



Miscellaneous

Valve

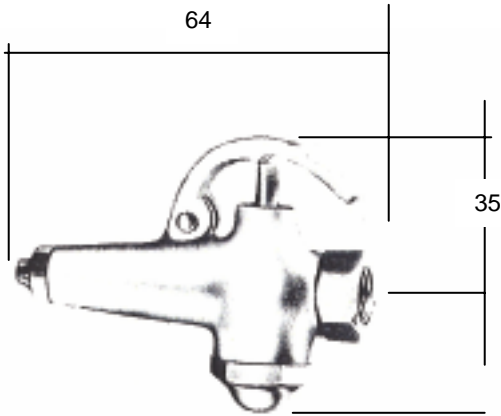
Section

**M
1**



Miscellaneous Valve Section

AIR BLOW GUN



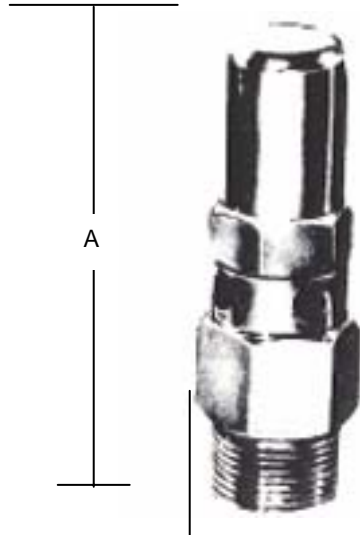
No. **9238** 8mm

Screwed B.S.P. Female

Bronze body, spindle and disc holder, neoprene valve disc, Lurene 'O' ring gland seal.

M
2

VACUUM BREAKER



B

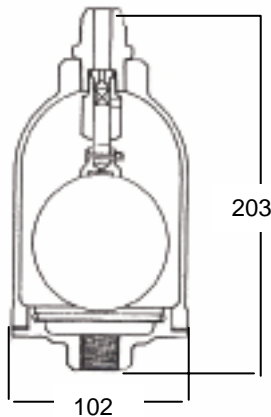
SIZE	A	B
15	98	35
20	108	35
25	117	42

No. **9255** 15 – 25mm

Screwed B.S.P. Male

All stainless steel construction. This valve remains closed under pressure and when a vacuum forms, valve opens allowing air to enter system.

AIR VENT VALVE



No. **9218** 15mm

Screwed B.S.P. Male

Bronze body, stainless steel disc & float. Used for venting air from Water Systems. Max. Operating Pressure 700 kPa.

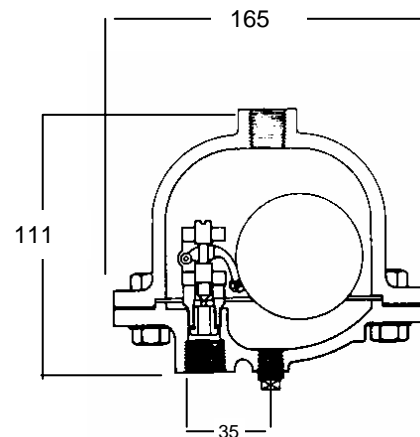
AIR CONDENSATE TRAP



No. **9378** 15mm

Screwed B.S.P. Male

Bronze body and bonnet, stainless steel float and linkage. Stainless steel seat and disc. Used for automatic removal of water from air lines. This unit can also be used to vent air from water systems and to remove condensate from steam lines. Max. operating pressure 1370kPa (200psi). Note: if used on steam a stainless steel float is recommended.

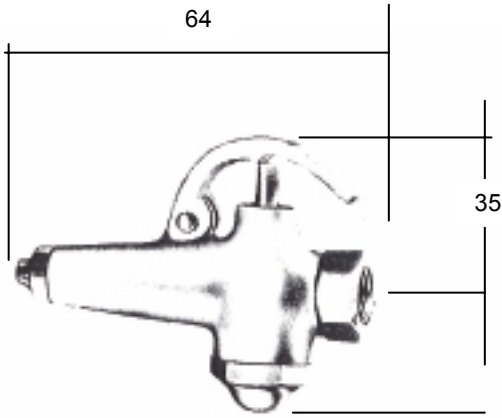


Inlet marked on sectional is as used for air condensate trap. Invert unit when using as air vent or steam trap.



Miscellaneous Valve Section

AIR BLOW GUN



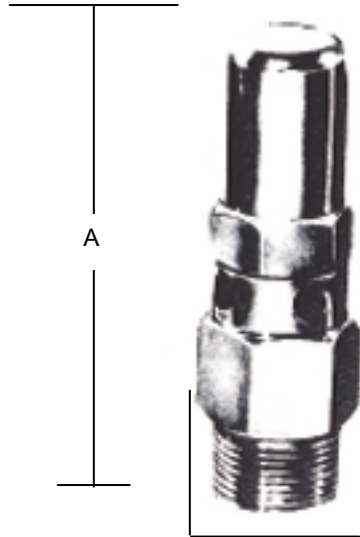
No. **9238** 8mm

Screwed B.S.P. Female

Bronze body, spindle and disc holder, neoprene valve disc, Lurene 'O' ring gland seal.

M
2

VACUUM BREAKER



B

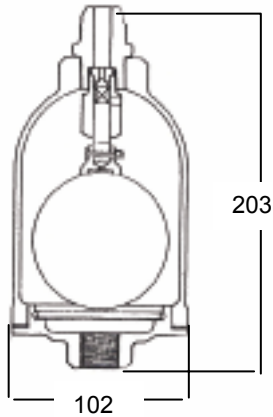
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20	108	35
25	117	42

No. **9255** 15 – 25mm

Screwed B.S.P. Male

All stainless steel construction. This valve remains closed under pressure and when a vacuum forms, valve opens allowing air to enter system.

AIR VENT VALVE



No. **9218** 15 – 25mm

Screwed B.S.P. Male

All stainless steel construction. This valve remains closed under pressure and when a vacuum forms, valve opens allowing air to enter system.

AIR CONDENSATE TRAP



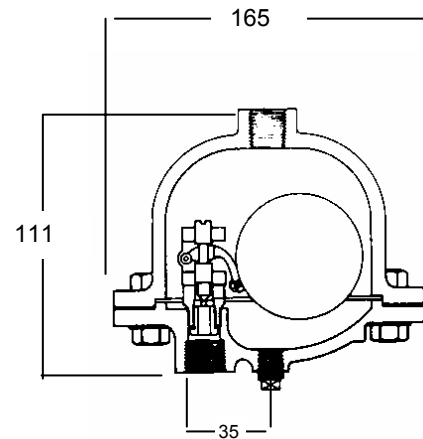
No. **9378** 15mm

Screwed B.S.P. Male

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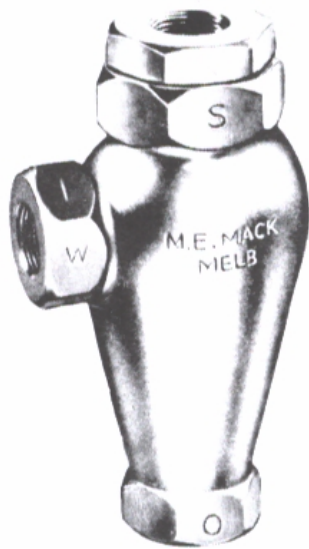
Used for automatic removal of water from air lines. This unit can also be used to vent air from water systems and to remove condensate from steam lines. Max. operating pressure 1370kPa (200psi).

Note: if used on steam a stainless steel float is recommended.



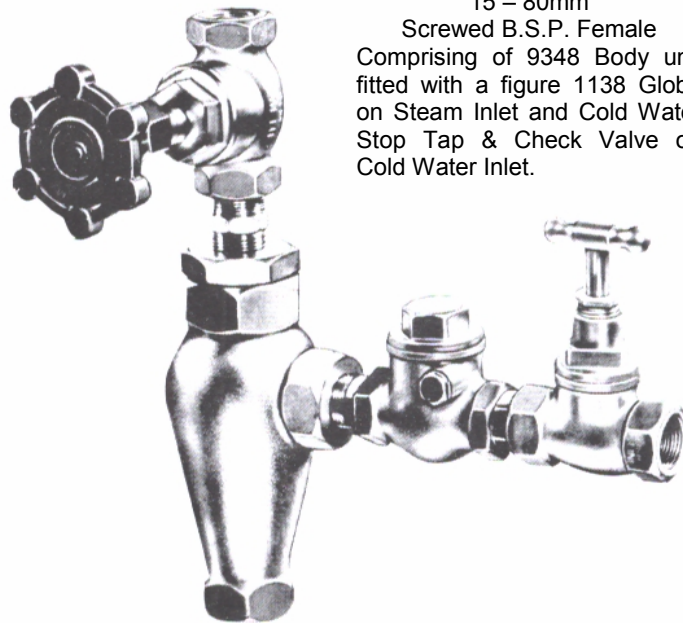
Inlet marked on sectional is as used for air condensate trap. Invert unit when using as air vent or steam trap.

INDUSTRIAL HOT WATER MIXER



No. 9348 15 – 80mm
Screwed B.S.P. Female

INDUSTRIAL HOT WATER MIXER COMBINATION



No. 9358
15 – 80mm
Screwed B.S.P. Female
Comprising of 9348 Body unit
fitted with a figure 1138 Globe
on Steam Inlet and Cold Water
Stop Tap & Check Valve on
Cold Water Inlet.

M
4

OPERATION

The Mack Hot Water Mixer is used to raise the temperature of water using live steam as the heating medium. Its outlet must be kept open but there can be a small pressure on it as when the hot water is discharged to an open hot water tank 3 to 5 metres above the mixer.

Discharge can be to a trough, hose or open tank. The mixer should not be used to discharge into a closed pressure vessel or operated with a valve on its discharge outlet.

The mixer will operate with hot water instead of steam. Care must be used to avoid choking the outlet. The final temperature obtainable is calculated in the usual way for the mixing of two quantities of water at different initial temperatures.

STEAM

Steam pressure can be 689 kPa or more and preferably not less than 172 kPa. It must always be greater than the water inlet pressure by 69 kPa, minimum for low pressures, to 172 kPa or more at higher pressures. Note that these pressures are required at the mixer, which may be considerably less than boiler pressure where there is a long pipe to the mixer.

At higher pressures it may be necessary to throttle back the steam to prevent choking.

WATER

Water at mains pressure is suitable but the pressure must always be less than the steam pressure, as noted above. Head tank supply can also be used if desired.

CAPACITY

The limiting factor in capacity is the quantity of heating steam that can be taken by the heater – a function of heater size and steam pressure. The quantity of water that can be heated depends on the steam taken and the desired rise of the temperature of the water. More water can be delivered with a lower temperature rise.

At low pressure of the incoming water, the maximum rate of flow may be less than that which can be heated through the desired rise of temperature.

TANDEM OPERATION

Water can be passed through two heaters in series, each with its own steam supply, to obtain a greater rise in temperature. In this way water can be heated to 87°C or more.