

RESIDENTIAL CATALOG

HEATING AND PLUMBING PRODUCTS



WELCOME TO TACO!

Our family-owned global company has been at the forefront of engineering and manufacturing high-efficiency indoor heating, cooling, and plumbing comfort systems for over a century. Our expertise and high-performing, reliable products help customers save energy, money, and resources while enhancing their environmental quality. Join us in creating a more comfortable and sustainable world!

A Leader in Residential Solutions

For over 100 years, Taco has been a leader in providing high-quality residential solutions for contractors and homeowners. Our reliable products and systems are designed for maximum efficiency, delivering significant energy and cost savings. We empower you to deliver expert, efficient, and economical water-driven solutions that make a positive impact on both people and the planet.

Hydronic Systems and Components

At Taco, we are proud to lead the way in managing the flow of water. Our commitment to innovation and excellence has established us as pioneers in creating and producing top-notch residential hydronic systems and components. From circulators to electronic controls, air elimination, water recirculation, radiant systems, valves, and accessories, our range has everything homeowners and contractors require. With advanced technology and in-depth expertise, Taco delivers high-quality products and packaged systems that you can rely on.

Plumbing Solutions

Domestic Hot Water Recirculation (DHWR): We offer our customers state-of-the-art innovation and premium-quality systems that provide instant hot water comfort and convenience while saving energy and reducing water consumption.

Leak Detection: The Taco leak detection products provide peace of mind and are designed to protect homeowners from potential catastrophic leaks resulting from system malfunctions.

Our best-in-class hydronic and plumbing solutions are quick to install, easy to use, and work predictably, consistently, and repeatedly. If you need reliable, cost-effective equipment delivered on time, we can help you confidently build your business and reputation.

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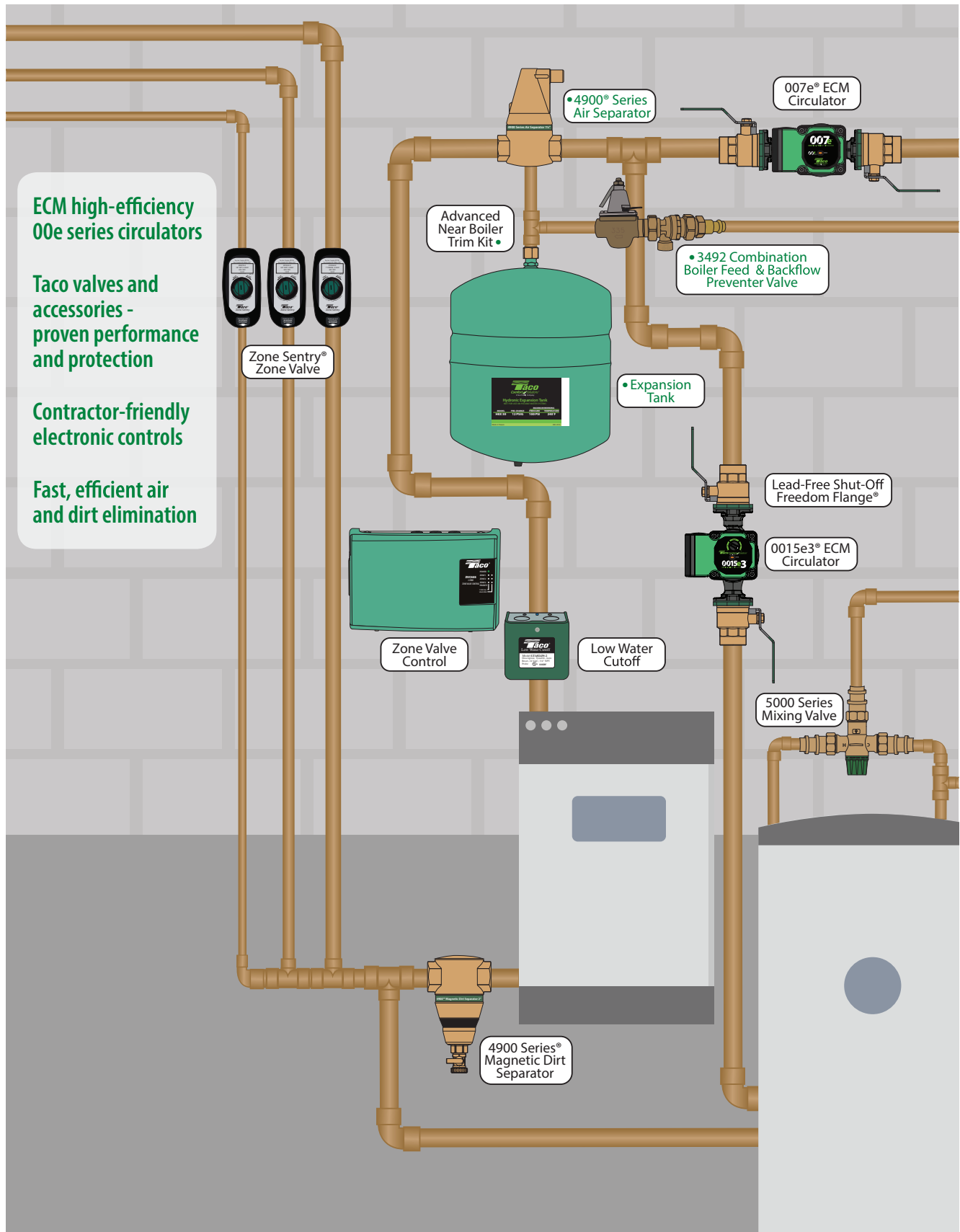
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0018e® ECM High-Efficiency Circulator

The Taco® 0018e® circulator with Bluetooth® technology 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 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.



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
 - TacoAdapt™ – Self-Adjusting, proportional pressure, variable speed
- Multi-color LED
- **SureStart®** mode automatically unblocks and purges air
- **BIO Barrier®** protection from system contaminants (Cast Iron only)
- Nut-capture 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 two bolt flange* 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 Standard 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

* STANDARD FLANGE NOT AVAILABLE IN CANADA



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

The Taco® 0015e3® circulator 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® series 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®** mode automatically unblocks and purges air
- **BIO Barrier®** protection from system contaminants (Cast Iron only)
- **Green Mode** active system monitoring and automatic power optimization
- Nut-capture 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 two bolt flange* 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

0015e3-2F2	Cast Iron Standard 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

* STANDARD FLANGE NOT AVAILABLE IN CANADA

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® circulator 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® circulator famous. **Install it, forget it.®**



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®** mode automatically unblocks and purges air
- **BIO Barrier®** protection from system contaminants (Cast Iron only)
- **Green Mode** active system monitoring and automatic power optimization
- Nut-capture 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)

007e-2F2	Cast Iron Standard 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



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& 372

Stainless Steel
models only



* 007e NOT AVAILABLE IN CANADA

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

VT2218 ECM High-Efficiency Circulator

The Taco® 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, four 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 three button programming to change modes and temp/speed settings
- Power range from 9-58 watts
- Nut-capture 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 IFC® (Integral Flow Check) included
- **BIO Barrier®** protection from system contaminants (Cast Iron only)
- **SureStart®** mode automatically unblocks and purges air

5 Operating Modes

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

Constant Speed – 4 fixed speed settings

Set Point Heat – Increases speed to increase temperature 0 Range = 50-220°F

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

Boiler Protections – 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 Taco® 0026e® circulator 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. It is 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 – TacoAdapt™, LOW, MEDIUM, HIGH or 0-10V DC analog or PWM digital signal external input
- **BIO Barrier®** protection from system contaminants (Cast Iron only)
- **SureStart®** mode automatically unblocks and purges air
- 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-capture 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



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



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

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	Top S:
110	Series HV	S 25	UP 26-98	1.25 x 15
111	Series PR	H 52	UP 26-64	1.25 x 25
112	Series 100	H 51	UPS 32-40	1.50 x 20
113	NRF 36	H 32	UPS 32-80	Top Z:
0010	ECOCirc XL 20-35	Astro 280	Magna 32-60	1.5 x 15
0011	ECOCirc XL 36-45	Compass ECM	Alpha 26-99	1.5 x 20
0012				
0013				
0014				

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

0034e® ECM High-Efficiency Circulator

The Taco® 0034e® circulator 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. This circulator is 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 — TacoAdapt™, LOW, MEDIUM, HIGH or 0-10V DC analog or PWM digital signal external input
- **BIO Barrier®** protection from system contaminants (Cast Iron only)
- **SureStart®** mode automatically unblocks and purges air
- 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-capture 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

0034e-F2	Cast Iron
0034e-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:
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.

0034ePlus® ECM High-Efficiency Circulator

The Taco® 0034ePlus® circulator 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; TacoAdapt™, five Constant Pressure curves, five Proportional Pressure curves, Min/Max fixed speed or speed control through 0-10V DC or PWM external input. It is 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 – TacoAdapt™, Constant Pressure, Proportional Pressure, Min/Max Fixed Speed or speed control through 0-10V DC or PWM external input
- **BIO Barrier®** protection from system contaminants (Cast Iron only)
- **SureStart®** mode automatically unblocks and purges air
- 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-capture 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:
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.

VR3452

The Taco® VR3452 circulator 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.



Features

- ECM motor is up to 85% more efficient
- 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 - 10V
 - Three analog inputs/outputs
 - One relay output
 - Main, standby, parallel pump operation
- Night turnback feature option



Proportional Pressure



Constant Pressure



Fixed Speed

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	Sereis HV	UP 26-64	
0012	NRF 45	UPS 32-40	
0010	NRF 36	UPS 32-80	
0011	ECOCirc XL 36-45	Magna 32-100	
		Magna 32-60	

1911ecm® & 1915ecm™ High-Efficiency ECM Pumps

The Taco® 1900e Series® pumps are self-sensing, close coupled, mechanically sealed in-line pumps that exceed industry and efficiency standards with an advanced hydraulic design. They feature a high-efficiency volute, ECM motor and integrated frequency drive. Simple yet versatile control options include constant pressure, constant speed, proportional pressure, 0-10Vdc and parallel pump alternation. These standard features combined with the intuitive user interface allow for quick start-ups achieving optimum system efficiency and maximum comfort. These pumps are available in Ductile Iron for closed loop hydronic heating and cooling systems or Stainless Steel, NSF Commercial Hot Certified for DHW applications.

Features and Benefits

1911ecm

- 50' Shut-off head, 105 USGPM max. flow

1915ecm

- 65' Shut-off head, 120 USGPM max. flow
- ECM brushless DC, high-efficiency, soft start, high starting torque motor
- Easy to program pump interface
- Self-sensing
- Multiple operating modes
 - 4 Constant pressure
 - 3 Constant speed
 - 1 Proportional pressure
- LED status light
- Error diagnostics
 - Locked rotor
 - Over current
 - Over & under voltage
 - Over temperature
 - Communications failure
 - Dry run
- External inputs/outputs
 - 0-10Vdc external speed control
 - Remote enable
 - Overload relay output
 - Parallel pump control
- High quality mechanical seal
 - Carbon/Silicon-Carbide/EPDM for CI Model
 - Carbon/Silicon-Carbon/Viton for SS Model



1911ecm-F VR50105-HD1-FC2A01	Cast Iron
1911ecm-SF VR50105-CD1-FS2A01	Stainless Steel
1915ecm-F VR65120-HB2-FC2A01	Cast Iron
1915ecm-SF VR65120-CB2-FS2A01	Stainless Steel



4001998



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& 372
Stainless Steel
models only

VR Series ECM High-Efficiency Circulators

The Taco® 00e® VR series circulators 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 TacoAdapt™; 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

Temp.	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

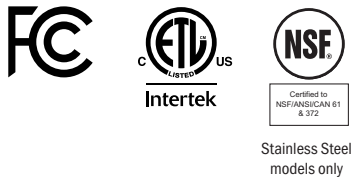


Dimensions & Weights

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



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® product 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?

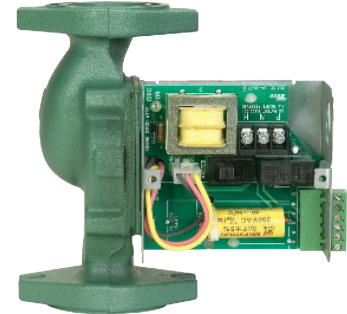
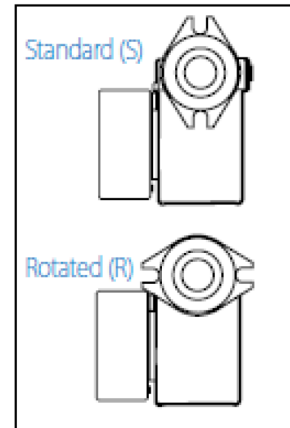
Features

- 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



007-SF5 Stainless Steel Circulator

Flange Orientation



Priority Zoning Circulator



Certified to
NSF/ANSI CAN 61
§ 372

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-F2-21FC	S	Small Residential
—	006-F4	006-F6-IFC	R	DHW Recirculation / Air Handlers
007-SF5	007-F5	007-F5-71FC	S	Residential
—	007-F5-5	007-F5-81FC	R	Residential
008-SF6	008-F6	—	S	Radiant
008-SF6-2	—	00R-F6-11FC	R	Radiant
009-SF5	009-F5	009-F5-IFC	R	High Head Pressure / Steep Curve
0010-SF3	0010-F3	0010-F3-11FC	S	Light Commercial
0011-SF4	0011-F4	0011-F4-21FC	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-F3-11FC	R	High Velocity / Head Pressure
0014-SF1	0014-F1	0014-F1-11FC	R	Medium Velocity
	007-ZF5-9	007-ZF5-31FC	S	Priority Zoning Circulator

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

00e Series 3-Speed Circulators

The Taco® 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 IFC (Integral Flow Check®) that prevents gravity flow, reduces installation costs and improves pump performance.

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

The Taco 0010 IFC 3-Speed Service Pump is an ideal replacement circulator for service contractors to use on emergency “no-heat” calls. Simply install it and set the speed to match the original pump performance. This pump features the universal flange design.



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 IFC® (Integral Flow Check®)
 - 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	Grandfos	B & G
0015-MSF3-IFC	CI	S	6-3/8"	UPS15-58FC	NRF-25
0015-MSF3-1IFC	CI	R	6-3/8"	—	—
0015-MSSF3-IFC	SS	S		—	NRF-9F/LW LRF-20 100, NRF-22/23
0015-MSSF3-1IFC	SS	R			
0010-MSF2-IFC	CI	U		—	
0012-MSF2-IFC	CI	S	8-1/2"	UPS43-44FC UPS43-33F	HV NRF-33
0012-MSSF2-IFC	SS	S		—	—
0013-MSF2-IFC	CI	R	6-1/2"	UPS26-99FC UPS26-150F UPS26-100F UPS50-44F	NRF-36 NRF-35 PR, PL-30
0013-MSSF2-IFC	SS	R		—	—
0012-SF4-1			—	S	High Velocity
0013-SF3			0013-F3-1IFC	R	High Velocity /Head Pressure

Enhanced 2400 Series

The enhanced Taco® 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 coils, snow melt, high pressure drop boilers, outdoor wood boilers, chilled water cooling, geothermal heat pumps, primary / secondary loops and hydroair 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
- Anti-condensate design for chilled water
- Dual electrical knock-outs
- Dual pressure taps, suction/discharge

Model Nomenclature

S: Stainless steel, flanged NSF 61 & 372

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	RPM	HP
2400-10-3P	2400-10S-3P	60	1	1.9	3450	1/6
2400-20-3P	2400-20S-3P			1.9		1/6
2400-30-3P	2400-30S-3P			1.9		1/6
2400-40-3P	2400-40S-3P			1.9		1/6
2400-45-3P	2400-45S-3P			3.6		1/3
2400-50-3P	2400-50S-3P			4.9		1/2
2400-50/2-3P	2400-50S/2-3P			4.9		1/2
2400-60-3P	2400-60S-3P			1.9		1/6
2400-65-3P	2400-65S-3P			3.6		1/3
2400-70-3P	2400-70S-3P			4.9		1/2
2400-70/3-3P	2400-70S/3-3P			4.9		1/2
Motor Type	Open Drip Proof, Permanent Split Capacitor, Thermally Protected					

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. Our zone valve 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 sprint 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

Max. Operating Pressure: 175 PSI (12 bar)
Max. 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

Heat Motor Zone Valves

The 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
- 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	Z100-C2
560-5	Z050C3
561-5	Z075C3
562-5	Z100C3

Next Generation Zone Controls: SR Switching Relays

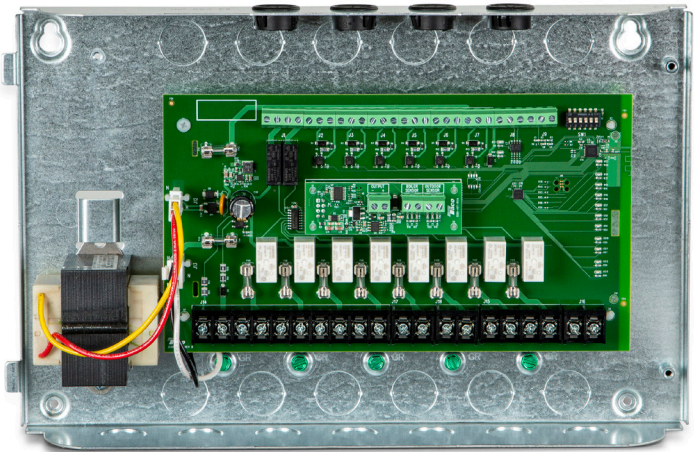
The Taco® Switching Relays combine clearly labeled PC board layouts with advanced features that allow for total system customization. Whether using basic functionality, DIP switch features or the advanced features of the Taco Control App, the job is made easy. External indicator lights provide instant diagnostic feedback, making a snap of service calls or new installation start-ups. All switching relays are UL listed, and compatible with conventional, programmable, and WIFI based thermostats.

Features and Benefits

- Front panel diagnostic lights
- Switchable priority
- Built-in priority protection
- Simplified wiring
- Premium sealed relays
- Compact design
- Fuse protected
- 100% Factory tested
- Isolated end switch
- Contractor friendly PC board layout
- Universal thermostat compatibility
- 24 Volt power output for hard wired thermostats
- Field replaceable transformer
- Extended 3 year warranty

Next Generation New Features

- 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)
- Taco Control mobile app (not required for all functions)
- Wireless update capabilities
- Four Programmable outputs
- DHW recirculation SmartPlus® logic
- Diagnostic lights for all outputs
- Additional space for wiring
- More space to write zone information
- Easy to remove hinged cover
- Rear knockouts
- Standard control upgradeable to reset model
- Modbus communication



Next Generation Switching Relays	Next Generation Outdoor Reset Capable Switching Relays
SR501-5*	SR503-R-5
SR502-5	SR504-R-5
SR503-5	SR506-R-5
SR504-5	--
SR506-5	--

*Basic functionality, most features N/A. All circulator relay connections, including AUX PUMP, are rated 1/3 hp at 120 VAC. End switch connections are rated 24 VAC, 1 amp. All thermostat connections supply a 24 VAC class 2 output.

Next Generation Zone Controls: ZVC Zone Valve Control

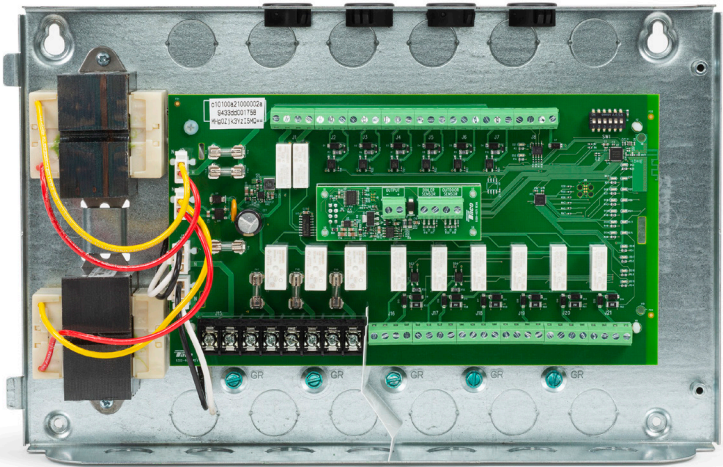
Taco® Zone Valve Controls work with two-, three-, or four-wire zone valves. Fully fuse protected, they also include two isolated end switches and built-in priority protection. The contractor friendly PC board layout eliminates the problems caused by incorrect wiring and the “unfinished” look of conventional zone valve installations. The sturdy screw connections add additional reliability, while the external indicator lights provide instant diagnostic feedback, reducing installation time. All Taco Next Generation Zone Valve Controls are UL listed and carry an extended three year warranty.

Features and Benefits

- Front panel diagnostic lights
- Switchable priority
- Built-in priority protection
- Simplified wiring
- Works with 2, 3, or 4-wire zone valves
- Compact design
- Fuse protected
- 100% Factory tested
- 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
- Contractor friendly PC board layout
- Universal thermostat compatibility
- 24 Volt power output for hard wired thermostats
- Field replaceable transformer
- Extended 3 year warranty

Next Generation New Features

- Three pump end switches can control up to three individual pumps
- Taco Control mobile app (not required for all functions)
- Wireless update capabilities
- Four Programmable outputs
- DHW recirculation SmartPlus® logic
- Diagnostic lights for all outputs
- Additional space for wiring
- More space to write zone information
- Easy to remove hinged cover
- Rear knockouts
- Standard control upgradeable to reset model
- Modbus communication

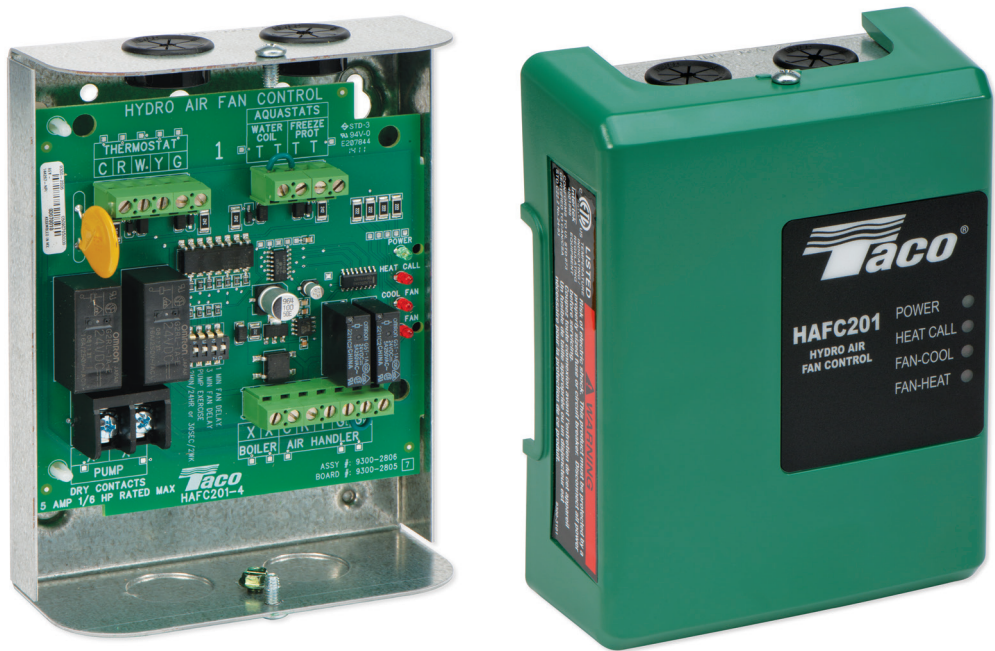


Next Generation Zone Valve Controls	Next Generation Reset Model Zone Valve Controls
ZVC403-5	ZVC404-R-5
ZVC404-5	ZVC406-R-5
ZVC405-5	--
ZVC406-5	--

The aux pump outputs are rated 1/6 hp 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.

Zone Controls: Hydro Air Fan Control

The Taco® Hydro Air Fan Controls are the ideal interface between the thermostat and air handler. The fan controls provide advanced 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"

Near Boiler Trim Kits

The Taco® Near Boiler Trim Kit contains everything you need in one easy-to-carry box. Three configurations, Premium, Advanced & Select are available in 1" or 1 1/4" connection sizes. Each kit contains an air separator, combination boiler feed valve & backflow preventer, 4 1/2 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 and Benefits

- Select kit combinations for all preferences
- Fitting & connections included
- Designed for easy installation
- 4 1/2 gallon expansion tank included
- Suitable for use in closed loop systems with water or up to 50% water / glycol solution
- Expansion tank 5 year
- All other pieces 1 year

Model Name	Size	Part #
Premium	1 "	TTK-100C-PRM
	1-1/4 "	TTK-125C-PRM
Advanced	1 "	TTK-100T-ADV
	1-1/4 "	TTK-125T-ADV
Select	1 "	TTK-125T-SEL
	1-1/4 "	TTK-125T-SEL

* NOT AVAILABLE IN CANADA

4900 Series® Magnetic Dirt Separators

The Taco® 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

The Taco 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 with connection tapping
- No minimum pipe run 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 also available in press connect!

Air Scoop® Device

The Taco® Air Scoop device has an enlarged design with internal baffles to slow the water velocity in order to separate air from the solution. The air scoop 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 Scoop products 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
- Lifetime service-free
- Engineered baffle separates air from water



The Taco automatic air vents are the industry standard, and have been for over 30 years. In any 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.

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® Valve	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® Valve	1/4" NPT	Yes	150 psi, 240°F	50 psi
418-4	Hy-Vent® Valve	1/2 x 3/4" NPT	No	150 psi, 240°F	50 psi
419-1	High Pressure Hy-Vent® Valve	1/2 x 3/4" NPT	No	150 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	---

***Suitable for use in low pressure steam systems.**

****Outlet connection fits 3/4" ID Flex tubing.**

3450 Combination Boiler Feed Valve & Backflow Preventer*

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. The Taco 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.

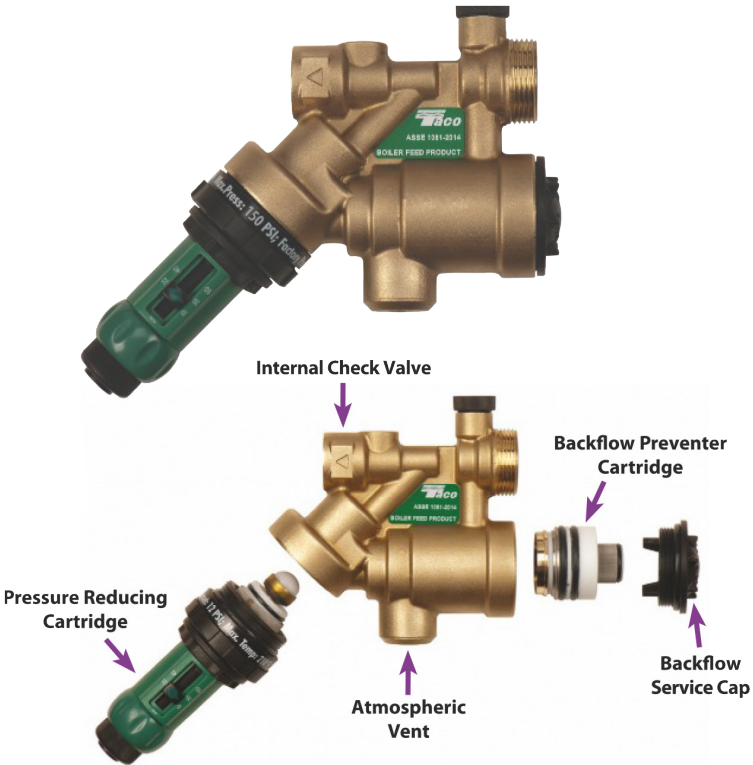
Features

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

Performance

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



Part #	Description
3450	1/2" NPT x 1/2" Union Sweat
3450-T	1/2" NPT x 1/2" Union NPT
3450H	1/2" NPT x 1/2" Union Press

Cartridge-Style Pressure Reducing Valve

The Taco cartridge-style pressure reducing valve sets a new standard for performance and serviceability. All the parts are contained in a one piece cartridge which is easily removed and serviced without reducing the system pressure. A fat-fill mode 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.



Specifications

Max. Inlet Pressure: 250 psi
Adjustment Range: 1050 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

Features

- 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 thr system
- Integral strainer
- ASSE 1003

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

The Taco® Boiler Feed Valves 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. The Dual Control combines the Boiler Feed with an in-line Pressure Relief Valve.

Features

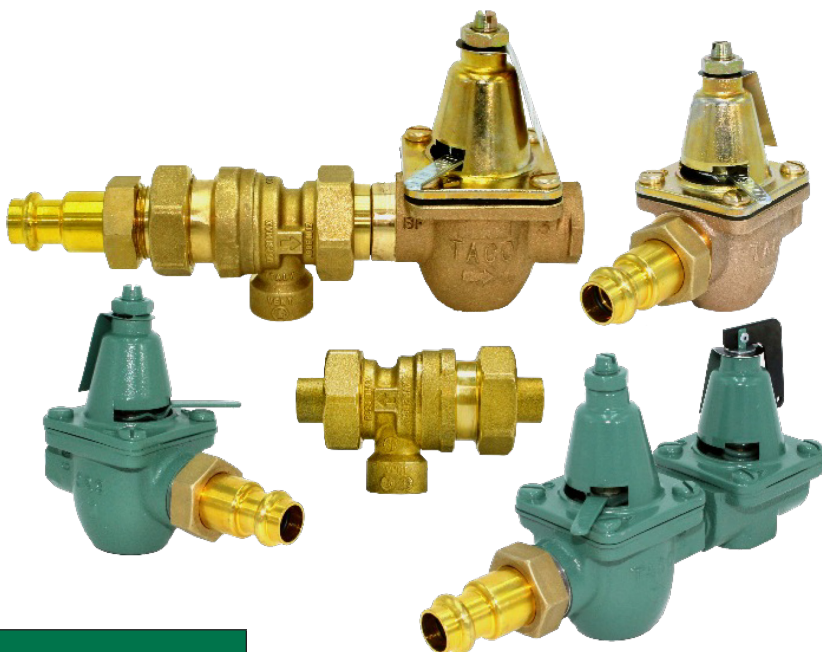
- Fast-fill rate on all models
- Exclusive fast-fill lever lock
- Built-in check to prevent emptying the system if incoming pressure fails
- Adjustable set pressure of 10 to 25 psi
- Pressure setting adjustment separated from fast-fill lever for easy, fast adjustment
- Both the Backflow Preventer and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



Listing B64.3 - 11



Listing 1012-2009



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
335-050-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)

Combination Boiler Feed & Workflow 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)

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)

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 (120°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

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



Balancing Made Easy

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 Cut Off (LWCO)

The Taco® Low Water Cutoff provides accurate and dependable protection for all types of boilers, from small residential hot water boilers to large industrial steam units. This probe-st e Low Water Cutoff features patented DualVision Technology, external LED's and simplified wiring for easy installation and testing and automatic, manual reset mode and are available in 24VAC or 120VAC models. The Taco Low Water Cutoff can act as either the primary or secondary low water cutoff on low-pressure steam boilers, the primary limit control on hot water boilers or to protect pumps from running dry in condensate receiver tank applications. The Low Water Cutoff can also activate alarm systems or automatic water feeders.

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 LEDs
- Test button
- Servie 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
LTA0203S-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 Text 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
LTAM0203S-1	24 VAC 3/4" NPT Probe Foam Compensating with Test Button
LTAM1203S-1	120 VAC 3/4" NPT Probe Foam Compensating with Test Button

Electric Water Feeder

Part #	Description
EWFO24-1	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-852-24 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-120 750-MT-U-120 901 RB-120II RB-122	170 170SV 1150 650 650SV OEM170C OEM170	RW700A1007 RW700A1006
LTR0243T-1	RB-24E RB-24	1100	---
EWFO24	WFE-120 WF2-U-120V WF-2-120 WF-4-120	VRTX-120 V-120-1&2	VW400-A1004
EWFO24	WFE-24 WF-2-24 WF-4-24	VRTX-24 V-24-1&2	VW800A1004

Bold/Italics (Indicates Discontinued Part Number)

Lead-Free Shut-off Freedom Flange® Product

The Taco® Lead-free Shut-off Freedom Flange® product 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

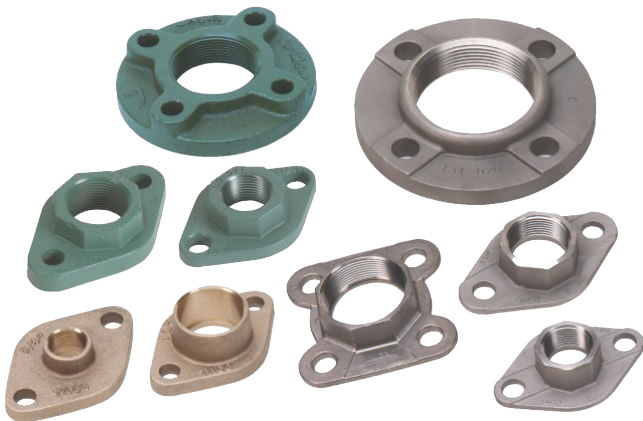


Features

- 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

Freedom Flange® Product

The Taco Freedom Flange® product 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.



Companion Flange Chart

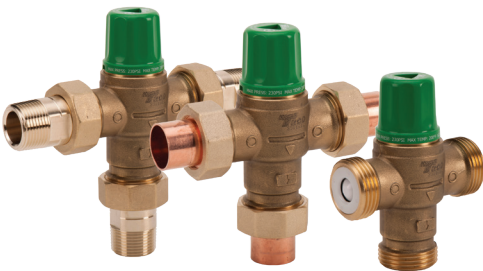
Size	# of Bolts	Standard or High Velocity	Bronze NPT	Bronze SWT	Stainless NPT	Ductile Cast Iron NPT	PRESS Isolation Flange	SWT Isolation Flange	NPT Isolation Flange	Pumps Covered
1/2"	2	STD	---	110-522BSFL	---	---	---	SFL-050S	SFL-050T	0026e, 0034e, 0034ePlus, VR3452, VT2218, 0018e, VR1816, 0015e3, 007e, 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, 007-0011, 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 Heating Only Mixing Valves*

The Taco® 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

* NOT AVAILABLE IN CANADA *NSF Versions in sizes 3/8"-1-1/4" also available. See Plumbing Products Section of Catalog.*

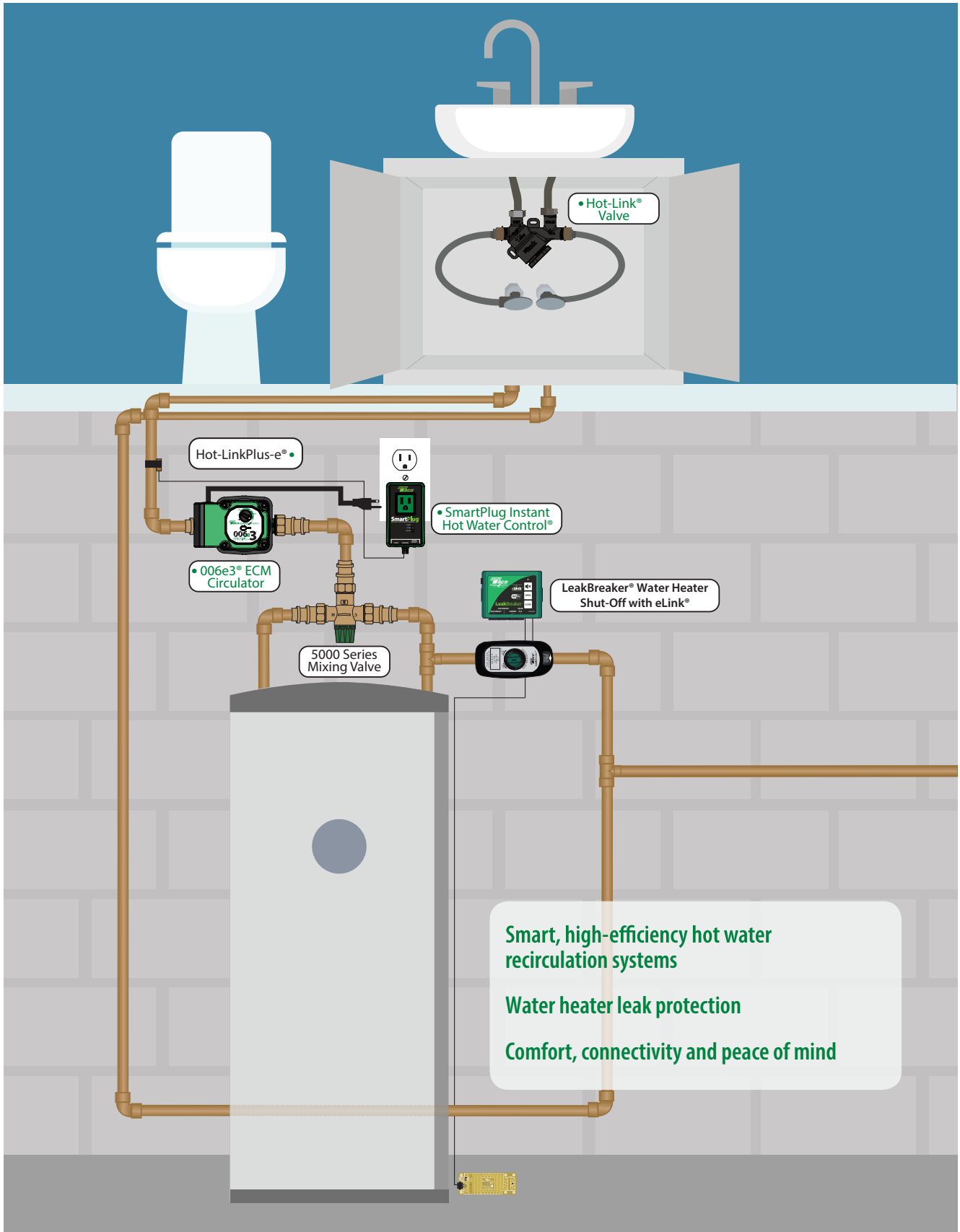
iSeries® Electronic Mixing Valves

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
I100-C2S-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

The Taco iSeries mixing valves provide breakthrough precision and cost-effective temperature control for heating systems. The iSeries are available for 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.



Plumbing System Solutions



LeadBreaker® Water Heater Shut-Off

The Taco® LeakBreaker is a 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 the LeakBreaker device at all times. The LeakBreaker device with eLink® technology uses Wi-Fi® to communicate with the cloud, enabling status alerts to be sent directly to the users whenever a change occurs. eLink 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
- Resettable 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-2LF	Yes	3/4" NPT, WiFi
LB-075-H-2LF	No	3'4" NPT



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

LeakBreaker is available with and without eLink capability.



SmartPlus-e® ECM High-Efficiency Hot Water Recirculation System

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

The Taco® SmartPlus-e bundle is 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® product. A one-two punch that delivers instant hot water comfort while saving energy and water – up to 12,000 gallons a year! With **SureStart®** mode automatically unblocking and purging air, 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**

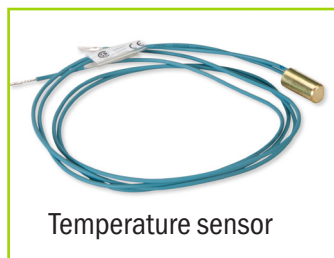
Features

- Quick & easy Installation:
 - Three 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 and energy savings
- SmartPlug Instant Hot Water Control® methods
 - Smart Mode
 - Pulse Mode
 - Vacation Mode
 - Exercise Function
- Unmatched customer service and technical support

Part Number

SPe-1

SmartPlus-e Bundle Includes:



Hot LinkPlus-e® ECM High-Efficiency Hot Water Recirculation System

A bundle of efficiency for INSTANT **HOT** WATER when you need it.

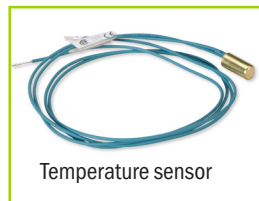
Enjoy instant hot water comfort while avoiding a major renovation. The Hot-LinkPlus-e system installs easily into existing plumbing with a tank water heater. No dedicated hot water return line is needed! The system combines the ECM high-efficiency 006e3® hot water circulator with the award-winning SmartPlug Instant Hot Water Control® bundle 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® mode automatically unblocking and purging air. Ideal for retrofits, the Hot-LinkPlus-e logic 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

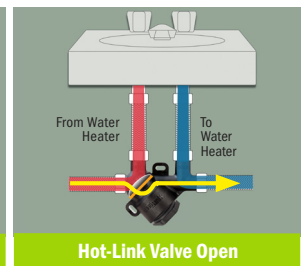
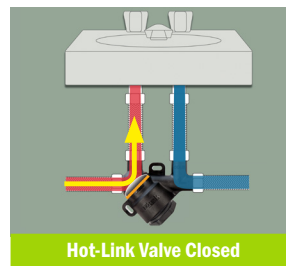
Part Number	HLPe-1
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Hot-LinkPlus-e Bundle Includes:



Features

- Fully automatic
 - Never needs programming
- Ideal for retrofits
- Saves time & energy
 - 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® methods
 - Smart Mode
 - Pulse Mode
 - Vacation Mode
 - Exercise Function
- High-efficiency ECM motor uses up to 85% less electricity
- Unmatched customer service and technical support



Hot Link® Hot Water Recirculation System*

INSTANT HOT WATER

No additional plumbing or electrical needed! Hot-Link® system 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.



Features

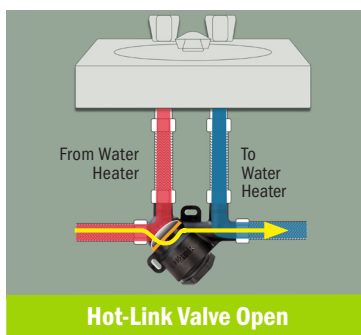
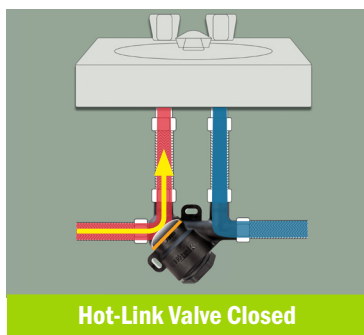
- Exclusive clean in place under sink valve design
 - Extends valve life
 - Reduces customer calls to replace "plugged" valves
- Creates a domestic hot water recirculation system without dedicated return loop piping
- Easy to retrofit to existing plumbing system
- Conserves water by greatly reducing 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
- Three Year Limited Warranty

Part Number	HLS-2
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*NOT AVAILABLE IN CANADA

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.



TacoGenie® Hot Water Recirculation System

Hot water without waste! Activate TacoGenie® Hot Water Recirculation System 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.

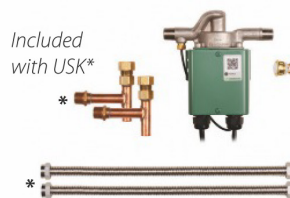
TacoGenie Water Recirculation System

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 System—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



Standard with USK* (Under Sink Kit) option

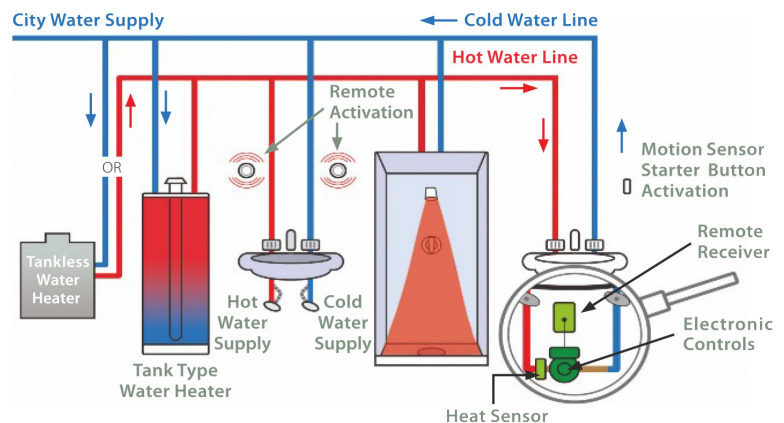
Available in 006, 008 and 0011 circulators

TacoGenie System—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



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 system circulator 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.

Features

- **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® Cartridge Circulators

The Taco® 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 recirculating hot water through the system. An average residence can save up to 25 gallons of waste water per day. Factory pre-wired 6 foot line cord with optional 24 hours analog or 7 day digital plug-in 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° - 115°F aquastat available
- Quiet, efficient operation
- Unique replaceable cartridge design, field serviceable
- Unmatched reliability, maintenance free

Digital Timer (Part #265-DT)

- 7-day digital plug-in timer
- 28 ON/OFF programmable events
- Automatic daylight savings time adjustment
- Battery backup stores settings for up to 3 months

Aquastat (Part #563-2)

Digital Timer		Digital Timer	
Part #	Connection	With Integral Flow Check (IFC)®	
003B-RECIRC-DT	1/2" Sweat	Part #	Connection
006B-RECIRC-DT	3/4" Sweat	006B-RECIRC-DT-IFC	3/4" Sweat

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

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

006e3® ECM High-Efficiency Hot Water Circulator

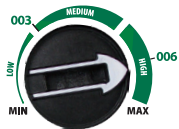
Three settings. One reputation.

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



Setting Selection Guide

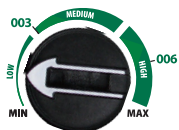
Based on 3/4" supply, 1/2" return copper pipe



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.

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	

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® mode
 - Red: Error diagnostic
- Whisper quiet operation
- Composite casing with 1" union connection and optional 1/2" & 3/4" fittings sets sold separately (See chart below)
- Double insulated, no ground wire required

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

0018e® ECM High-Efficiency Circulator

The Taco® 0018e® circulator with Bluetooth® technology 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 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.



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
 - TacoAdapt™ – Self-Adjusting, proportional pressure, variable speed
- Multi-color LED
- **SureStart®** mode automatically unblocks and purges air
- **BIO Barrier®** protection from system contaminants (Cast Iron only)
- Nut-capture 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
- 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-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

The Taco® 0015e3® circulator 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® circulator delivers performance, reliability and ease of installation that made the 00® series 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®** mode automatically unblocks and purges air
- **BIO Barrier®** protection from system contaminants (Cast Iron only)
- **Green Mode** active system monitoring and automatic power optimization
- Nut-capture 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
- 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



0015e3-SF4	Stainless Steel Universal 2-Way Flange
0015e3-SU	Stainless Steel Union Connection

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® circulator 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 for potable water systems for domestic water recirculation. The 007e® circulator delivers the performance of the classic 007, plus the reliability and easy installation that made the 00® series famous. **Install it, forget it.®**



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®** mode automatically unblocks and purges air
- **BIO Barrier®** protection from system contaminants (Cast Iron only)
- **Green Mode** active system monitoring and automatic power optimization
- Nut-capture 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
- 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)

007e-SF4	Stainless Steel Universal 2-Way Flange
007e-SU	Stainless Steel Union Connection

* 007e NOT AVAILABLE IN CANADA



Replaces ALL 3-speed hydronic circulators in its class

TACO	GRUNDFOS	XYLEM/B & G
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

0026e® ECM High-Efficiency Circulator

The Taco® 0026e® circulator 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. It is 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 — TacoAdapt™, LOW, MEDIUM, HIGH or 0-10V DC analog or PWM digital signal external input
- **B10 Barrier®** protection from system contaminants (Cast Iron only)
- **SureStart®** mode automatically unblocks and purges air
- 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-capture 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



0026e-SF2	Stainless Steel
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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	Top S:
110	Series HV	S 25	UP 26-96	1.25 x 15
111	Series PR	H 52	UP 26-64	1.25 x 25
112	Series 100	H 51	UPS 32-40	1.50 x 20
113	NRF 36	H 32	UPS 32-80	
0010	ECOCirc XL 20-35	Astro 280	UP 26-96	Top Z:
0011	ECOCirc XL 36-45	Astro 210	Magna 32-60	1.5 x 15
0012		Compass ECM	Alpha2 26-99	1.5 x 15
0013				
0014				

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

0034e® ECM High-Efficiency Circulator

The Taco® 0034e® circulator 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. This circulator is 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 – TacoAdapt™, LOW, MEDIUM, HIGH or 0-10V DC analog or PWM digital signal external input
- **BIO Barrier®** protection from system contaminants (Cast Iron only)
- **SureStart®** mode automatically unblocks and purges air
- 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-capture 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-SF2	Stainless Steel
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0034ePlus® ECM High-Efficiency Circulator

The Taco® 0034ePlus® circulator 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; TacoAdapt™, five Constant Pressure curves, five Proportional Pressure curves, Min/Max fixed speed or speed control through 0-10V DC or PWM external input. It is 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 – TacoAdapt™, Constant Pressure, Proportional Pressure, Min/Max Fixed Speed or speed control through 0-10V DC or PWM external input
- **BIO Barrier®** protection from system contaminants (Cast Iron only)
- **SureStart®** mode automatically unblocks and purges air
- 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-capture 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-SF2	Stainless Steel
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1911ecm® & 1915ecm™ High-Efficiency ECM Pumps

The Taco® 1900e Series® are self-sensing, close coupled, mechanically sealed in-line pumps that exceed industry and efficiency standards with an advanced hydraulic design. They feature a high-efficiency volute, ECM motor and integrated frequency drive. Simple yet versatile control options include constant pressure, constant speed, proportional pressure, 0-10Vdc and parallel pump alternation. These standard features combined with the intuitive user interface allow for quick start-ups achieving optimum system efficiency and maximum comfort. These pumps are available in Ductile Iron for closed loop hydronic heating and cooling systems or Stainless Steel, NSF Commercial Hot Certified for DHW applications.

Features and Benefits

1911ecm

- 50' Shut-off head, 105 USGPM max. flow

1915ecm

- 65' Shut-off head, 120 USGPM max. flow
- ECM brushless DC, high-efficiency, soft start, high starting torque motor
- Easy to program pump interface
- Self-sensing
- Multiple operating modes
 - 4 Constant pressure
 - 3 Constant speed
 - 1 Proportional pressure
- LED status light
- Error diagnostics
 - Locked rotor
 - Over current
 - Over & under voltage
 - Over temperature
 - Communications failure
 - Dry run
- External inputs/outputs
 - 0-10vdc external speed control
 - Remote enable
 - Overload relay output
 - Parallel pump control
- High quality mechanical seal
 - Carbon/Silicon-Carbide/EPDM for CI Model
 - Carbon/Silicon-Carbon/Viton for SS Model

1911ecm-SF VR50105-CD1-FS2A01	Stainless Steel
1915ecm-SF VR65120-CB2-FS2A01	Stainless Steel



4001998



Certified to
NSF/ANSI/CAN 61
& 372

Stainless Steel
models only

VR Series ECM High-Efficiency Circulators

The Taco® 00e® VR series circulators 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 TacoAdapt™; 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 (DHW) 304 Stainless
Impeller PES GF-30
Shaft.....ANSI 420
BearingCarbon Sleeve Type

Minimum Inlet Pressure

Temp.	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



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

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 servicable
- Self-lubricating
- No mechanical seal
- Unmatched reliability, maintenance free
- Integral Flow Check (IFC) available
- Most available in 230 vol
- Connection Sizes: 3/4" , 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

00e Series 3-Speed Circulators

All Taco® 00 3-speed circulators include our replaceable cartridge design and an IFC® (Integral Flow Check) which prevents gravity flow, reduces installation costs and improves system performance. The stainless steel 00 3-speeds are NSF/ANSI/CAN 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"

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

NSF

Certified to NSF/ANSI/CAN 372

cULus

LISTED

Low-Lead Compliant

Models
0012 & 0013
3-Speed



Model
0015
3-Speed



Enhanced 2400 Series

The enhanced Taco® 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



Stainless Steel Models Only



Part

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

Model Nomenclature

S: Stainless Steel, Flanged, NSF 61 & 372

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

Freedom Flange® Products

The Taco® freedom Flange® products fit 00®, 110 Series, 2400 circulators 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.



Stainless Steel Freedom Flange® Products



Bronze Freedom Flange® Products



Shut-off Freedom Flange® Products



SmartPlug Instant Hot Water Control®

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

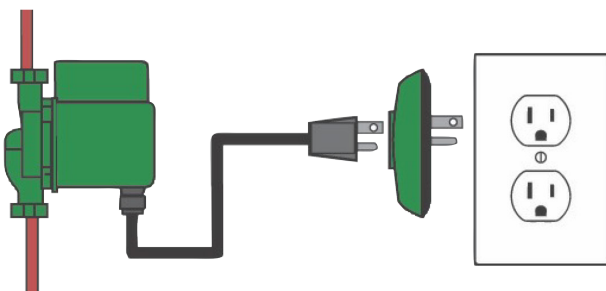
SP115-1

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*

UL LISTED FOR INDOOR USE ONLY



For use with any Taco domestic hot water circulation with a 110 Vold Line Cord.

5000 Series Mixing Valve

Control hot water temperatures to your domestic system with Taco® 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



Now available in Press-Connect Models.



5120 Lead-Free High Flow Series



5120 Lead-Free Series



Now available in Press-Connect Models.



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	Part #	Description	Part #	Description
Mixing Valves (ASSE 1017) Adjustment 85-176F — All Union Valves Include Built-In Check Valves		Mixing Valves (Dual ASSE 1070 and ASSE 1017) Adjustment 85-120F — All Union Valves Include Built-In Check Valves		Mixing Valves High Glow (ASSE 1017) Adjustment 85-176F — Includes Built-In Check Valves	
5000-3	BODY ONLY (Does not include connectors)	5120-2	BODY ONLY (Does not include connectors)	5124-HF-C1	Thermostatic Mixing / Tempering Valve, Sweat Union, High Flow
5002-B3	1/2" Union CPVC	5122-B2	1/2" Union CPVC	5125-HF-C1	Thermostatic Mixing / Tempering Valve, 1-1/4" Sweat Union, High Flow
5002-C3	1/2" Union Sweat	5122-C2	1/2" Union Sweat		
5002-P3	1/2" Union PEX	5122-P2	1/2" Union PEX		
5002-T3	1/2" Union NPT	5122-T2	1/2" Union NPT		
5002-H3	1/2" Union Press	5122-H2	1/2" Union Press		
5003-B3	3/4" Union CPVC	5123-B2	3/4" Union CPVC		
5003-C3	3/4" Union Sweat	5123-C2	3/4" Union Sweat		
5003-N3	3/4" Female NPT	5123-N2	3/4" Female NPT		
5003-P3	3/4" Union PEX	5123-P2	3/4" Union PEX		
5003-T3	3/4" Union NPT	5123-T2	3/4" Union NPT		
5003-H3	3/4" Union Press	5123-H2	3/4" Union Press		
5004-C3	1" Union Sweat	5124-C2	1" Union Sweat		
5004-P3	1" Union PEX	5124-P2	1" Union PEX		
5004-H3	1" Union Press	5124-H2	1" Union Press		

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:

$$2-4 = \frac{3}{4}"$$

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

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

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

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)

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

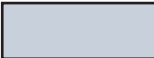
$$\text{BTU/hr (30\% E. glycol@ 68°F)} = \text{GPM} \times 445 \times \Delta T (°\text{F})$$

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

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

 = Velocity over 4 ft. /#

SDRP 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	0.07	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 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.

$$\text{Flow (GPM)} = \text{STU's} + (500 \times \text{JIT})$$

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

***Note:** If unsure which LH 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. For large projects, consulting proper charts for more detailed figures is strongly recommended.

Now take your (T.E.L.) and multiply by .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.

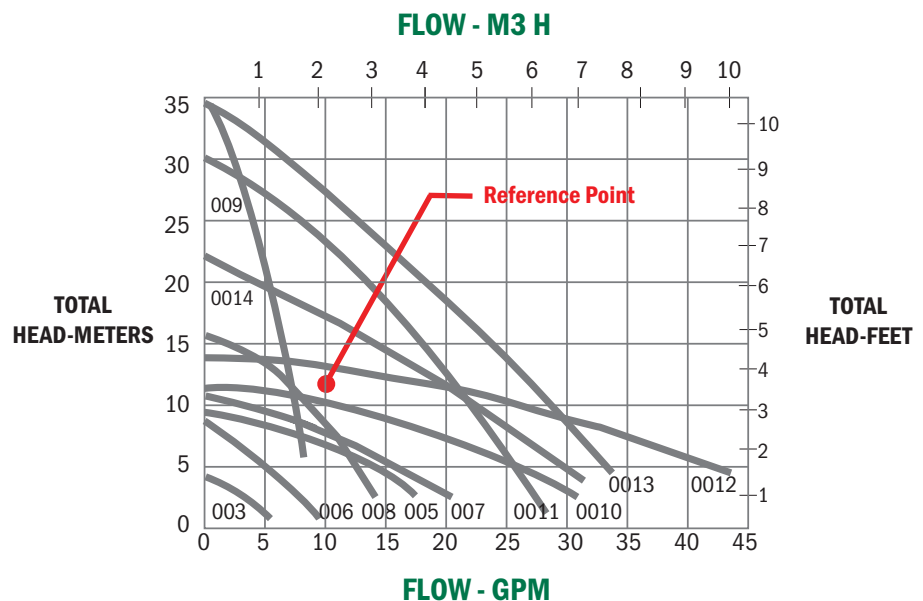
► Step 3: Add it all up

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 selection and sizing tools on Taco's website:

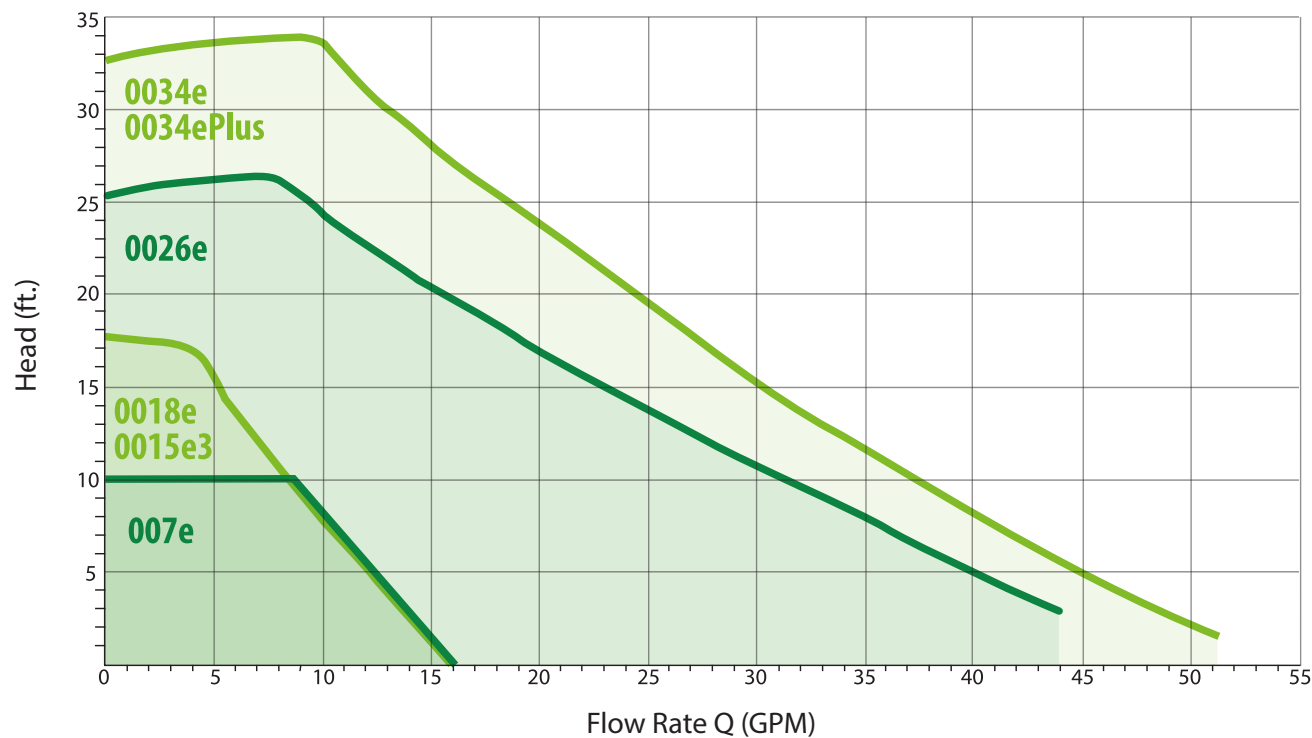
www.tacomfort.com/selection-tools/. For a quick search, enter your flow and head into the web sizing program and click search.

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.



00e[®] Series Family of Curves



007e[®]

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



0015e3[®]

2 constant pressure, 1 fixed speed, Green Mode



0018e[®]

9 constant pressure, 9 proportional pressure, variable fixed speed, TacoAdapt[™]



0026e[®]

2 constant pressure, 1 fixed speed, TacoAdapt[™], 0-10V or PWM



0034e[®]

2 constant pressure, 1 fixed speed, TacoAdapt[™], 0-10V or PWM

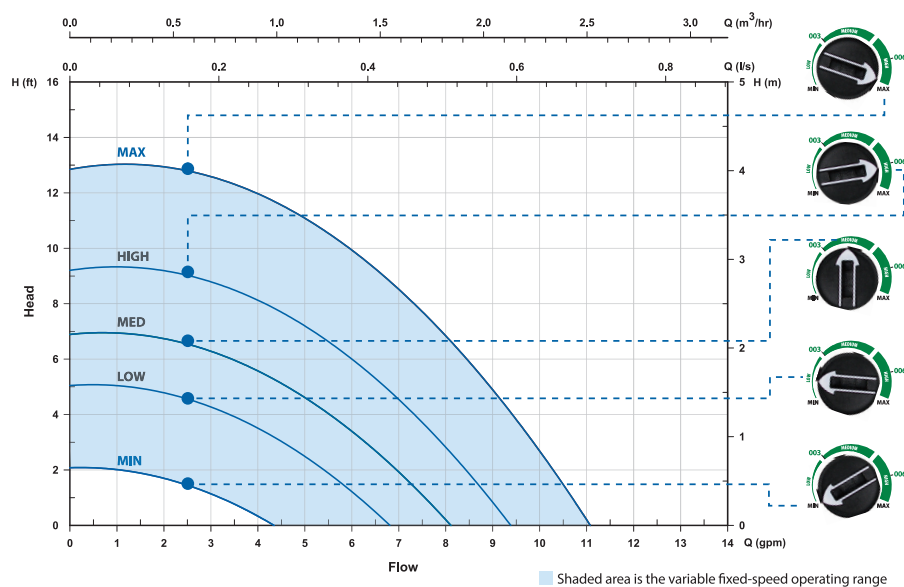


0034ePlus[®]

5 constant pressure, 5 proportional pressure, infinitely variable fixed speed, TacoAdapt[™], 0-10V or PWM

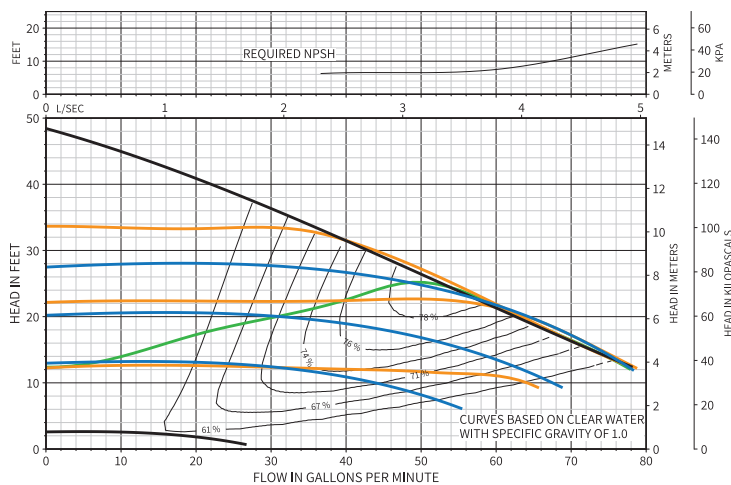


006e3[®] Performance Curves 115v/60Hz

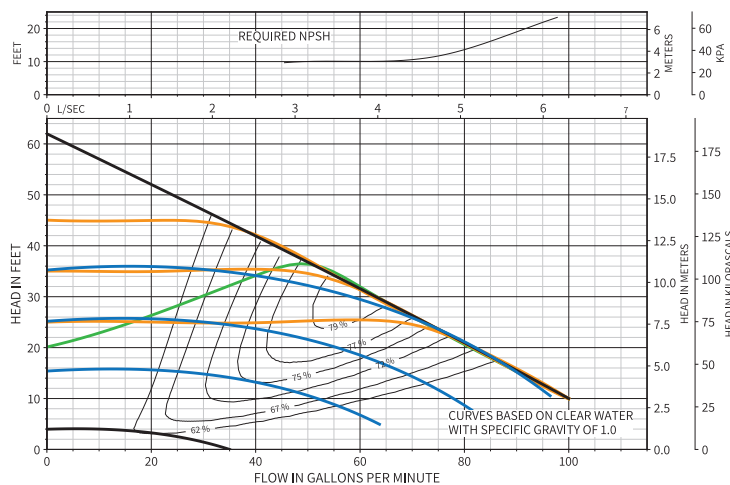


1900e[®] Series Performance Curves

1911ecm[®]



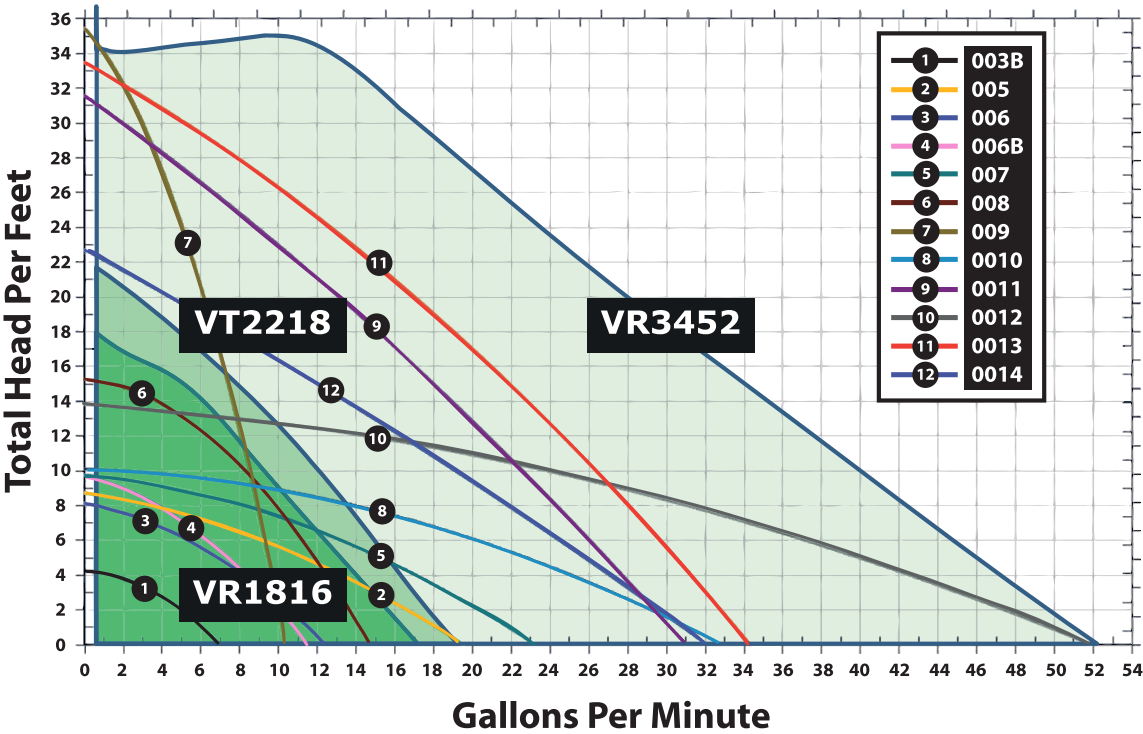
1915ecm[™]



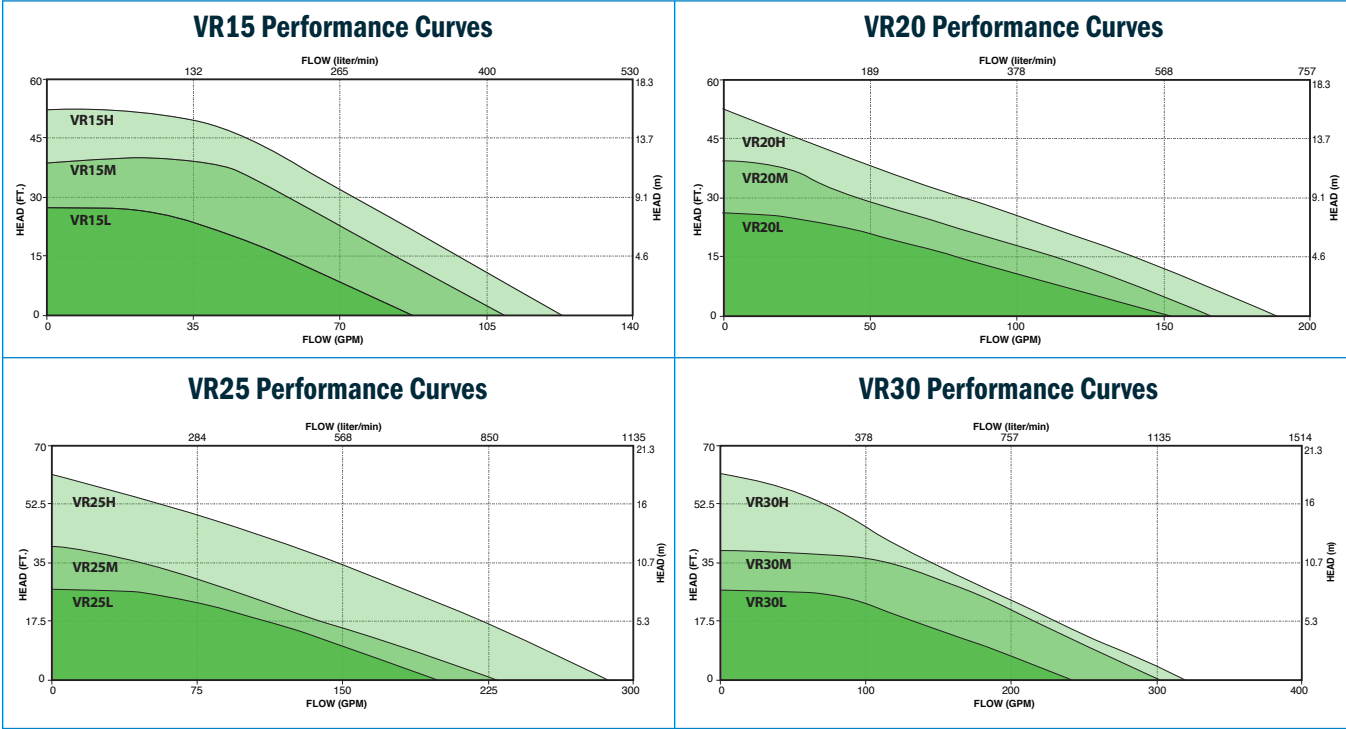
■ Fixed Speed
 ■ Constant Pressure
 ■ Proportional Pressure

Pump Curves

VR1816, VT2218, VR3452
ECM vs Single Speed

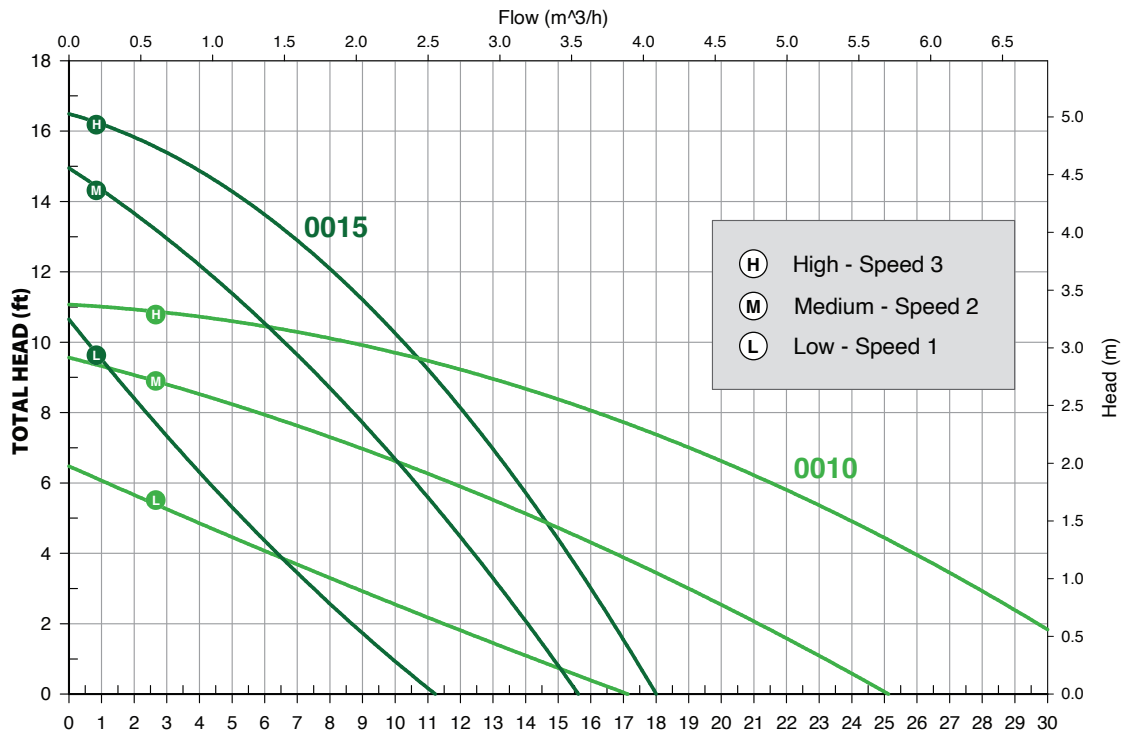


VR15, 20, 25, 30 Performance Curves



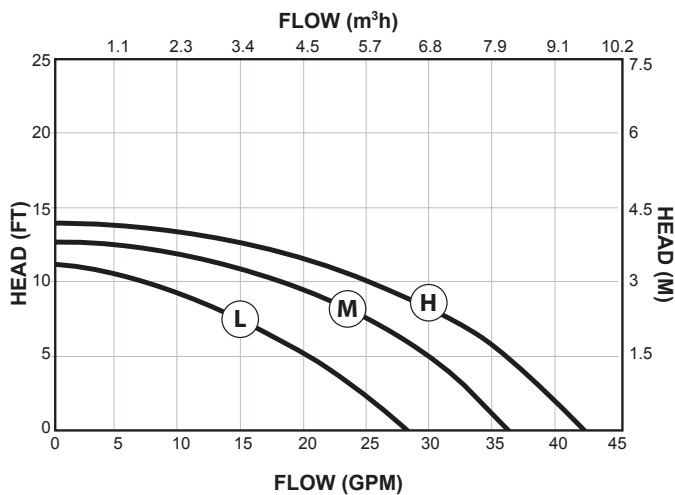
3-Speed, 00® Series (0010 & 0015)

Taco® Multi-Speed Circulators • Performance Curves

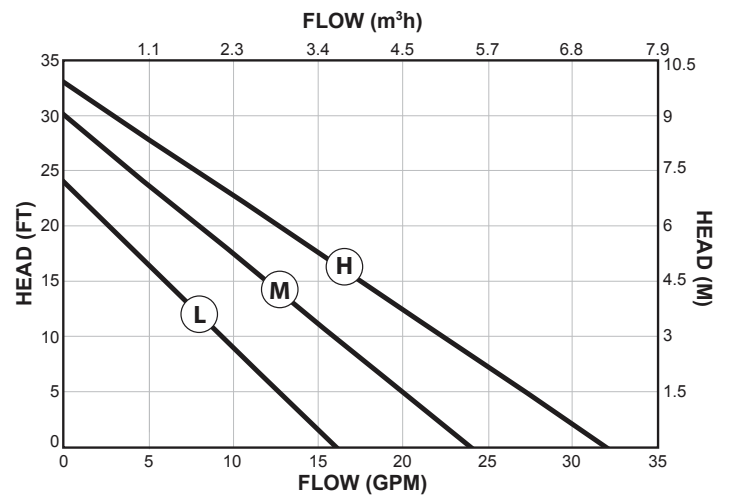


3-Speed, 00® Series (0012 & 0013)

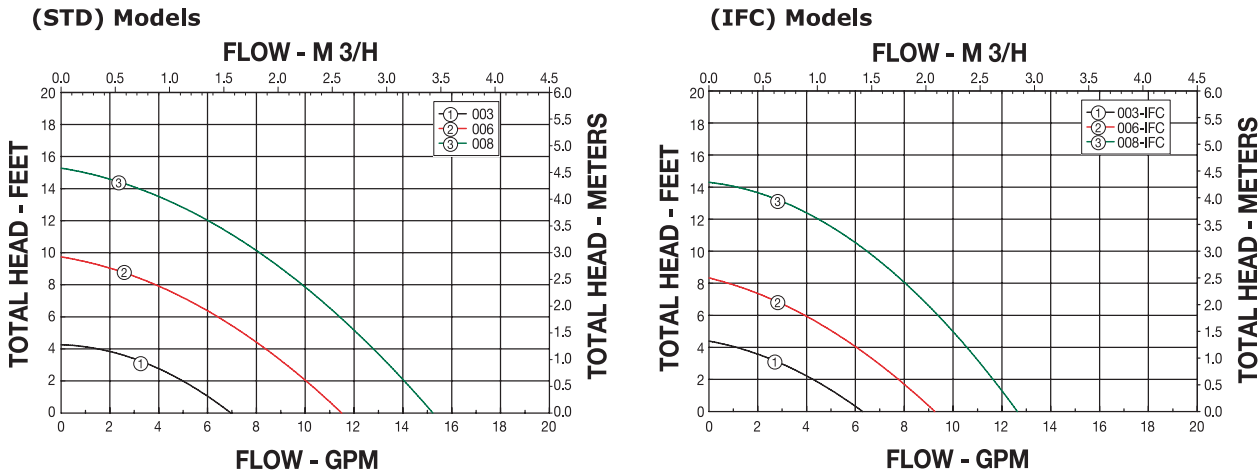
0012 Performance Curves



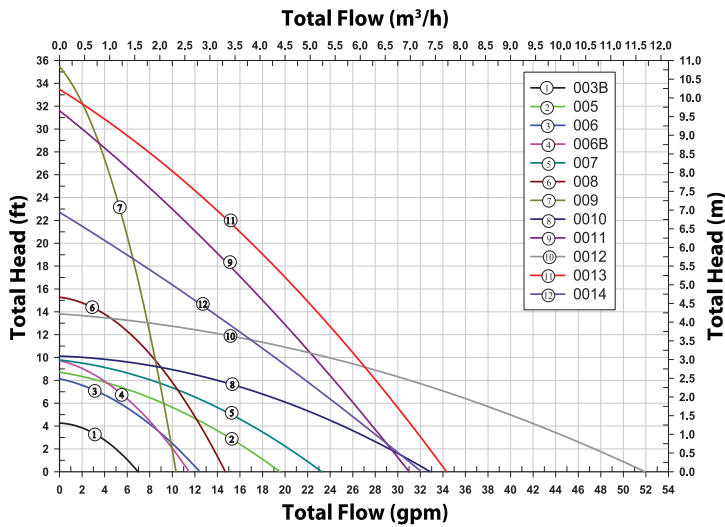
0013 Performance Curves



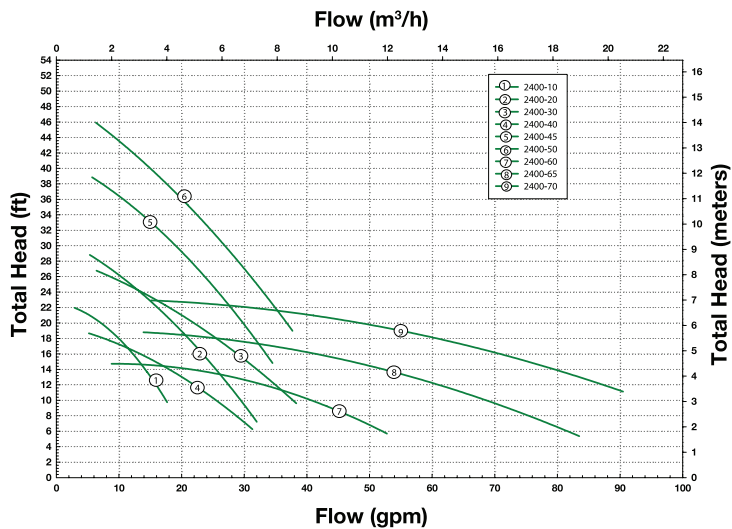
Plumb n' Plug® Circulators



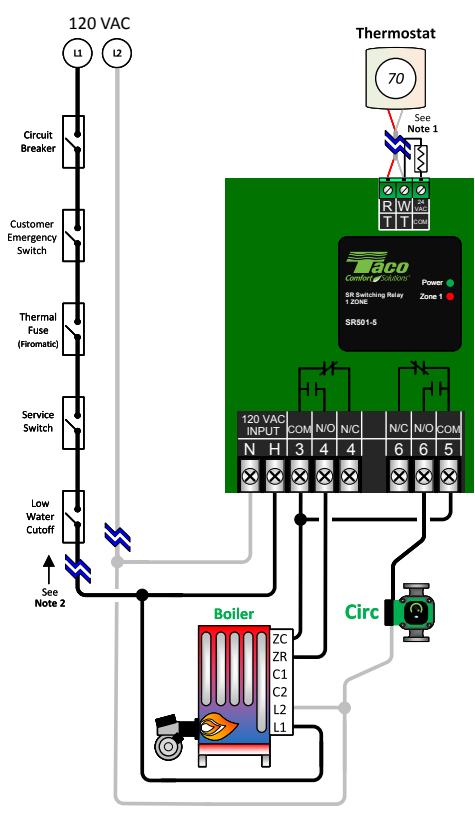
00® Series Circulators/Performance Field



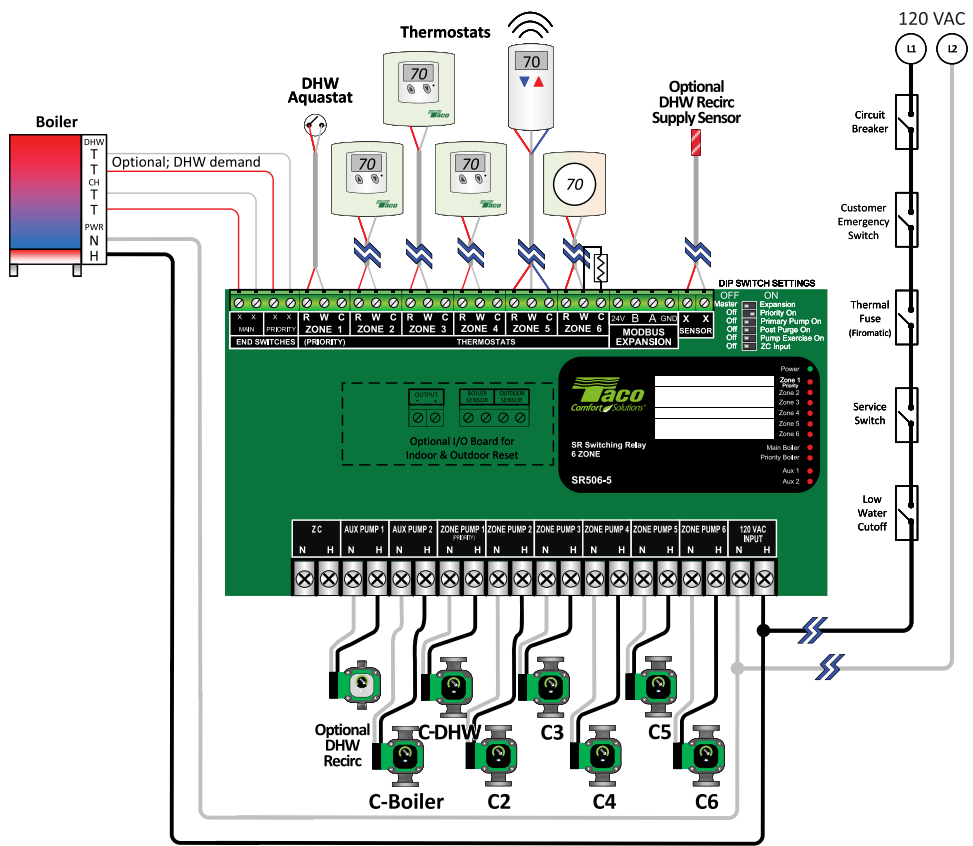
2400 Series Circulators (60Hz) (10-70)



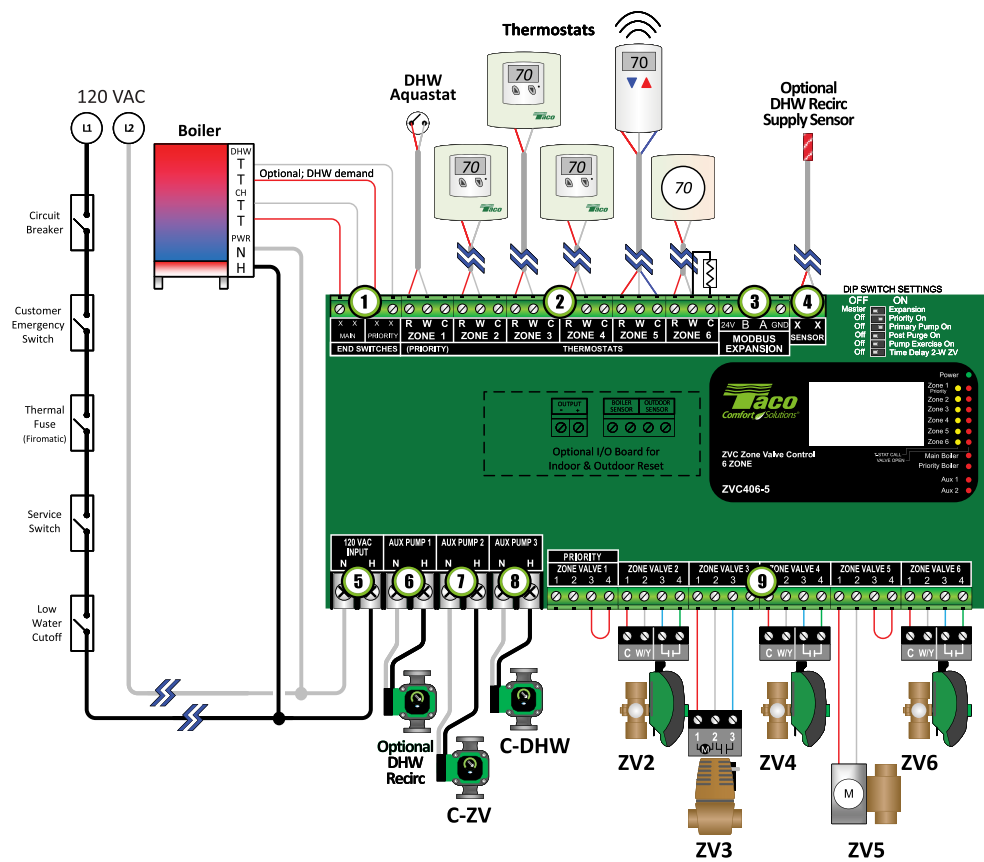
SR501-5 Switching Relay



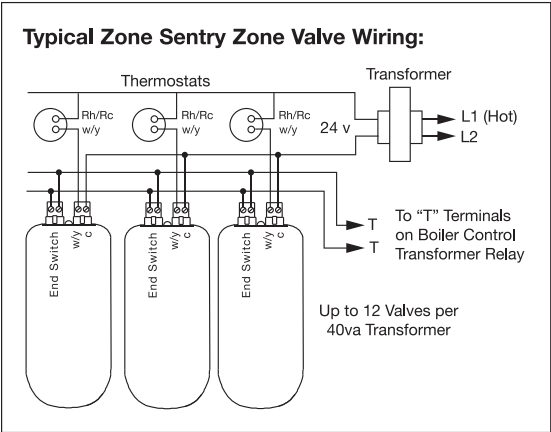
SR504-5 Switching Relay



Zone Valve Control Wiring Diagram



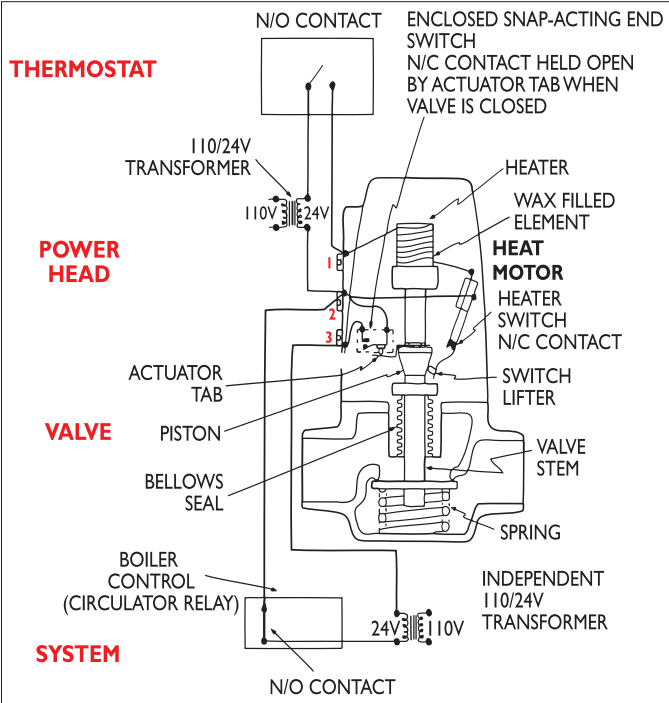
Zone Sentry Zone Valve



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


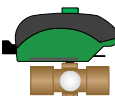
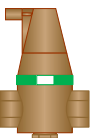

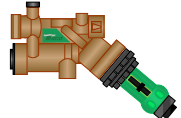
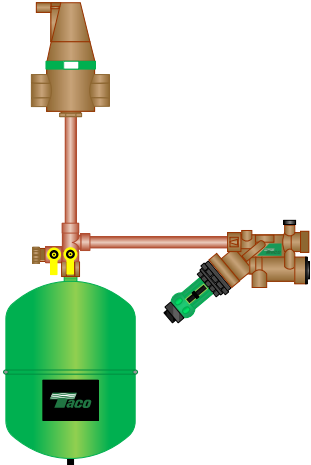
CAUTION: To prevent electrical shock, disconnect electric power to system at main fuse or circuit breaker box until installation is complete. When a service switch is installed, more than one disconnect switch may be required to de-energize this device for servicing.









Heat Motor Zone Valve



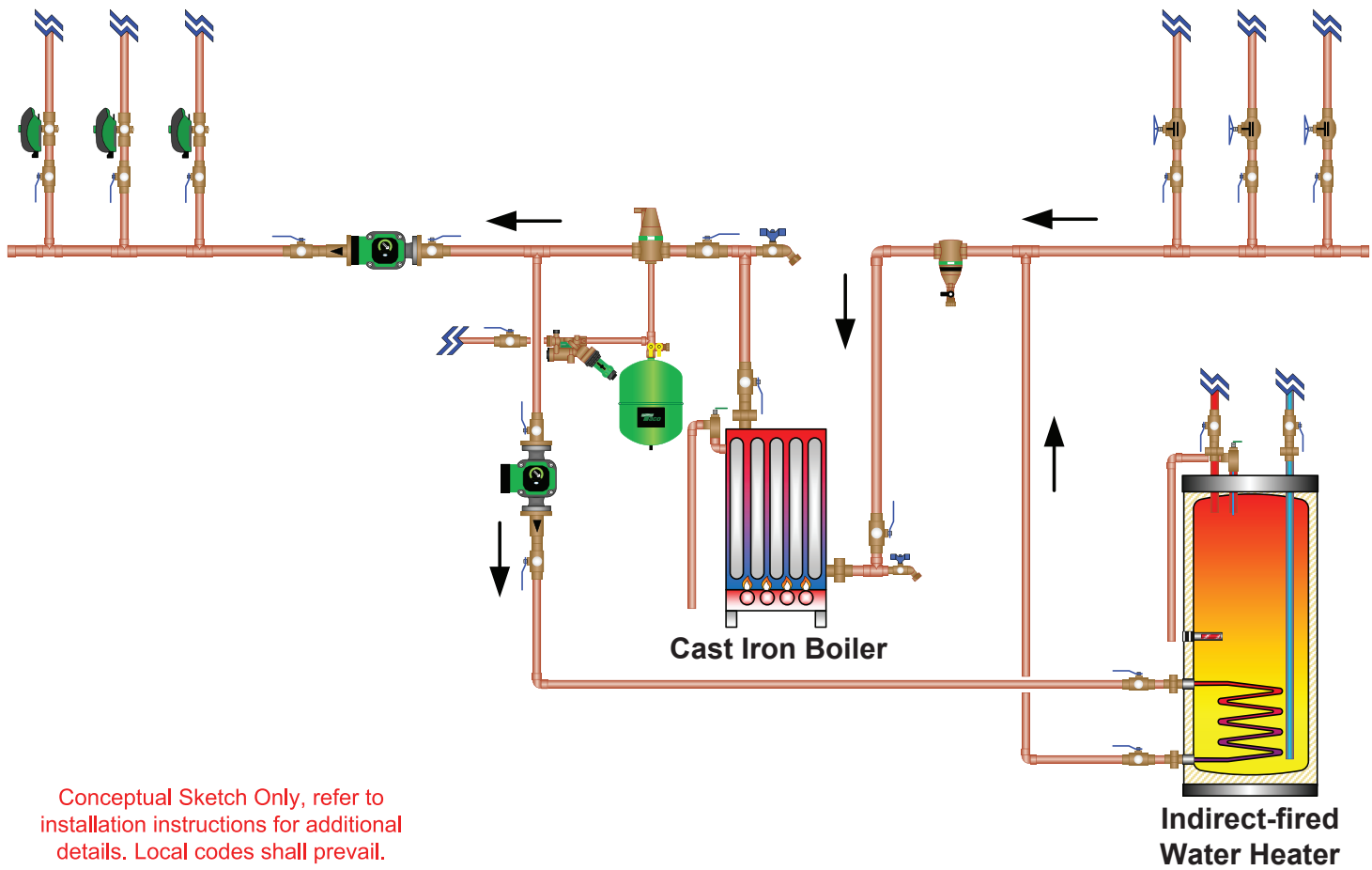
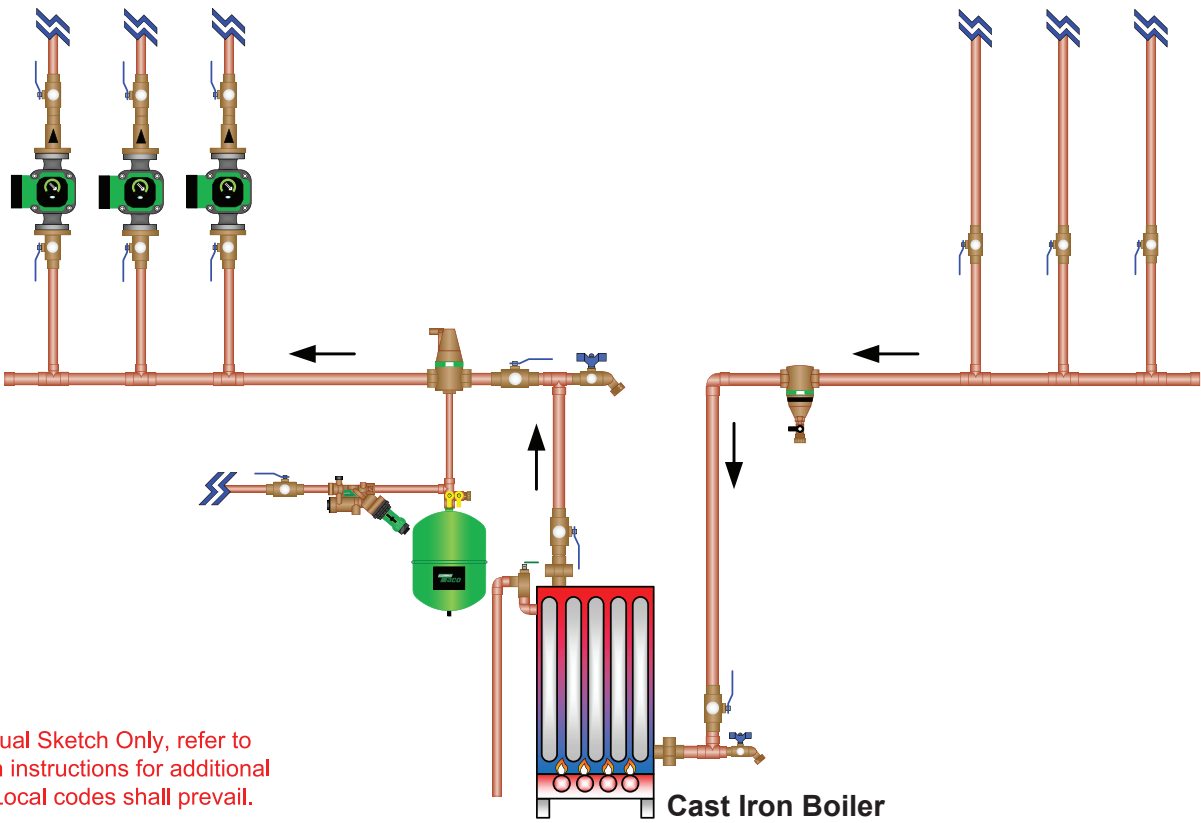
Piping Diagrams

LEGEND

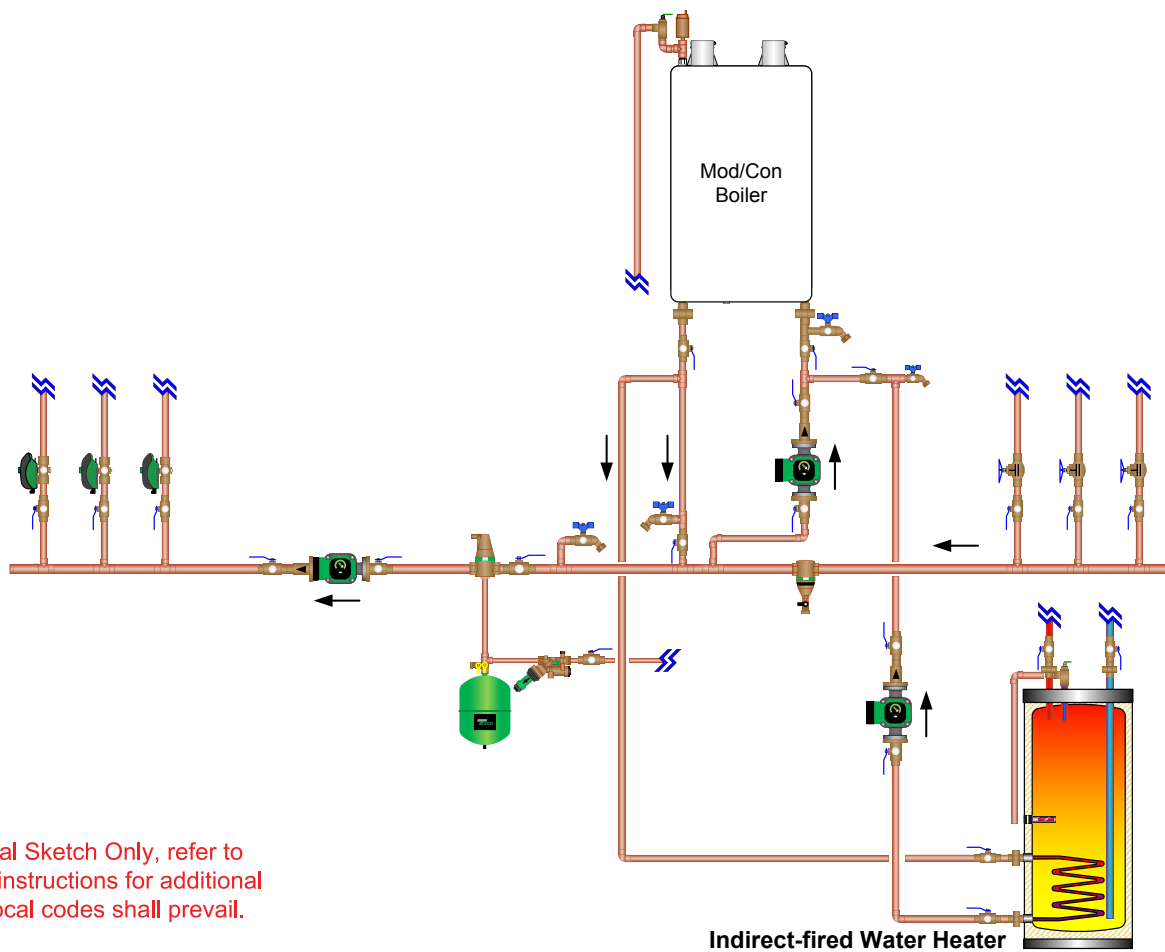
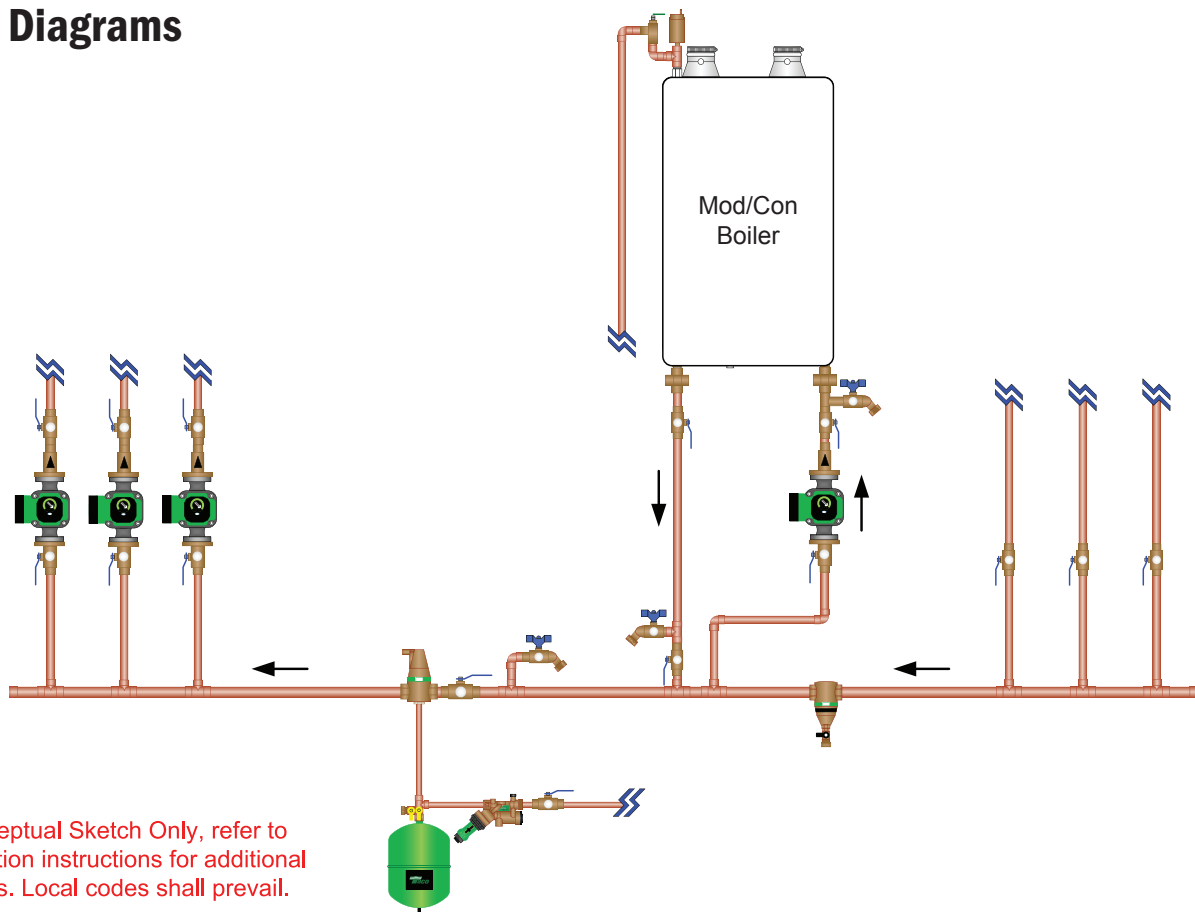
	Taco Model	Description
	= 007e, 0015e3, VR1816, 0018e	Delta P ECM Circ w/ integral flow check and isolation
	= Zone Sentry	Capacitor driven 24 vac N.O. Zone Valve w/ end switch
	= 4900 AS	Air separator w/ Pall Ring coalesce media
	= 4900 MDS	Mag Dirt Separator w/ Pall Ring coalesce media
	= 3450 Combi 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

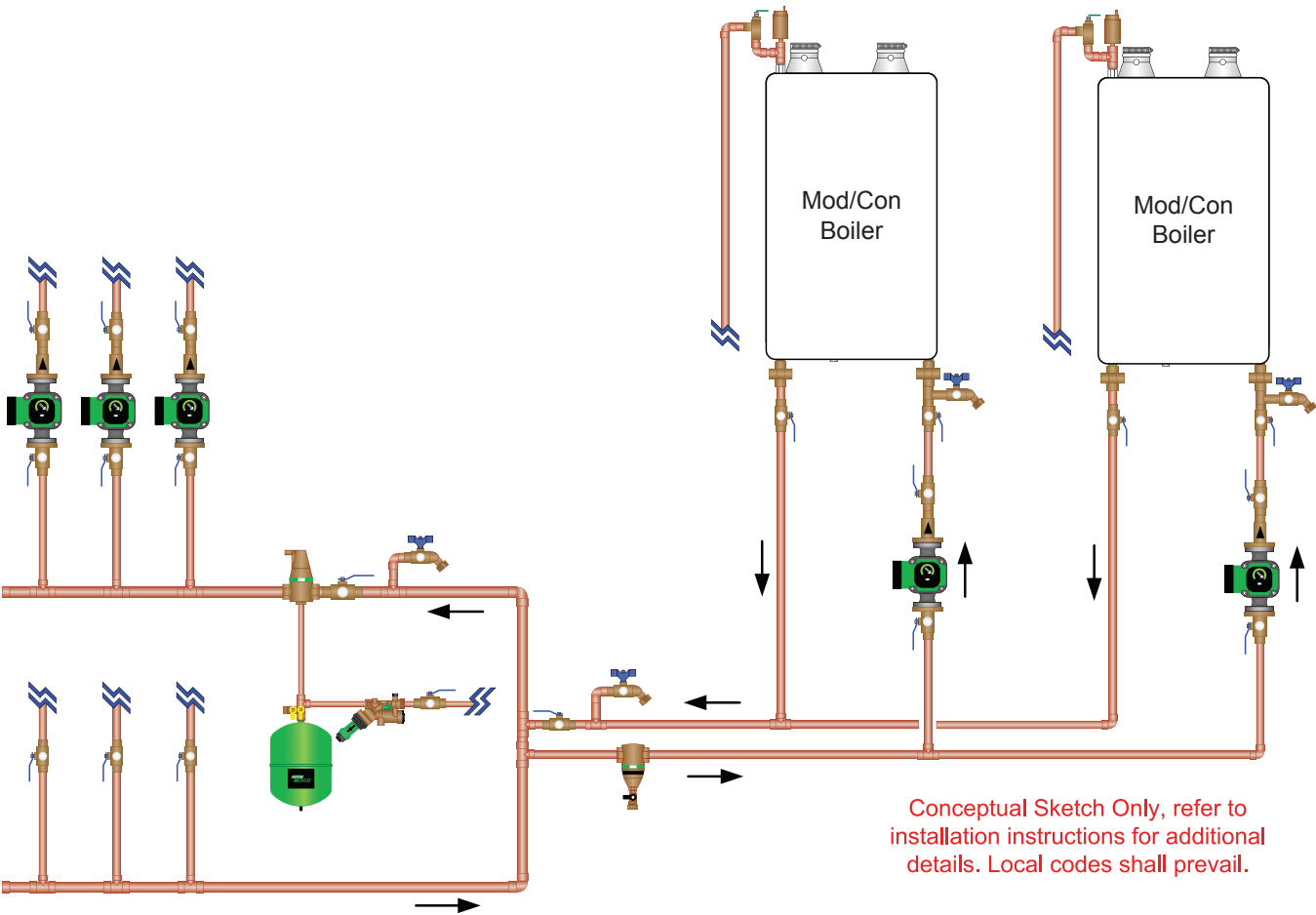
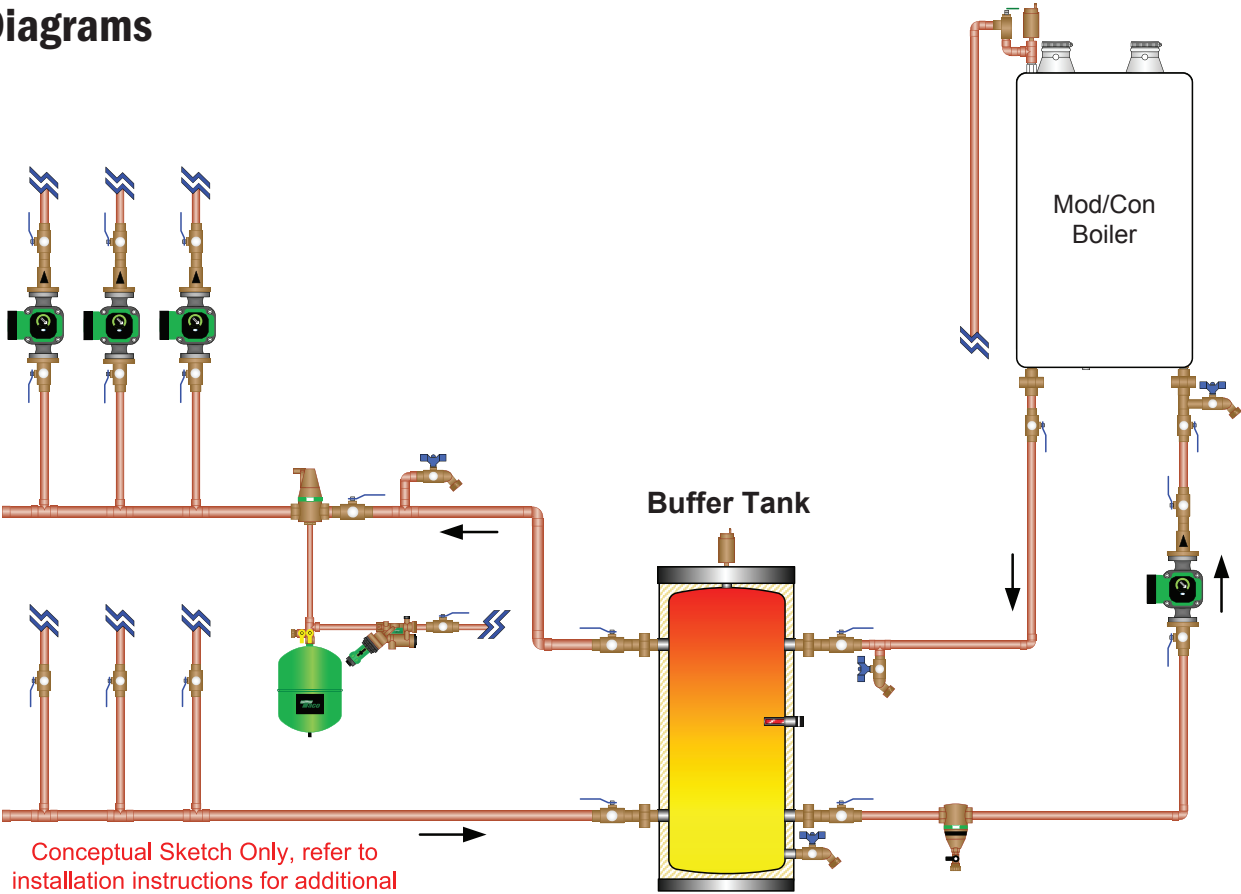
Piping Diagrams



Piping Diagrams



Piping Diagrams



[illegible]

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