Valve Type 90 for One Pipe Steam
Installation and Operating Instructions

APPLICATION & DESIGN

Ammark's Type 90 Thermostatic Radiator Valve for one-pipe steam automatically controls room temperature by modulating steam supply to each radiator. This valve may be installed in gravity or vacuum 1PS systems. All valves are supplied with NPT internal threads on the inlet and an NPT threaded union on the outlet. All Ammark TRVs are supplied with a threaded cap, which protects the valve stem during installation and may be used to manually throttle flow.

Type 90 Angle Valve for One Pipe Steam

MATERIALS

Body:	Brass with nickel plating
Stem Seals:	EPDM
Disk:	EPDM
Backseat Washer:	EPDM
Check Valve:	EPDM
Stem:	Stainless Steel
Opening Spring:	Stainless Steel

PREPARATION

Properly operating vent valves are crucial to the proper operation of the Type 90 Valve. Unless they been replaced recently, the vent valve and main vent should be replaced in conjunction with installation of this valve. Make sure that the operating (or drop away) pressure of the vent valve exceeds the system operating pressure. ITT Hoffman Radiator Steam Vent Model 40 is recommended for most installations (ITT Hoffman #4014400).

ammark CORPORATION®

- **Replace the vent valve!**
- **Install the valve upright with steam flow in the direction of the arrow!**

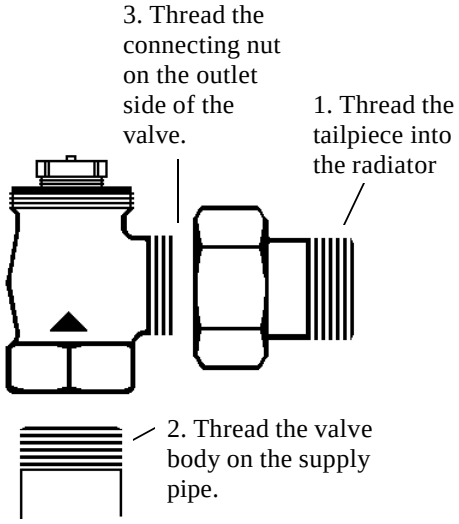
If utilizing boiler treatments, make sure they are safe for EPDM. Oil or hydrocarbon based treatments should not be used.

INSTALLATION

Type 90 valves must be installed upright with steam flow in the direction of the valve body. Do not remove the plastic cap from the valve until you are ready to install the control. Appropriate temperature-rated sealing tape may be used on the threaded connections - do not use sealing compounds on the union connection between the tailpiece and the valve body or the nut and valve body.

Complete the valve installation:

1 Thread the tailpiece into the radiator with the connecting nut positioned to thread on the outlet side of the valve.
2 Thread the valve body on the supply pipe.
3 Thread the connecting nut on the outlet side of the valve.



Ammark Corporation, 230 West Parkway, Unit 12, Pompton Plains NJ 07444
Phone: 973-616-2555 Fax: 973-616-0246 Email: sales@ammarkcorp.com
www.ammarkcorp.com

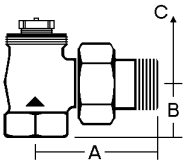
INSTALLATION (continued)

After the valve has been installed, remove the protective cap and install the control on the valve. Since the valve must be installed upright, controls with remote sensors (Types 63 or 66) are recommended to insure accurate temperature control. Refer to installation instructions for Control Type 63 and 66 for more information.

Type 90 Valve with Type 63 Control – remote sensor with 6.5' capillary

Type 90 Valve with Type 66 Control – wall or cabinet mount sensor/ dial with 6.5' capillary

INSTALLATION DIMENSIONS



PART #	SIZE	A	B	C^{63}	C^{66}
90.100	1"	3"	1.3"	5"	4"
90.125	1¼"	3.6"	1.75"	5"	4"

Dimension 'C' indicates installation clearance for each control/valve combination.

CAPACITIES

Maximum System Temperature:	250 ºF
Maximum Sensor Temperature:	120 ºF
Max Recommended Steam Pres-	6 psig

Valve Size	Pressure Drop Across Valve (psi)					
	0.5	1.0	1.5	2.0	3.0	5.0
	Capacity (MBh)					
1"	5.7	8.2	10.2	11.9	15.0	20.4
1¼"	8.8	12.6	15.7	18.5	23.2	31.5

1 Mbh = 1000 Btu/h
Mbh x .240 = sq.ft. EDR
Capacities based on atmospheric pressure on outlet side of valve.

AMMARK ONE PIPE STEAM AWARDS

- U.S. Patent #4,412,648
- Energy Innovation Award, U.S. Department of Energy
- Energy Innovation Award, N.J. Department of Commerce & Economic Development

Ammark Corporation, 230 West Parkway, Unit 12, Pompton Plains NJ 07444
Phone: 800-937-0426 Fax: 973-616-0246 Email: sales@ammarkcorp.com
www.ammarkcorp.com