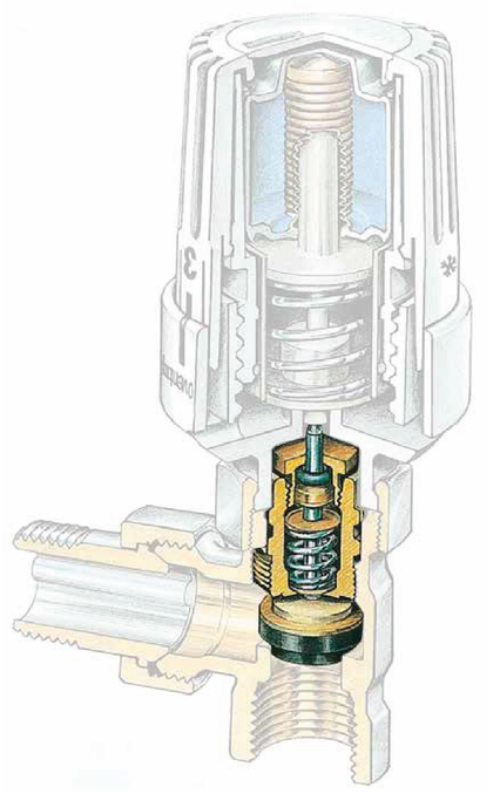

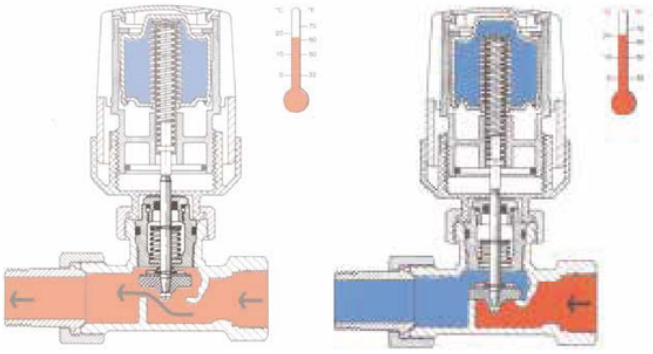

Valve insert cartridge

The heart of the Oventrop radiator valve is the insert. All the working functions of the valve have been incorporated into a removable cartridge. This cartridge is designed to be removed with the aid of a service tool that allows the system to remain in operation during maintainence. All Oventrop valve inserts are made with dezincificationresistant bodies and stainless-steel stems. All stems are constructed with a double o-ring seal to increase service life and decrease the potential for leaks. The Oventrop valve insert is universal to all Oventrop radiator valve bodies. A single sized insert is designed to operate in all Oventrop two-way radiator valve bodies.

Thermostatic proportional control, 2K.

The typical room thermostat controls the heat to a room by sensing whether the room is too cold or too hot. When the room is too cold, the thermostat signals to the heating system to send all the heat possible to the room. Once the thermostat senses that the room is too hot, it signals the heating system to shut off all the heat going to the room. This cycle continues to keep the room at the desired temperature. By its nature this method of control causes temperature swings and does not keep a steady desired temperature.

A thermostatic radiator valve is a proportional control device. It is designed to maintain a steady desired temperature. As the thermostat senses the room growing colder, it allows only a matching flow of heat into the room. This method creates an even, comfortable, desired temperature in the room.

Oventrop radiator valves are rated to deliver the full flow of heat to the room only when the room temperature drops 3.5 °F (2K) or lower below the desired temperature. For room temperatures closer to the desired temperature, the thermostat allows only allows a proportionally smaller amount of heat into the room. Because the heat flow into the room is controlled precisely, there is minimal fluctuation in room temperature.

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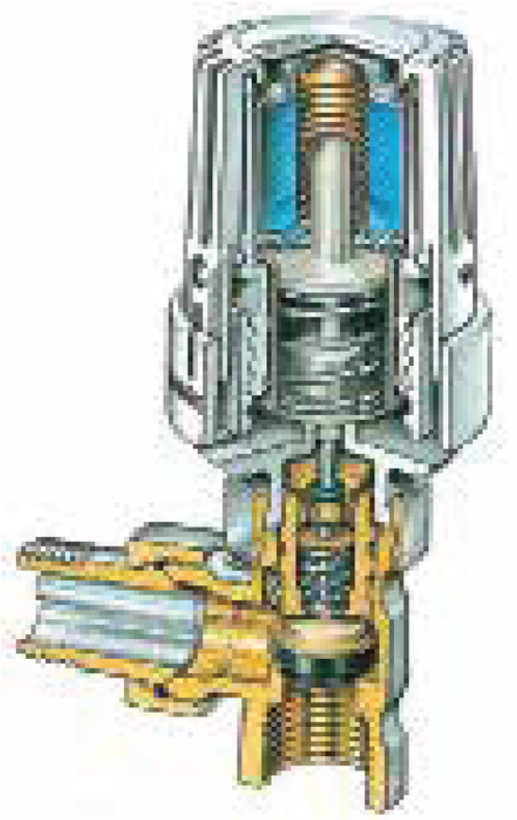
Steam Radiator Valve
Part No. 189_____.

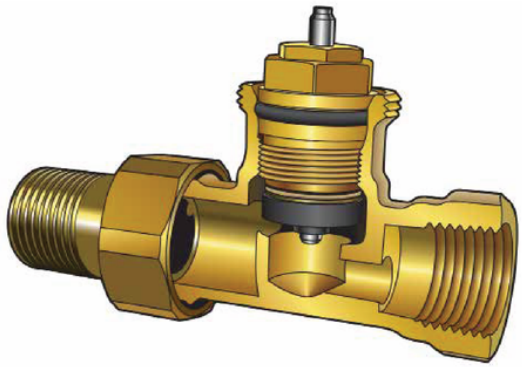
Job Name: _____ Submitted by: _____ Date:_____

_____ Spec Section:_____

Job Location: _____ Engineer/Architect:_____

_____ Approval:_____ Date:_____





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Thermostatic Radiator Valve Inserts
Specialty Valve Inserts
Accessories

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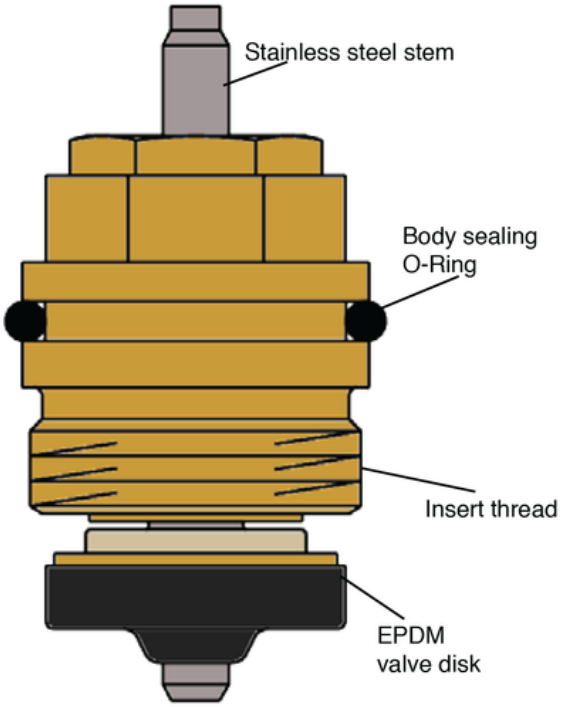
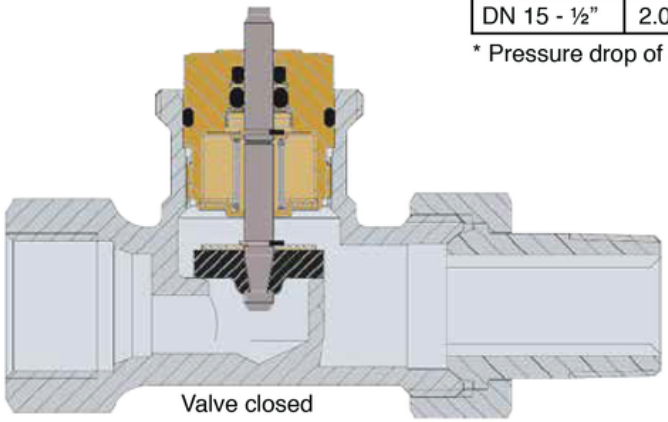


1 - "Series AZ"
Item no. 118 70 60
Standard for hot water radiator valves. Most versatile insert. Can be used for most hot water installations.

Maximum body pressure: 145 PSI
Maximum pressure drop: 14.5 PSID
Temperature range: 35 to 250 °F

"Series AZ"	Full Cv	Maximum recommended flow [GPM]*
Angle pattern valve		
DN 15 - ½"	4.06	7.0
DN 20 - ¾"	4.06	7.0
DN 25 - 1"	4.06	7.0
DN 32 - 1¼"	4.76	8.3
Straight pattern valve		
DN 15 - ½"	2.09	3.6
DN 20 - ¾"	3.25	5.6
DN 25 - 1"	4.06	7.0
DN 32 - 1¼"	4.76	8.3
Reversed angle pattern valve		
DN 15 - ½"	2.09	3.6
DN 20 - ¾"	2.55	4.4
Double angle pattern valve		
DN 15 - ½"	2.09	3.6

* Pressure drop of 3 PSI



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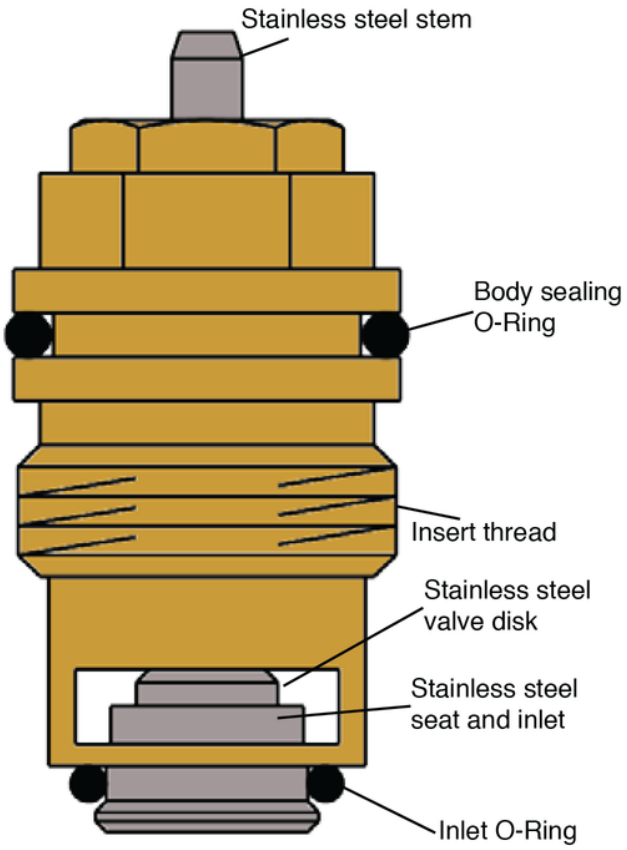
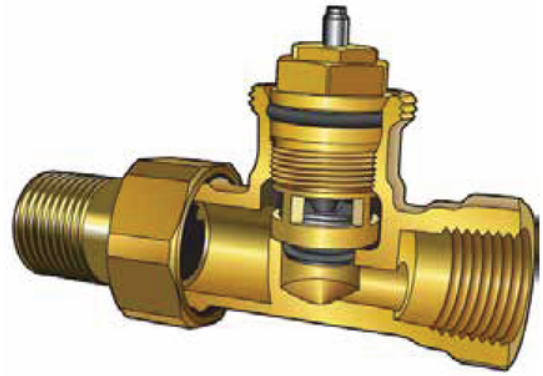


2 - "Series S"
Item no. 118 62 00
Valve insert with stainless steel seat.
Recommended for steam systems.
Valve 2K Cv = 0.7

Maximum body pressure:	15 PSIG (low-pressure steam)
Maximum pressure drop:	14.5 PSID
Temperature range:	35 to 250 °F



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Steam Radiator Valve
Part No. 189_____.

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_____ Spec Section:_____

Job Location: _____ Engineer/Architect:_____

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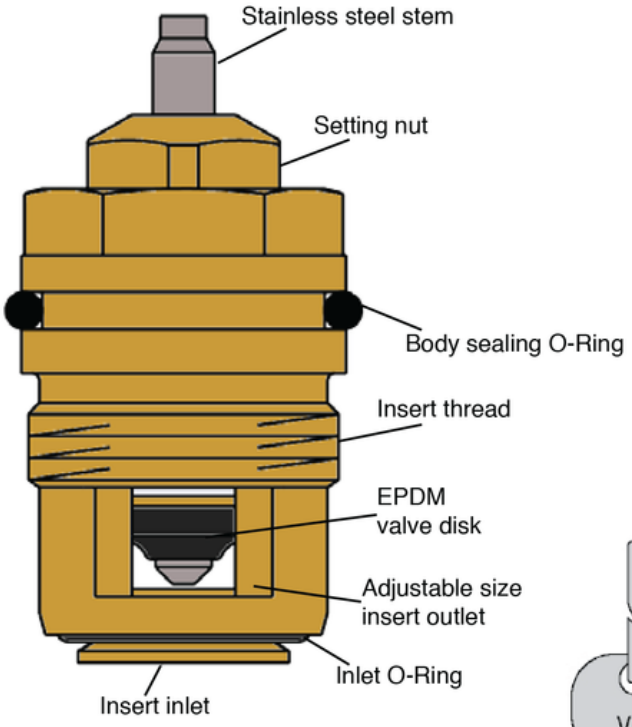

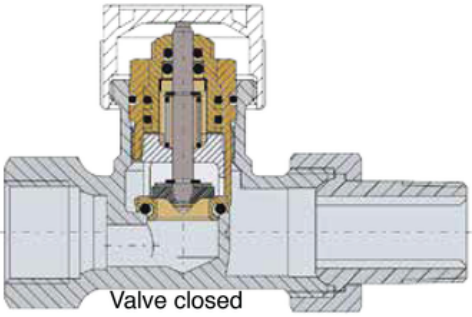

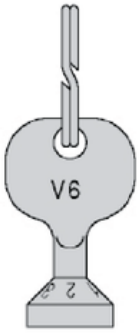

Setting Key

Setting	1	2	3	4	5	6
Recommended flow range [GPM]	0.04 - 0.11	0.13 - 0.34	0.24 - 0.62	0.34 - 0.88	0.43 - 1.11	0.50 - 1.28
Full flow recommended range [GPM]						0.69 - 1.77

Assumes DP of 0.44 to 2.9 PSID

Setting	1	2	3	4	5	6
2K Cv	0.064	0.197	0.363	0.517	0.65	0.75
Cv full						1.04

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Thermostatic Radiator Valve Inserts
Specialty Valve Inserts
Accessories

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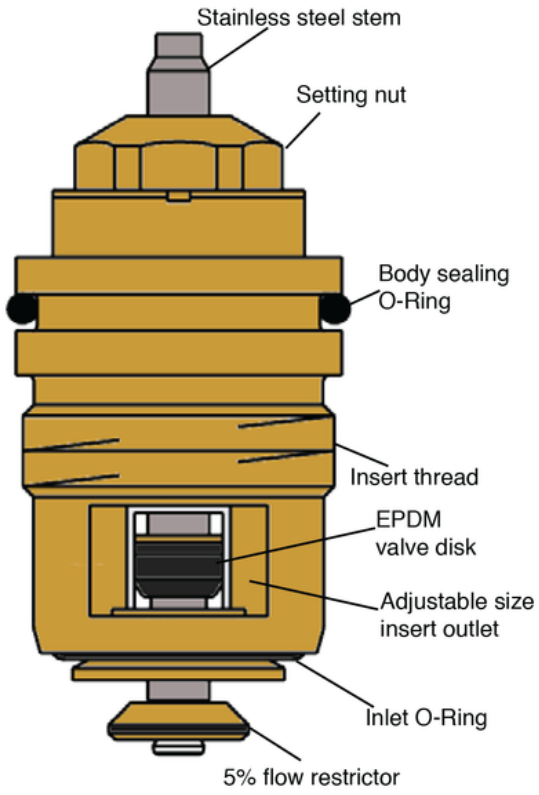
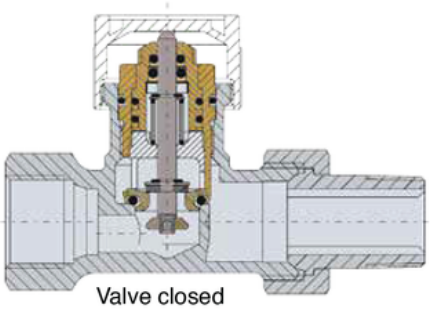
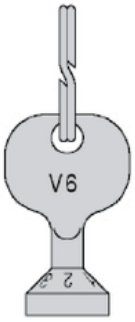


3 - "Series AV6" with presetting
Item no. 118 70 57
Adjustable Cv valve insert, allows technician to balance flow rates. Six different settings.

Maximum body pressure: 145 PSI
Maximum pressure drop: 14.5 PSID
Temperature range: 35 to 250 °F


Valve closed



Setting key

Setting	1	2	3	4	5	6
Recommended flow range [GPM]	0.04 - 0.11	0.13 - 0.34	0.24 - 0.62	0.34 - 0.88	0.43 - 1.11	0.50 - 1.28
Full flow recommended range [GPM]						0.69 - 1.77

Assumes DP of 0.44 to 2.9 PSID

Setting	1	2	3	4	5	6
2K Cv	0.064	0.197	0.363	0.517	0.65	0.75
Cv full						1.04

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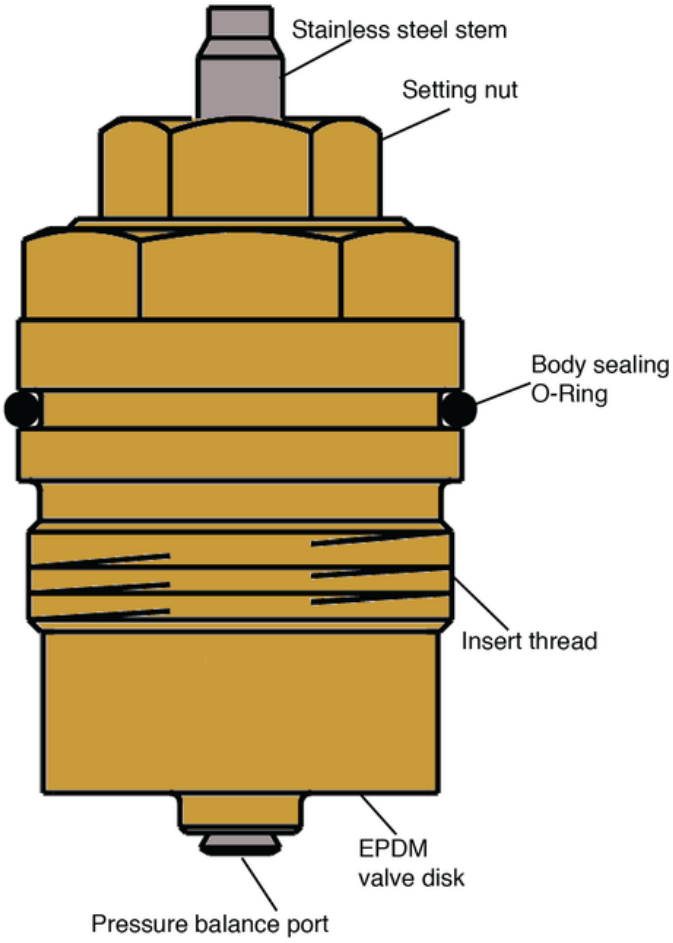
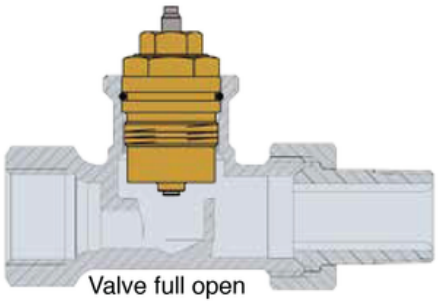


The pressure balance port equilizes the water pressure above and below the valve disk to enable a higher close-off pressure.

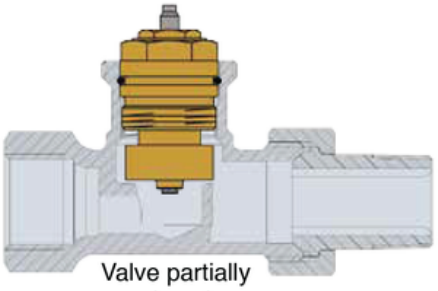
4 - "Series ADV6" with presetting and vandal function
Item no. 118 60 01
Same as "Series AV6" with the additional feature that, if the thermostat is removed, flow will be restricted to 5% normal flow.

Maximum body pressure:	145 PSI
Maximum pressure drop:	14.5 PSID
Temperature range:	35 to 250 °F



Valve full open

The insert can be used for positive shut off the radiator valve, independent of the thermostat.



Valve partially closed

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Thermostatic Radiator Valve Inserts
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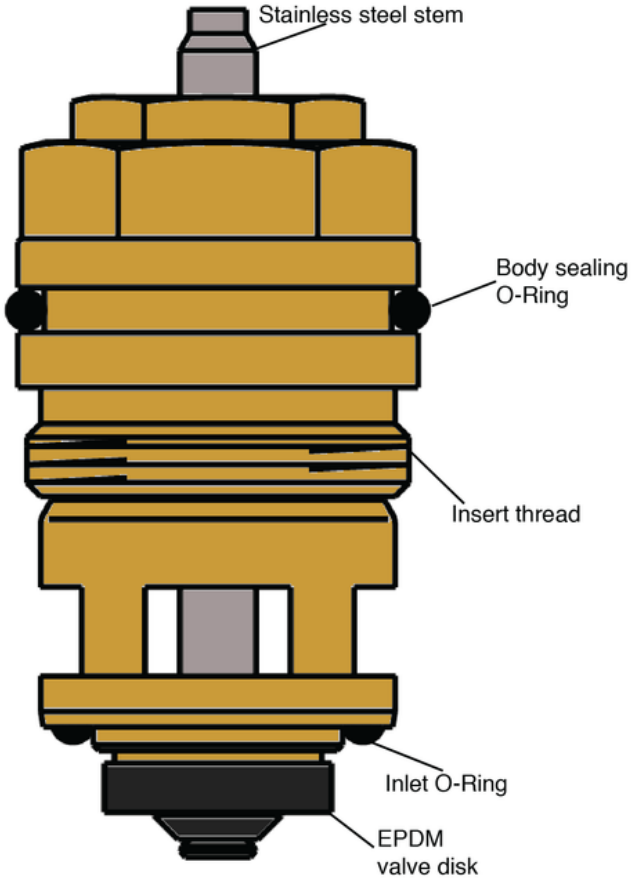

6 - "Series KT"
Item no. 114 71 69
Opens valve upon rising room temperature.
Designed for cooling applications using non-electric thermostats.

2K Cv = 0.58

Maximum body pressure:	145 PSI
Maximum pressure drop:	14.5 PSID
Temperature range:	14 to 250 °F

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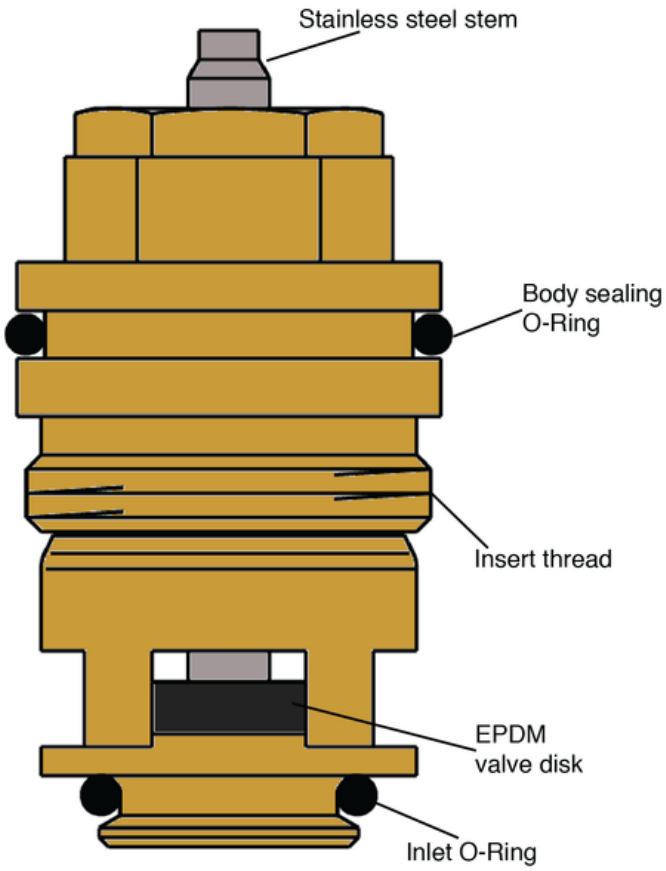

7 - "Special"
Item no. 118 70 70
Reduced Cv to correct reversed supply/ return hook-up. Provides a solution for the reversed installation of the valve to be corrected without repiping the valve body.

2K Cv = 0.52

Maximum body pressure:	145 PSI
Maximum pressure drop:	14.5 PSID
Temperature range:	35 to 250 °F

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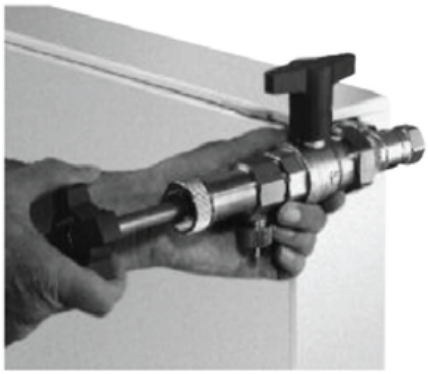
1. After having removed the thermostat from the valve, slightly loosen the valve insert by means of a corresponding tool (M 30 x 1.5 – 19 mm / 30 x 1 – 17 mm).
The "Demo-Bloc" is now screwed onto the valve.

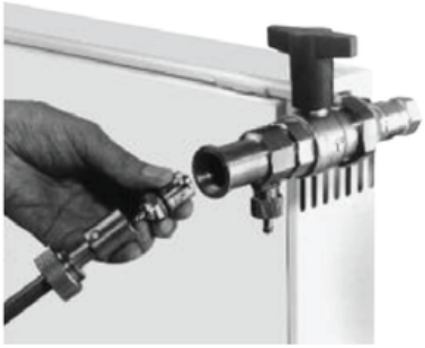
2. Where space is limited or where radiators are inside a casing, screw attachment of "DemoBloc" onto valve first.

3. Thread "Demo-Bloc" onto the coupling.



4. Introduce stem of the "Demo-Bloc" until it clicks into position. Unscrew valve insert and pull back stem slowly until it stops.

5. Close "Demo-Bloc" by means of the handle and drain the tool by opening the drain-off valve at the bottom.



6. Loosen the inner cap of the "DemoBloc" and remove the valve insert for replacement or cleaning.
The re-installation is carried out in reverse order.

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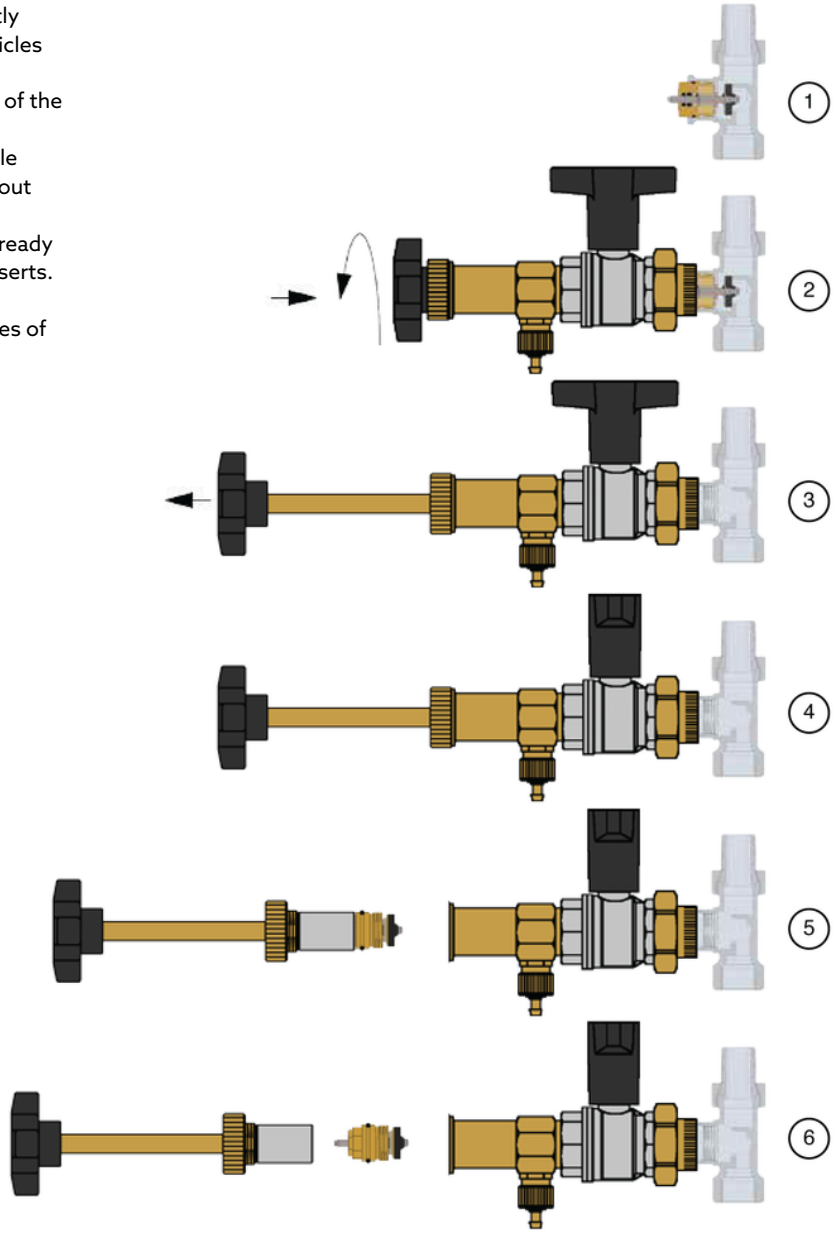
Failures of thermostatic radiator valves are frequently caused by impurities in the system (solder, dirt particles etc.). This may affect the shut-off function of the thermostatic radiator valve or may damage the seal of the valve disc.
The Oventrop "Demo-Bloc" allows a quick and simple exchange of valve inserts for repair or cleaning without the necessity to drain the system.
Moreover, Oventrop thermostatic radiator valves already installed may be upgraded with presettable valve inserts.

The "Demo-Bloc" may be used for all Oventrop valves of the series "AV 6", "ADV 6", "AZ", "S", "KT", "TM".



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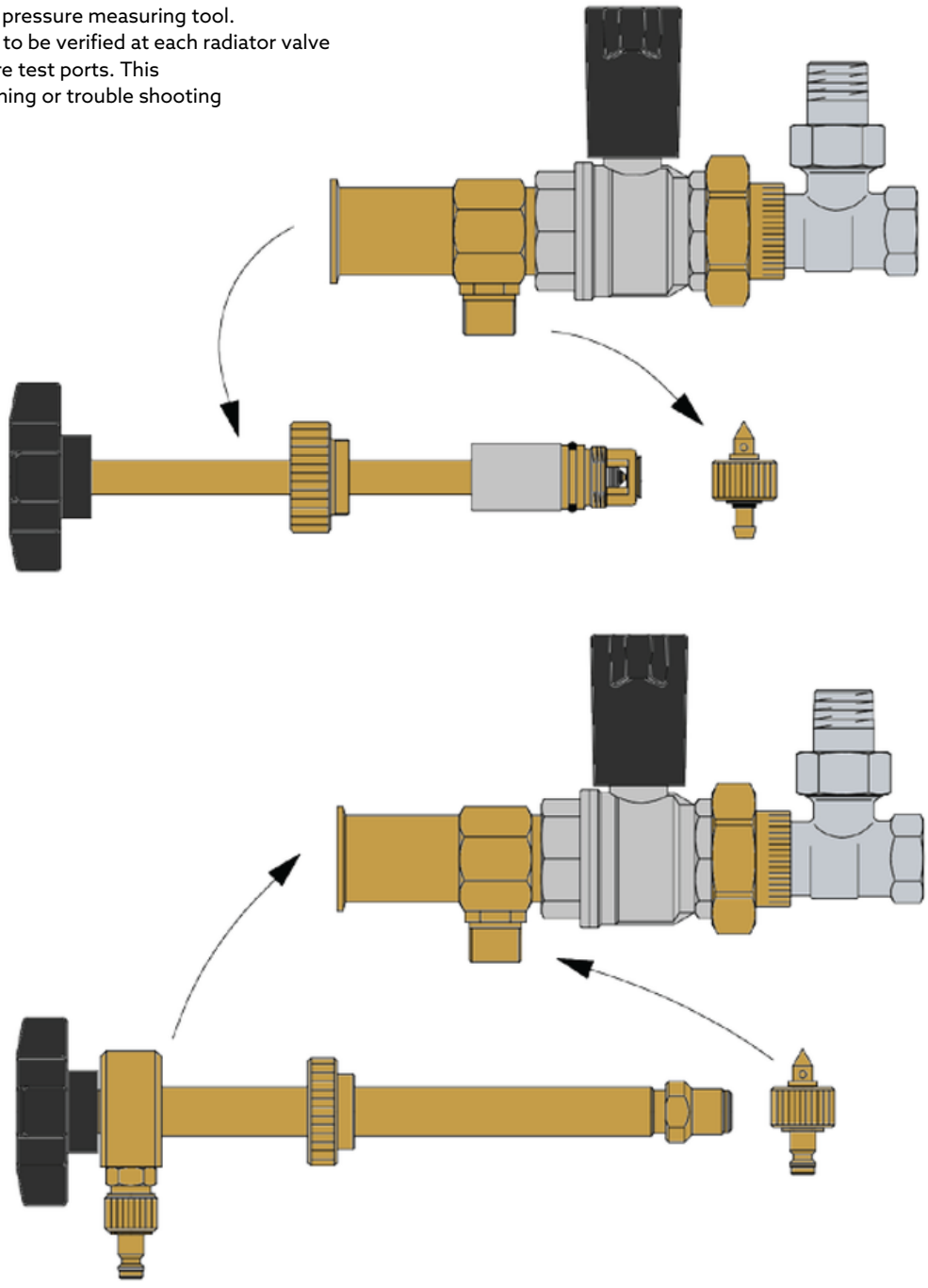
Thermostatic radiator valve differential pressure measuring tool. This tool enables the system pressures to be verified at each radiator valve without the installation of extra pressure test ports. This service tool can be used for commissioning or trouble shooting systems.



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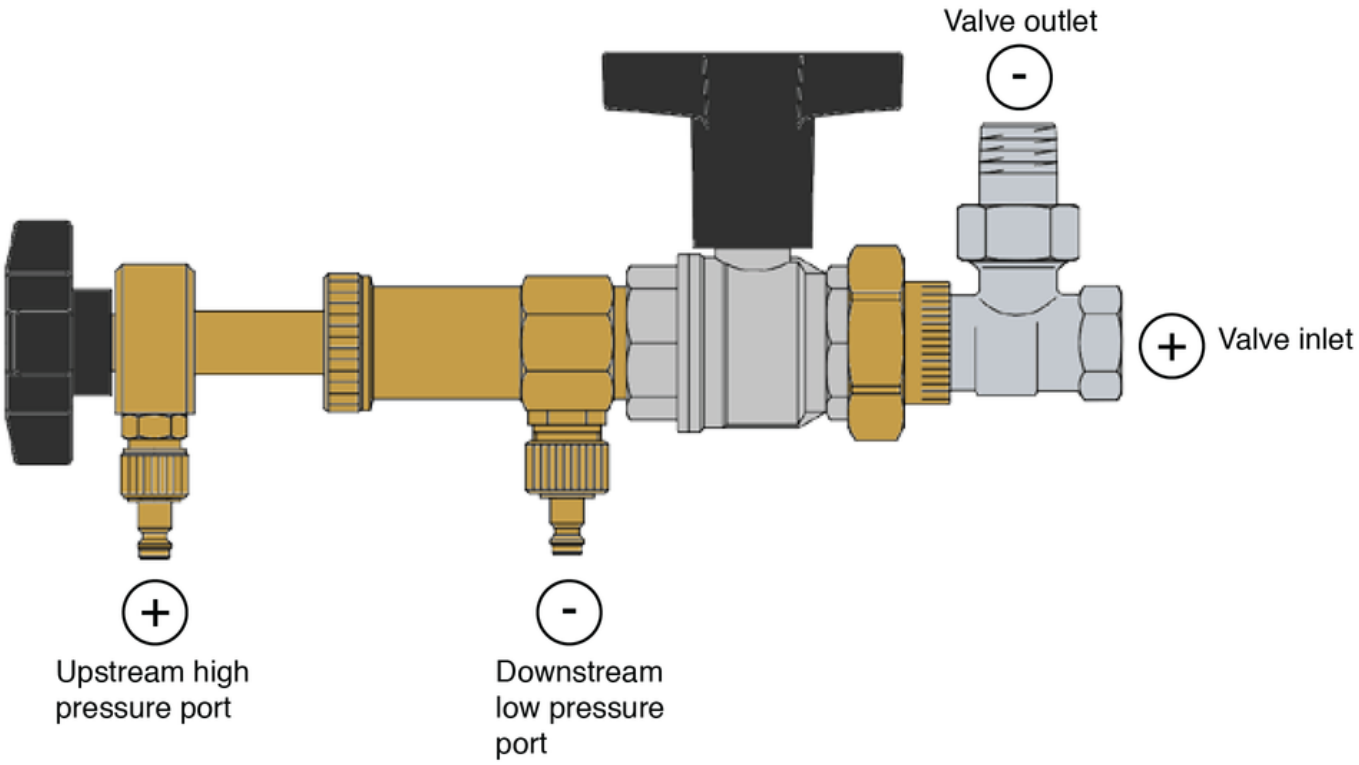

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