

WS Series

Air Water Separator

For remove bulk liquid water,16 bar



Liquid Water Separator

Existing problems in compressed air system

Compressed air system has bulk liquid that brings pipeline corrosion, the damages of valves, air cylinder and tools; reduce the efficiency of after air cooler and heat ex-changer and compressed air filter.

Water separators play an important role in the compressed air system

Air/gas Water separator is one of purification products without elements what is used to before air filter protect coalescing filters against bulk liquid contamination where excessive cooling takes place in air receivers and distribution piping.

Features

- Aluminum alloy die-casting housing with tightly structure.
- External surface epoxy painted for maximum corrosion.
- Static rotary vane, keep 99.9% high efficiency separation.
- Flow rate: 1.0-70.0 m³/min.
- Thread type: Rc/G/NPT.
- Max. operating pressure: 16 bar (g) (without parts).
- Can be installed in any position of compressed air system.
- Low maintenance.
- Tested in accordance with ISO 8573.9.



Technical Data

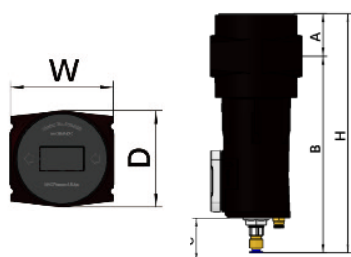
Housing material:	Aluminum alloy
Max.proof pressure:	16 bar (without SG, Internal drain)
Polite max.operating pressure:	13 bar
Air flow rate:	1.0 to 70.0 m ³ /min
Inlet/outlet:	1/2 to 3" (Rc/NPT/Flange)
Operating temperature:	1.5°C to 80 °C
Pressure differential at rated flow:	0.07 bar
Certificate:	CE, factory test report

Pressure differential at rated flow means stated flows are for operation at 7 bar with reference to 20 °C, 0% relative vapor pressure.

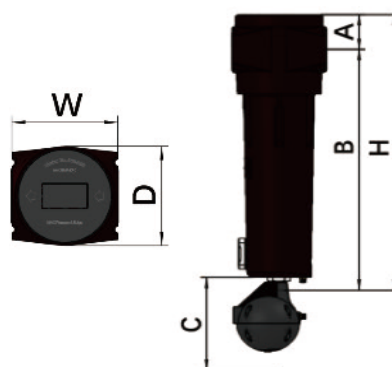
Product Selection

Below flow rates of compressed air are calculated in rated working pressure of 7 bar (100 psi g) with reference to 20 °C.

Model	Inlet/ outlet (Rc)	Rated air flow at 7bar			Dimensions (mm)					
		L/S	Nm ³ / min	scfm	Width (W)	Depth (D)	Height (H)	A	B	C (reserved space)
WS15	1/2"	40.0	2.4	84.5	89	79	228	40	186	118
WS25	3/4"	60.0	3.6	127.1	89	79	228	40	186	118
WS50	1"	75.0	4.5	158.9	89	79	263	40	220	158
WS75	1"	125.0	7.5	264.8	120	110	335	55	276	195
WS100	1-1/2"	166.7	10.0	353.1	120	110	335	55	276	195
WS200	2"	300.1	18.0	635.6	164	151	564	64	566	480
WS250	2-1/2"	416.8	25.0	882.8	164	151	664	64	566	480
WS700	2-1/2"	700.0	42.0	1483.1	200	189	712	78	634	560
WS800	3"	833.5	50.0	1765.6	200	189	712	78	634	560
WS800F	DN100	833.5	50.0	1765.6	280	189	744	78	634	560
WS1000F	DN125	1000.2	60.0	2118.7	280	189	795	78	634	560
WS1200F	DN125	1166.7	70.0	2464.0	280	189	1073	78	889	780



WS15 to WS100



WS200 to WS800

Pressure	Barg	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Psig	15	29	44	59	73	87	100	116	131	145	160	174	189	203	219	232
Pressure Correction Factor		0.38	0.53	0.65	0.76	0.85	0.93	1.00	1.07	1.13	1.19	1.23	1.31	1.36	1.41	1.46	1.51

Working Principle

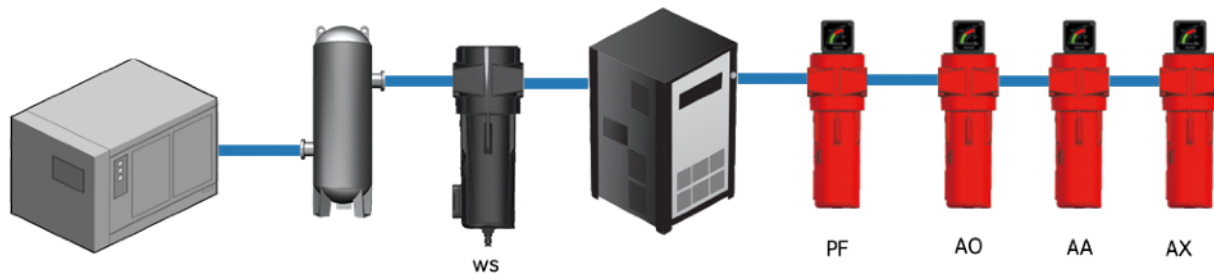
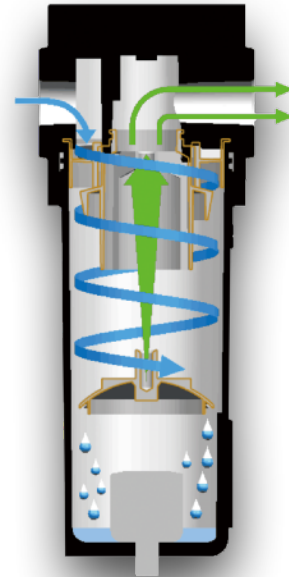
- Air enters the water separator inlet and flows into the separator module.
- The inlet of the separator module contains a set of fixed vanes which the air must pass through.
- In the vessel, the vanes spin the air.
- The spinning air is then forced to change direction as it passes through the impeller.
- Due to the design of the separator module, a vortex is created that narrows and intensifies as it reaches the lower part of the separator module.
- Liquid in bulk is removed from the airstream due to the following factors:

Airstream direction changes

Velocity changes

Vortex centrifugal action

- As the vortex reaches the bottom of the module, air is forced through the center of the vortex.
- Aerospace turning vanes, located at the outlet of the separator module, turn an inefficient corner into more efficient corners.
- Turning vanes reduce turbulence, minimizing pressure loss and the cost of ownership.
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Installing benefits of high energy efficient water separators

- For the removal of bulk condensed water and liquid oil.
- Protects coalescing filters from bulk liquid contamination.
- Reduce pipe rusting condition from water and the damages to valves, cylinders.
- High liquid removal efficiencies at all flow conditions.
- Improve air quality.
- Reduce operational and maintenance costs

OEM Capabilities

When you need a special filter for a unique application, HSAIR experts are ready to work with you. We can tailor a configuration to meet your special need from the wide variety of filter media available. In addition, with LEAN manufacturing, we can produce specials in reasonable quantities, in a reasonable amount of time, at a reasonable price. Not only will this enhance the performance of your product, but it will benefit you with aftermarket sales of replacement elements.

OUR RANGES OF PRODUCTS INCLUDE THE FOLLOWING:

- Compressed air dryers
- Compressed air filters
- Compressed air water separators
- Alternative air filter elements
- Condensate auto drain
- Compressed air accessories
- Portable mask

We reserve the right to make technical changes. Error excepted.



Since 1998, a leading manufacturer of quality compressed air treatment in China



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