



domnick hunter

# OIL-X EVOLUTION

## High Efficiency Bulk Liquid Removal GRADE WS

OIL-X EVOLUTION WS Water Separators have been designed for the efficient removal of bulk liquid contamination from compressed air.

Today, many products are offered for the removal of bulk liquid from compressed air, however, these are often selected only upon their initial purchase cost, with little or no regard for the separation efficiency they provide or the cost of operation throughout their life.

domnick hunter OIL-X EVOLUTION WS Water Separators have been designed from the ground up with the key design focus concentrated in critical areas such as air flow management, separation efficiency at all flow conditions, minimal pressure losses and independently validated performance.



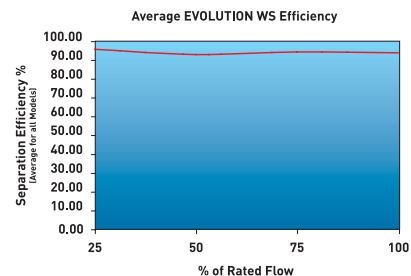
### Benefits

- Tested in accordance with ISO 8573.9
- Performance independently verified by Lloyds Register
- High liquid removal efficiencies at all flow conditions
- Low pressure losses for low operational costs
- Multiple port sizes for a given flow rate provides increased flexibility during installation
- Suitable for variable flow compressors
- Works with all types of compressor and compressor condensate
- Low maintenance
- 10 Year Housing Guarantee

### Typical Applications

- Bulk liquid removal at any point in a compressed air system
- Protection of refrigeration and adsorption dryer pre-filtration
- Liquid removal from compressor inter-coolers / after-coolers
- Liquid separation within refrigeration dryers

### Separation Efficiency



Tested with an Inlet challenge concentration of 33mL/m<sup>3</sup>hr and in accordance with ISO 8573.9. Performance shown is an average for all models in range. Individual model performance available on request.

ISO 9001:2000



BSI  
QUALITY ASSURANCE



ISO 14001



INTERNATIONAL APPROVALS



ASME VIII National Board



CRN

AS1210



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# Product Selection & Technical Data

Model	Pipe Size	L/s	m³/min	m³/hr	cfm	Max Operating Pressure		Max Operating Temperature		Min Operating Temperature	
						bar g	psi g	°C	°F	°C	°F
WS010A□FX	¼"	10	0.6	36	21	16	232	80°C	176°F	1.5°C	35°F
WS010B□FX	⅜"	10	0.6	36	21	16	232	80°C	176°F	1.5°C	35°F
WS010C□FX	½"	10	0.6	36	21	16	232	80°C	176°F	1.5°C	35°F
WS015B□FX	⅜"	40	2.4	144	85	16	232	80°C	176°F	1.5°C	35°F
WS020C□FX	½"	40	2.4	144	85	16	232	80°C	176°F	1.5°C	35°F
WS020D□FX	¾"	40	2.4	144	85	16	232	80°C	176°F	1.5°C	35°F
WS020E□FX	1"	40	2.4	144	85	16	232	80°C	176°F	1.5°C	35°F
WS025D□FX	¾"	110	6.6	396	233	16	232	80°C	176°F	1.5°C	35°F
WS030E□FX	1"	110	6.6	396	233	16	232	80°C	176°F	1.5°C	35°F
WS030F□FX	1¼"	110	6.6	396	233	16	232	80°C	176°F	1.5°C	35°F
WS030G□FX	1½"	110	6.6	396	233	16	232	80°C	176°F	1.5°C	35°F
WS035F□FX	1¼"	350	21	1260	742	16	232	80°C	176°F	1.5°C	35°F
WS040G□FX	1½"	350	21	1260	742	16	232	80°C	176°F	1.5°C	35°F
WS045H□FX	2"	350	21	1260	742	16	232	80°C	176°F	1.5°C	35°F
WS055I□FX	2½"	800	48	2880	1695	16	232	80°C	176°F	1.5°C	35°F
WS055J□FX	3"	800	48	2880	1695	16	232	80°C	176°F	1.5°C	35°F

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure.

Line Pressure		Correction Factor
bar g	psi g	
1	15	0.25
2	29	0.38
3	44	0.50
4	58	0.63
5	73	0.75
6	87	0.88
7	100	1.00
8	116	1.06
9	131	1.12
10	145	1.17
11	160	1.22
12	174	1.27
13	189	1.32
14	203	1.37
15	218	1.41
16	232	1.46
When ordering a WS water separator for pressures above 16 bar g (232 psi g), use manual drain. Replace F with M in product code. E.g. WS010ABFX now WS010ABMX.		
17	247	1.50
18	261	1.54
19	275	1.58
20	290	1.62

## Product Coding and Selection

GRADE	MODEL	PIPE SIZE	CONNECTION TYPE	DRAIN OPTION	MONITOR
WS	3 digit code shown above	Letter denotes pipe size	B = BSPT N = NPT	F = Float M = Manual	X = Non Available
WS	010	A	B	F	X

WS models are supplied with a float drain as standard. For Pressures of 16 to 20 bar g (232 to 290 psi g) a manual drain must be used.

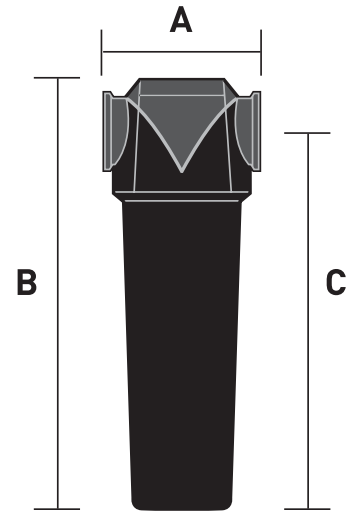
### Selecting a Water Separator model to match a system flow rate and pressure.

**Example:** System flow 1050 m³/hr at a pressure of 8 bar g

- Obtain pressure correction factor from table.  
Correction factor for 8 bar g = 1.06
- Divide system flow by correction factor to give equivalent flow rate at 7 bar g  $1050 \text{ m}^3/\text{hr} \div 1.06 = 984 \text{ m}^3/\text{hr}$  (at 7 bar g)
- Select a filter model from the above table with a flow rate above or equal to 984 m³/hr. Suitable Water Separator models: 035 or 040
- Select pipe connection & Thread type  
System uses 1 ½" piping and BSP threads : Model WS040GB
- Select drain type  
Pressure is below 16 bar g (232 psi g), automatic float drain fitted as standard. Model WS040GBFX

## Weights and Dimensions

Model	Pipe Size	A		B		C		Weight	
		mm	ins	mm	ins	mm	ins	kg	lbs
WS010A□FX	¼"	76	3	181.5	7.2	153	6	0.6	1.3
WS010B□FX	⅜"	76	3	181.5	7.2	153	6	0.6	1.3
WS010C□FX	½"	76	3	181.5	7.2	153	6	0.6	1.3
WS015B□FX	⅜"	97.5	3.8	235	9.3	201	7.9	1.1	2.4
WS020C□FX	½"	97.5	3.8	235	9.3	201	7.9	1.1	2.4
WS020D□FX	¾"	97.5	3.8	235	9.3	201	7.9	1.1	2.4
WS020E□FX	1"	97.5	3.8	235	9.3	201	7.9	1.1	2.4
WS025D□FX	¾"	129	5.1	275	10.8	232.5	9.2	2.2	4.8
WS030E□FX	1"	129	5.1	275	10.8	232.5	9.2	2.2	4.8
WS030F□FX	1¼"	129	5.1	275	10.8	232.5	9.2	2.2	4.8
WS030G□FX	1½"	129	5.1	275	10.8	232.5	9.2	2.2	4.8
WS035F□FX	1¼"	170	6.7	432.5	17	382.5	15	5.1	11.2
WS040G□FX	1½"	170	6.7	432.5	17	382.5	15	5.1	11.2
WS045H□FX	2"	170	6.7	432.5	17	382.5	15	5.1	11.2
WS055I□FX	2½"	205	8.1	505	19.9	444.5	17.5	10	22
WS055J□FX	3"	205	8.1	505	19.9	444.5	17.5	10	22



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