

Taco

Purpose

Designed to circulate (pump) heated or chilled water, quietly and speedily, in Hydronic Systems for residences. May also be used for zoning large installations.

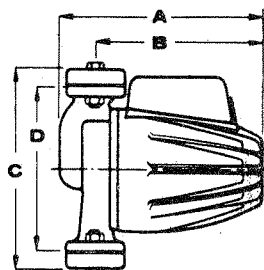
Features

- ◆ Unusually quiet operating and virtually free from vibration
- ◆ One piece cast impellers for longer life
- ◆ Never requires lubrication — it's self-lubricated
- ◆ No coupling is required
- ◆ No seals are required — it's sealless
- ◆ No overload protection needed — it can't overload
- ◆ Totally enclosed for Dust-Free and Safe Operation
- ◆ No starting switch required
- ◆ Compact — easy to install
- ◆ Streamlined, modern design
- ◆ Low operating cost motors
- ◆ Interchangeable $\frac{3}{4}$ ", 1", $1\frac{1}{4}$ " or $1\frac{1}{2}$ " flanges
- ◆ Stainless steel rotor shaft
- ◆ Permits the use of small size piping

Operation

- 1 Supplies heat almost instantly upon a call for heat from the room thermostat. When the thermostat is satisfied, the circulator stops and no more heat is delivered to the rooms.
- 2 When used in conjunction with a Taco Flochek and Water Heater, the same boiler which provides the heating, also supplies domestic hot water all year 'round for kitchen, bath and laundry.
- 3 Suitable for closed heating systems only.

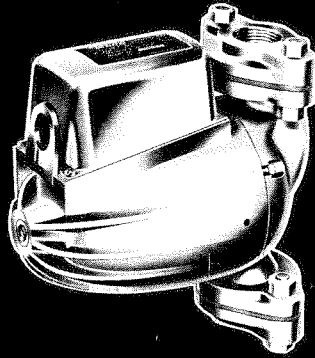
Dimensions



PRODUCT No.	MOTOR		TYPE IMPELLER	A	B	C	D	SHIP. WHT. LBS.
	115V 60C-AC 1 PH	HP						
195	3450 RPM	1/15	Open	8.0"	6.7"	7.6"	6.0"	16

PERFECTA CIRCULATOR

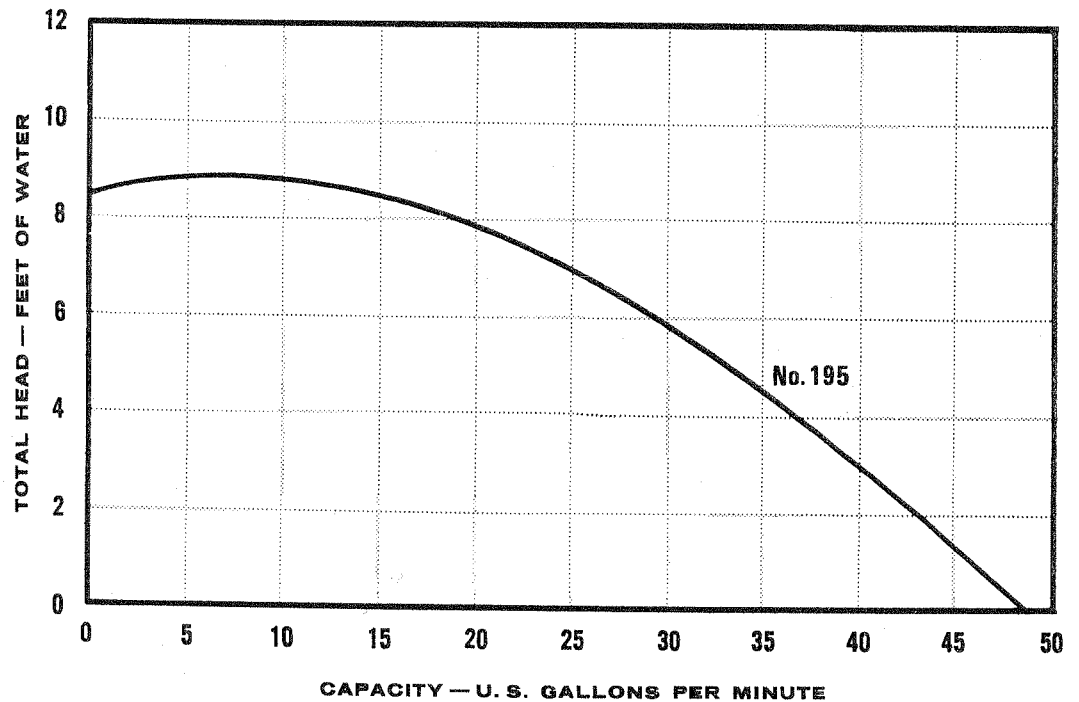
Patent Nos. 3228341 and 3264653



Specifications

Flanges	3/4", 1", 1 1/4" or 1 1/2" Interchangeable
Body	Cast Iron
Impeller	Mechanically balanced
Motor	Totally enclosed — self lubricated — 115V-60C-AC-1 Ph.
Shafts	A151-420 stainless steel
Working Pressure	30 PSI

Performance Curve



Taco**DATA SHEET**DATA SHEET
NUMBER**SD-100-12A****TACO-TROL SYSTEMS**

EFFECTIVE: August 15, 1963

Supersedes: NEW

TACO-TROL (Pressurized Diaphragm Expansion Tank)**PURPOSE**

Designed to control the expansion of water in a Hydronic Heating System.

FEATURES

- Contains a rugged impermeable special composition rubber diaphragm which separates the air cushion (charged at 12 PSI) from the system water.
- Tank is of welded steel construction and because it is pressurized, can be substantially smaller than conventional expansion tanks.
- Recommended working pressure — 30 PSI. — Temperature — 240 F.
- May be attached to any part of system or remotely located and piped to any convenient connection.
- No maintenance required — will never waterlog.
- Quickly installed by one man — saves time and labor.
- When combined with an Air-Scoop and Hy-Vent, air venting and expansion in the system are under complete control.

TACO-TROL SIZES and DIMENSIONS

Product (1) No.	Diameter	Length	Appr. Ship. Wht. Lbs.	Capacity (2) Gallons of Water In. System
442	8"	13"	6	25
443	8"	19"	8	50
445	8"	35"	17	85

(1) All sizes have 1/2" connection

(2) When in doubt, use the next larger size Taco-Trol.

AIR-SCOOP (and Hy-Vent)**PURPOSE**

Designed to separate and vent all excess air in a Hydronic Heating System for quiet, efficient operation.

FEATURES

- Body constructed of lifetime cast iron.
- 3 precisely placed cast-in baffles for optimum air separation.
- Large capacity for most efficient performance.
- Proved performance air vent — No. 423.
- Recommended working pressure — 30 PSI.

SIZES⁽³⁾ and DIMENSIONS

Prod. No.	Size (3)	A	B	C	D	Appr. Ship. Wht. Lbs.
431 Air-Scoop	1"	9 1/4"	4 1/2"	3-5/16"	1/2"	6
432 Air-Scoop	1 1/4"	10"	5 3/8"	3-13/16"	1/2"	10 1/2
433 Air-Scoop	1 1/2"	10"	5 3/8"	3-13/16"	1/2"	10 1/2
423 Hy-Vent	1/8"	1 1/2"	3"	5/8"	—	4 oz.

(3) Air-Scoop sizes thru 4" are available. See separate Data Sheet.

No. 490 Series TACO-TROL—AIR-SCOOP—HY-VENT COMBINATION**PURPOSE**

Designed to most efficiently control the expansion of water and separation and removal of air in Hydronic Heating installations.

FEATURES

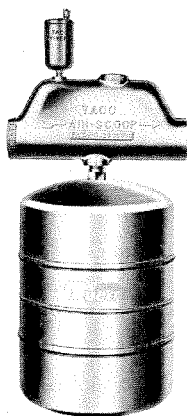
Combines the features listed under the respective units shown above.

TACO-TROL—AIR-SCOOP—HY-VENT COMBINATION SIZES and DIMENSIONS⁽²⁾

Combination No. (2)	Includes following Product Numbers			Width	Depth	Height	Appr. Ship Wht. Lbs.
Taco-Trol	Air-Scoop	Hy-Vent					
490	442	431-1"	423	9 1/4"	8"	21"	13
491	443	431-1"	423	9 1/4"	8"	27"	15
492	443	432-1 1/4"	423	10"	8"	28"	19
493	445	432-1 1/4"	423	10"	8"	44"	28
494	445	433-1 1/2"	423	10"	8"	44"	28

(2) When in doubt use the next larger size Taco-Trol.

• SEE OTHER SIDE FOR SELECTION CHART AND INSTALLATION DIAGRAMS •



SELECTION TABLE

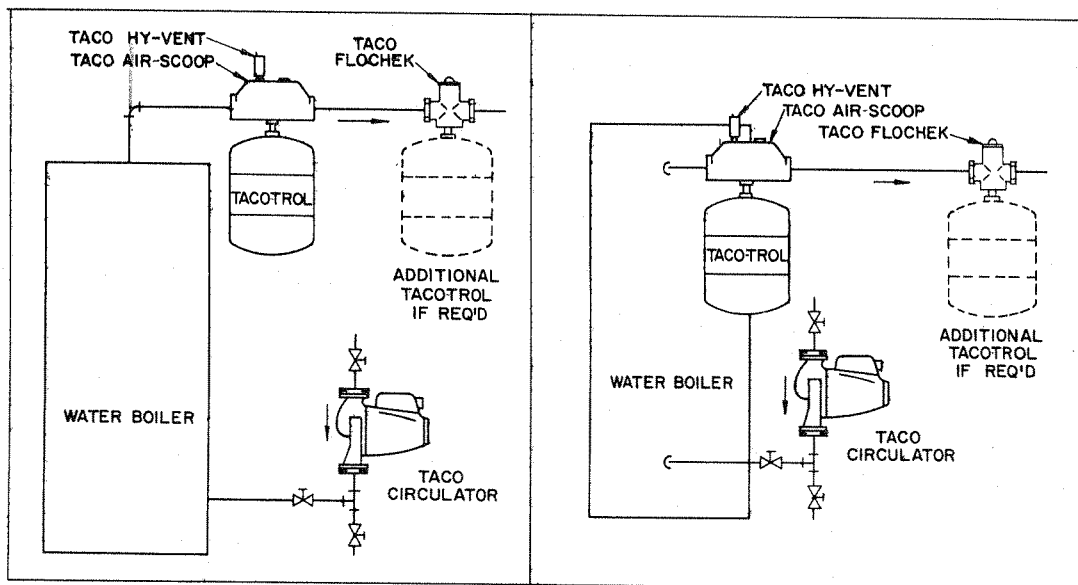
For optimum performance, determine volume of water in system and select Taco-Trol from Taco-Trol Size and Dimension Table on other side. If inconvenient, select size from Selection Table. Sizes are based on currently small size Boilers, systems operating with a Reducing Valve set at 12 PSI, Relief Valve set at 30 PSI and temperatures to 240 F. If an oversize Boiler or old style Boiler and Radiation are used, or when in doubt, select the next larger size Taco-Trol or install in multiples.

Net Output of Boiler MBH	Size Air-Scoop Recommended	Fintube Baseboard or Radiant Panels		Cast Iron Baseboards		Convectors or Unit Heaters		Slim Tube Cast Iron Radiators	
		Summer - Winter	Cold Start	Summer - Winter	Cold Start	Summer - Winter	Cold Start	Summer - Winter	Cold Start
30	431-1"	442	442	442	442	442	442	442	442
40	431-1"	442	442	442	443	442	442	442	443
60	431-1"	442	443	442	443	442	443	442	443
80	432-1 $\frac{1}{4}$ "	442	443	443	443	443	443	443	443
100	432-1 $\frac{1}{4}$ "	442	443	443	445	443	443	443	445
120	432-1 $\frac{1}{4}$ "	443	443	443	445	443	445	443	445
140	432-1 $\frac{1}{4}$ "	443	443	443	445	443	445	443	445
160	433-1 $\frac{1}{2}$ "	443	445	445	2-445	443	445	443	2-445
180	433-1 $\frac{1}{2}$ "	443	445	445	2-445	445	445	445	2-445
200	433-1 $\frac{1}{2}$ "	445	445	445	2-445	445	445	445	2-445

Summer - Winter — Where Boiler is used to supply domestic hot water year round.

Cold Start — Where Boiler is used only for heating radiation.

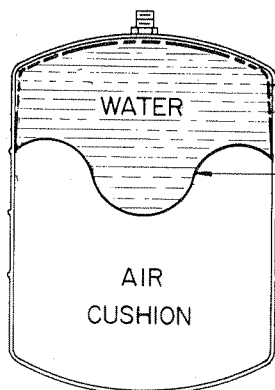
INSTALLATION DIAGRAMS



TOP OUTLET BOILERS

SIDE OUTLET BOILERS

HOW IT WORKS



(1)
Diaphragm position at 12 PSI system pressure.

(2)
Diaphragm position at 30 PSI system pressure.

Until the system pressure exceeds 12 PSI, the diaphragm is in position 1. As the system pressure increases the diaphragm flexes and compresses the air cushion to an equal pressure with maximum flexing as indicated in position 2.

INSTALLATION INSTRUCTIONS

TACO-TROL

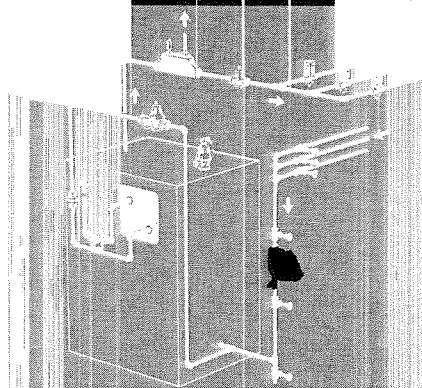
May be attached to any part of the system or remotely located and piped to any convenient connection.

After system is filled and vented in conventional manner, fire the system to High Limit shut-off temperature. If at that point, the pressure is too high, reduce to the desired pressure by drawing water out of the system.

When installed in conjunction with a Taco Air-Scoop and Hy-Vent, best results will be obtained if the Air-Scoop is installed in the supply line close to the boiler and the Taco-Trol attached to the connection provided and as indicated in above illustrations.

Taco

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Purpose

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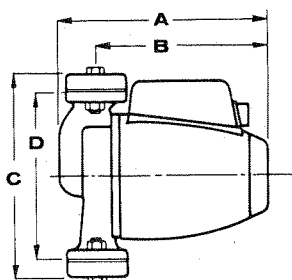
Features

- ◆ Unusually quiet operating and virtually free from vibration
- ◆ One piece cast impellers for longer life
- ◆ Never requires lubrication — it's self-lubricated
- ◆ No coupling is required
- ◆ No seals are required — it's sealless
- ◆ No overload protection needed — it can't overload
- ◆ Totally enclosed for Dust-Free and Safe Operation
- ◆ No starting switch required
- ◆ Compact — easy to install
- ◆ Streamlined, modern design
- ◆ Low operating cost motors
- ◆ Interchangeable 3/4", 1", 1 1/4" or 1 1/2" flanges
- ◆ Stainless steel rotor shaft
- ◆ Permits the use of small size piping

Operation

- 1 Supplies heat almost instantly upon a call for heat from the room thermostat. When the thermostat is satisfied, the circulator stops and no more heat is delivered to the rooms.
- 2 When used in conjunction with a Taco Flochek and Water Heater, the same boiler which provides the heating, also supplies domestic hot water all year 'round for kitchen, bath and laundry.
- 3 Suitable for closed heating systems only.

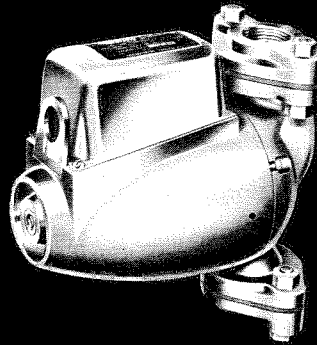
Dimensions



PRODUCT No.	MOTOR		TYPE IMPELLER	A	B	C	D	SHIP. WHT. LBS.
	115V 60C-AC 1 PH	HP						
152	3450 RPM	1/15	Open	8.0"	6.7"	7.6"	6.0"	17

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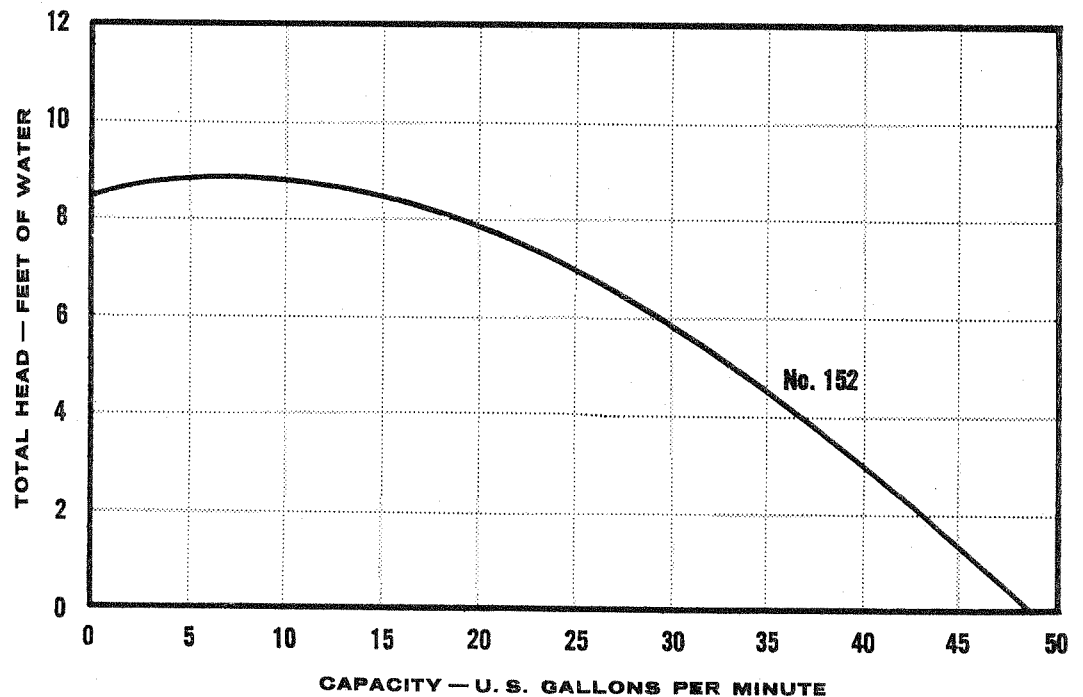
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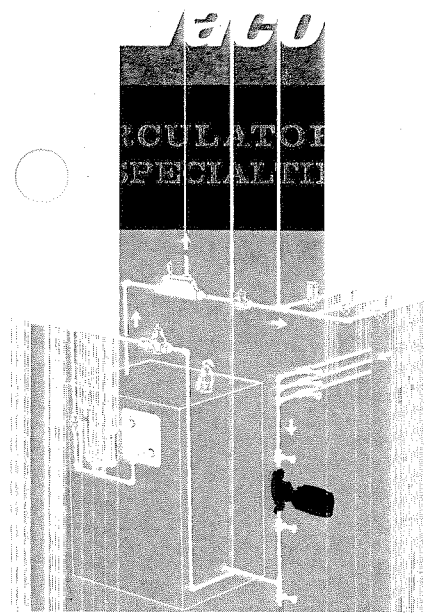


Specifications

Flanges	3/4", 1", 1 1/4" or 1 1/2" Interchangeable
Body	Cast Iron
Impeller	Mechanically balanced
Motor	Totally enclosed — self lubricated — 115V-60C-AC-1 Ph.
Shafts	A151-420 stainless steel
Working Pressure	30 PSI

Performance Curve





Purpose

Designed to circulate (pump) heated or chilled water, quietly and speedily, in Hydronic Systems for all residences and small commercial establishments. May also be used for zoning large installations.

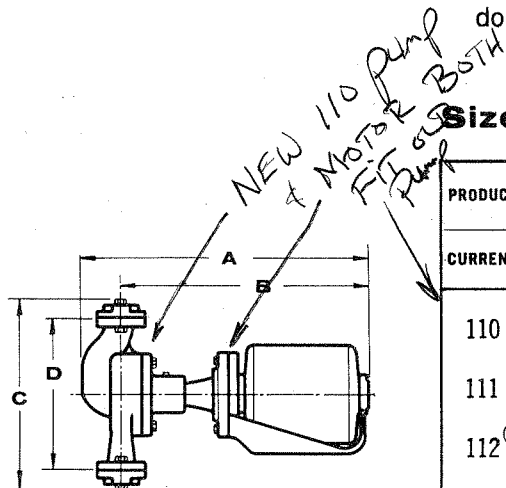
Features

- ◆ Quiet operation
- ◆ Motor — Rubber Mounted, Overload Protected
- ◆ One piece, cast impellers for longer life
- ◆ Leak-proof mechanical seal — two piece type, easily replaced
- ◆ Stainless steel shaft — hardened and ground
- ◆ Smooth, safe drive coupling
- ◆ Easily serviced with ordinary tools
- ◆ Porous bronze bearings
- ◆ Permits the use of small size piping

Operation

- 1 Supplies heat almost instantly upon a call for heat from the room Thermostat. When the Thermostat is satisfied, the circulator stops and no more heat is delivered to the rooms.
- 2 When used in conjunction with a Taco Flochek and Water Heater, the same boiler which provides the heating, also supplies domestic hot water all year 'round for kitchen, bath and laundry.
- 3 For house heating, circulators are available in cast iron construction. For domestic or fresh water circulation, specify bronze construction.

Sizes & Dimensions

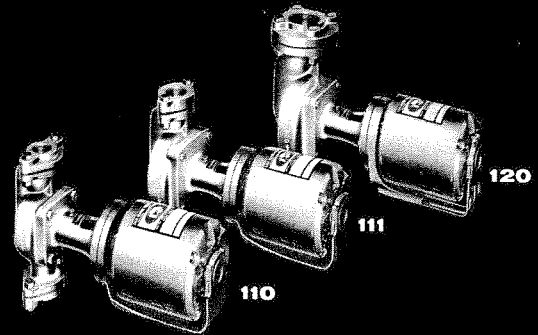
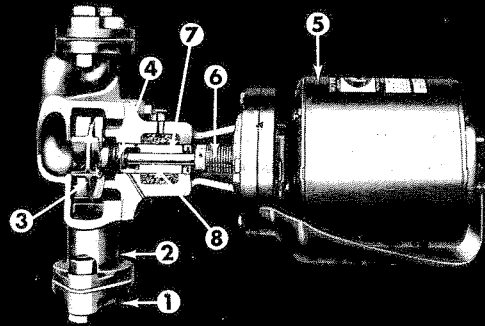


PRODUCT NUMBER(2)		FLANGE SIZE	MOTOR(3)		DIMENSIONS — INCHES				APPROX. WHT. LBS.
CURRENT(2)	OLD		60C-AC-1 PH.(3)	RPM	A	B	C	D	
110	HC	¾", 1", 1¼", 1½"	⅓HP-115V	1725	15½"	13½"	9¼"	7½"	28
111	HDH	¾", 1", 1¼", 1½"	⅓HP-115V	1725	15½"	13½"	10¼"	8½"	33
112 ⁽⁴⁾	¾", 1", 1¼", 1½"	⅓HP-115V	3450	16¼"	14¼"	9¼"	7½"	33
113	¾", 1", 1¼", 1½"	⅓HP-115V	1725	16"	13½"	10¼"	8½"	32
120	HC 20	2"	⅓HP-115V	1725	17½"	14½"	13¼"	11"	52

(2) When specified of bronze construction, add the letter "B" at the end of each product number.

(3) Motors are available with other electrical characteristics.

(4) Operating at 3450 RPM is not as quiet as 1750 RPM models.



Specifications

① Flanges

② Body

③ Impeller

④ Mechanical Seals

⑤ Motor

⑥ Drive Coupling

⑦ Bearings

⑧ Shaft

Maximum operating temperature

Maximum working pressure

Interchangeable $\frac{3}{4}$ ", 1", $1\frac{1}{4}$ " or $1\frac{1}{2}$ " for all sizes except 2". Cast Iron or Bronze¹

Cast Iron or Bronze¹

Dynetrically balanced, closed type except No. 110 which is open type. Cast Iron or Bronze¹

Carbon & Ceramic

Selected for quietness, Rubber Mounted, Overload Protected

Smooth, safe flexible steel spring type

Large Porous Bronze

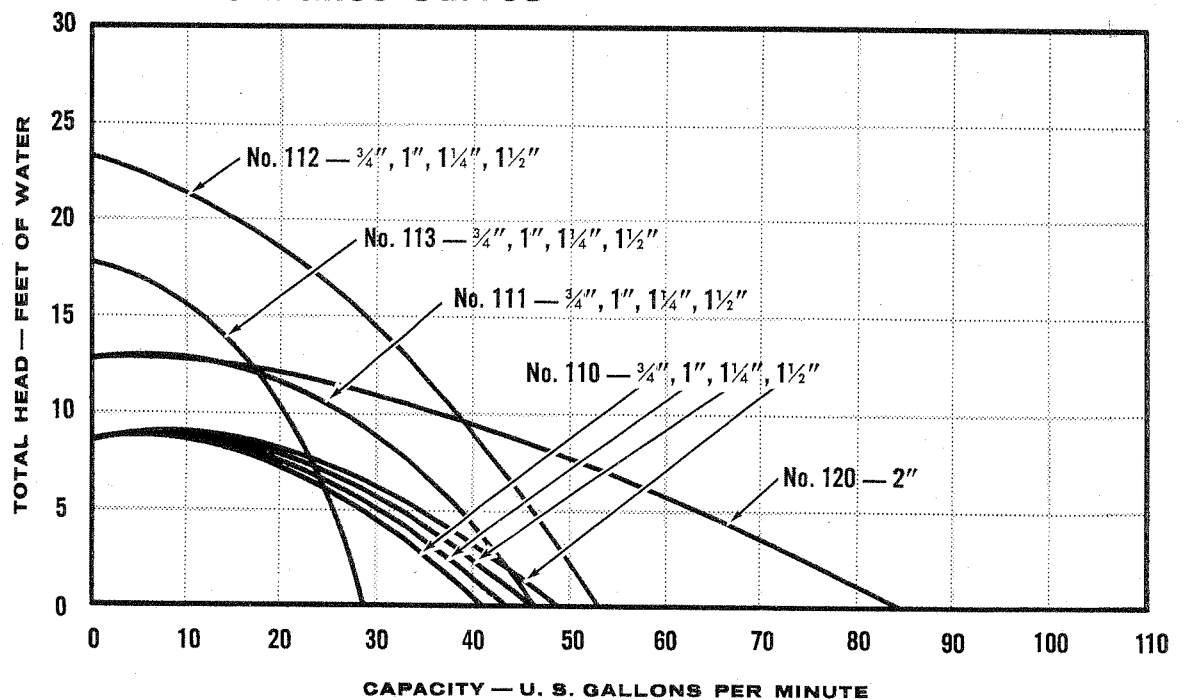
Stainless steel super finished

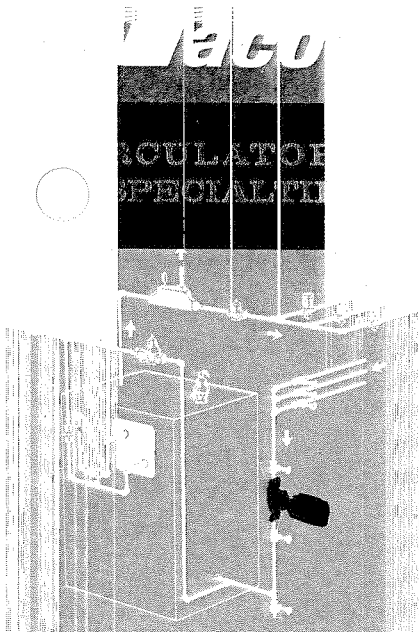
240F

100 PSI

(1) For fresh water circulation, specify bronze construction.

Performance Curves





100

Purpose

Designed to circulate (pump) heated or chilled water, quietly and speedily, in Hydronic Systems for large residences, small apartment buildings and commercial establishments. May also be used for zoning large installations.

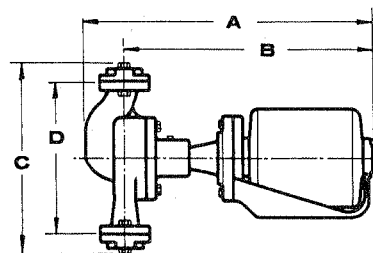
Features

- ◆ Quiet operation
- ◆ Rubber Mounted, Overload Protected Motor
- ◆ One piece, cast impellers for longer life
- ◆ Leak-proof mechanical seal — two piece type, easily replaced
- ◆ Stainless steel shaft — hardened and ground
- ◆ Smooth, safe drive coupling
- ◆ Easily serviced with ordinary tools
- ◆ Porous bronze bearings
- ◆ Permits the use of small size piping

Operation

- 1 Supplies heat almost instantly upon a call for heat from the room Thermostat. When the Thermostat is satisfied, the circulator stops and no more heat is delivered to the rooms.
- 2 When used in conjunction with a Taco Flochek and Water Heater, the same boiler which provides the heating, also supplies domestic hot water all year 'round for kitchen, bath and laundry.
- 3 For house heating, circulators are available in cast iron construction. For domestic or fresh water circulation, specify bronze construction.

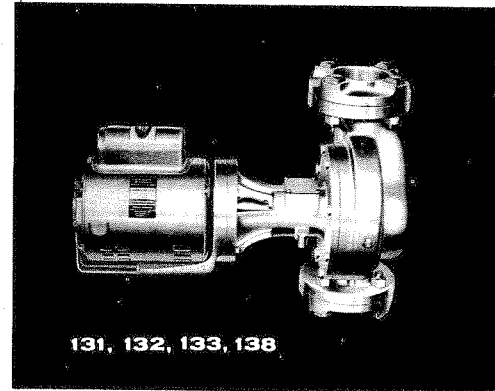
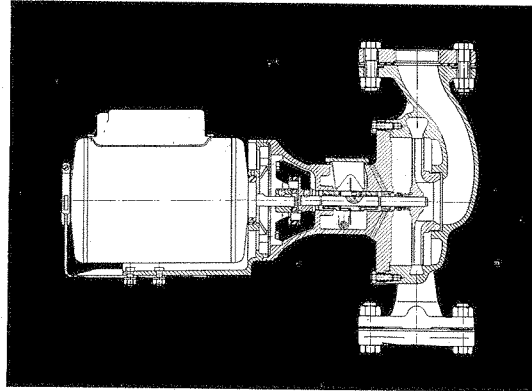
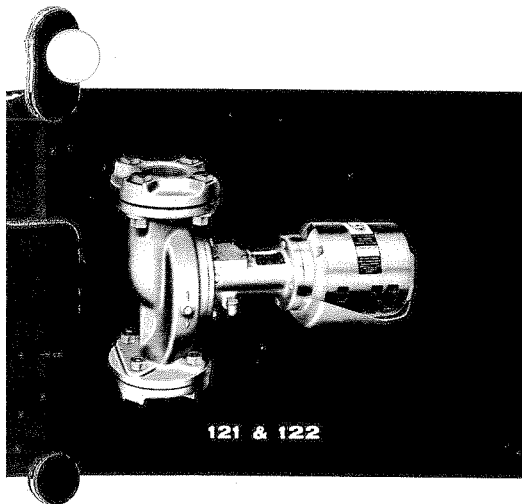
Sizes and Dimensions



PRODUCT NUMBER(2)		FLANGE SIZE	MOTOR(3)		DIMENSIONS — INCHES				APPROX. WHT. LBS.
CURRENT(2)	OLD		60C-AC-1 PH.(3)	RPM	A	B	C	D	
121	HC 25	2½"	¼HP-115V	1725	20¾	17	14¾	11½	72
122	HC 30	3"	¼HP-115V	1725	20¾	17	14¾	11½	71
131	HC 34	3"	¼HP-115V	1725	20	16¾	16½	13	106
132	HC 36	3"	½HP-115/230V	1725	20¾	17¾	16½	13	111
133	HC 38	3"	¾HP-115/230V	1725	21¾	18¾	16½	13	116
138	—	3"	1HP-115/230V	1725	23¾	20¾	16½	13	136

(2) When specified of Bronze construction, add the letter "B" at the end of each product number.

(3) Motors are available with other electrical characteristics.



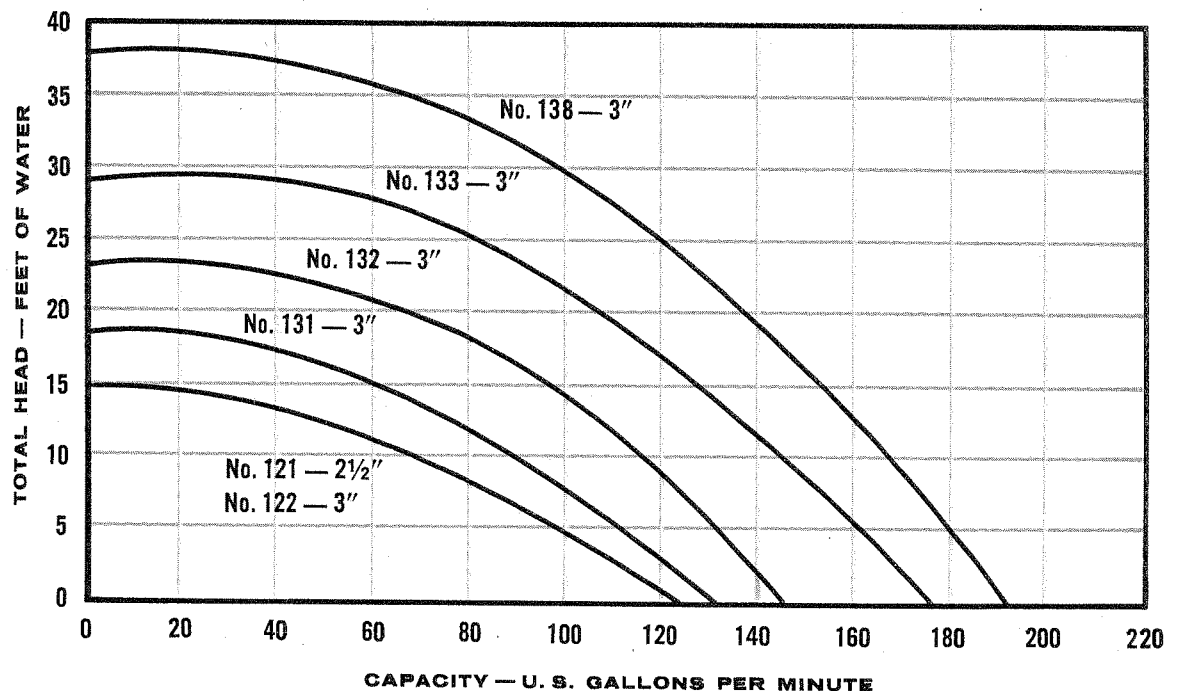
Specifications

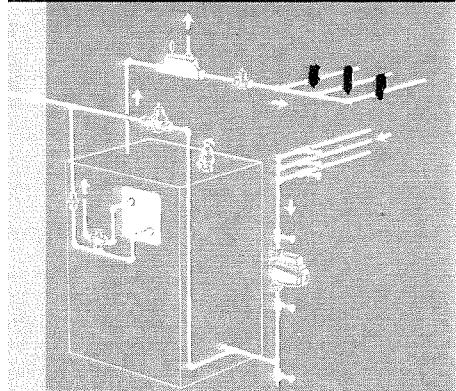
- ① Flanges
- ② Body
- ③ Impeller
- ④ Mechanical Seals
- ⑤ Motor
- ⑥ Drive Coupling
- ⑦ Bearings
- ⑧ Shaft
- ⑨ Thrust Collar
- ⑩ Slinger Ring
- Maximum operating temperature
- Maximum working pressure

Cast Iron or Bronze¹
 Cast Iron or Bronze¹
 Dynetrically balanced — closed type, cast iron or bronze¹
 Carbon and Ceramic
 Selected for quietness, Rubber Mounted, Overload Protected
 Rubber type — safe & smooth
 Large bronze bearings
 Stainless steel, super finished
 Hardened steel for long life
 Lift oil to shaft and bearings
 240F with standard seals and 275F with Hi-Temp Seals
 125 PSI

(1) For fresh water circulation, specify bronze construction.

Performance Curves





Purpose

A low voltage, electrically operated Globe Valve designed for zoning or controlling temperature in individual rooms on sections of a building heated and/or cooled Hydronically, when used in conjunction with a circulator or pump in the main.

Features

- ◆ **Absolutely Quiet Operation** — no motor, gears or bearings to wear & become noisy
- ◆ **Valve closes tightly** — saves fuel by preventing leakage
- ◆ **Electric Heating Element is not constantly energized** — saves power
- ◆ **Readily and quickly serviced** — Power unit can be replaced without draining system
- ◆ **Simplified wiring** — a minimum of low voltage connections to make
- ◆ **Easy to install** — Power head does not have to be removed to install
- ◆ **Compact**
- ◆ **Can be mounted in any position**
- ◆ **May be used as a "shut-off" on incomplete zone**

Operation

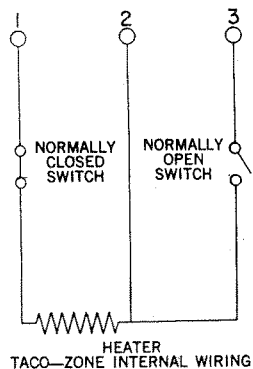
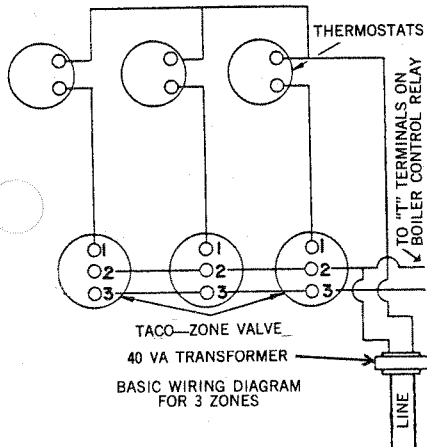
When the thermostat in a particular zone of the system calls for heat, current flows through a small electric heater which surrounds the special power-expansion element in TACO-Zone (See cutaway). This element opens valve seat — rather slowly at first. As it begins to move, the circulator switch in valve closes, starting zone circulator. Valve continues to open.

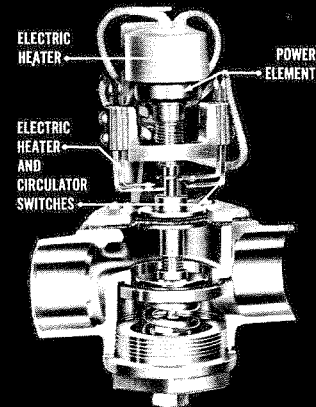
When expansion of power element reaches a certain point, electric heater switch breaks cutting power until heater temperature drops to a predetermined level. At this point, heater switch again closes, maintaining valve in open position until thermostat is satisfied. Valve then closes, breaking circuit and stopping circulator.

Specifications

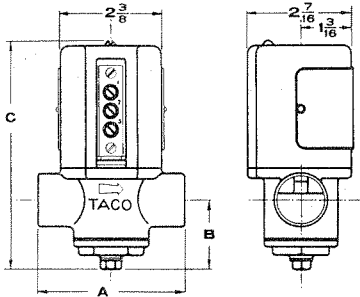
Maximum Working Pressure (at valve)	30 PSI
Maximum Operating Temperature	40°F. to 240°F.
Amp Rating	0.9
Voltage and Frequency	24V — 60 CPS
Thermostat — 2 Wire SPST with Heat Anticipator set at 0.9 Amps to match rating of valve.	

	Normal Flow Range	Press. Drop Thru Valve	Pump Head
No. 551 — ¾" —	4.5 to 6 GPM	Equiv. to 22' of tubing	up to 35 feet
No. 552 — 1" —	6 to 10 GPM	Equiv. to 27' of tubing	up to 25 feet
No. 553 — 1¼" —	10 to 16 GPM	Equiv. to 36' of tubing	up to 25 feet
Body Construction	Bronze		





Sizes and Dimensions



PRODUCT NO.	SIZE	A	B	C	Appr. Ship. Wht. Lbs.
551	3/4"	3/4	1 1/16	5 5/16	2 1/8
552	1"	4 1/8	1 1/16	5 5/8	2 5/8
553	1 1/4"	4 7/16	1 1/16	5 5/8	2 3/4

TACO THERMOSTAT No. 568

Purpose

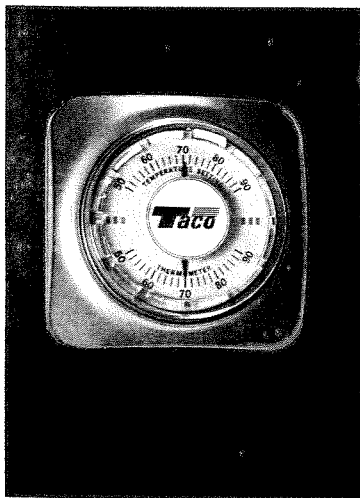
This Thermostat is designed primarily to control the operation of a Taco-Zone Valve.

Features

- ▶ Positive snap action switch with multiple contacts
- ▶ A low mass bi-metal actuator for sensitive control
- ▶ Adjustable heater
- ▶ Attractive design
- ▶ Outer rim may be removed and painted to harmonize with room decor
- ▶ Easy to install

Specifications

Switch.....	Single Pole, Single Throw Switch
Voltage.....	Low Voltage, 20 to 30 volts A. C.
Heater.....	Adjustable (Set at Normal)
Temperature Differential	2°F.
Temperature Range.....	Adjustable 50°F to 90°F.
Closes circuit on temperature decrease at dial setting	



Purpose

The Taco Tempering Valve guards against excessively hot domestic hot water at the faucet, by mixing cold water with hot water (from the Tankless Taco or storage tank). No water is wasted, as too hot, when a faucet is turned on. Taco Tempering Valves also lengthen out the delivery of hot water from Tankless Heaters, Storage Tanks and Automatic Storage Water Heaters.

Features

- ◆ Powerful Non-Liquid Thermostatic Element
- ◆ Choice of External or Internal Adjustment
- ◆ Completely non-ferrous construction
- ◆ Sweat or threaded connections
- ◆ Thermostatic Element easily replaced without removing valve

Operation

When actuated by hot water, just enough cold water is allowed to enter the valve to produce the exact temperature desired.

If the hot water entering the valve is at, or below, the setting, no cold water can enter the valve.

The Taco Tempering Valve automatically adjusts itself to deliver the exact water temperature for which it is set. This is accomplished by an ingenious thermostatic element of a non-liquid material, hermetically sealed, which expands with changes in temperature. The special material used in this element successfully avoids the use of bellows, bimetals, or volatile liquids. It has been field-tested for over 20 years in more than a million installations. The element operates with a force powerful enough to crush most foreign substances entering the valve. It will not corrode, tire or fatigue.

Specifications

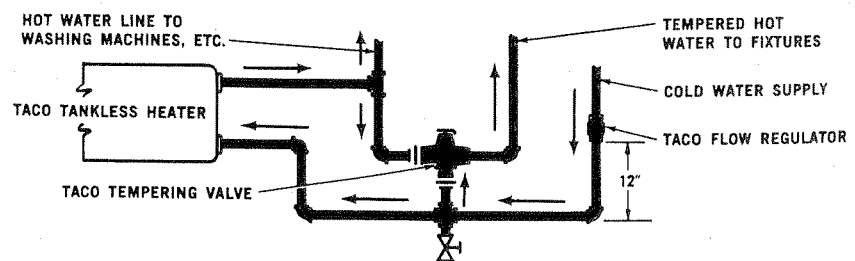
All Bronze, Brass and Stainless Steel Construction

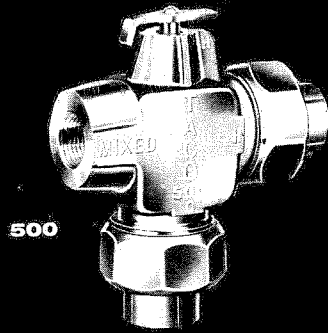
Maximum operating temperature 240°F.

Maximum working pressure 125 PSI

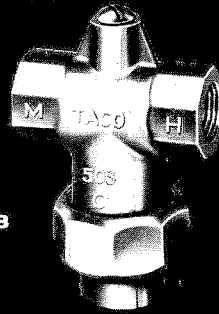
For temperature range see table

Installation

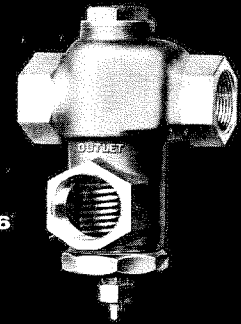




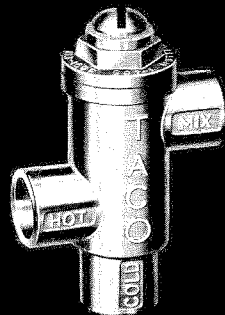
500



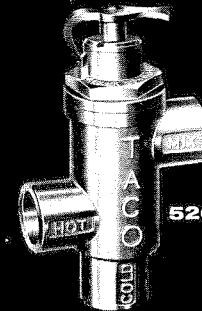
503



505 and 506



507



508, 509, 518,

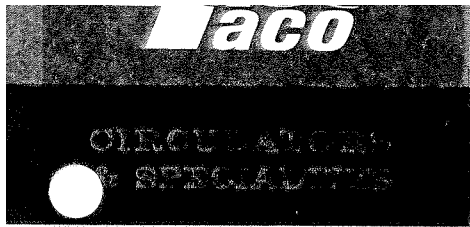
526, and 528

Ratings & Dimensions

PRODUCT No.	SIZE CONN'S.	TYPE CONN'S.	TYPE ADJUSTMENT	RATINGS		TEMP. RANGE (2)	LENGTH	APPR. SHIP. WHT. LBS.
				BATHS	GPM			
507 ⁽¹⁾	½"	Sweat	Internal	1-2	6	120-160F ⁽¹⁾	3"	.5
508	½"	Sweat	External	1-2	6	120-160F	3¾"	.5
518	½"	NPT	External	1-2	6	120-160F	3¾"	.8
503 ⁽¹⁾	½"	NPT	Internal	1-2	6	120-160F ⁽¹⁾	4¼"	1.5
500-1	½"	NPT	External	1-2	6	120-160F	5"	2.5
500-2	¾"	NPT	External	1-3	12	120-160F	5"	2.5
526	¾"	Sweat	External	1-3	12	120-160F	3¾"	1.0
528	¾"	NPT	External	1-3	12	120-160F	3¾"	1.0
509	1"	NPT	External	3-20	20	140-180F	4⅝"	2.5
505	1½"	NPT	External	20-40	40	140-200F	9¼"	9.5
506	2"	NPT	External	40-90	70	140-200F	9⅞"	11.5

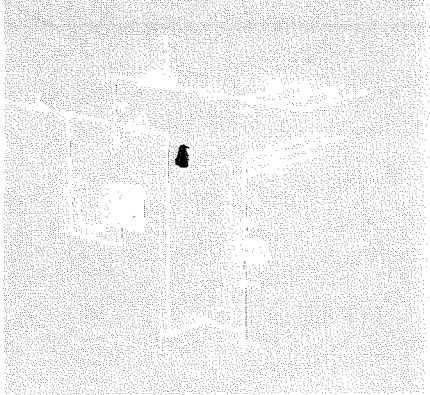
(1) Factory set at 140F.

(2) Maximum recommended supply temperature — 240F.



100

RELIEF VALVES



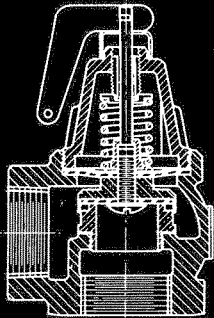
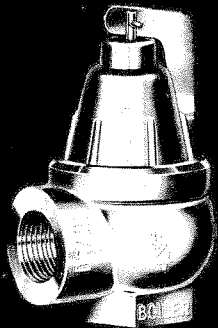
Purpose

Designed to relieve the pressure in a Hot Water Heating System whenever the pressure exceeds 29 psi.

Features

- ◆ Tested and approved under the ASME boiler and pressure vessel code
- ◆ Bronze Seat
- ◆ Stainless Steel Spring
- ◆ Non-sticking High Temperature Silicone Disc
- ◆ High Temperature Reinforced Diaphragms
- ◆ Manual Test Lever

No. 321 RELIEF VALVE



Specifications, Sizes & Dimensions

PROD. NO.	SIZE CONN'S.	DISCHARGE CAPACITY BTU AT 30 PSI	PRESS. SETTING PSI	MAX. OPER. TEMP.	HEIGHT	DIA. & LGTH.	APPROX. SHIP. WHT. LBS.
321 (1)	3/4"	531,000	30	240F	4 3/8"	2 3/8" x 2 1/16"	2

(1) Tested and approved under the ASME Boiler & Pressure Vessel Code

REDUCING VALVES

Purpose

Designed to automatically feed water to a Hot Water Heating System whenever the pressure in the system drops below the pressure setting of the valve (normally set at 12 psi — adjustable from 0 to 30 psi)

Features

- ◆ Biltin check to prevent emptying system if incoming pressure is shut off. Also permits cleaning strainer without emptying system
- ◆ Biltin large area bronze or stainless steel strainers
- ◆ Bronze bodies and cast domes
- ◆ Stainless steel compensating springs
- ◆ Non-sticking, high temperature discs
- ◆ High temperature, reinforced diaphragms
- ◆ Fast fill rates

DUAL CONTROLS

Purpose

Designed to relieve the pressure in a Hot Water Heating System whenever the pressure exceeds 29 psi. Also to automatically feed water whenever the pressure in the system drops below the setting of the valve (normally set at 12 psi — adjustable from 0 to 30 psi)

Features

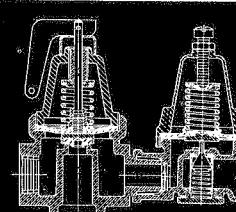
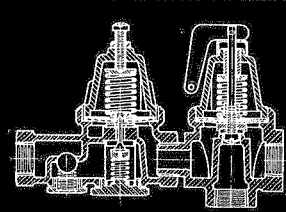
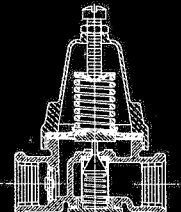
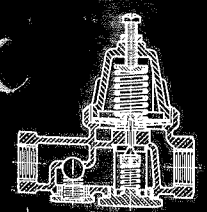
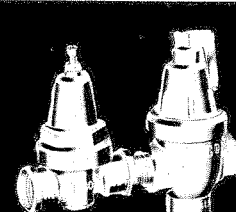
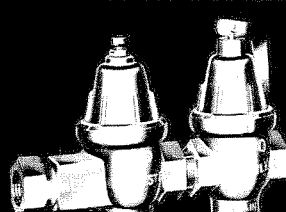
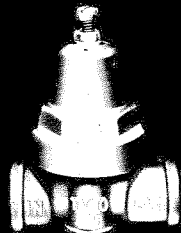
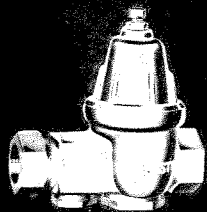
- ◆ A quality constructed relief valve, combined with the No. 330 Reducing Valve to make the No. 327 or the No. 319 Reducing Valve to make the No. 323. All with bronze bodies and features described above

Nos. 319 & 320
REDUCING VALVES

No. 330
REDUCING VALVE

No. 323
DUAL CONTROL

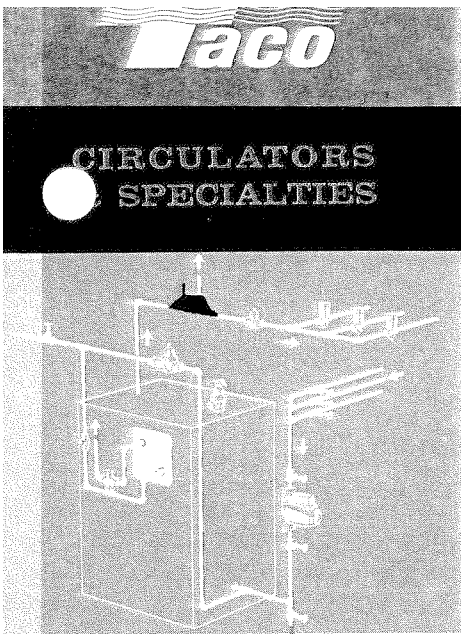
No. 327
DUAL CONTROL



Specifications, Sizes & Dimensions

PROD. NO.	SIZE CONN'S.	PRESS. SETTING — PSI		MAX. OPER. TEMP.	DIMENSIONS		APPR. SHIP. WHT. LBS.
		REDUCING VALVE (2)	RELIEF VALVE		HEIGHT.	DIA. x LGTH.	
319	1/2"	12	—	240F	4 3/8"	2 3/16" x 4"	2 1/8
320	3/4"	12	—	240F	4 3/8"	2 3/16" x 4 1/8"	2 3/8
330	1/2"	12	—	240F	3 15/16"	2" x 2 7/8"	14 oz.
323	1/2"	12	30	240F	4 5/8"	2 3/16" x 7"	3 3/4
327	1/2"	12	30	240F	4 5/8"	2 3/16" x 5 3/4"	2 3/4

(2) Adjustable 0 to 30 psi.

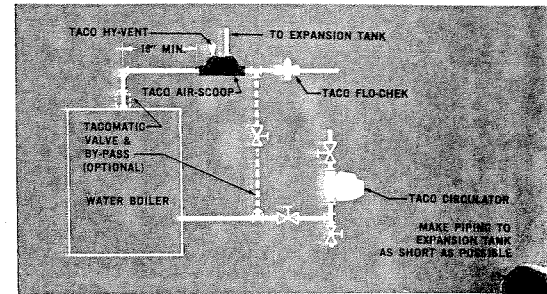
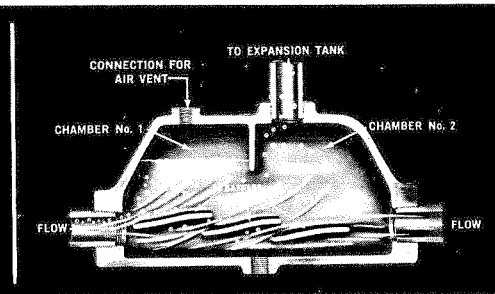


Purpose

The Taco Air-Scoop is specifically designed to provide a noiseless, air-free Hydronic heating, cooling or combination system, by efficiently separating out the air from the water in any of these systems.

Features

- ◆ One piece cast iron construction
- ◆ 3 engineered baffles to separate air from the water
- ◆ Never requires any servicing



Operation

Air being lighter than water, travels along the upper portion of a horizontal pipe in low velocity Hydronic systems.

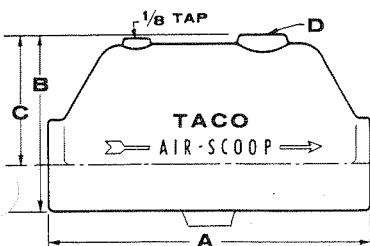
As the air and water enter the Air-Scoop, their velocity is "slowed down," permitting the air bubbles to be scooped up by the baffles and directed to Chambers 1 and 2.

Air that accumulates in Chamber 1 is removed by an Air Valve and cannot return. Air from Chamber 2 passes into the Expansion Tank to act as an air cushion. Should the air completely fill the Expansion Tank and back down into the Air-Scoop, the excess will be removed by the Air Valve without disturbing the operation of the system.

Specifications

Maximum operating temperature 275°F.
Maximum working pressure 125 PSI

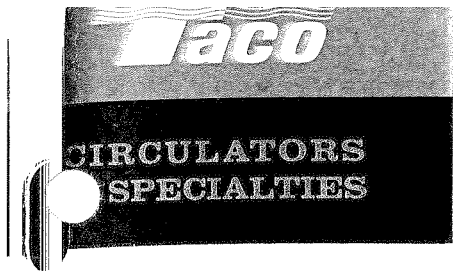
Sizes & Dimensions



PRODUCT No.	SIZE	A	B	C	D	APPROX. WGT. LBS.
430**	¾"	9¼"	4½"	3⅝"	½"	6
431**	1"	9¼"	4½"	3⅝"	½"	6
432**	1¼"	10"	5⅝"	3⅝"	½"	10½
433**	1½"	10"	5⅝"	3⅝"	½"	10½
434	2"	11½"	7"	5"	1"	16
435	2½"	11½"	7"	5"	1"	16
436	3"	12¼"	8⅝"	6⅝"	1¼"	22
437*	4"*	16⅝"	11⅝"	6⅝"	1½"	52

*This size has 125 PSI flanged connections, but companion flanges, bolts and gaskets are not furnished.

**These sizes furnished with ½" bottom tapping.



Purpose

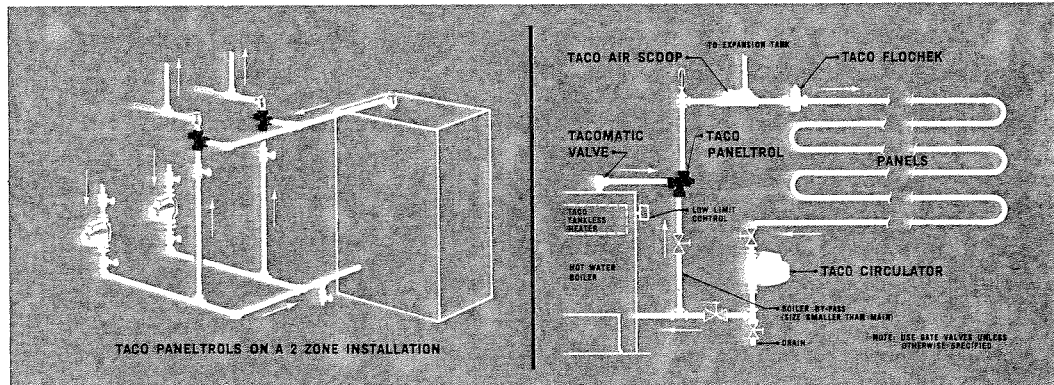
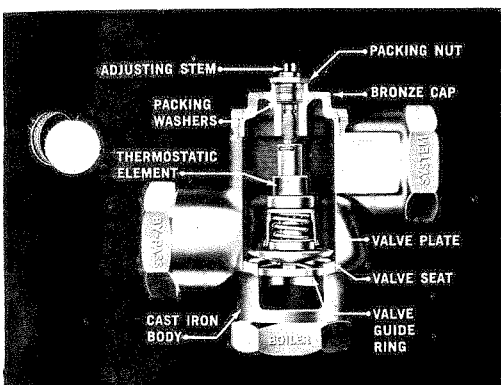
For Panel Heating Systems — The Taco Paneltrol is designed to serve a dual function. First — it can be adjusted to deliver water to Radiant Heating Panels at any temperature between 110°F. and 150°F., provided the boiler water is higher than these settings.

Second — It permits obtaining Domestic Hot Water from the same boiler by carrying a boiler water temperature of 180°F. or higher if necessary.

Features

- ◆ Non-Liquid, Non-Bi-Metal Thermostatic Element — cannot leak, corrode or fatigue
- ◆ Adjustable from 110F to 150F
- ◆ All working parts are non-ferrous
- ◆ Cast Iron Body
- ◆ Low cost Panel Heating Control

Installation



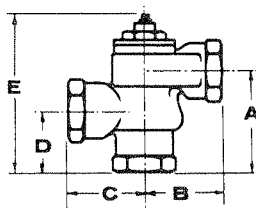
Operation

When circulator or pump operates, hot boiler water and relatively cool system return water from the by-pass are pumped through Taco Paneltrol. After mixing thoroughly, if this blended water temperature tends to go above or below the predetermined setting (any temperature from 110 to 150°F.) the Taco Paneltrol thermal element expands or contracts. This restricts or increases flow of hot boiler water to mixing chamber without creating additional pressure drop.

Specifications

Maximum operating temperature240°F.
Maximum working pressure125 PSI

Sizes & Dimensions



PRODUCT No.	SIZE	A	B	C	D	E	APPROX. SHIPPING WT., LBS.
520	1½"	4⅞"	3"	3"	2⅜"	6"	6

