

**Type JP604 Hydraulic Separator Set Flanged**

**Specification** Hydraulic Separator complete with Air & Dirt Separator consisting of Carbon Steel body with Stainless Steel diffuser screen.  
RAL 9006 white aluminium paint finish.  
Flanges drilled to BS4504 NP16.

**Application** Stourflex air and dirt separators are designed to remove both air and dirt from circulating heating and chilled water systems. Air is vented automatically from the top of the unit, dirt, sludge and solid particles are drained manually from the valve fitted on the base.



In addition the JP604 balances the differences in volumetric flow between primary (flow) and secondary (return) systems, i.e. if the demand is greater than the supply some of the return water will merge with the supply, if however the supply is greater than the demand some of the supply water will join the return. This will produce an energy saving by encouraging the pumps or chillers to shut off or slow down in area's of the system with low or no requirements, to accomplish this the flow rates of different circuits must be independent, the flow from one must not affect the flow from another, this is known as hydraulic separation.

Maximum working temperature 95°C.  
Maximum working pressure 10 Bar.  
Maximum test pressure = 13 Bar.

The JP604 Hydraulic Separator should be sized according to the maximum flow rate at the inlet i.e. line size for the flow or return whichever is greatest. Filtration down to 11µm

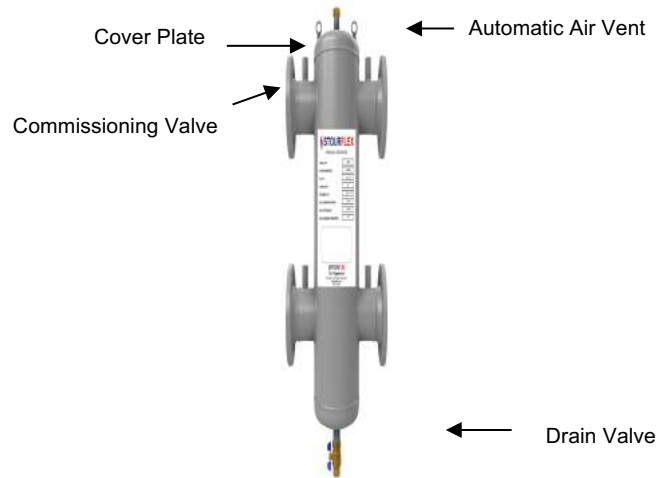
Part Number	N.B. (mm)	Total Height with AAV & Drain Valve (mm)	Pipe Centre Top To Pipe Centre Bottom (mm)	Pipe Centre Bottom To Drain Valve (mm)	Installed Length Face To Face (mm)	Min-Max Flow Rate (m³/h)	ΔP Pressure Loss (kPa)
JP604-50	50	870	330	340	450	5-15	0.43-3.90
JP604-65	65	870	330	340	450	10-18	0.64-3.10
JP604-80	80	1015	450	360	470	15-30	0.76-3.04
JP604-100	100	1015	450	360	470	25-60	0.68-3.90
JP604-125	125	1235	560	375	635	35-83	0.60-3.39
JP604-150	150	1235	560	375	635	55-125	0.69-3.55
JP604-200	200	2075	900	715	800	90-200	0.64-3.18
JP604-250	250	2275	1000	760	930	110-350	0.36-3.60
JP604-300	300	2495	1100	820	1040	150-500	0.33-3.70

All lengths have a tolerance of up to +/- 5%

Please refer to installation instructions for the correct location, installation and operation of the JP604 Hydraulic Separator.

Weld and grooved ends, alternative flange drillings and materials available upon request.

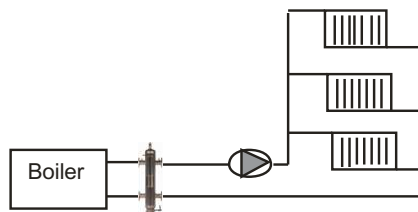
## Installation, Operation and Maintenance Instructions For JP603 Air and Dirt Separators



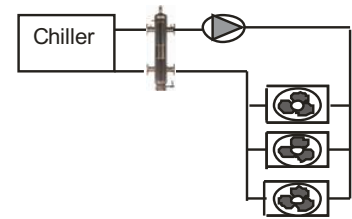
**Location** Inlet and outlet connections to the primary and secondary circuits to be on the same side of the unit.

Hydraulic Separators are to be installed between primary and secondary piping circuit, as close to the boiler as possible.

For automatic air vents in ceiling spaces or concealed locations, provide vent tubing to nearest drain.



Heating System



Cooling System

**Installation** Automatic air vent and isolation valve should be fitted to the top of the separator, commissioning valve on the side and drain valve on the base, as shown in the illustration at the top of this page.

To protect the automatic air vent the isolation valve should be closed prior to flushing the system. The commissioning valve is used to quickly remove air when filling the system. Flexible hose or fixed pipework should be installed to enable dirty water to be drained to a convenient safe place.

**Maintenance** Automatic air vent should be checked periodically to ensure it is functioning correctly. To prevent sediment build up and maintain efficiency the separator should be flushed at regular intervals. Dirt sludge and solid particles can be removed by opening the drain valve on the base of the separator until the water runs clear.

**WARNING** To prevent scalding safe practice must be observed when venting hot water at pressure.