

## Self-Actuated Temperature Regulators Models RT-220 thru RT-224 For Air/ Gas Temperature Control

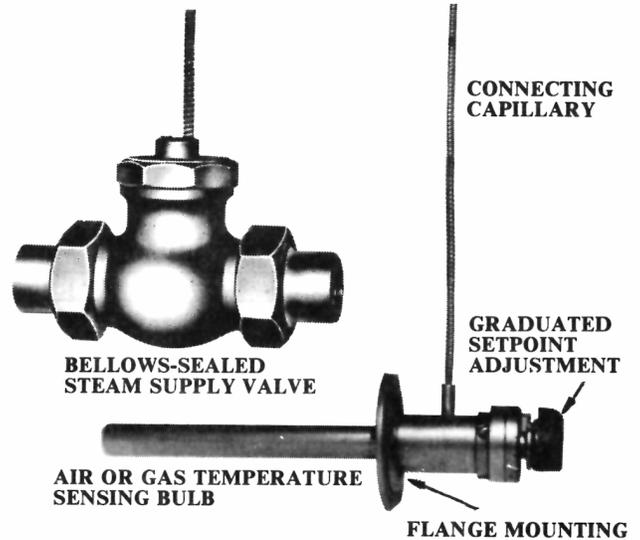
### OUTSTANDING FEATURES

1. Accurate Control
2. Sensitive bulb
3. Modulating
4. Self-powered
5. Simple, compact construction
6. Small over-all dimensions
7. Graduated dial setpoint adjustment
8. Setpoint adjustment may be locked
9. Single-seated valves
10. Packless construction - no packing - no leaking
11. Easily installed
12. No maintenance required

### GENERAL DESCRIPTION

These Robertshaw Temperature Regulators meet the demand for sensitive, compact instruments suitable for low pressure steam control. They are especially suited for controlling the temperature of steam heated air or gases in response to temperature at a sensing bulb located in a duct, oven, etc. They differ principally in pressure limits and capacity. The Nos. RT-222, RT-223 and RT-224 are suitable for steam pressures up to 75 lbs.; Nos. RT-220 and RT-221, up to 15 lbs.

Typical applications include control of air temperature in heating and ventilating systems, drying machines, ducts, seasoning rooms, baking proof boxes, etc.



Sizes 1/2" – 1 1/2"

Regulators RT-220, RT-222 and RT-224 have directmounted adjustment as pictured above. RT-221 and RT-223 have remote adjustment. See drawing on back page.

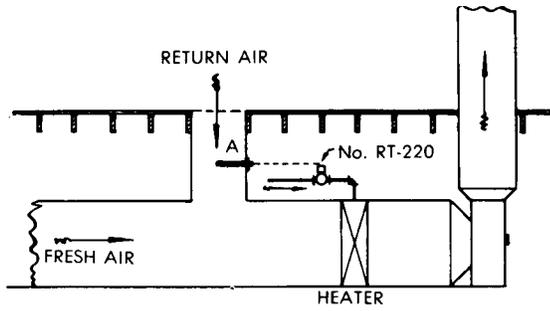
### DESCRIPTION OF CATALOGED REGULATORS

Regulator No.		RT-220 (Direct Adjustment) RT-221 (Remote Adjustment)	RT-222 (Direct Adjustment) RT-223 (Remote Adjustment)	RT-224 (Direct Adjustment)	
Valve	Steam Pressure Limit, Lbs. Gage	15	75	75	
	Sizes	1/2" thru 1 1/2"	1/2" thru 1"	1 1/4" , 1 1/2"	
	Type	Single seat	Single seat	Single seat, balanced	
	Ends	Screwed unions,	Screwed unions,	Screwed unions	
	Trim	Disc	Composition	Stainless steel	Stainless steel
		Seat	Bronze	Stainless steel	Stainless steel
Body material		Bronze	Bronze	Bronze	

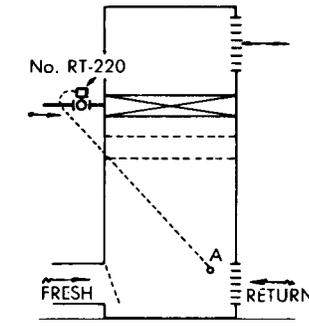
### FOLLOWING SPECIFICATIONS APPLY TO ALL REGULATORS LISTED ABOVE

<b>Bulb</b>	Bulb Tube, material	Copper
	Fittings, material	Brass
<b>Connecting Tubing</b>	Length	10 feet (other lengths on order)
	Material	Copper with brass spiral armor.
<b>Setpoint Adjustment Ranges</b>	60° spans are available between limits of 35° F. and 170° F. maximum. (Slightly higher under special conditions. Consult our representative)	
<b>Temperature Adjustment</b>	Type	Graduated dial type, mounted on bulb. Locking arrangement provided. Knob and dial, nickel plated
	Standard Mounting .	Mounted on bulb as illustrated above.
	Optional Mounting	RT-221 and RT-223 offer adjustment separately mounted. Connecting tube length - bulb to valve and adjustment to valve, each 10 feet.
<b>Packless Feature</b>	All designs are packless. A monel Sylphon® bellows eliminates packing.	

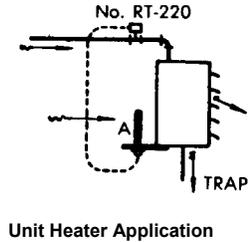
**TYPICAL APPLICATIONS**



Central Fan System



Unit Conditioner Application



Unit Heater Application

**CAPACITIES**

**RT-220, RT-221 Series**

Steam Supply, PSIG		2	6	10	15
Valve Size, In.	Cv (Approx.)	Pounds per Hour			
1/2	6.0	100	150	190	240
3/4	6.0	145	225	290	370
1	6.0	160	250	320	410
1-1/4	18.0	275	435	550	690
1-1/2	18.0	305	485	610	770

The temperature change at the sensing bulb required for full valve stroke varies from 4 to 7 degrees depending on valve size. Modulating control of 0.5° to 1.0° is possible.

**RT-222, RT-223 Series**

Steam Supply ...		5	10	25	75
Valve Size, In.	Cv (Approx.)	Pounds per Hour			
1/2 - 1	2.1	135	195	320	495

The temperature change at the sensing bulb required for full valve stroke is 7 degrees, all sizes. Modulating control of 0.5° to 1.0° is possible.

**RT-224 Series**

Steam Supply, PSIG		5	10	25	75
Valve Size, In.	Cv (Approx.)	Pounds per Hour			
1-1/4	12.0	270	500	940	2000
1-1/2	13.0	280	510	960	2100

The temperature change required at the sensing bulb for full valve stroke is 11 degrees. Modulating control of 1.0° is possible.

**DIMENSIONS**

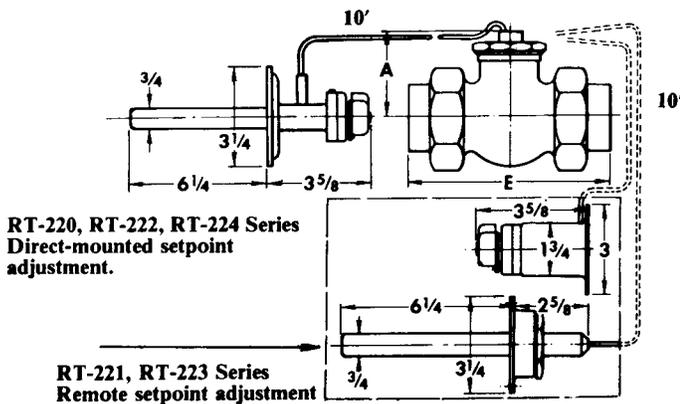
Valve Size, Inches		1/2	3/4	1	1 1/4	1 1/2
Shipping Wt., Lbs.		14	16	18	19	20
Regulator Nos.	RT-220	A	2-7/8	2-7/8	2-7/8	2-7/8
	RT-221	E	6-3/16	6-7/16	6-1/8	6-1/8
	RT-222	A	4	4	4	
	RT-223	E	6	6-9/16	6	
	RT-224	A				3-3/4
	E				6-7/16	6-15/16

**NOTE:** Loss of thermostatic charge (due to damage to or breakage of tubing, or any leakage in the thermal system) will result in the valve remaining in the fully open position.

**ORDERING INFORMATION**

Specify:

1. Quantity
2. Regulator number
3. Valve size
4. Steam pressure through valve
5. Temperature range
6. Connecting tube length, if special.
7. Shipping instructions
8. Billing instructions



**Robertshaw**

**U.S.A. and CANADA**

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