



# The *Comfort* Experts

**Taco**<sup>®</sup>  
*Comfort*  *Solutions*<sup>™</sup>  
A Taco Group Company

# SelfSensing Series WITH ProBalance®



## A giant leap forward for variable speed pumping

The Self-Sensing Series with ProBalance®. At the heart is the patent pending SelfSensing ProBalance technology. The VFD's SelfSensing capabilities make fast, accurate do-it-yourself system balancing easy. Reduced balancing contractor costs, no expensive wiring, and no additional sensors required. Apply to ALL your pumping needs: both constant flow chiller/boiler pumps and secondary variable flow pumps!

- Integrated pump and drive
- Pump automatically responds to system demand changes
- No remote sensors
- No complex wiring
- Multiple modes:
  - Constant flow
  - Constant pressure
  - Flow compensation
  - Duplex pump alternation

# SmartDrive+TSL with integrated Taco System Logic

No one knows more about controlling pumps than the people who make the pumps. That's why our variable speed SmartDrives deliver the finest precision performance for maximum system efficiency and reduced life cycle costs. There's a SmartDrive that's perfect for your application. SmartDrive HVAC is upgradeable with Taco System Logic (+TSL) software to control VFDs in applications such as Delta T or Delta P, geothermal hot/cold changeover or domestic water boosters.

**SmartDrive  
Basic Drive**



**SmartDrive  
HVAC Drive**



**SmartDrive  
SP Side Panel  
Bypass**



**SmartDrive  
VP Vertical Panel  
Bypass**



**+TSL** This symbol tell you that a +TSL upgrade is available for this unit.



## Project Builder

*A powerful web-based app that:*

- Saves time, eliminates paperwork, and increases accuracy
- Helps you quickly select the right products, gathering related project schedule files automatically
- Allows you to save each job as a project which you can re-visit, modify, or archive at any time
- Saves and outputs all files in convenient formats
- Enables sharing and collaboration with colleagues



**Try it! It's free!**



iWorx® by Taco Electronics Solutions is a powerful, web-based, easily-scalable building management, monitoring and control system designed specifically for the light commercial buildings and high-end residential markets.



iWorx is ideal for integrating forced air and hydronic systems, including geothermal and solar, and for assuring that each system communicates effectively and works smoothly together.

iWorx delivers effective cost control over a building's energy usage and HVAC equipment maintenance, plus optional BTU metering, in single locations, multi-site or multi-building installations ranging from retail stores, strip malls and restaurants to offices, apartments, schools and high-end residential.

- No software to buy or learn
- Self-configuring controllers
- Affordable
- Web-based
- Easy-to-install
- Simple-to-use
- Much more.



Scan with your  
SmartPhone to  
learn more.

# 1900 VFD

In-Line Pump with Variable Speed Drive

## Variable Speed Pump



- High efficiency premium motors
- Allow serial communication with pump
- Simple selection of drives
- Factory preset motor rotation
- Robust adjustable bracket design
- Available in single phase and three phase models

# Advantage

VARIABLE SPEED DRIVES

## Advantage Series of Variable Speed AC Drives

Featuring optimal reactions times and complete scalability to match your application requirements for speed, size and protection, the complete line of Advantage products provides the flexibility and performance to meet the needs of a broad range of pumping applications.

### Advantage 212 Mini-featured AC Drives



### S-Flex™ Enclosed Drives



## Differential Pressure Transmitters



**DPS629**

SmartDrives with +TSL Delta-P programs come preprogrammed with all the Taco DPS629 information. Sensor connects directly to VFD.

**Accuracy:**  $\pm 0.5\%$  F.S. (includes linearity, hysteresis & repeatability).

**Temperature Limits:** 0 to 200°F (-18 to 93°C).

**Compensated Temperature Limits:** 0 to 175°F (-18 to 79°C).

**Pressure Limits:** 0 - 25 PSI with an over pressure limit of 250PSI.

**Thermal Effect:** 0.02%/°F (0.036%/°C) includes zero & span.

**Power Requirements:** 13-30 VDC (2-wire).

**Output Signal:** 4 to 20 mA. Optional 0-5, 0-10 VDC



**DPS3100D**

**Accuracy:**  $\pm 0.075\%$  FS (@ 20°C)

**Range ability:** 100:1 turn down

**Stability:**  $\pm 0.125\%$  FSO/year

**Temperature Limits:** Process - -40 to 248°F (-40 to 120°C) Ambient - without LCD -40 to 185°F (-40 to 85°C) - with LCD -22 to 176°F (-30 to 80°C)

**Pressure Limits:** Max pressure range — -14.5 to 2000 psi Burst pressure - 10000 psi

**Thermal Effect:**  $\pm 0.125\%$  span/32°C

**Power Requirements:** 11.9 to 45 VDC

**Output Signal:** 4 to 20 mA



## FI Series Pumps

**End Suction  
Split Coupled  
Base/Frame Mounted**

GPM: 40 - 4,000

Head (ft): 10 - 380

HP: 1/3 - 200

SIZES: 1-1/4" — 10"



Cast iron casing with integrally cast feet enables pump to be bolted to base for sturdier installation. Allows for back pull without disturbing piping.

Low-cost, replaceable wear rings protect casing during normal operation.

Standard ceramic seals promote product flexibility, enabling basic product offering to meet a wide range of application requirements.

Dry shaft design ensures shaft is never exposed to system fluid, eliminates need for expensive corrosion-resistant shaft, and simplifies sleeve and seal removal/reassembly.

Rear pullout design allows pump to be serviced without disturbing system piping.

1/4 NPT pressure tapping on suction and discharge connections.

Easy-to-replace slip-on shaft sleeve facilitates seal maintenance in the field and lowers long-term maintenance costs.

Flush seal line tap allows installation of filter to protect seal from particles present in open systems.

Top centerline discharge design simplifies piping layouts, reduces piping strain, and makes the pump self-venting.

## CI Series Pumps

**End Suction  
Close Coupled  
Foot Mounted**

GPM: 40 - 2,200

Head (ft): 10 - 380

HP: 1/3 - 50

SIZES: 1-1/4" — 8"



Flush seal line taps allow for installation of filter to protect seal from particles present in open systems.

1/4 NPT pressure tapping on suction and discharge connections.

Standard ceramic seals promote product flexibility, enabling basic product offering to meet a wide range of application requirements.

Low-cost, replaceable wear rings protect casing during normal operation.

Top centerline discharge design simplifies piping layouts, reduces piping strain, and makes pump self-venting.

Cast iron casing with integrally cast feet enables pump to be bolted to a housekeeping pad for sturdier installation and still allow back pullout without disturbing the piping.

Dry shaft design ensures shaft is never exposed to system fluid, eliminates need for expensive corrosion-resistant shaft, and simplifies sleeve and seal removal/ reassembly.

Easy-to-replace slip-on shaft sleeve facilitates seal maintenance in the field and lowers long-term maintenance costs.

Rear pullout design allows pump to be serviced without disturbing system piping.

## KS Series Pumps

### Vertical In-Line Split Coupled

GPM: 40 - 12,000

Head (ft): 10 - 380

HP: 3/4 - 600

SIZES: 1-1/2" — 14"



Designed for optimum performance and ease of installation and maintenance. Ideal for HVAC and industrial applications.

The split coupler design permits changing of the seal without disturbing the motor or the piping.

The axial load is hydraulically balanced to increase bearing life, better

pump efficiencies, and lower NPSH requirements.

The recirculating line flushes seal faces and extends seal life.

Optimum pump efficiency is achieved by close running impeller to casing clearances.

## KV Series Pumps

### Vertical In-Line Close Coupled

GPM: 40 - 2,400

Head (ft): 10 - 380

HP: 3/4 - 100

SIZES: 1-1/2" — 8"



Designed for optimum performance and ease of installation and maintenance.

Ideal for HVAC and industrial applications.

Space saving design that doesn't require isolation pads.

Closed coupled design provides improved alignment and increased seal life.

The axial load is hydraulically balanced to increase bearing life, better pump efficiencies, and lower NPSH requirements.

The recirculating line flushes seal faces and extends seal life.

Optimum pump efficiency is achieved by close running impeller to casing clearances.

NOTE: All pumps are also available with 50Hz or 60Hz motors

## GT Series Pumps

### Horizontal Split Case

GPM: 2,000 - 18,000  
Head (ft): 20 - 430  
HP: 30 - 1,500  
SIZES: 10" — 18"



GT Series Single-Stage, Double Suction Horizontal Split Case Pumps provide the ultimate in reliability and ease of installation

- Cast Iron Pump Casing
- High-efficiency Double Suction Bronze or Stainless Steel Impeller
- Carbon Steel or Stainless Steel Shaft
- Bronze or Stainless Steel Shaft Sleeve
- Mechanical Seal Handles a wide range of applications with superior longevity

## TA Series Pumps

### Horizontal Split Case

GPM: 100 - 5,500  
Head (ft): 15 - 390  
HP: 1 - 400  
SIZES: 2" — 12"



Impeller is designed to assure minimum NPSH requirements and maximum pump efficiency.

Mechanical seal option reduces shaft length and minimizes shaft deflection, thereby increasing both seal and bearing life.

Double suction design virtually eliminates axial thrust and reduces bearing loading, promoting maximum bearing life.

Low-cost, replaceable wear rings protect casing during normal operation.

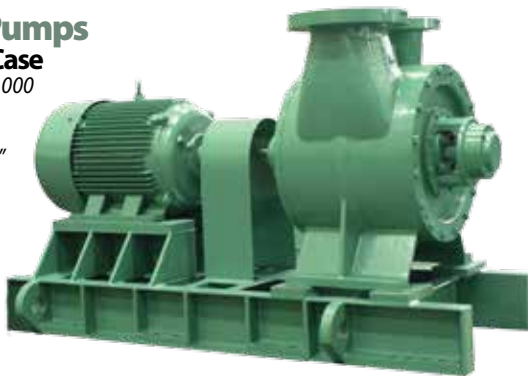
Rugged, heavy-duty casing design allows higher working pressures, provides greater structural integrity, and reduces the risk of distortion.

Top half of casing is easily removed for easy service of the rotating unit without disturbing piping.

## TC Series Pumps

### Vertical Split Case

GPM: 100 - 11,000  
Head (ft): 15 - 500  
HP: 1 - 400  
SIZES: 2" — 12"



TC Series Single-Stage, Double Suction Vertical Split Case Pumps provide the ultimate in reliability and ease of installation for heating, air conditioning, pressure boosting, cooling water transfer, and water supply applications.

Quiet, dependable and proven performance: that's the TC Series.

NOTE: All pumps are also available with 50Hz or 60Hz motors

## TS Series Pumps

### Vertical Split Case

GPM: 100 - 11,000  
Head (ft): 15 - 500  
HP: 1 - 400  
SIZES: 2" — 12"



TS Series Single-Stage, Double Suction Vertical Split Case Pumps provide the ultimate in reliability and ease of installation for heating, air conditioning, pressure boosting, cooling water transfer, and water supply applications.

## VT Series Pumps

### Vertical Turbine

GPM: 60 - 7,500  
Head (ft): 10 - Several thousand  
HP: 5 - 300  
SIZES: 6" — 18" Bowls  
4" — 12" Heads



Taco VT Series Vertical Turbine Pumps provide the ultimate in reliability and ease of installation. Applications include condenser water, chilled water, water transfer, pressure boosting and water supply. Quiet, dependable, with proven performance: that's the Taco VT Series of pumps.

- Ductile iron discharge heads
- 250 psi ductile iron stuffing box with stainless steel packing glands
- Steel baseplate (option)
- Standard 416 stainless steel shafting & couplings
- Assembled with stainless steel bolts and impeller collets
- Stainless steel basket strainer (option)
- GE and US VHS motors standard with non-reverse ratchet and space heaters
- High profile discharge head allows 2 piece head shaft
- Dual 1/4" air release ports at top of discharge flange
- 4" thru 10" discharge heads have matching centerlines
- Stainless steel bearing retainers
- Investment cast stainless steel impellers
- Epoxy lined cast iron intermediate bowls

## VM Series Pumps

### Vertical Multistage

GPM: 2 - 115  
Head (ft): 300 - 825  
HP: 1/2 — 25  
SIZES: 1-1/4" — 2"



These pumps are designed to efficiently circulate heated or chilled water in large residential and commercial hydronic or solar systems.

- Proven Performance
- Dependable, Quiet Operation
- Built to Last—Quality design, materials and construction throughout.
- Rugged Motor—Available in single and three-phase and all standard voltages. (Built-in overload protection on single-phase models.)
- 100% Factory Tested

NOTE: All pumps are also available with 50Hz or 60Hz motors



## 2400 Series Circulators

### In-Line

GPM: 4 - 90  
Head (ft): 2 - 46  
HP: 1/10 — 1/2  
SIZES: 3/4" — 3"



## 1900 Series Pumps

### Close Coupled

### In-Line

GPM: 20 - 250  
Head (ft): 10 - 160  
HP: 1/4 — 7-1/2"  
SIZES: 1-1/2" — 2"



Close coupled compact design is energy efficient and installs anywhere in the piping layout.

Self-supporting design allows horizontal or vertical installation.

Pump and sealed ball bearing motor are maintenance-free

Rear pullout design and standard motor promote simple, easy service.

One seal and shaft sleeve fits all models, assuring superior parts flexibility.

## SCX1700 Series Pumps

### Stainless Steel

### Close Coupled

GPM: 10 - 100  
Head (ft): 25 - 135  
HP: 1/2 — 2-1/2  
SIZES: 1" — 1-1/2"



NOTE: All pumps are also available with 50Hz or 60Hz motors

## 1600 Series Pumps

### In-Line

GPM: 20 - 200  
Head (ft): 10 - 68  
HP: 1/4 — 3  
SIZES: 1-1/2" — 2"



Rugged casing design has maximum operating pressure of 175 psi and a maximum operating temperature of 300°F. The 1600 Series is offered in cast iron stainless steel-fitted or all-stainless steel construction.

Permanently lubricated long-life bearing cartridge replaces conventional "wick" type bearing/bracket assembly. Single bearing cartridge services the entire product line.

One-piece enclosed impeller assures long life and higher pump efficiencies.

Standard mechanical seal assures maximum flexibility. One seal fits all models; several materials available.

Flexible coupler absorbs shock, vibration and misalignment that could be transmitted to the cartridge and motor bearings while also isolating and preventing any motor related noise or vibrations from being transmitted to the system.

Resilient mounted motor ensures quiet, reliable pump operation.

One bearing cartridge, one seal, and two motor frames fit all pump models, assuring superior parts flexibility.

## 121-138 Series Circulators

### In-Line

GPM: 10 - 150  
Head (ft): 5 - 38  
HP: 1/4 — 1  
SIZES: 2-1/2" — 3"



## 110-120 Series Circulators

### In-Line

GPM: 5 - 65  
Head (ft): 2 - 22  
HP: 1/12 — 1/3  
SIZES: 3/4" — 2"



NOTE: All pumps are also available with 50Hz or 60Hz motors

### LoadMatch® Series Circulators Cartridge / Wet Rotor Commercial

GPM: 0 - 50  
Head (ft): 0 - 35  
HP: 1/40 — 1/6  
SIZES: 1/2" — 2"



### Variable Speed 00® Series Circulators Cartridge / Wet Rotor

GPM: 0 - 50  
Head (ft): 0 - 35  
HP: 1/40 — 1/6  
SIZES: 1/2" — 2"



### 3-Speed 00® Series Circulators Cartridge / Wet Rotor

GPM: 0 - 45  
Head (ft): 0 - 30  
HP: 1/20 — 1/6  
SIZES: 3/4" — 1-1/2"



NOTE: All pumps are also available with 50Hz or 60Hz motors

## Viridian®, Web-Enabled, High Efficiency Circulators Wet Rotor, Variable Speed

GPM: 10 - 350  
Head (ft): 5 - 46  
HP: .027 — 2.175  
SIZES: 1-1/2" to 3"



### Viridian® VR15 to VR30

- Up to 85% energy savings
- Internally sensed variable speed operation
- ECM motor
- Heating or cooling applications

#### Operating Modes:

- Constant Pressure Control ( $\Delta p-c$ )
- Variable Differential Pressure Control ( $\Delta p-v$ ) - factory default
- Proportional Pressure Control
- Constant Curve Duty (uncontrolled pump)
- RPM Regulation
- Power Limitation

NOTE: All pumps are also available with 50Hz or 60Hz motors





**Viridian® VT2218** circulator is a temperature sensing, self-adjusting, variable speed wet rotor circulator with an ECM permanent magnet motor. Operating modes include Delta-T differential temperature, 4 fixed speeds, set point heat, set point cool and boiler protection.

- $\Delta$ -T operation can save hundreds in fuel costs
- The only temperature-sensing pump in its class
- High-efficiency ECM motor uses up to 85% less electricity
- 5 operating modes for maximum application flexibility
- Big, bright LCD screen
- Innovative BIO Barrier® protects the pump from system contaminants



**Viridian® VR1816** circulator is an infinitely variable speed, high efficiency wet rotor circulator with an ECM permanent magnet motor. Operating modes include infinitely variable fixed speed and self-adjusting constant pressure or proportional pressure variable speed.

- High-efficiency ECM motor uses up to 85% less electricity
- Infinitely variable speed settings to fine tune flow for any system
- Six pressure presets to fit the job
- 5 color LED displays
  - operating mode
  - error code diagnostics
- *Sure Start* automatic unblocking and air purging mode



**Viridian® VR3452** is a high efficiency wet rotor circulator for chilled and hot water applications. Settings easily managed with a user-friendly interface. The permanent magnet ECM motor saves up to 85% of the electrical energy compared to conventional pumps.

- High-efficiency ECM motor uses up to 85% less electricity
- Auto mode (default)
- Proportional pressure control
- Constant pressure control
- Constant speed
- Night setback turndown
- Communication module (optional)

NOTE: All pumps are also available with 50Hz or 60Hz motors

## Plus Two Multi-Purpose Valve Horizontal or Vertical installation

GPM: 20 - 10,000  
SIZES: 1-1/2" — 14"



Five (5) Valves in one:

- Shut-off valve
- Flow Control Valve (Globe Style)
- Non slam check valve
- Flow Metering Valve
- Straight Pattern Valve can be converted to a right angle pattern valve

Low pressure drop (Equal to or better than any comparable valve on the market today)

Suitable for 125 and 250 PSI W.P.

## Suction Diffuser Rear Strainer Pullout (RSP) Suitable for 125 & 250 PSI W.P.

GPM: 20 - 10,000  
SIZES: 1-1/2" — 16"



Integral cast straightening vane design ensures uniform flow to the suction inlet of the pump

Oversized Body Cylinder ensures minimal pressure drop

Removable Cover Plate and reusable "O" ring allows for easy access and maintenance of Permanent Strainer

Blow Down port allows for routine maintenance and removal of sediment and debris

Optional Magnetic Insert to trap small metallic particles

Specifically designed to serve the needs of commercial HVAC and industrial applications.

## Accu-Flo Balancing Valve Fixed Port Venturi Balancing Valve

GPM: 1/2 - 1000  
SIZES: 1/2" — 4"



Flow measurement independent of stem and ball position.

Modified venturi flow measurement section ensures precise and consistent differential pressure readings.

Positive shut-off ball valve for service work.

Can be installed in any position

Tamper resistant memory stop

1/2" – 2" available in sweat and NPT connections.

2-1/2", 3" and 4" available flanged connections.

## Plate & Frame Heat Exchangers

**ASME designed and constructed**

GPM: 50 - 7000

CONNECTION SIZES: 1" — 20"



Computerized product selection helps you choose the heat exchanger that's just right for your application. Their compact size and ease of servicing, coupled with Taco dependability, make the PF Series the perfect choice.

## TFP & TMP Brazed Plate Heat Exchangers

**ASME designed and constructed**

GPM: 1 - 200

5" x 12" and 10" x 20"

CONNECTION SIZES: 3/4" — 2"



Rugged, reliable Taco Brazed Plate Heat Exchangers represent the latest technology in high-performance heat exchangers.

These compact units feature copper brazed, stainless steel plates that offer a highly-efficient, low fouling transfer service. All units have male pipe thread fittings and mounting stud bolts are standard.

## Shell & Tube Heat Exchangers

**Leak Guard, Double Wall**

**Steam to Liquid**

**Liquid to Liquid**

CONNECTION SIZES: 1" — 14"

4 - 30" diameter

Up to 10' long



## Shell & Tube Heat Exchangers

**U and Straight**

**Steam to Liquid**

**Liquid to Liquid**

CONNECTION SIZES: 1" — 14"

4" - 30" diameter

Up to 10' long



### 4900 Series Air & Air/Dirt Separators

**ASME designed  
and constructed**

GPM: 0 - 30,000  
CONNECTION SIZES: 3/4" — 36"

Optional removable Heads  
and Pall Ring baskets  
(recommended on open systems)



Micro Air bubble removal to 18 Microns  
Dirt particle removal below 30 Microns  
Size range from 2" to 36" / W.P. at 125, 150 or 250 PSI.



### 5900 FlexBalance and 5900 FlexBalance~Plus Hydraulic Balancer

**Designed, Manufactured and tested to  
ASME Section VIII, Div. 1**

GPM: 0 - 1,500  
CONNECTION SIZES: SIZES: 2" — 12"



Patented 5900 FlexBalance and FlexBalance~Plus Separators act as a hydraulic bridge between the primary and secondary circuits in hydronic heating and cooling applications.

The FlexBalance~Plus product line incorporates patented Pall Ring technology for deep micro-bubble and dirt removal.

### ACT Tangential Air Separators

**ASME #125 construction**

GPM: 0 - 10,000  
CONNECTION SIZES: 2" — 36"



Save money and extend the life of system pumps, piping and components with Taco ACT Series air removal units. The ACT air separator is designed and constructed to the ASME Boiler & Pressure Vessel Code, Section VIII, Division I for unfired vessels.

### Air Separators

**ASME #125 construction**

GPM: 0 - 10,000  
CONNECTION SIZES: 2" — 36"



Stainless steel removable strainer (optional)  
375°F max. operating temperature Higher  
working pressures available.



### CA Expansion Tanks

CAPACITY: 23 — 2,640 Gallons  
(90 -10,000 liters)

DIAMETER: 20" — 72"

HEIGHT: 29" — 160"

Field replaceable, heavy-duty butyl full acceptance rubber bladder removes easily for inspection.\*

### CX Expansion Tanks

CAPACITY: 8 — 92 Gallons  
(29 -171 liters)

DIAMETER: 14" — 24"

HEIGHT: 22" — 60"

Heavy-duty butyl rubber diaphragm expansion tank allows permanent separation of air and water.\*



CA Style Expansion Tank



CX Style Expansion Tank



PAX Style Expansion Tank



CBX Style Expansion Tank

### PAX Expansion Tanks

CAPACITY: 8 — 132 Gallons  
(30-500 liters)

DIAMETER: 14" — 24"

HEIGHT: 25" — 85"

Heavy duty partial acceptance rubber bladder design for potable water systems.\*

### CBX Expansion Tanks

CAPACITY: 4 — 212 Gallons  
(15-802 liters)

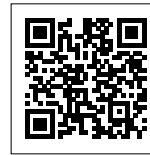
DIAMETER: 14" — 30"

HEIGHT: 15" — 86"

Molded rubber membrane allows permanent separation of air and hydronic system fluid. Field removable partial acceptance membrane design specifically developed for smaller heating and chilled water systems.\*



Buffer Tank



Access the Buffer Tanks Wizard by scanning this QR Code with your Smart Phone.



Multi-Purpose Tank (MPT)

### PS Expansion Tanks

CAPACITY: 15 — 515 Gallons  
(57-1949 liters)

DIAMETER: 14" — 36"

HEIGHT: 27" — 127"

Available in either red oxide painted or galvanized. Optional saddles for horizontal installations are available.\*

### Buffer Tanks

CAPACITY: 50 — 3000 Gallons  
(189-11,356 liters)

FLANGE SIZES: 2" — 12"

DIAMETER: 20" — 84"

HEIGHT: 43" — 145"

Available in either red oxide painted or galvanized. Optional saddles for horizontal installations are available.\*

### Multi-Purpose Tanks (MPT)

CAPACITY: 50 — 3000 Gallons

(11,356 liters)

FLANGE SIZES: 2" — 12"

DIAMETER: 20" — 84"

HEIGHT: 43" — 145"

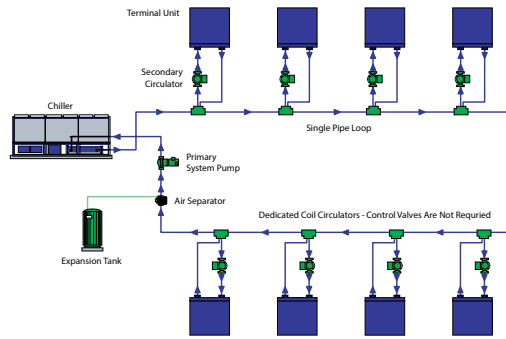
Most Taco Expansion Tanks are available with either bladders or diaphragms so that water and air are permanently separated. No absorption can take place at any point during the system cycle, and you avoid the problems of waterlogged tanks, air-bound terminal units, excessive corrosion, inefficient balancing and pump cavitations.  
-PS Exterior Red Oxide Primer Finish Angled

\* Each of these tank model is fabricated in accordance with ASME Section VIII, Div. 1 to assure highest quality & performance.

# LOADMATCH<sup>®</sup> SYSTEM

An advanced Green hydronic heating and cooling system that delivers better comfort, lower first costs, lower energy and maintenance costs, lower life cycle costs, and reduced design, start-up, and commissioning time.

LoadMatch<sup>®</sup> hydronic piping distribution systems utilize a primary single pipe loop joined with a decoupled secondary piping loop for all



terminal units. In addition maintenance free wet rotor circulators are substituted for control valves in this decoupled secondary loop.

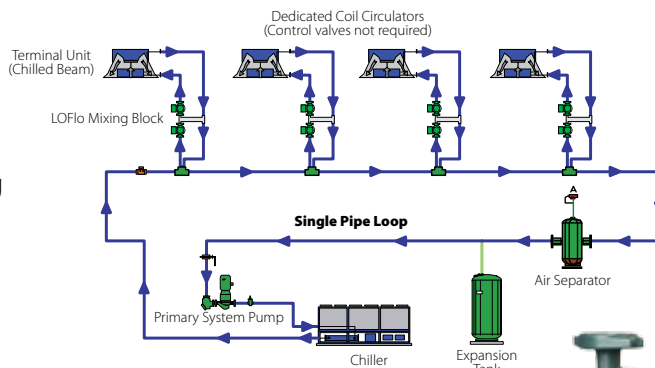


Scan with your SmartPhone to learn more.

# LOFlo<sup>®</sup> injection pumping

The Taco LOFlo System is used in hydronic heating and cooling systems to significantly reduce the flow of water. Typically used in radiant panel (ceiling, wall or floor) and chilled beam (passive and active) applications, the technology significantly reduces pump flows and pipe sizes for reduced energy consumption and lower first costs. The LOFlo System also provides precise control of supply water to the terminal, e.g. chilled beam, and precise control of room temperatures.

The basic concept of the LOFlo Mixing Block, shown here, is to



provide a complete injection mixing station in a simple factory assembled package that controls each individual zone at the lowest possible flow rate by maintaining the highest possible supply water temperatures in cooling and lowest possible supply water temperatures in heating.



Scan with your SmartPhone to learn more.



LOFlo<sup>®</sup> Mixing Block and iWorx<sup>®</sup> CHB2 Chilled Beam Controller



**Taco Design Suite** — The Design Suite is a free collection of tools that take the “time-consuming” out of hydronic system design. In fact, an entire LoadMatch® system can be designed in minutes from top to bottom!

**Load Tool** — What used to be a pencil-breaking task is now mouse-click easy. Here are some features of the Load Tool:

- Interactive tools eliminate recalculation time for changes
- Default values for design parameters reduce input time
- Drag and drop capability allows grouping of room loads to higher level terminal and systems quickly and easily
- Import load data directly into Hydronic System Solutions files and drawings, saving time entering loads, design parameters, etc.

**System Analysis Tool, Version 2.0**

We designed the SAT to save time by allowing you to compare different system configurations on the fly, in the design process.

- Selection software for HVAC Systems

- Interactive tool eliminates recalculation time for changes
- Quickly and easily compare HVAC system operating and life cycle costs at beginning of project
- System selection Wizard allows quick modeling of preconfigured systems

**Hydronic System Solutions®**

With HS2 you can:

- Design & compare HVAC systems
- Eliminate recalculation time for changes
- Calculate plant total loads, flows
- Size pipe and equipment
- Select and schedule equipment
- Reduce errors
- Make design changes quickly and easily
- LoadMatch® Wizard allows modeling of systems in minutes

**TacoNet®** — TacoNet is our premier product selection and specification tool for Taco equipment. Long acknowledged by the industry as

the easiest software of its kind, TacoNet gives you all you need to save time and avoid errors. With TacoNet, you can:

- Enter all data quickly from one screen.
- Print submittals and schedules
- Save data.

**iWorx® Selection Wizard**

We’ve created an online iWorx Selection Wizard that lets you create and specify iWorx projects in minutes. Just answer a few simple questions about the type of job and the iWorx Selection Wizard does the rest. In minutes, you have a complete submittal package that includes wiring and air flow diagrams, bill of materials, sequence of operations, associated instruction manuals and complete job specifications.



To access the *iWorx Wizard*, go to [www.iworxwizard.com](http://www.iworxwizard.com) or scan this QR Code with your Smart Phone.





**The Taco Innovation & Development Center**

A few years ago, John Hazen White, Jr. set out to build the most advanced learning facility in the industry, one that would train and inspire generations. The 20,000 sq. ft., \$22 million Taco Innovation and Development Center (IDC) was born and dedicated in June of 2012 to Taco’s employees and the HVAC industry.

**State of the art classrooms**

The IDC’s expansive classrooms are equipped with advanced multi-media hardware. From a simple PowerPoint® presentation to a live streaming webinar, each classroom can deliver visual content to class attendees in the building or on the Internet. Classrooms are flexible to hold classes of any size.

**Green Building comfort**

The entire building’s comfort system was designed by some of the brightest minds in HVAC engineering using Taco’s Hydronic System Solutions® software. The software also helped size the IDC’s pipe and equipment, calculate total loads and flows, and generate schedules. Award-winning LoadMatch® single pipe and LOFlo® radiant cooling systems were installed as real-time demonstration of the energy savings, reliability, and comfort so essential for LEED Green Building certification. System components can be seen in action throughout the building, thanks to viewing panels in walls, ceilings, and floors making the IDC a hands-on “living lab”.

**The incredible mechanical room**

The IDC’s mechanical room is a marvel of hydronic technology, featuring energy efficient boilers and chillers, variable speed pumping, geothermal and energy recovery systems, solar heating systems, all controlled by an iWorx® building management system. Workhorse



FloPro®Team Trainers John Barba and Dave Holdorf hold training sessions on a regular basis at the IDC and on-line at FloPro Univesity. Commercial Trainer Greg Cunniff (below center) and Rich Medeiros (below right) also hold training sessions at the IDC.



TC and TA pumps, vertically aligned KV and KS pumps, variable speed drives, solar pumping stations, heat exchangers, and air-dirt separators are all working displays, managing the comfort of the entire Taco facility. In this room, visitors can see how everything goes together in the most advanced hydronic facility in the industry.