatic Mixing Valves

Part #	Description
Mixing Valves (ASSE 1017) Adjustment 85-176F – All Union Valves Include Built-In Check Valves	
5000-3	BODY ONLY (Does not include connectors)
5002-B3	1/2" UNION CPVC
5002-C3	1/2" UNION SWEAT
5002-P3	1/2" UNION PEX
5002-T3	1/2" UNION NPT
5002-H3	1/2" PRESS UNION
5003-B3	3/4" UNION CPVC
5003-C3	3/4" UNION SWEAT
5003-N3	3/4" FEMALE NPT
5003-P3	3/4" UNION PEX
5003-T3	3/4" UNION NPT
5003-H3	3/4" UNION PRESS
5004-C3	1" UNION SWEAT
5004-P3	1" UNION PEX
5004-H3	1" UNION PRESS

Part #	Description
Mixing Valves (Dual ASSE 1070 and ASSE 1017) Adjustment 85-120F – All Union Valves Include Built-In Check Valves	
5120-2	BODY ONLY (Does not include connectors)
5122-B2	1/2" UNION CPVC
5122-C2	1/2" UNION SWEAT
5122-P2	1/2" UNION PEX
5122-T2	1/2" UNION NPT
5122-H2	1/2" UNION PRESS
5123-B2	3/4" UNION CPVC
5123-C2	3/4" UNION SWEAT
5123-N2	3/4" FEMALE NPT
5123-P2	3/4" UNION PEX
5123-T2	3/4" UNION NPT
5123-H2	3/4" UNION PRESS
5124-C2	1" UNION SWEAT
5124-P2	1" UNION PEX
5124-H2	1" UNION PRESS

Part #	Description
Mixing Valves High Flow (ASSE 1017) Adjustment 85-176F - Includes Built-In Check Valves	
5124-HF-C1	Thermostatic Mixing / Tempering Valve, 1" Sweat Union, High Flow
5125-HF-C1	Thermostatic Mixing / Tempering Valve, 1-1/4" Sweat Union, High Flow

Part #	Description
Mixing Valves Direct Mount (ASSE 1070 & 1017) Adjustment 90-130F - Includes Built-In Check Valves and Recirc Connections	
5123-WH-N3	Direct Mount Thermostatic Mixing / Tempering Valve, 3/4" NPT x 3/4" NPSH
5120G-1	Outlet Adapter, Union and Temperature Gauge

Part #	Description
Compact Mixing Valve (ASSE 1070) Adjustment 95-118F - Includes Built-In Check Valves	
5121-F2	3/8" Flexible Hose or Compression 3/8" OD Tube
5121-L2	Includes Tee and Elbow

ALL MODELS INCLUDE OUTLET TEMPERATURE STRIP

Formulas & Reference Information

Universal Hydronics Formula:

$$\text{GPM} = \text{BTUH} \div (\Delta T \times 500)$$

Pipe Sizing Guidelines:

$$2-4 \text{ GPM} = \frac{3}{4}''$$

$$4-9 \text{ GPM} = 1''$$

$$8-14 \text{ GPM} = 1\frac{1}{4}''$$

$$14-22 \text{ GPM} = 1\frac{1}{2}''$$

Calculating Head Loss using Cv Rating:

$$(\text{Flow} \div \text{Cv})^2 \times 2.31 = \text{Head Loss}$$

Head Loss (Copper Piping):

Easy Way (estimating)

1. Measure length of the run
2. Multiply by 1.5 (fittings, valves, etc)
3. Multiply by .04 (4' head/100' of straight, properly sized pipe)

$$\text{BTU/hr (water@ 68°F)} = \text{GPM} \times 500 \times \Delta T \text{ (°F)}$$

$$\text{BTU/hr (30\% E. glycol@ 68°F)} = \text{GPM} \times 445 \times \Delta T \text{ (°F)}$$

$$\text{BTU/hr (50\% E. glycol@ 32°F)} = \text{GPM} \times 395 \times \Delta T \text{ (°F)}$$

Piping Water Content:

Copper - Gallons per foot	
1/2"	0.016
3/4"	0.027
1"	0.046
1-1/4"	0.068
1-1/2"	0.096

PEX - Gallons per 100'	
3/8"	0.497
1/2"	0.917
5/8"	1.392
3/4"	1.832
1"	3.067

SDR9 PEX Pressure Drop Per/Ft. of Pipe					
GPM	3/8"	1/2"	5/8"	3/4"	1"
8.0	11.31	2.48	0.93	0.44	0.12
7.8	10.61	2.32	0.87	0.41	0.12
7.5	9.94	2.18	0.81	0.39	0.11
7.3	9.29	2.03	0.76	0.36	0.10
7.0	8.66	1.90	0.71	0.34	0.09
6.8	8.05	1.76	0.66	0.31	0.09
6.5	7.46	1.63	0.61	0.29	0.08
6.3	6.90	1.51	0.57	0.27	0.08
6.0	6.36	1.39	0.52	0.25	0.07
5.8	5.84	1.28	0.48	0.23	0.06
5.5	5.34	1.17	0.44	0.21	0.06
5.3	4.87	1.07	0.40	0.19	0.05
5.0	4.42	0.97	0.36	0.17	0.05
4.8	3.99	0.87	0.33	0.15	0.04
4.5	3.58	0.78	0.29	0.14	0.04
4.3	3.19	0.70	0.26	0.12	0.03
4.0	2.83	0.62	0.23	0.11	0.03
3.8	2.55	0.56	0.21	0.10	0.03
3.6	2.29	0.50	0.19	0.09	0.03
3.4	2.04	0.45	0.17	0.08	0.02
3.2	1.81	0.40	0.15	0.07	0.02
3.0	1.59	0.35	0.13	0.06	0.02
2.8	1.39	0.30	0.11	0.05	0.02
2.6	1.19	0.26	0.10	0.05	0.01
2.4	1.02	0.22	0.08	0.04	0.01
2.2	0.86	0.19	0.07	0.03	0.01
2.0	0.71	0.15	0.06	0.03	0.01
1.8	0.57	0.13	0.05	0.02	0.01
1.6	0.45	0.10	0.04	0.02	
1.4	0.35	0.08	0.03	0.01	
1.2	0.25	0.06	0.02	0.01	
1.0	0.18	0.04	0.01	0.01	
0.8	0.11	0.02	0.01		
0.6	0.06	0.01	0.01		
0.4	0.03	0.01			
0.2	0.01				
0.0					

TECHNICAL DATA

Water Pressure Conversion Table	
Change PSI To Ft. of Heat	
PSI	Ft. of Head
1	2.31
2	4.62
3	6.96
4	9.24
5	11.54
6	13.85
7	16.16
8	18.47
9	20.78
10	23.09
15	34.63
20	46.18
25	57.72
30	69.27

Conversion Factors	
HEAT	
1 BTU = Amount of heat required to raise the temperature of 1 Lb. of water 1°F.	
1 Kilowatt Hr. = 3412 BTU	
1 Therm = 100,000 BTU	
1 Decitherm = 10,000 BTU	
1 Lb. "Propane" gas = 6.3 KWH electrically	
1 Therm - 4.65 lbs. "Propane" Gas	
1 Lb. "Propane" Gas = 2.15 Decitherms	
HEATING VALUES OF VARIOUS FUELS	
Coal = 25 Million BTU Per Ton (Average)	
1 Ton Coal = 2 Cords Wood (Approx.)	
Oil (Domestic Grades) = 136,000 to 140,000 BTU Per Ga.	
Gas (Manufactured) = 500 to 550 BTU Per Cu. Ft.	
Gas (Natural) = 1000 to 1100 BTU Per Cu. Ft.	
Gas (Propane) = 2509 BTU Per Cu. Ft. = 21,500 BTU Per Lb.	
91,160 BTU Per Ga.	
Gas (Butane) = 3200 BTU Per Cu. Ft. = 21,300 BTU Per Lb.	
100,000 BTU Per Ga.	
TEMPERATURE	
To convert from degrees Centigrade (C) to degrees Fahrenheit (F), multiply the number of degrees C, by 9/5 (or 1.8) and add 32. To convert from degrees Fahrenheit (F) to degrees Centigrade (C), first subtract 32 from the number of degrees F, then multiply the remainder by 5/9 (or 0.556).	
PRESSURE	
1 Oz. Per Sq. In. = 1.73 In. Water	
1 In. Mercury = 7.85 Oz. Per Sq. In.	
1 In. Mercury = 13.6 In. Water	
1 In. Water Column = 0.578 Per Sq. In.	
1 Oz. Per Sq. In. = 0.127 In. Mercury	
1 In. Water = 0.0735 In. Mercury	
1 Lb. Per Sq. In. = 16 Oz. Per Sq. In. = 2.036 In. Mercury = 27.7 In. Water	
1 Atmosphere = 14.7 Lb. Per Sq. In. = 760 MM Mercury = 29.92 In. Water	

Circulator Sizing & Selection Guide

How To Select a Circulator...

► Step 1: Establish the "Target Flow Rate" for the system.

Calculate the amount of heat the fluid will need to carry and the temperature drop across the heat load or circuit. Determine this by performing a heat loss calculation on the zone that the circulator is serving. Once the heat loss is determined, enter the Btu/hr heat loss load and the desired temperature drop into the following formula.

$$\text{Flow (GPM)} = \text{Btu's} \div (500 \times \Delta T)$$

***Note:** 500 is the constant for 100% water. Use 479 for 30% glycol & 450 for 50% glycol.

***Note:** If unsure which ΔT to use then try 20°F for hydronic systems, 20°F for non-condensing boiler pump, 30°F for condensing boiler pump and 30° for snowmelt.

► Step 2: Figuring Feet of Head.

All pipe presents resistance to the fluid flowing through it. The faster the water flows, the greater the resistance. To find resistance, add the various lengths of pipe runs in the circuit served by the circulator.

In cases of parallel circuits, like radiant floor manifolds, use the loop with the greatest resistance, typically the longest length. If the pump head is figured for the circuit with the most resistance then it will also handle the circuits with lower resistance.

As a rule of thumb to get total equivalent length (T.E.L.) add total length of pipe and multiply by 1.5. This will get you close to figuring in for the resistance of fittings, valves, etc.

*Understand that Rules of Thumb are best estimates based on industry standards. Large projects, consulting proper charts for more detailed figures is strongly recommended.

Now take your (T.E.L.) and multiply by X .04 and this gives you your ft. hd.

Example: You have 75 feet of pipe out through your circuit and back. You take 75' X 1.5= 112.50 this is your (T.E.L.) Now take your (T.E.L.) and multiply by .04 ex. 112.50 X .04= 4.5 ft. hd.

► Step 3: Add it all up.

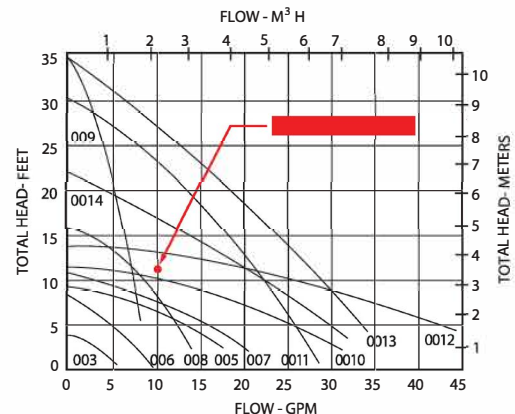
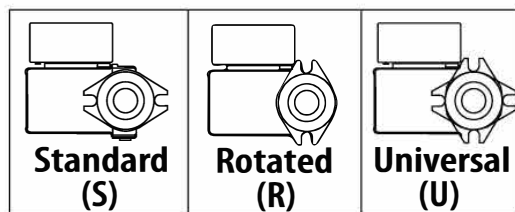
Now that all the pressure drops through the various piping and components are known, the pump can be sized. To do this, consult the pump curves provided in this catalog or use the sizing wizard on Taco's website:

www.taco-hvac.com/wizard_pumps.html#. For a quick search, enter your flow and head into the web sizing program and click search.

Example

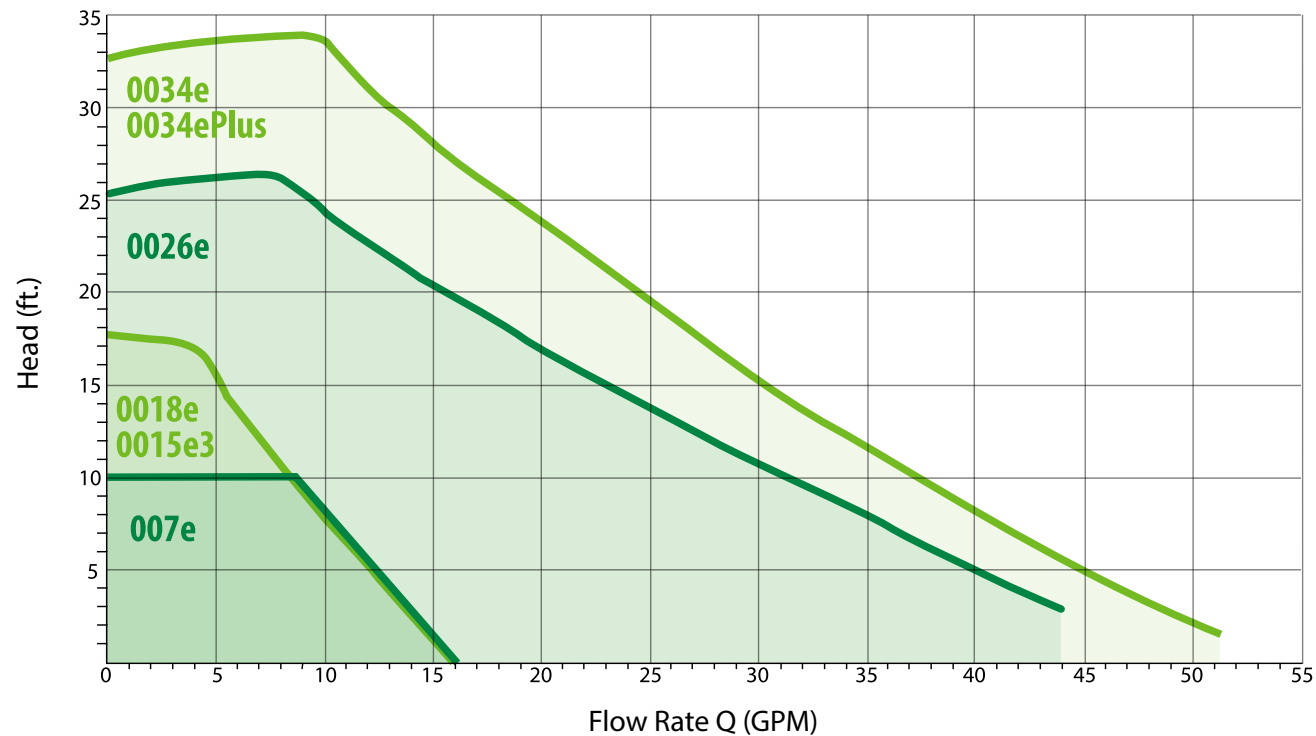
System parameters are 10 gpm @ 11.3 ft of head. To select the ideal curve, draw a line starting at 0 through the selection parameters. Chose the curve that intersects somewhere in the middle of the third curve. In this scenario, the pumps that satisfy the requirements include 0011, 0012, 0013 or 0014.

Flange Orientation
3-Speed, 00® Series,
and 00e® Series





Family of Curves



007e
ECM HIGH-EFFICIENCY CIRCULATOR

ECM performance equivalent to the legendary Taco 007 circulator, with Green Mode

0015e3
ECM HIGH-EFFICIENCY CIRCULATOR

2 constant pressure,
1 fixed speed,
Green Mode

0018e
ECM HIGH-EFFICIENCY CIRCULATOR

9 constant pressure,
9 proportional pressure,
infinitely variable fixed speed, activeADAPT®

0026e
ECM HIGH-EFFICIENCY CIRCULATOR

2 constant pressure,
1 fixed speed,
activeADAPT®, 0-10V or PWM

0034e
ECM HIGH-EFFICIENCY CIRCULATOR

2 constant pressure,
1 fixed speed,
activeADAPT®, 0-10V or PWM

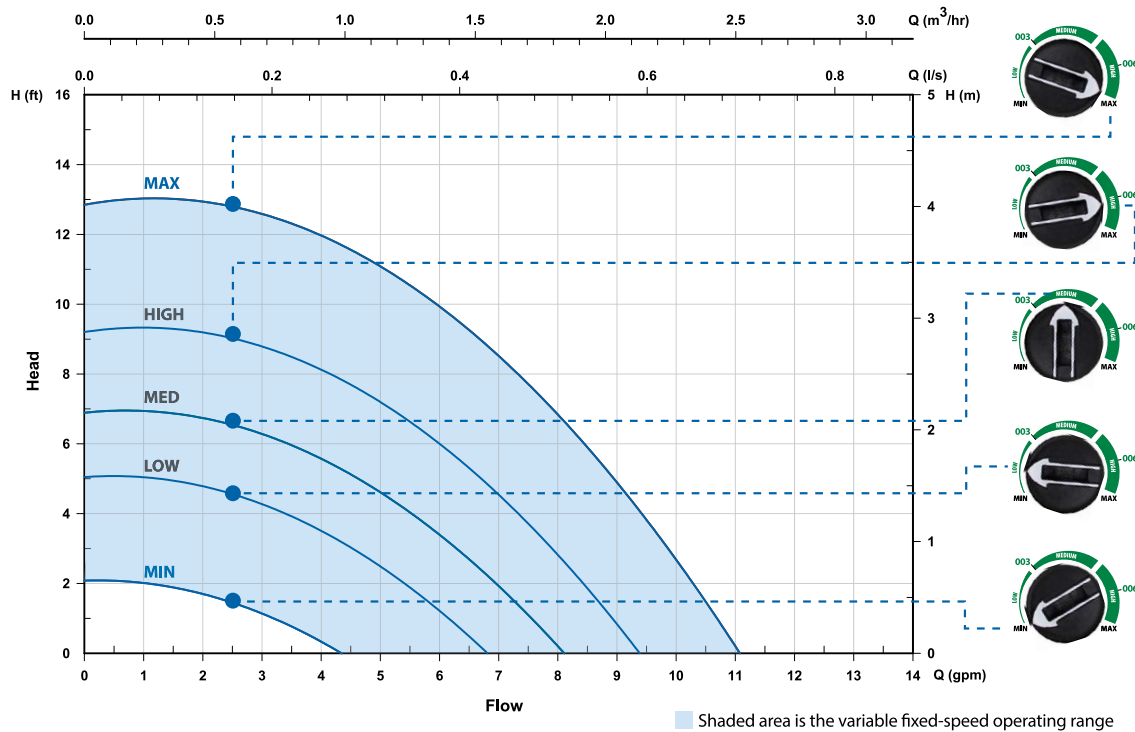
0034ePlus
ECM HIGH-EFFICIENCY CIRCULATOR

5 constant pressure,
5 proportional pressure,
infinitely variable fixed speed, activeADAPT®, 0-10V or PWM

Pump Curves

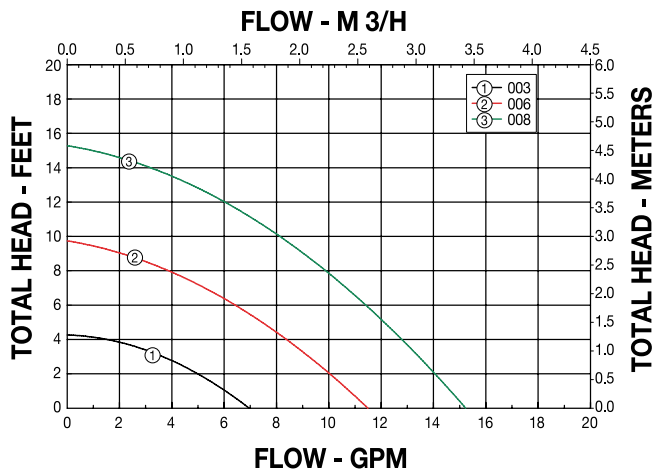


Performance Curves 115V / 60Hz

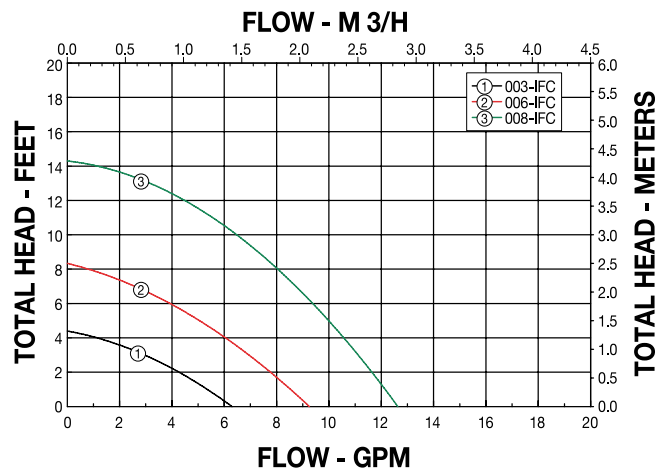


Plumb n' Plug® Circulators

(STD) Models

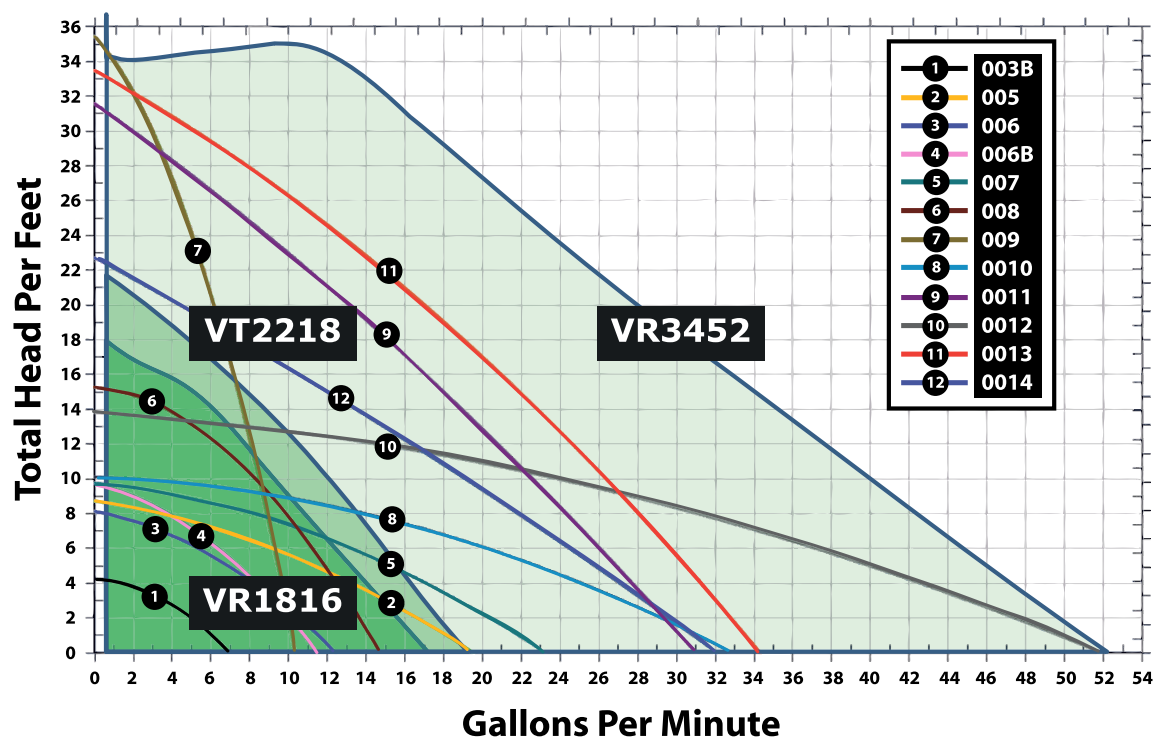


(IFC) Models

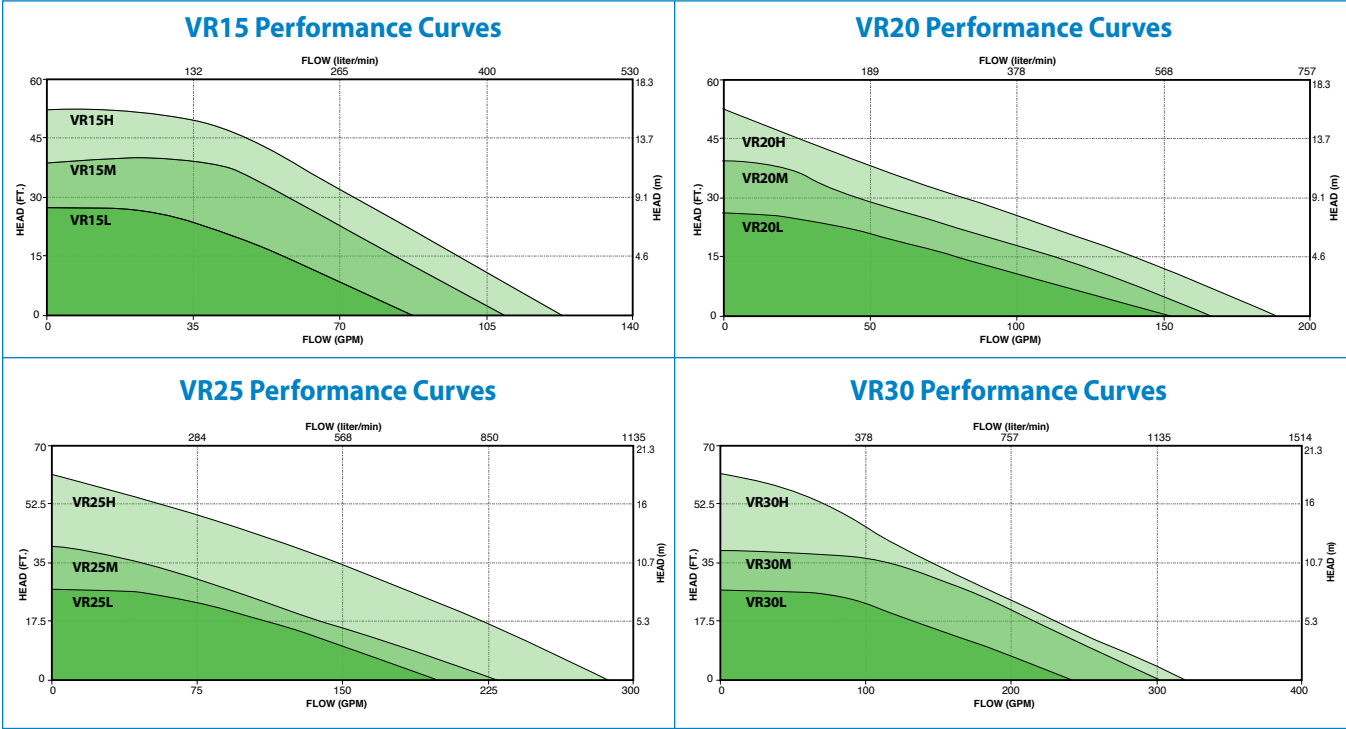


Pump Curves

VR1816, VT2218, VR3452 ECM vs Single Speed

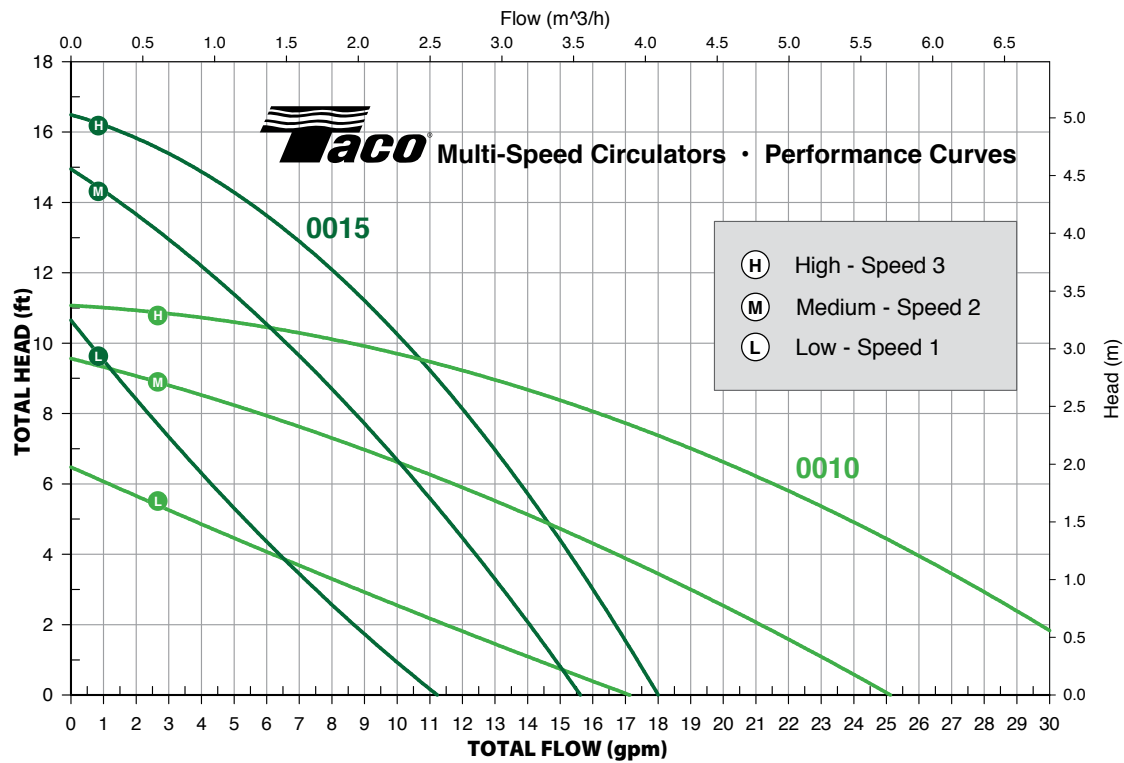


VR15, 20, 25, 30 Performance Curves

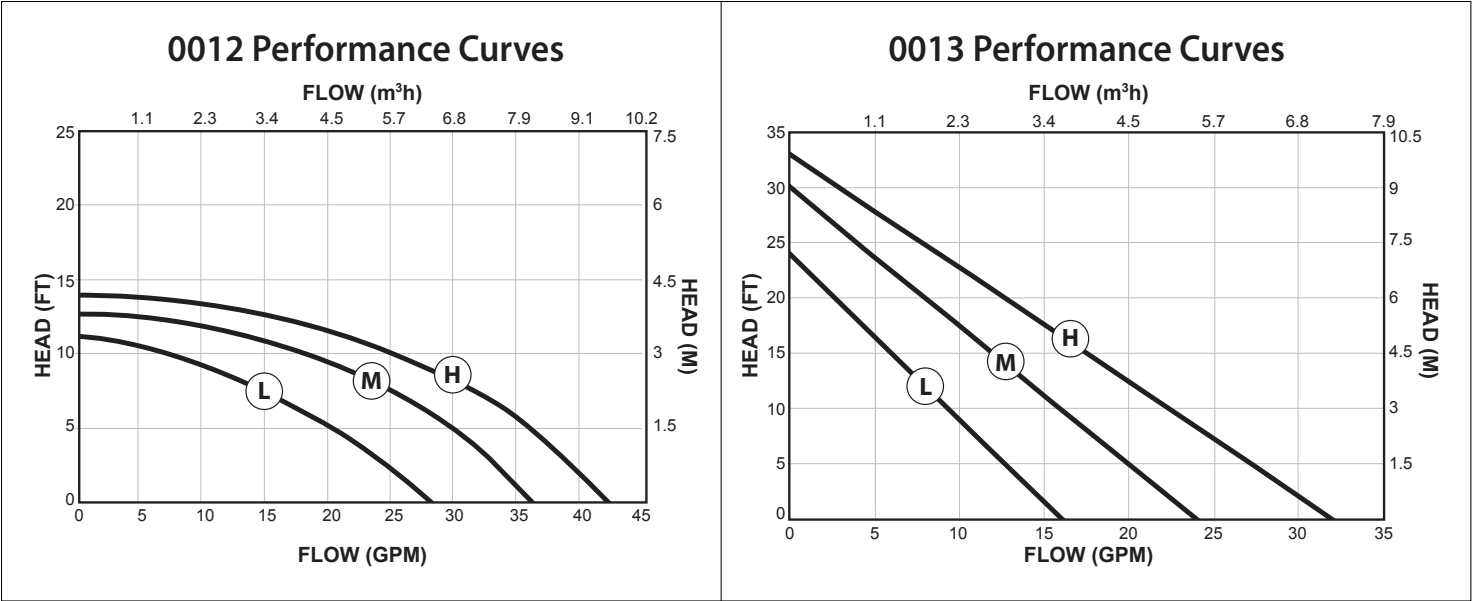


Pump Curves

3-Speed, 00® Series (0010 & 0015)

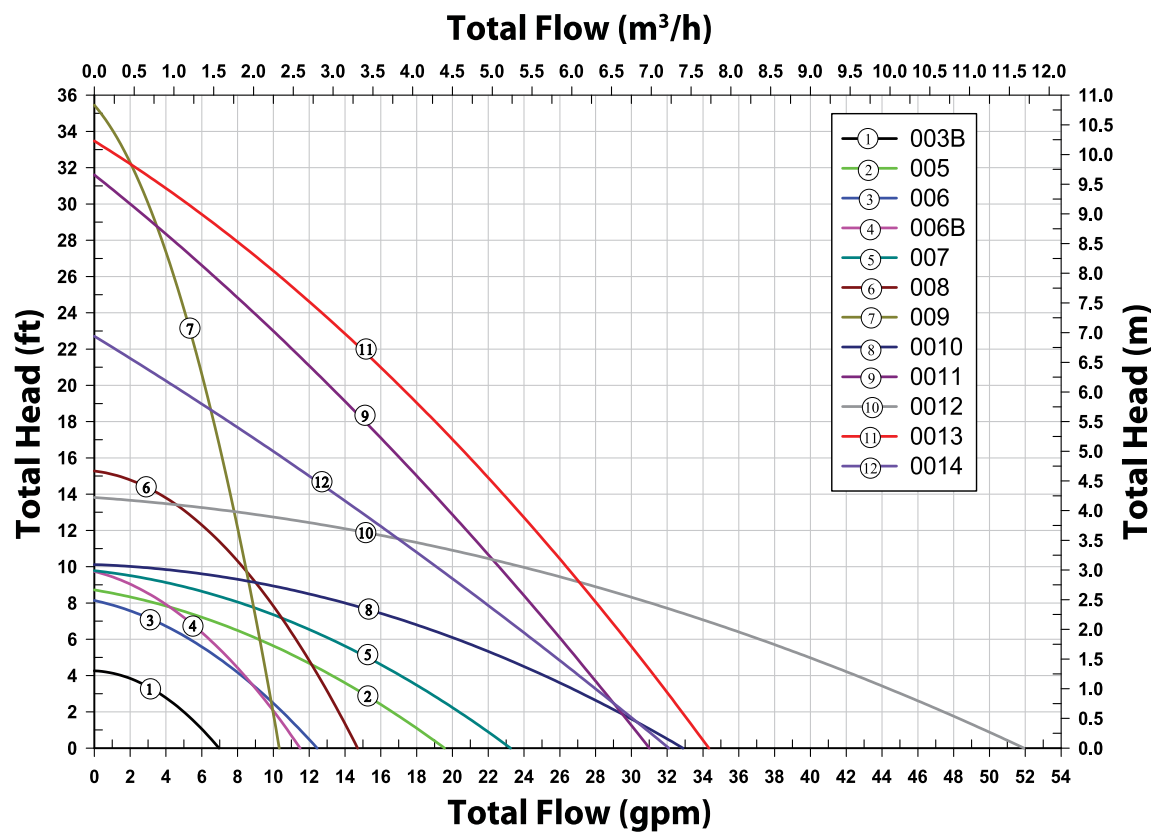


3-Speed, 00® Series (0012 & 0013)

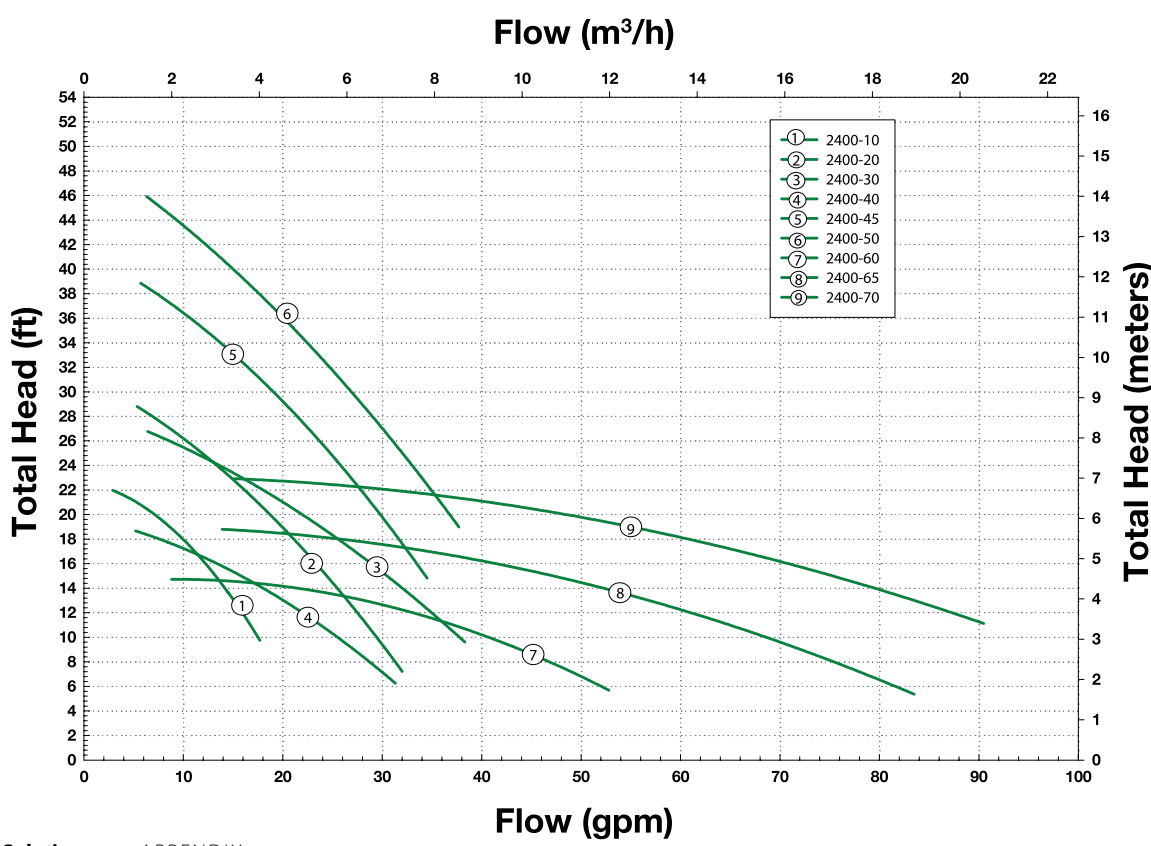


Pump Curves

00® Series Circulators/Performance Field



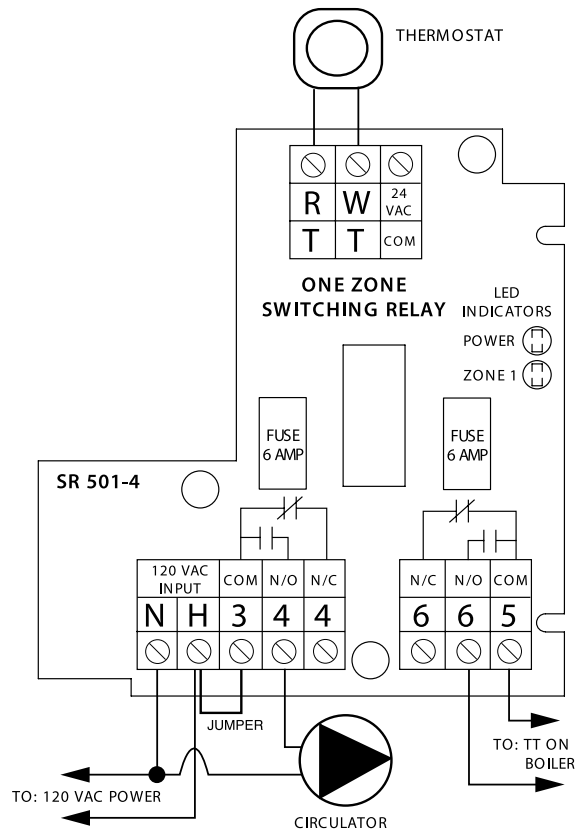
2400 Series Circulators (60Hz) (10-70)



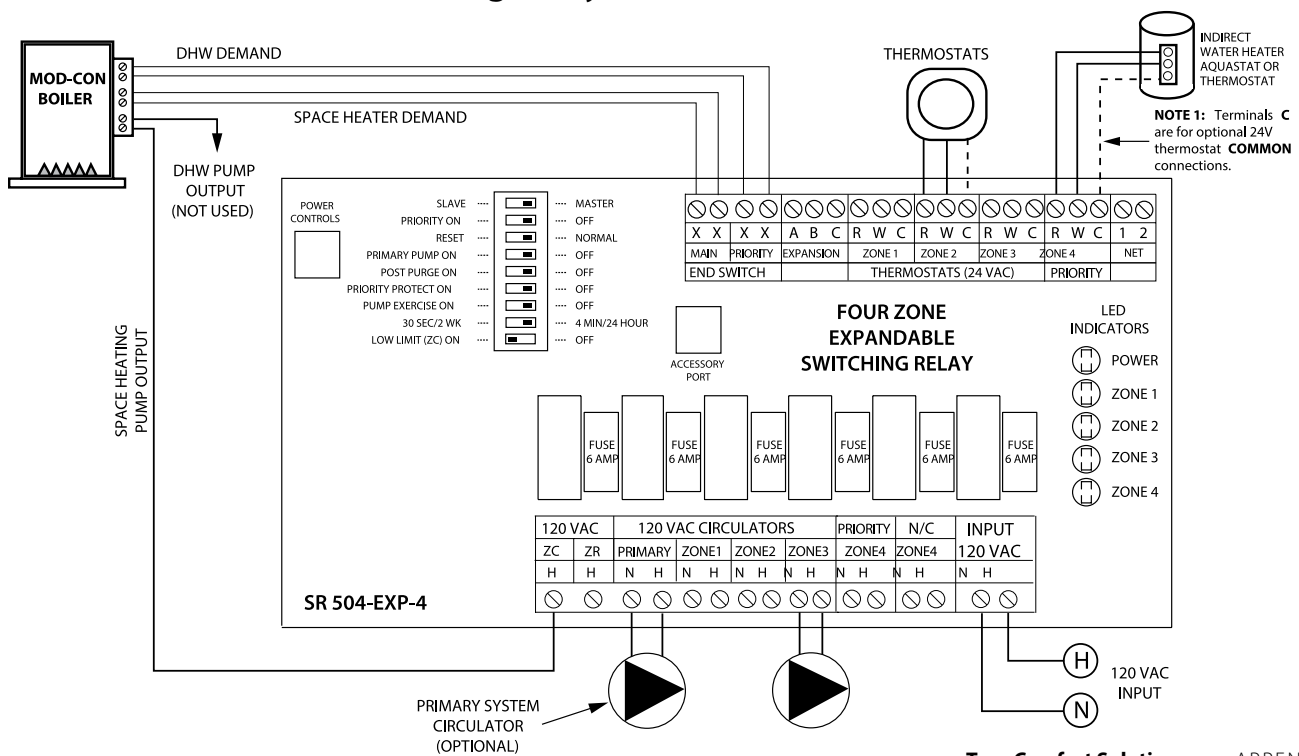
Wiring Diagrams

SR501-4 Switching Relay Wiring

TYPICAL WIRING (COLD START)

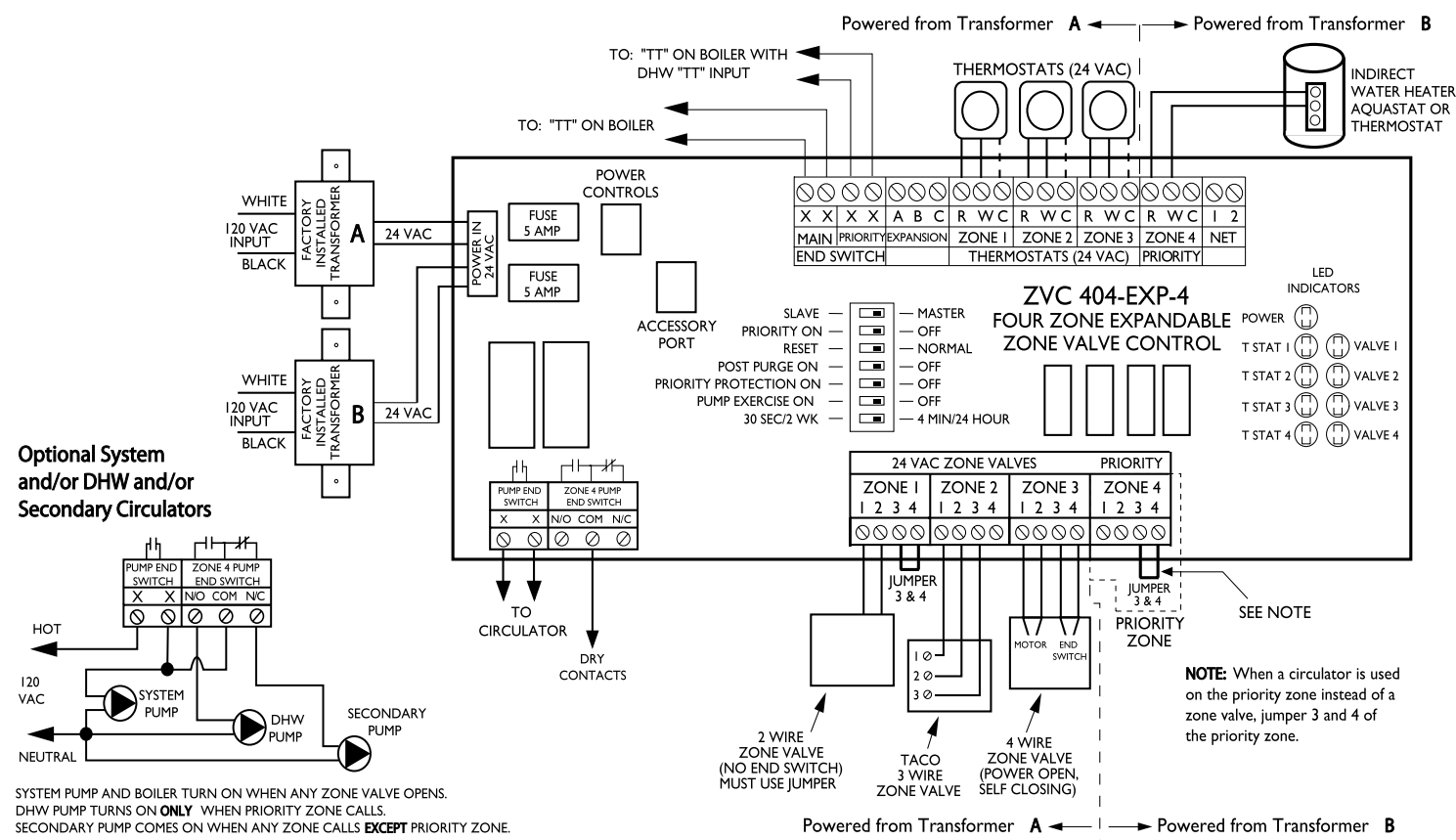


SR504-EXP Switching Relay Connected to a MOD-CON Boiler

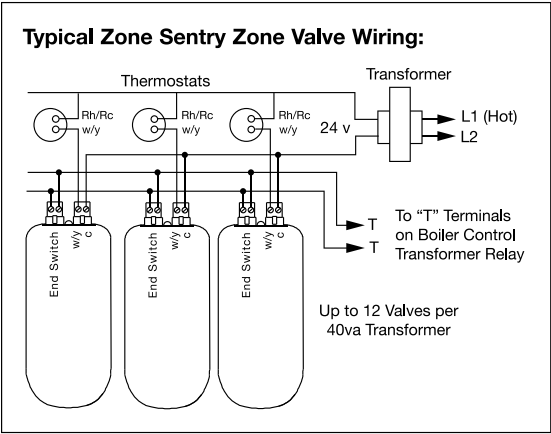


Wiring Diagrams

Zone Valve Control Wiring Diagram



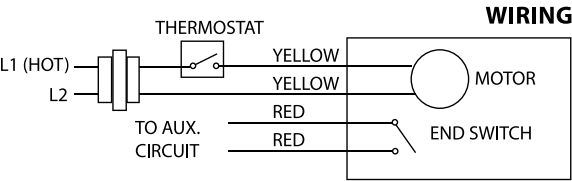
Zone Sentry Zone Valve



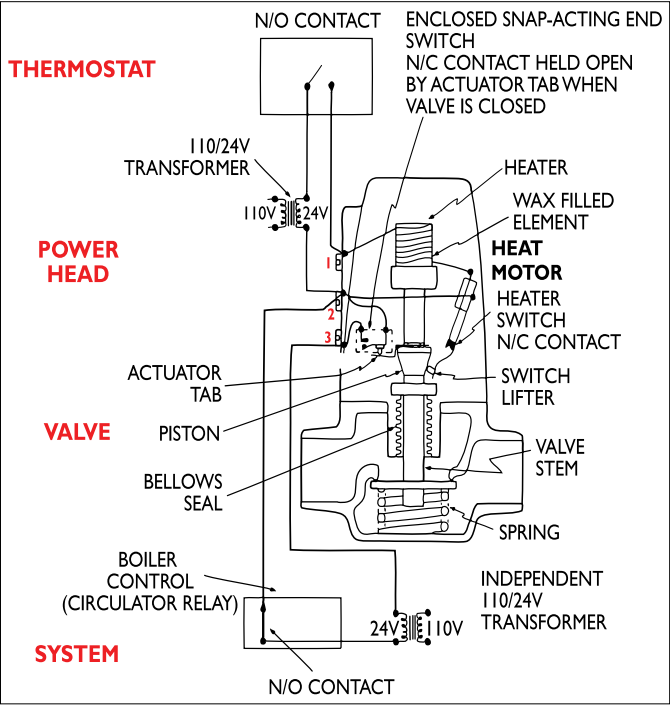
WARNING: Wiring connections must be made in accordance with all applicable electrical codes.

CAUTION: To prevent electrical shock, disconnect electric power to system at main fuse or circuit breaker box until installation is complete. When a service switch is installed, more than one disconnect switch may be required to deenergize this device for servicing.

QuickTop Zone Valve



Heat Motor Zone Valve



Piping Diagrams

LEGEND

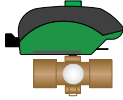


Taco Model

= 007e, 0015e3,
VR1816, 0018e

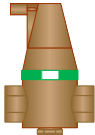
Description

Delta P ECM Circ w/ integral
flow check and isolation



= Zone Sentry

Capacitor driven 24 vac N.O.
Zone Valve w/ end switch



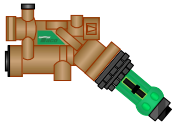
= 4900 AS

Air separator w/ Pall Ring
coalesce media



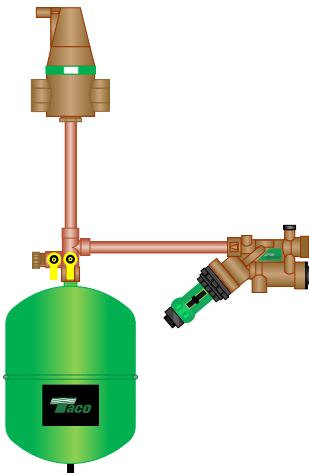
= 4900 MDS

Mag Dirt Separator w/ Pall Ring
coalesce media



= 3450 Combi valve

Combination Pressure Reducing
Valve & Back Flow Preventer



= TTK-xxxC-PRM

Premium Near Boiler Trim Kit
w/ 4900, 3450 & Expansion Tank



= Flow direction



= ASME relief valve



= Calibrated balance / globe valve



= Spring check valve



= Continuation



= Full port 1/4 turn ball valve

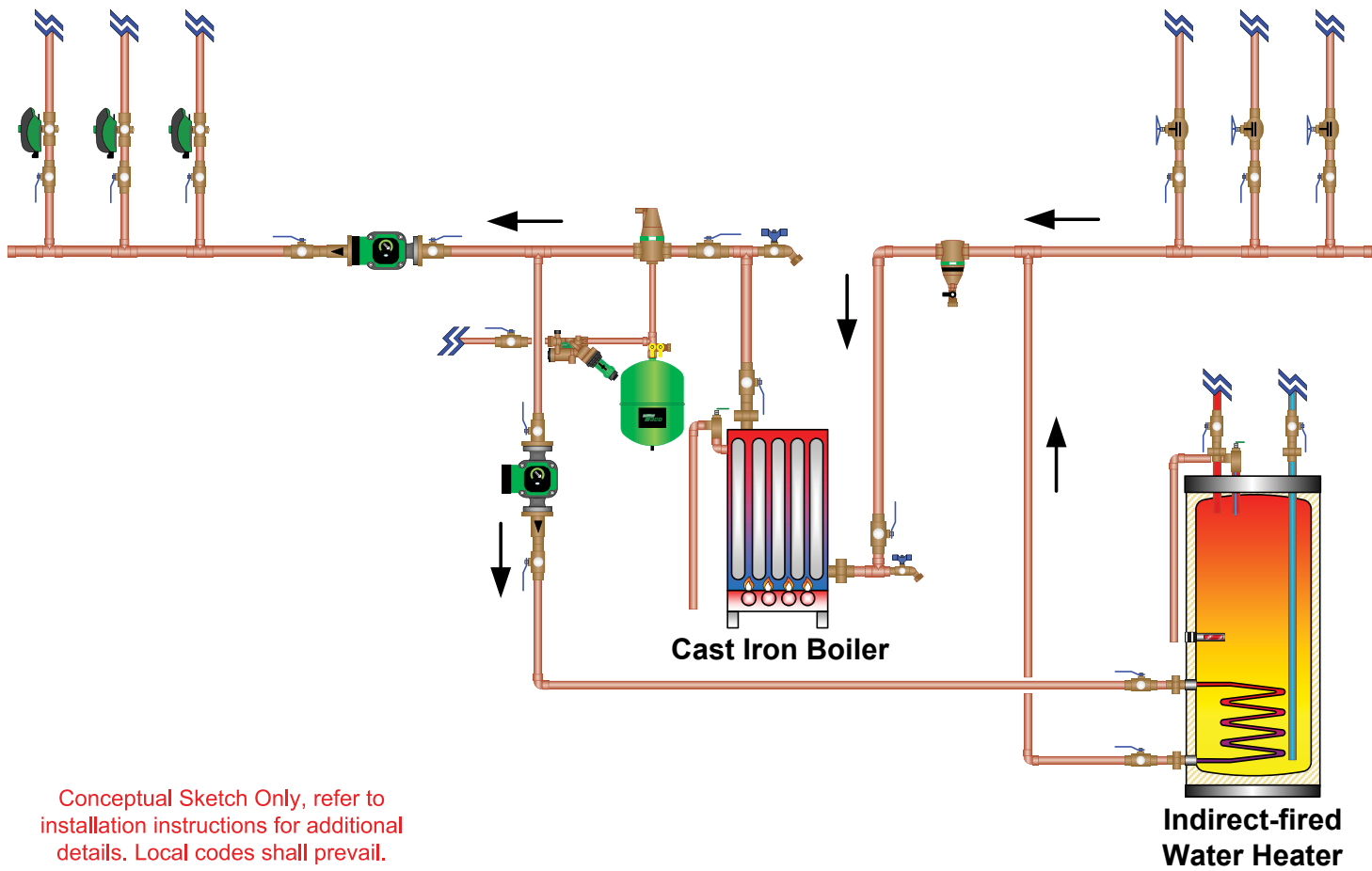
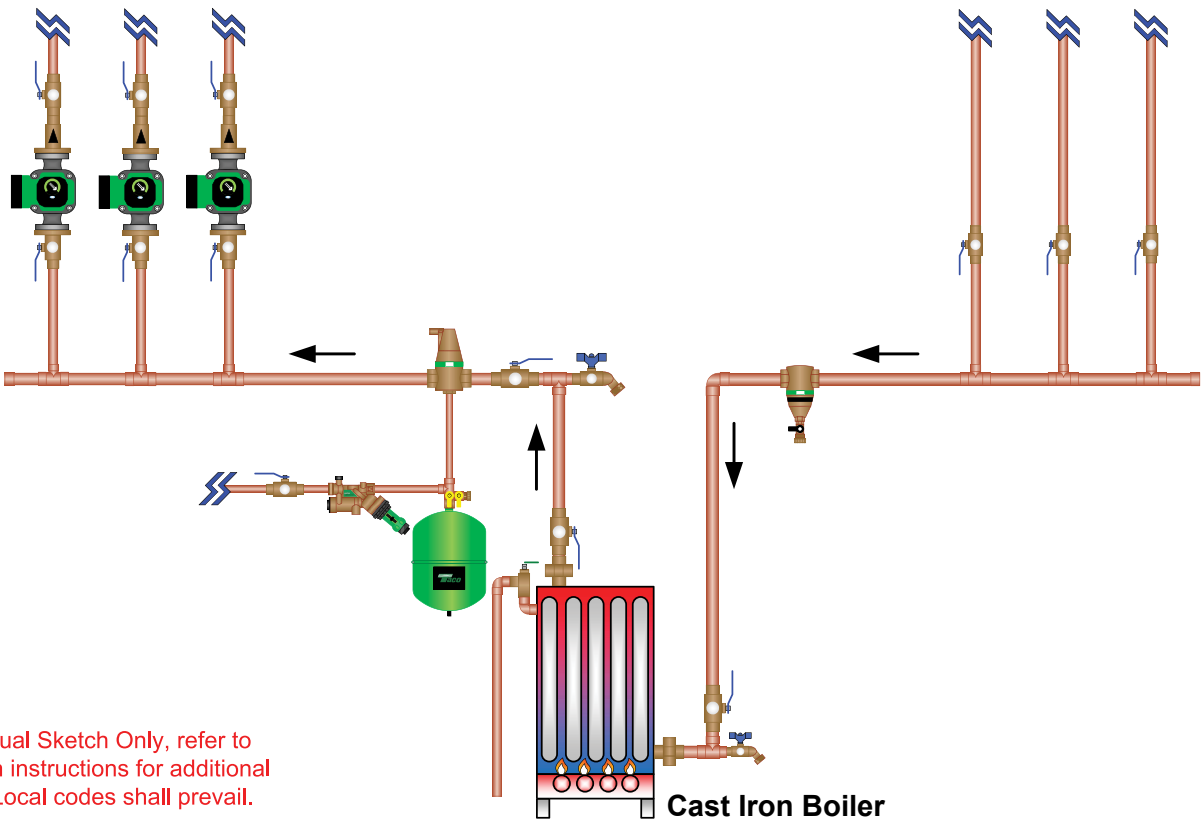


= 1/4 turn boiler drain

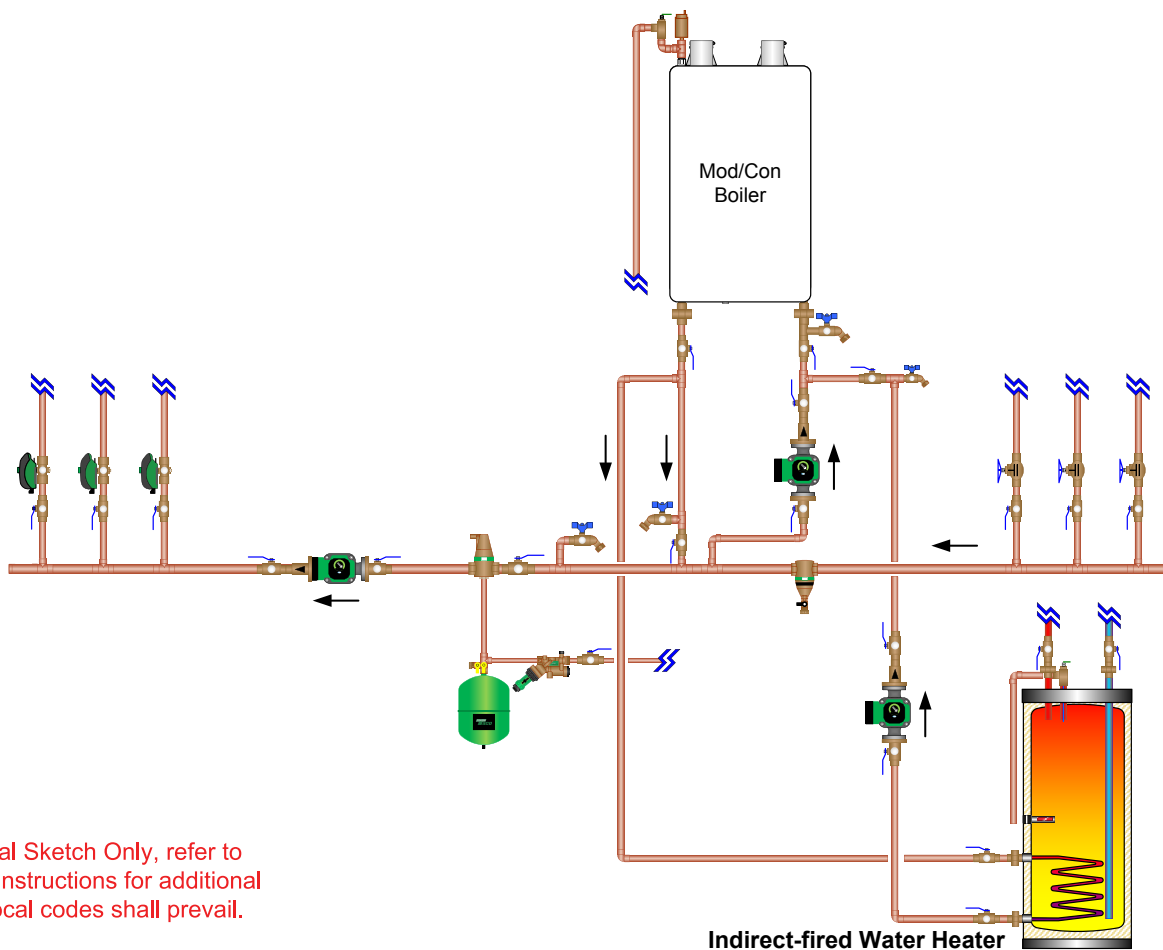
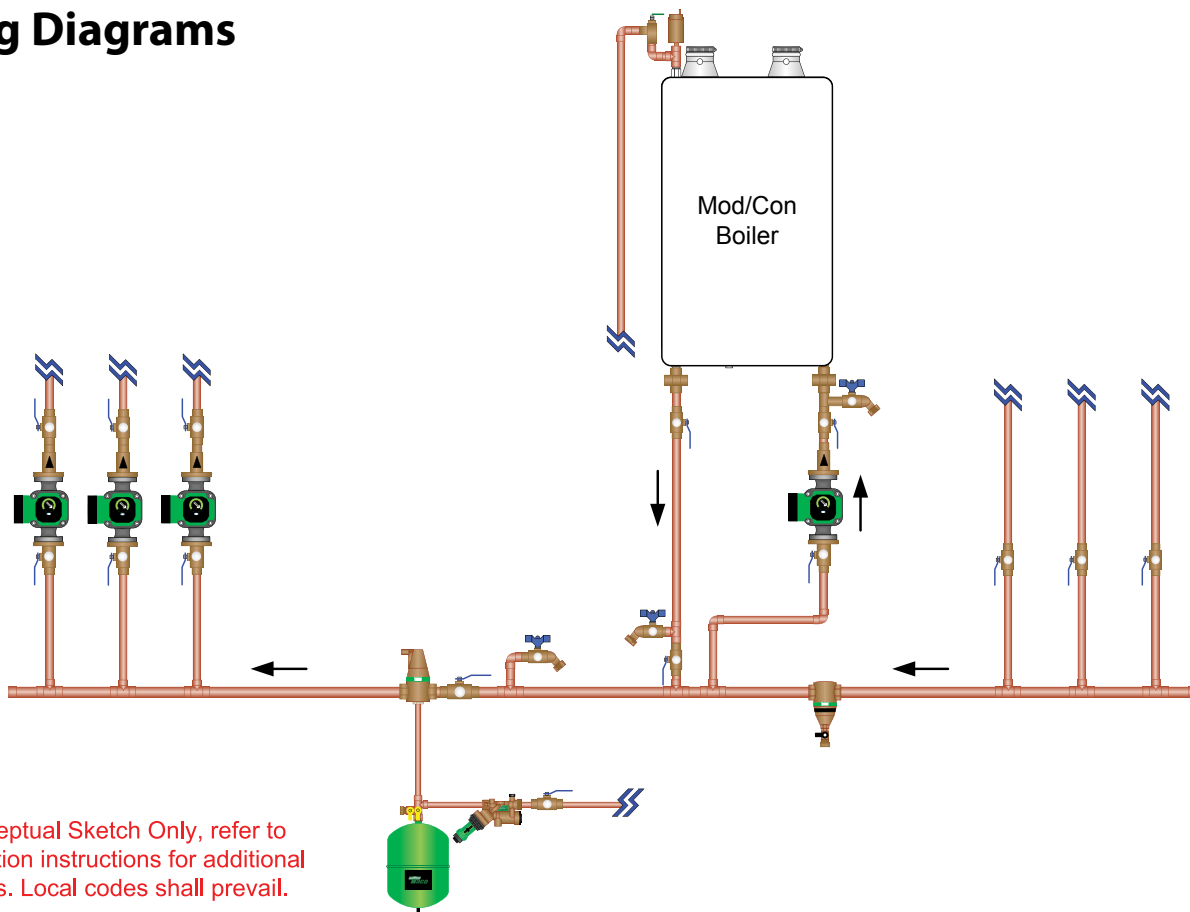


= Union

Piping Diagrams

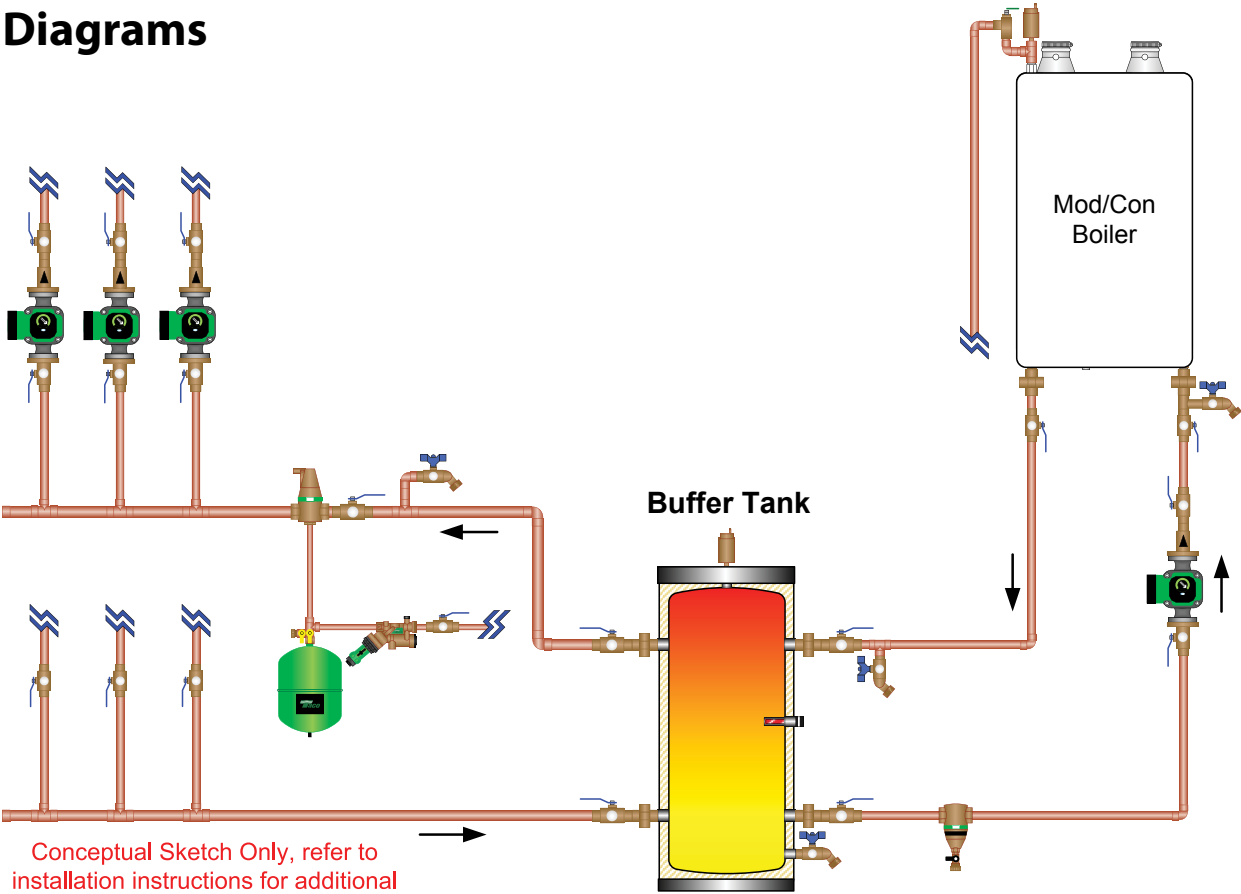


Piping Diagrams

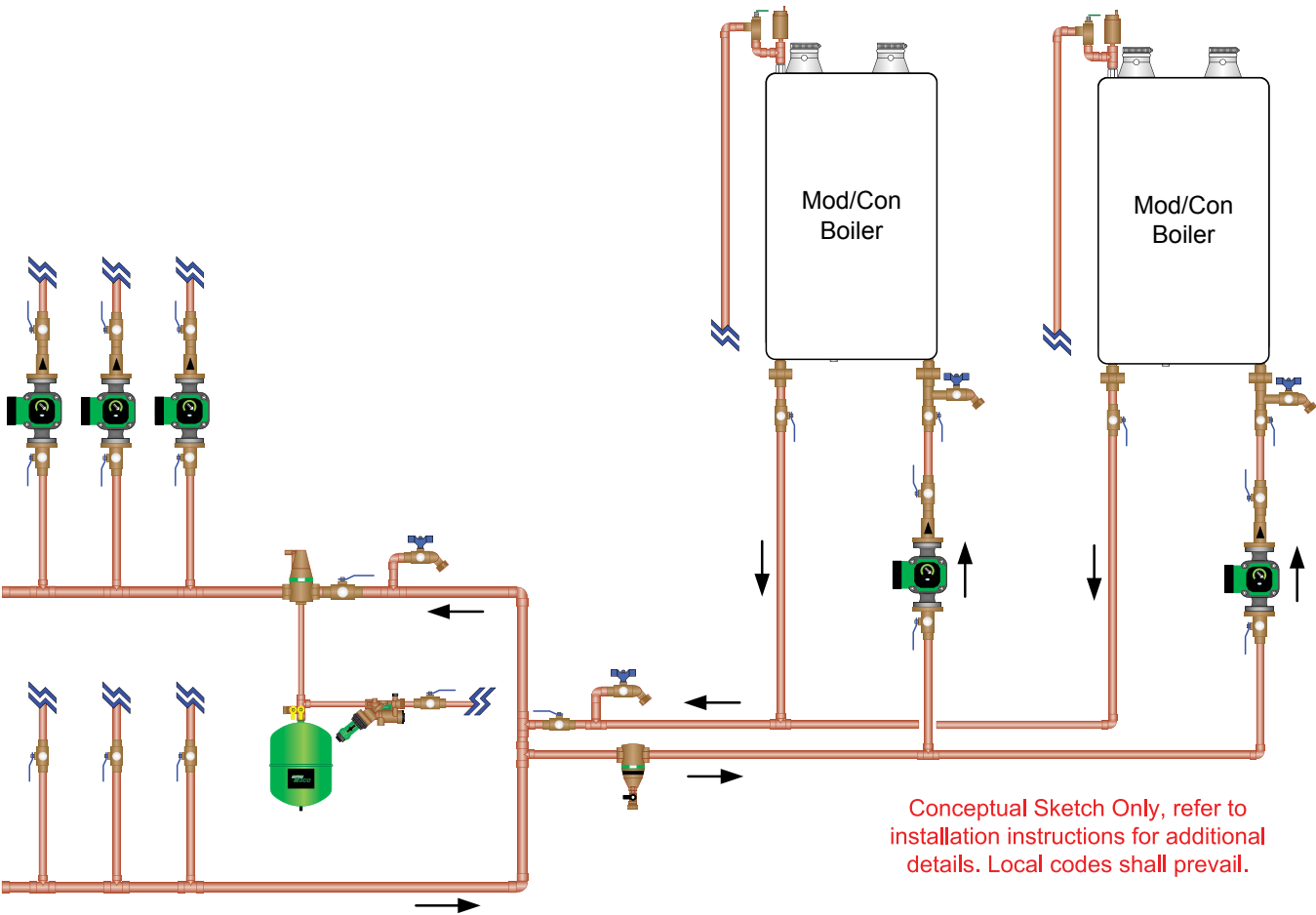


Indirect-fired Water Heater

Piping Diagrams



Conceptual Sketch Only, refer to installation instructions for additional details. Local codes shall prevail.



Conceptual Sketch Only, refer to installation instructions for additional details. Local codes shall prevail.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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