



Commercial Manifolds

- Drawn steel tube 2" pre-assembled manifold specifically designed for connection of radiator systems to minimise joints and leaks
- Individual circuit isolation by $\frac{3}{4}$ " ball valves
- Available from 5 ways to 15 ways, with 2" M primary and M32 x 1.5 outlet connections
- Supplied with mounting brackets, blanking caps, automatic air vent, fill and drain valve, flow and return temperature gauges
- Ball valves, fittings and Monoblocco pipe connectors available will accommodate a wide range of pipe types and sizes

Technical Product Guide

Heating Manifolds

The advantages

Heating manifolds, unlike today's common practice of non-manifold ring heating circuits, allow independent circuits thermally different to each other. This is because they supply flow and return water directly to each radiator, in a star pattern. This makes it easy to hydraulically balance each independent circuit.

Taking into account pipe runs, the hot water is circulated to all the radiators at the same time. This avoids the balancing or sequencing issues with a non-manifold system, where one radiator can be producing maximum heat well before another has started. A more constant temperature across all manifolds circuits is maintained (providing the balancing is done correctly).

Manifolds encourage the use of small diameter pipes, 10 mm or 12 mm, PB, PEX or Multilayer. This type of pipe is easy to handle and flexible. No further connections are required between the manifold and the radiator. The connectors on the radiator and on the manifold are mechanical. This means that there are far fewer joints in total and none at all which are concealed so leaks are kept to a bare minimum and because they are not concealed, relatively easy to locate and deal with.

Manifold Types

To make understanding the Emmeti range of heating manifolds easier, we have organised them into three simple types, matching each type to a heating system and controls to make the application clear.

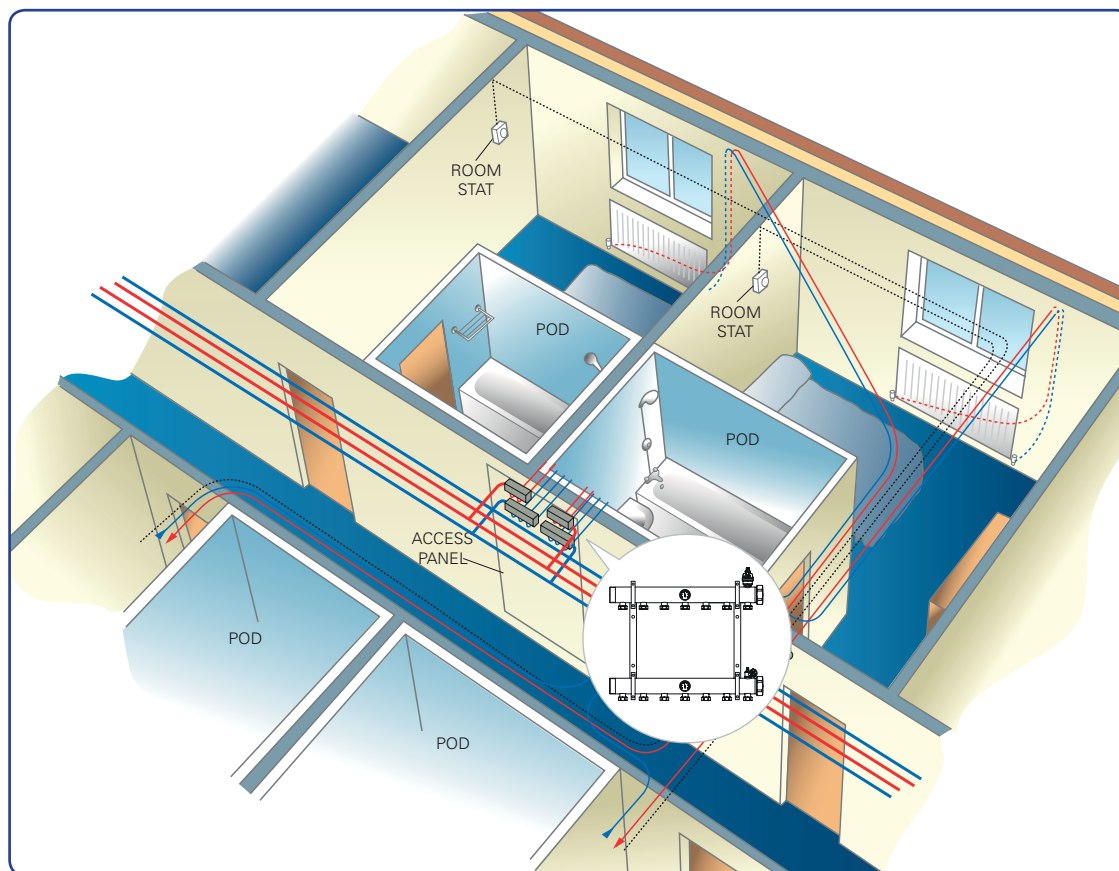
Type 1 (T1): These are for wall hung radiator (WHR) systems with a Thermostatic Radiator Valve (TRV) and Lockshield valve (LS) on the radiator

Type 2 (T2): These are for either wall hung radiator or underfloor heating (UFH) systems. The manifold is fitted with an electrothermic valve and lockshield to control each circuit; this replaces for example the TRV and LS on a radiator. The electrothermic valves are controlled by a thermostat or programmable thermostat

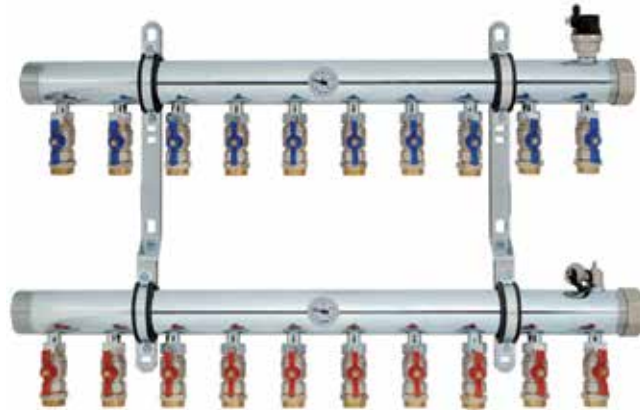
Type 3 (T3): These are underfloor heating (UFH) systems only and have a temperature controller and pump to ensure that the water is at the correct temperature for the underfloor heating circuits.

Each type has its own section in the catalogue and further details of each manifold are given at the start of each section

Example of Type 2 (T2) Heating Manifold System in Hotel Construction



Commercial Manifolds



Designed specifically for commercial systems, this 2" chrome plated steel manifold is suitable for both radiator and radiant heating systems. A flow and return rail are pre-assembled to robust steel mounting brackets with rubber insulating pads for rapid installation. The rails are offset by 80mm to allow pipework to pass behind the lower rail.

Available from 5 ways to 15 ways in single increments , each takeoff has its own 3/4" isolating valve colour coded with a red or blue handle as shown. The outlet from the isolating valve is threaded M32 x 1.5 so that larger pipe sizes can be used using Emmeti Monoblocco connectors – see Accessories at the rear of this section or see section 17 'Monoblocco Connectors and Threaded Fittings'

Each manifold is supplied with blanking caps, automatic air-vent, drain/fill valve and flow and return temperature gauges fitted to the centre of each manifold rail. 1 1/4" Ball Valves and other accessories can be found in section 5, 'Manifold Accessories' and larger ball valves in section 18, 'Ball Valves'.

Construction

- Manifolds and branches in drawn steel Fe 306B UNI EN 10305
- Braze welding in continuous oven at 1080 °C with copper welding
- material 99.9%
- Surface treatment of nickel plating followed by chrome plating

Technical data

Maximum operating temperature 110°C
 Maximum operating pressure 10 bar
 Manifold connections G2 M
 Takeoff connections M32x1,5
 Takeoffs 80 mm centres.

Supplied together with:

- Ball valves 3/4" red handle (flow)
- Ball valves 3/4" red handle (return)
- 2 no. Blanking caps G 2 F
- 1 no. water drain/discharge valve G 1/2
- 1 no. automatic + manual air vent valve G 1/2
- 2 no. temperature gauges Ø 40 (80 °C)
- 2 no. thermometer pockets

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Commercial Manifolds (continued)

Steel nickel-plated manifold, pre-assembled kit, complete with 3/4" F connections

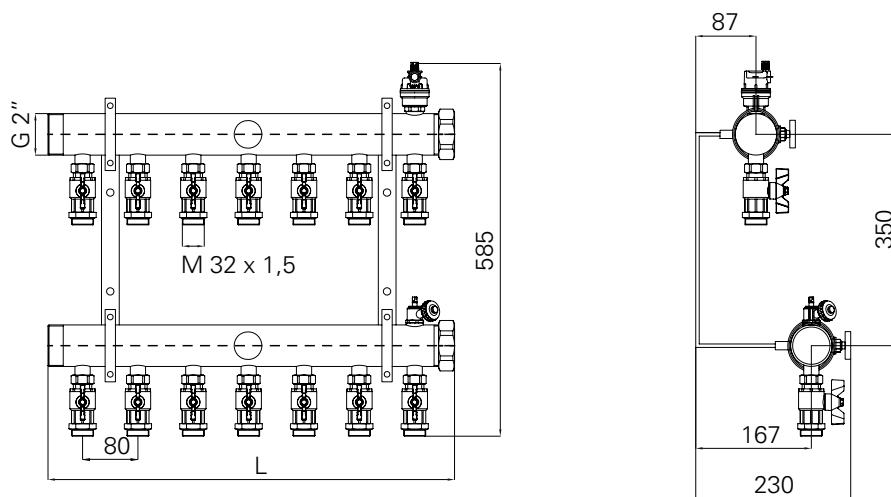


Size	Ways	Pcs./Pack	Code
2"	5 + 5	1	07400460
2"	6 + 6	1	07400462
2"	7 + 7	1	07400464
2"	8 + 8	1	07400466
2"	9 + 9	1	07400468
2"	10 + 10	1	07400470
2"	11 + 11	1	07400472
2"	12 + 12	1	07400474
2"	13 + 13	1	07400476
2"	14 + 14	1	07400478
2"	15 + 15	1	07400480

Manifolds and branches in drawn steel Fe 306B EN 10305, braze welded in copper and zinc plated. For Emmeti Monoblocco connector 28100382 25x2.3mm for PEX plastic pipe, please look at the end of the section. For 25x2.3mm PE-Xa plastic pipe 28130686, please refer to our website www.emmeti.co.uk.

Kit contents: No. 2 female blanking plugs; No. 1 drain/fill valve; No. 1 manual/ auto air vent; No. 2 temperature gauges; pair of metal mounting brackets. Supplied without ball valves. For ball valves for use with 3/4" F manifold connections see next page. Choose from M24x19 or M32x1.5 male threaded outlet connections on ball valves, or use non ball valve straight male-male adaptors.

Connections & Dimensions



Type	5 ways	6 ways	7 ways	8 ways	9 ways	10 ways	11 ways	12 ways	13 ways	14 ways	15 ways
L mm	430	510	590	670	750	830	910	990	1070	1150	1230

Commercial Manifolds Accessories

3/4" male BSP ball valve with butterfly handle + special adaptor for use with commercial manifolds



Size	Pcs./Pack	Code
24x19 - red handle	1	01306196
M32x1.5 - red handle	1	01306192
24x19 - blue handle	1	01306198
M32x1.5 - blue handle	1	01306194

The valves must be used fully open or closed.

Straight Male-Male BSP joint, nickel-plated



Size	Thread	Pcs./Pack	Code
3/4"	24x19	14	28103050
3/4"	M32x1.5	10	28103060

Accessories

1/2" drain valve TEE with 1/2" female connection for manual or automatic air vent



Size	Pcs./Pack	Code
1/2" M	8	90011780

Optionally when combined with an air vent and a reducer fitting then attached to the end of a Topway Type 2 manifold frees the final port of the manifold, adding an additional circuit.

Note: you require either a code 90004840 or code 90004850 reducer (below) to replace the blanking plug on the end of the rail, and a code 00410021 manual or code 00400004 auto air vent.

Thermometer Ø 40



Size	Pcs./Pack	Code
0-80 °C	1	90006860

Temperature gauge pocket included in tee union (above).

For installation in a 1/2" manifold tapping, use 1/2" temperature gauge pocket, code 90026530 and O-ring pocket seal, code 90047400.

Tecno-Varia with plastic cover and anti-dirt air chamber



Size	Pcs./Pack	Code
1/2" standard	12	00400004

Plastic upper body design including innovative anti-dirt air chamber

Bleed valve and manual air vent



Size	Pcs./Pack	Code
1/2"	10	00410021

Adjusted with a screwdriver. Once partially opened, drain off position can be oriented. Can also be used in Topway manifold as manual air vent.

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Accessories (continued)

**Drain valve nickel-plated 1/2" with male 3/4" connection**

Size	Pcs./Pack	Code
1/2"	1	90011790

Allows easy pipe connection due to 45° angle with 360° orientation. Complete with isolation facility.

**Hose tail for filling and draining**

Size	Pcs./Pack	Code
3/4" loose nut x 3/8" barb	1	09020012

**27 mm - 30 mm spanner for tightening takeoffs**

Pcs./Pack	Code
1	01306046

This specially designed tool allows the installer to easily tighten the manifold outlets in the 36 mm interaxial space provided.

The 30 mm is designed for use with special larger Monoblocco connectors.