

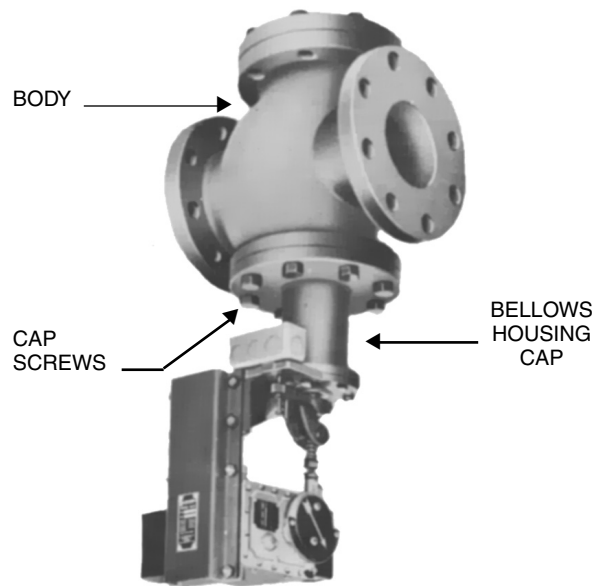
VARI-VAC®

Type RTMS Control Valve

APPLICATION

The **Vent-Rite® Control Valve (Type RTMS)** is mounted in the zoned steam supply line as close to the main steam supply header as possible. It is used to control the amount of steam flowing into the zoned piping. Its opening and closing is controlled by the control center. It not only receives information, but also sends information to the control center indicating the degree that the valve is open, to allow the heat supply to be continuously controlled to exactly equal the heat losses through all extremes of weather.

This unique control valve is designed for steam applications from differential Vari-Vac® systems to both standard two pipe, and one pipe systems. This valve is straight linear. (Example: if valve is open 60%, it will handle 60% of its rated capacity. The RTMS Control Valve, with its unique throttling ability, will improve operation and efficiency of your steam heating system.



Type RTMS Control Valve

CONSTRUCTION FEATURES

RUGGED CONSTRUCTION

Material:

Valve Body	Class 30 C.E.
Inner Valve	Naval Bronze
Valve Seat	Naval Bronze

Configuration

Valve Body	Flanged 125# Ansi
Inner Valve	Ported Sleeve Type
	Single Seat through 3"
	Double Seat 4" through 10"

UNIQUE DESIGN - Parabolic contour inner valve provides a linear curve when percent flow varies directly with percent of valve opening. IE: 40% open = 40% capacity. The ported sleeve inner valve provides a flexible throttling action from design demand through mild weather (low heat requirements.)

VALVE OPERATION - The operator linkage is of the short coupled design. The eccentric is rotated by a low voltage reversing motor controlled from the Panel. Adjustable limit switches open the circuit when the motor has traveled to its limit in either direction.

FLEXIBILITY - The ported sleeve inner valve provides the throttling action through the full range of steam flow, particularly when the demand for heat is light and the rate of steam flow is small.

CONTINUOUS FLOW - This throttling gives a continuous flow of steam and does not require periodic closing of the valve to prevent overheating in mild weather.

VALVE POSITION INDICATOR - The inner valve lift from the seat, in percent of the maximum possible lift, is indicated by a pointer mounted on the linkage eccentric.

RELIABILITY - The use of a bellows connection eliminates all packing around the stem and insures against air leakage when operating under a vacuum.

INSTALLATION

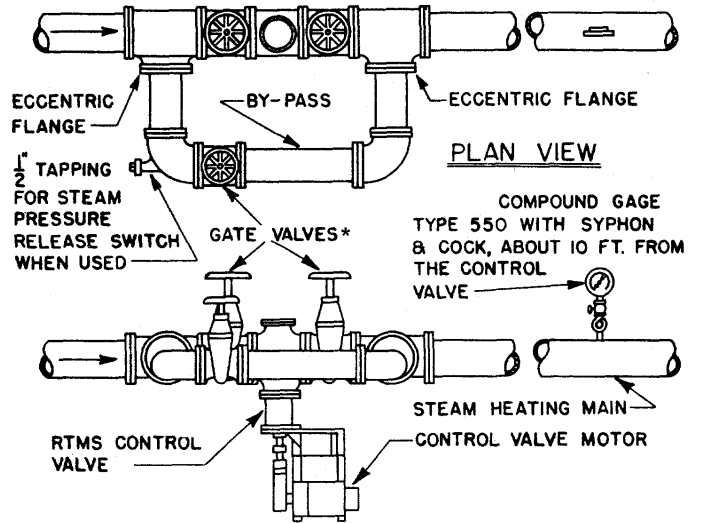
Install the Control Valve in an accessible location in the steam supply main in accordance with the typical installation details shown on reverse side or where shown on the plans or as directed.

If the location of the Control Valve will be such that the dial and pointer which indicates the percentage of valve opening cannot be easily seen from a convenient location, this can be easily corrected. To do so, remove the cap screws from the upper flange of the bellows housing and turn the lower valve assembly to any desired position within limits of the bolt holes. Allow the flange to drop away from the body of the valve only enough to allow clearance between the gasket and one of the castings after having separated the gasket from either of the casting.

DO NOT ATTEMPT TO MAKE THIS CHANGE AT THE BELLOWS HOUSING CAP AS DAMAGE TO THE BELLOWS WILL RESULT.

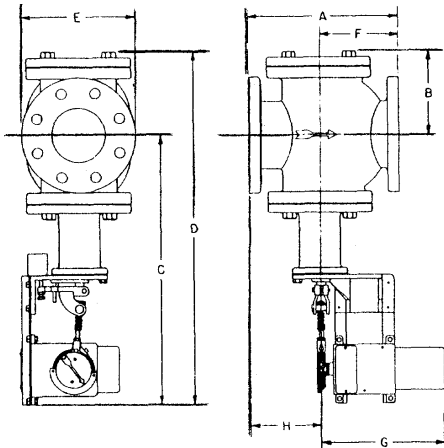
The protective covering shipped on the motor should not be removed until the electrician is ready to make the final wiring connections.

PIPING DETAILS - RTMS CONTROL VALVE



*INLET/OUTLET VALVES MUST BE FLANGED GATE TYPE. FULLY LUGGED VALVES NOT RECOMMENDED.

ROUGHING IN DIMENSION - RTMS CONTROL VALVE



CONTROL VALVE SIZE IN.	CAPACITY SQ. FT. EDR*	SIZE OF BYPASS INCH	DIMENSIONS IN INCHES							
			A	B	C	D	E	F	G	H
1-1/2	2,200	1	7-3/4	4	18-11/16	22-11/16	5	3-7/8	9-13/16	3-7/8
2	4,000	1-1/4	8-3/8	4-3/16	18-7/8	23-1/16	6	4-3/16	9-13/16	4-3/16
2-1/2	5,500	1-1/2	9	4-3/4	19-7/16	24-3/16	7	4-1/2	9-13/16	4-1/2
3	9,700	2	10-1/4	5-1/8	19-13/16	24-15/16	7-1/2	5-1/8	9-13/16	5-1/8
4	13,500	3	12	6-7/16	20-15/16	27-3/8	9	6-5/16	9-13/16	5-11/16
5	17,300	3	13	7-3/16	21-11/16	28-7/8	10	7-3/8	9-13/16	5-5/8
6	28,000	4	14-3/4	8-1/8	22-5/8	30-3/4	11	8-3/4	9-13/16	6
8	36,000	5	19	10-1/8	24-7/16	34-9/16	13-1/2	10-3/8	9-13/16	8-5/8
10	56,000	6	19-1/2	11-9/16	25-7/8	37-7/16	16	11-13/16	9-13/16	7-11/16

NOTE: If clearance beneath the valve is a problem and the valve cannot be installed with the motor beneath the steam main, it may be swung 180 degrees and installed with the motor above the steam main. The valve should not be installed in a horizontal or any other position off the vertical because of added wear on internal parts of the valve. The necessary dimensions for layout of this work are shown on reverse side of this page.

Vent-Rite®

VARI-VAC®

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DIFFERENTIAL VACUUM PUMP SHUT-OFF OR AUXILIARY SWITCH (Mounted on RTMS Control Valve)

READ THESE WIRING INSTRUCTIONS CAREFULLY BEFORE PROCEEDING

The pump shut-off or auxiliary switch is mounted on the bellows housing cap of the RTMS Control Valve.

Run two #18 gage (or larger) conductors in 1/2" conduit from the terminal strip of the control panel of the Model C5 Vari-Vac® Differential Vacuum Pump to a point about 1-1/2" to 2 feet from the pump shut-off switch on the Control Valve. Flexible conduit is suggested for the remainder of the distance and connection to the switch. The switch is provided with pigtail leads which are to be wire nudded to the #18 conductors.

Remove the jumper from the specified terminals (reference unit wiring diagram) in the control panel of the Model C5 Differential Vacuum Pump. Connect the wires from the pump shut-off switch on the RTMS control valve to these terminal locations.

If more than one pump shut-off switch (RTMS valve) is required as on a multi-zone installation, these switches may be connected in parallel to these terminal locations.

