

# **hydronic**

SYSTEMS & COMPONENTS



**comfort** made **easy**®

### A message from John Hazen White, Jr.

For over 85 years, Taco has never strayed from its founding mission to provide you with the most reliable, easy to install hydronic components in the industry.



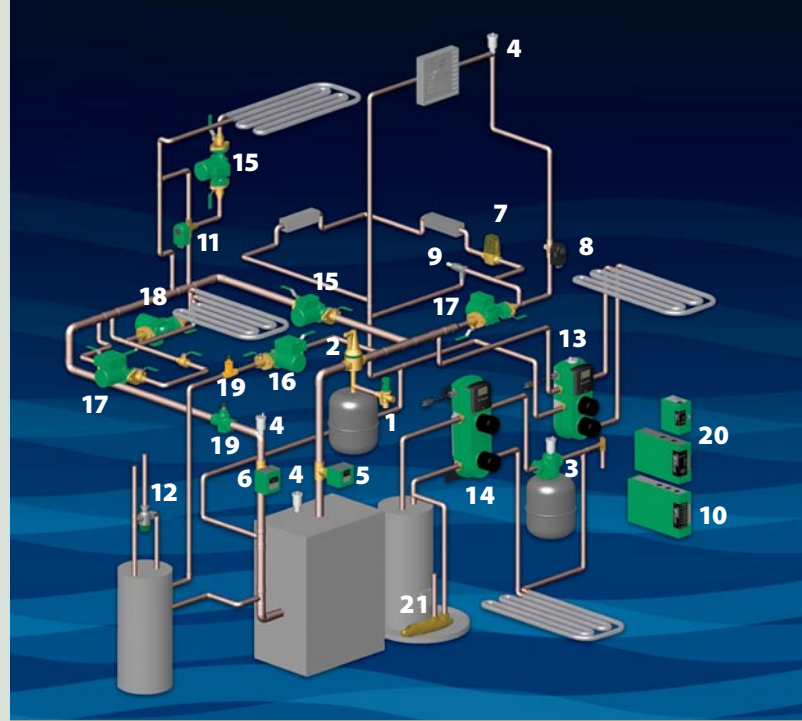
Every day, the 500 people who work at Taco strive to make your job easier by developing the products you want and the systems that are as close to plug-and-play as it gets; by providing the customer support, software, and

training that will help you grow your business in the years ahead.

As hydronic technology expands into more sophisticated controls and remote diagnostics, energy saving applications, and new radiant concepts, we'll be out in front, working hard for our customers. Because at the end of the day, it's all about you.



John Hazen White, Jr.  
President and CEO, Taco Inc.



### The Taco Hydronic System

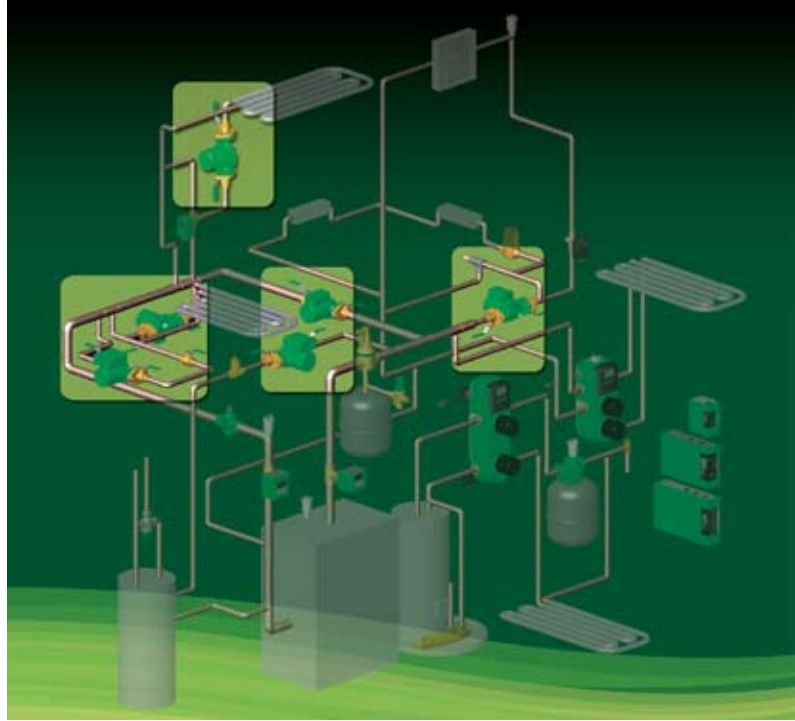
1. Pressure Reducing Valve
2. 4900 Air Separator
3. VorTech Air Separator
4. Automatic Air Vents
5. Flow Switch
6. Low Water Cutoff
7. Heat Motor Zone Valve
8. EBV Zone Valve
9. Differential Bypass Valve
10. Zone Valve Control
11. iSeries Mixing Valve
12. 5000 Series Mixing Valve
13. Radiant Mixing Block
14. X-Pump Block
15. 00 Circulator with Integral Flow Check (IFC) and Shut-Off Freedom Flange
16. 00 Priority Zoning Circulator
17. 00 Variable Speed Injection Circulators
18. 00R Circulator with IFC
19. Flo-Chek
20. Switching Relays
21. Water and Gas Safety valve (WAGS)

# circulators

## **Built for the job.**

We design circulators for real-world applications, so you get the pump you need, without paying for features you don't. Whether it's a patented zoning circulator, a 3-Speed for radiant or service work, or a variable speed pump, every 00 improves system control, comfort, and efficiency while making your job easier. For those larger jobs, choose the time-proven design of the 110-120 Series or the quiet, compact 1400 Series. No matter your application, Taco has the perfect circulator.





### **00® Circulators**

Taco 00s are the most popular hydronic circulators every sold. The reason? Reliability. Install them, forget them. From the compact, low flow 003 to the high head/high flow 0014, there's a 00 to fit your job. Every 00 features a field replaceable, self-lubricating impeller cartridge and an optional integral flow check (IFC®). They're quiet, they're tough, and they're built to last.

### **00 Priority Zoning Circulators**

The patented Taco Priority Zoning Circulator combines 00 reliability with the con-

venience and efficiency of a switching relay. Easy wiring makes it ideal for adding a zone or installing on an indirect water heater.

### **00R 3-Speed Radiant Pump**

With the highest starting torque in its class, the 00R 3-Speed delivers the performance and fine tuning capabilities sure to satisfy the most demanding radiant installer.

### **0010 3-Speed Service Pump**

Here's the perfect pump for that 2 a.m. service call. The handy new universal 4-bolt flange simplifies the change-out any pump, regardless of style, type, or

age. Like the 00R 3-Speed, it's built rugged and reliable.

### **00 Variable Speed Circulators**

All the wiring for power and sensors is done directly to the circulator. Choose the 00 Variable Speed Circulator that's right for you: Outdoor Reset, Setpoint, or Variable Voltage. Then upgrade temperature control, flow control, equipment protection, indoor comfort, and total system efficiency with our convenient all-in-one package.

### **1400 Series Circulators**

The space saving, high capacity 1400 is designed for a wide range of medium to high flow/head hydronic applications. It features a maintenance-free, closed coupled motor with permanently lubricated bearings. The one-piece mechanical seal is fully serviceable.

### **110-120 In-Line Circulators**

The Red Baron series has provided dependable pumping power for over 50 years. Its 3-piece design with resilient mounted, sleeve bearing motor, stainless steel shaft, dynamically balanced impeller and one-piece spring coupling means it's built to last.

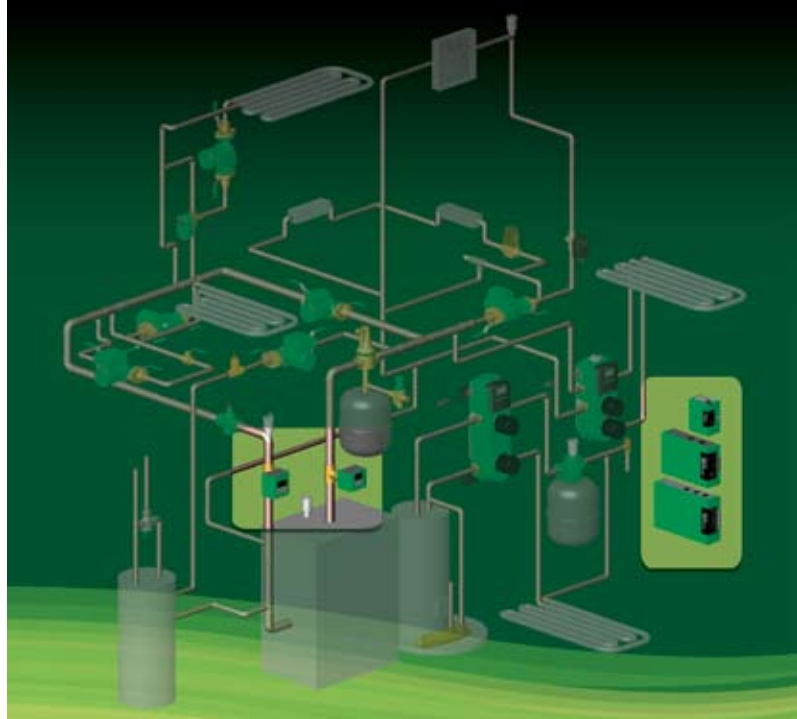
# electronic controls

## **Simple, expandable, and understandable.**

Taco believes that sophisticated electronic controls don't have to be complicated to be the best. Whether you're installing pumps, zone valves, air handlers, or looking to protect your boiler, our controls make wiring and diagnostics uncommonly fast and easy. What's more, adding advanced comfort features is plug-in, building-block simple.







### Switching Relays

Taco Switching Relays combine clearly labeled PC board layouts with plug-in, add-on capabilities to make total system customization a snap. External LED indicator lights provide instant diagnostic feedback, so service calls and new installation start-ups are quick and easy.

### Zone Valve Controls

It's time to simplify your wiring nightmare while eliminating the "unfinished"

look of conventional zone valve installations. Our easy to read PC board layout takes the guesswork out of wiring, while external indicator lights reduce installation and troubleshooting time. Install 2-, 3-, or 4-wire zone valves (even a system or priority zone pump), then plug-in your choice of advanced cards and controls to customize the system.

### PC600, PC700 Series Plug-in Cards & Controls

Have it your way! Just pop in a post purge, priority protection, or universal

timer/pump exercise plug-in card, or add an outdoor boiler reset or injection mixing plug-in control. All integrate easily with any Expandable (-EXP) Switching Relay or Zone Valve Control. Mix and match for complete system control and efficiency.

### Hydro Air Fan Controls

The ideal interface between the thermostat and air handler, it's a lot of control in a small package. Taco Fan Controls provide advanced diagnostics, simple wiring, automatic multi-speed switching, fan time delay, pump exercise, and freeze protection. All this adds

up to increased year round comfort and operating efficiency.

### Low Water Cutoffs

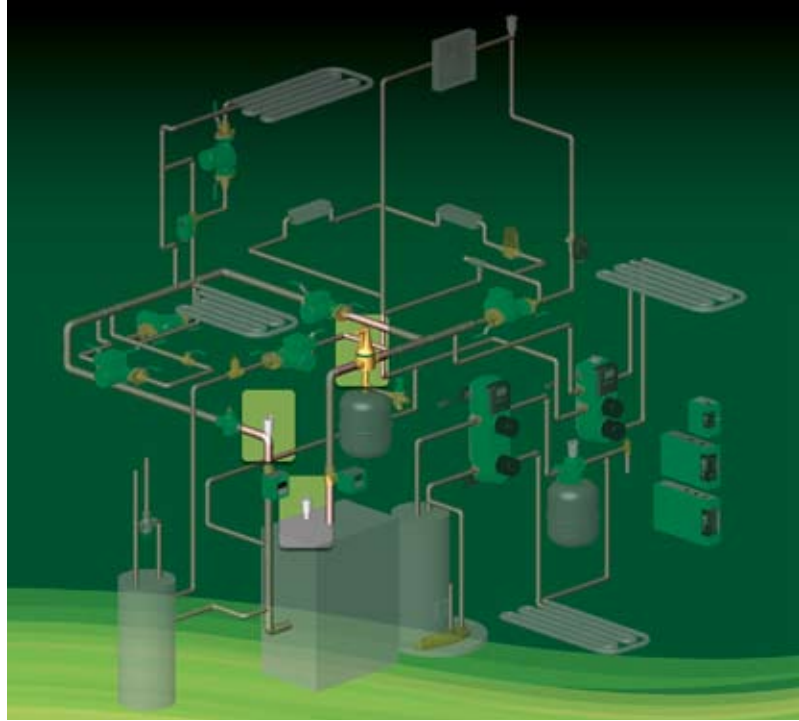
For dependable protection for all types of boilers, turn to our probe-style, micro-processor-based cutoffs. Our most advanced model even detects the difference between foam and water, allowing steam boilers to run at full efficiency instead of cycling off every few minutes. Protection and simplicity combined!

# air. elimination

## Keep the system quiet and running smoothly.

Air in a hydronic system promises problems, including performance degradation, corrosion, and noise. From air vents and scoops to the VorTech Air Separator and the patented Pall Ring technology in the 4900 Series, the industry turns to Taco for quality and quiet.





#### **Taco Air Vents**

Long the industry standard, Taco automatic air vents purge unwanted air from the system to maximize efficiency and speed system filling. The Coin Vent prevents water or steam radiators from becoming air bound. Our famous Hy-Vent is a high capacity float-style vent. It can be placed at the boiler or at highpoints throughout the system, and is available in a wide selection of styles and connections.

#### **Air Scoops**

Connect a plain steel or diaphragm expansion tank and Hy-Vent to one of our Air Scoops and you'll have economical and efficient air removal from any hydronic heating, cooling or combination system.

#### **VorTech Air Separators**

For an enhanced level of air removal, use our VorTech Air Separator. Its innovative tangential flow pattern, primary separation chamber with bubble-breaker cartridge, and standard Hy-Vent make the VorTech the most

effective and reliable air separator you can buy.

#### **4900 Air Separators**

For the last word in air removal, the 4900 Series' unique patented Pall Ring technology eliminates micro-bubbles three times smaller than comparable air separators. With no minimum run of inlet pipe required, the 4900's unique conical shaped, clog-free venting chamber, glycol suitability, and integral shut-off valve take air elimination to a new level of installation ease and performance.



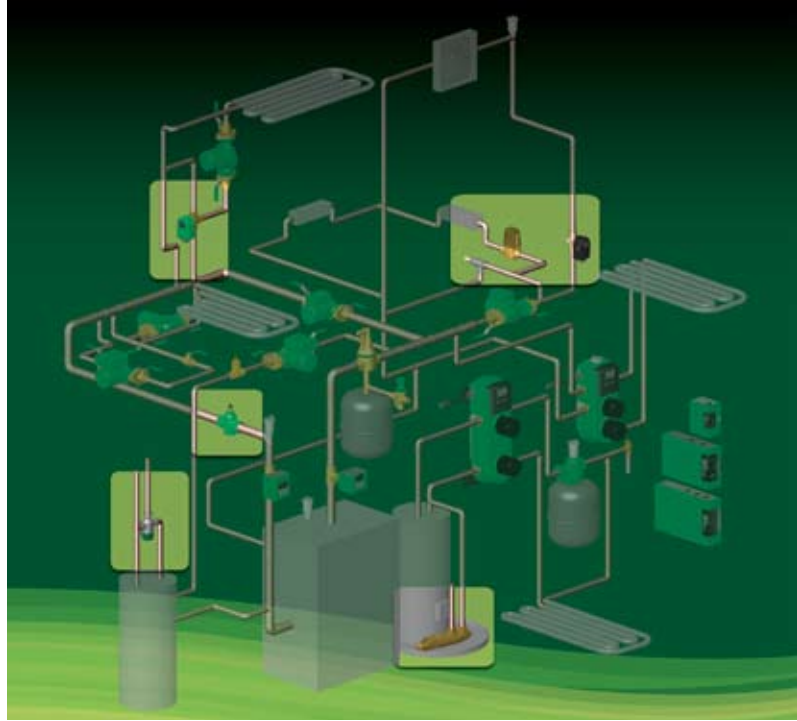


# valves & accessories

## **Quality, consistency, and safety throughout the system.**

Our approach to hydronic systems is all-encompassing. We offer the most comprehensive selection of accessories in the industry, designed for ease of installation, industry leading performance, full system compatibility, and dependability you can take to the bank.





#### **Electronic Ball Valves**

The EBV is the smartest zone valve you can buy. Packed with patented technology, it leads the industry in flow rate capacity, shutoff pressure rating, ease of installation, energy efficiency, diagnostic capability, and the number of valves (12) that can be used per 40 VA transformer.

#### **Heat Motor Zone Valves**

With over a million installed, you know you're getting the best on the market. Each valve features silent operation, a twist-off head, manual open lever, positive shut-off construction and leaf-proof operation.

#### **Taco Flo-Cheks**

Our dependable Flo-Cheks stop gravity circulation to allow the boiler to maintain domestic hot water year round and prevent flow in the reverse direction. They can be used in systems with multiple circulators to assure water flows only into the zone calling for heat.

#### **Industrial Flow Switches**

The Taco IFS starts or stops electrically operated equipment when a flow or no-flow condition occurs. Originally developed for the safety-critical fire protection industry, the superior design and materials that go into our IFS are overwhelmingly preferred – and trusted – by boiler manufacturers.

#### **Differential Bypass Valve**

Prevent velocity noise and maintain the intended heat transfer in each zone with a Differential Bypass Valve. As zone valves close, the valve automatically reroutes the excess flow, instead of forcing more water through the remaining open zones.

#### **The WAGS Valve**

Protect your customers from the damage caused by a catastrophic water heater failure. WAGS automatically shuts off the water supply (and the gas, if it's a gas fired heater) when it senses a leak.

#### **Twin-Tee**

The patented Twin-Tee cuts in half the number of fittings and field joints required to properly connect a primary loop to a secondary loop.

#### **Taco Pressure Reducing and Mixing Valves**

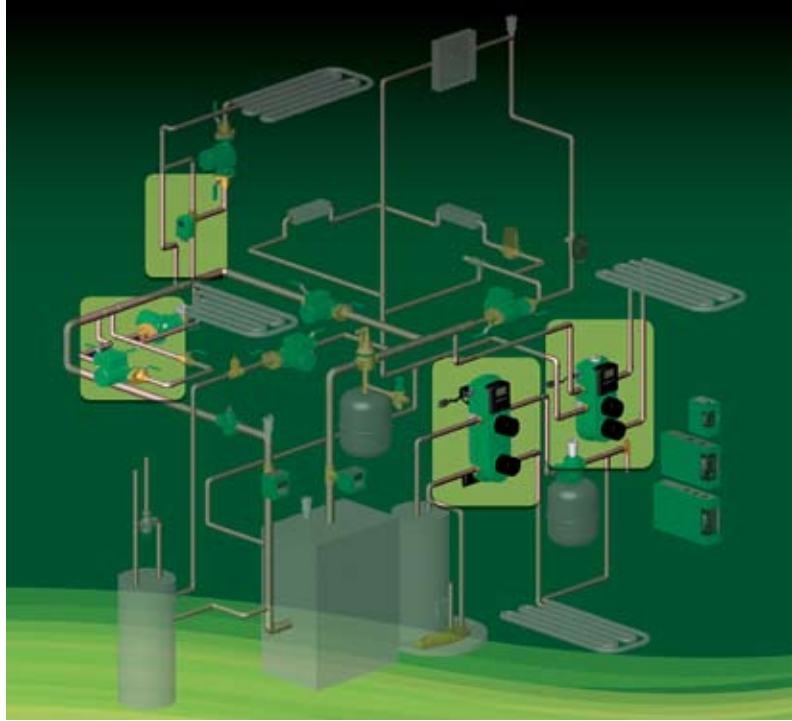
Each valve sets new standards for performance, ease of service, and flexibility: the cartridge PRV with its dial-in pressure setting can be easily removed and serviced without reducing line pressure; our 5000 Series Mixing Valve delivers fail-safe security in a high flow, low headloss valve; and our Boiler Feed valves have an exclusive lockable fast-fill lever.

# radiant systems

## Radiant made easy®

Our commitment to making your job easier has driven Taco engineering to create the simplest, most reliable all-in-one systems and components on the market.





#### **All-In-One Radiant**

The **Radiant Mixing Block** is a complete injection mixing system in one handy package. With a variable speed injection mixing control, injection circulator, system circulator, and air eliminator combined into a single unit, it takes just four pipe connections for instant radiant. No special piping, balancing valves, closely-spaced tees, external controls or complex wiring. What a time and space saver!

#### **All-In-One Isolation**

The Taco **X-Pump Block** starts with the Radiant Mixing Block concept and adds a heat exchanger for complete system isolation. The result? A pumping and control package that can be used in systems that combine any style heat source (boiler, water heater, etc.) with any style heat delivery method or system condition (radiant tubing, glycol based snowmelt, open systems, etc.). It's the easiest, most cost effective way to add radiant to any job.

#### **iSeries Mixing Valves**

A breakthrough in precision, cost effective temperature

control, the iSeries gives you a full featured outdoor reset or setpoint control built right into the actuator, and modulates a 2-, 3-, or 4-way valve to deliver optimal comfort control to every zone.

#### **00 Radiant**

Add 00 reliability to your radiant system with one of three styles of variable speed circulators: Outdoor Reset, Setpoint, or Variable Voltage. Or choose our 00R 3-Speed Radiant Pump for fine tuning your radiant system. It's rugged, more powerful, and Taco through and through.

#### **Learn all about radiant.**

Our engineers have written a free Radiant Made Easy Application Guide to help you with your radiant job. From applications to wiring, it's all covered on our web site: [www.taco-hvac.com](http://www.taco-hvac.com).

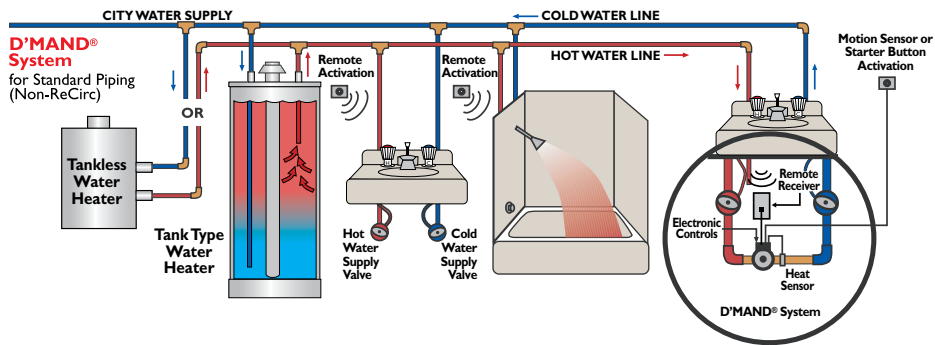
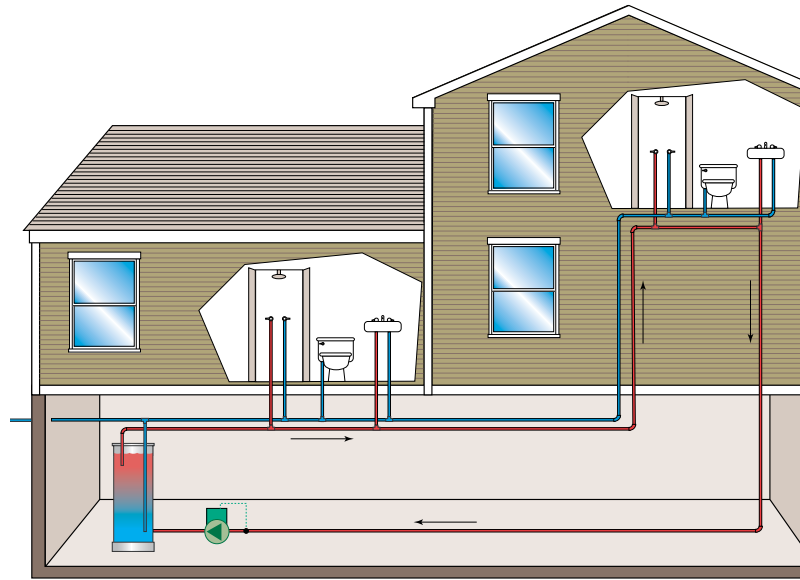
# water recirculation

## Your customers will thank you

Waiting for hot water wastes millions of gallons of water and energy every year. Show your customers the sensible way to enjoy instant hot water while saving money!







### D'MAND Systems

Put an end to waiting for hot water. Ideal for both new and retrofit installations, the D'MAND System is a small, silent 00 pump which is installed at the fixture furthest from the water heater using the supplied adapter tees and

stainless flex lines. Activated by a button, remote control, or motion sensor, cool water that normally runs down the drain is instantly recirculated back to the water heater through the cold water line. As soon as hot water arrives, D'MAND's patented heat sensor and

control board shuts off the pump. D'MAND pumping systems have been approved for EPA Energy Star water heating credits and is GreenSpec listed. D'MAND is proven to save water, energy, and money.

### Plumb n' Plug

The Taco Plumb n' Plug 003 and 006 circulators conserve water, increase comfort and reduce the delivery time of hot water to outlet fixtures by periodically recirculating hot water through the system. A factory wired line cord with a 24-hour analog or 7-day digital programmable clock timer allows for easy installation. Simply plumb it in, then plug it in for instant hot water every time you open a fixture.

# customer success

## Your get the whole company.

Our commitment to your success begins long before you buy a Taco product, and never ends. We strive to design and manufacture the finest pumps, components and systems in the industry, and back them with the training, tech service, distribution network and support you need to do your job faster and better.



Learn online or in person with Taco's dedicated training team.



Get state of the industry shipping and expediting out of our new Cranston, RI facility.



Join the Taco FloPro Team and design hydronic systems with just the click of a mouse.



Taco's new 63,000 sq. ft. distribution addition

### Join the FloPro Team!

Designing, controlling and maintaining proper water FLO is what being a hydronic PRO is all about. We've developed the Taco FloPro Team, a valuable professional development and growth program, to help you shift your hydronic business into high gear. As a member of the Taco FloPro Team, you'll get your business moving with Growth, Education, Assurance, Rewards, and Support – "G.E.A.R.S."

### Growth

Growing your business is not just about doing more installations, it's also about increasing the scope,

performance and value of every job. That's why Taco offers a complete product line covering every aspect of FLO movement and control – plus the support to ensure your success.

### Education

Our commitment to you starts with one of the industry's leading educators, Taco's own John Barba. A former heating contractor, John combines technical information with real-world experience to provide you with a top-notch learning experience across a diverse curriculum of hydronic system design, installation and sales.

### Assurance

For over 85 years Taco has never strayed from its founding mission to provide you with the most reliable, easy to install products in the industry.

### Rewards

Catch the winning spirit with unique sales incentives; get first access to new products; dress for success with great-looking hats, jackets, and other Taco wearables. It's all part of the FloPro Team, and it's all yours.

### Support

Count on dedicated Taco representatives and tech

service specialists to assist you. Take advantage of our consumer literature to help you reach your customers with superior hydronic home-comfort solutions. Save time with our wiring and engineering guides, hydronic system creation software, and industry leading web resources. It all works together for your success – because at the end of the day, it's all about you.







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