

OIL-WATER SEPARATORS

Setting the standard for condensate management



Where engineering excellence meets innovative design



Established in 1983 and operating out of a 130,000 ft² global manufacturing facility in Washington Tyne & Wear, UK, Walker Filtration is a specialist manufacturer of high efficiency compressed air, dryer, and condensate management equipment.

Our commitment to exceptional and innovative design, along with a proven record of accomplishment in engineering excellence, has enabled us to remain at the forefront of compressed air filtration and drying technology for over 35 years.

We pride ourselves in designing products that meet the many challenges faced by businesses today; from environmental impacts and operating efficiency, through to the health and safety of your people.

In today's world where 'time equals money' our engineering team set out to design products that deliver energy efficiency and are easy to service and maintain, resulting in reduced down time and total life cost.

Working to exacting manufacturing standards, Walker Filtration deliver high quality products and tailored solutions worldwide.



Premium Performance meets Easy Maintenance



Multi-step Filtration

1. Condensate enters the unit via inlet(s), passes through a diffuser, and depressurises in the first expansion chamber.
2. In this part of the diffuser, bigger, solid particles are filtered from the condensate.
3. Traveling to the first filter chamber, oil is captured from the condensate by the polypropylene filter.
4. This large, first chamber creates a natural second filtration stage where oil droplets can separate from the water and rise to the top of the chamber. They are absorbed by the floating polypropylene filter bag.
5. Condensate continues to flow into the second chamber.
6. The Organoclay filter separates the remaining oil from the condensate before moving from the second chamber.
7. The remaining clean condensate can be safely routed from the exit valve into the sewer system with an oil trace as low as 5 mg/m³.

Adapt and Maintain

The SmartSep Oil-Water Separator Series provides up to 4,000 hours of service, regardless of model number and size, to reduce maintenance frequency and meet all filtration needs.

The SmartSep has multiple features that adjust to the setup of your compressed air system. The SSEP0032M and SSEP0066M are single-use models. For a space-saving option, wall-mounting systems are available for the smaller units. Models SSEP0132 to SSEP1655 use dual-stage filtration, while models SSEP3311 and SSEP6621 use three-stage filtration. A flow divider comes as standard with the SSEP6621 to evenly split condensate between two oil-water separator units.

The SmartService Overflow Indicator signals feature unique saturation and overflow pop-up indicators. The green indicator signals when the polypropylene filter is fully saturated, and needs to be replaced. The red indicator notifies users that emulsions are flowing too quickly, and that the inlet needs to reregulate.

Multi-stage Filtration at its Finest

Utilising multiple filtration stages, the Walker Filtration SmartSep is the state-of-the-art choice in oil-water separation technology.

Stage One features polypropylene bags that are safe to use within oil-water separators and are ideal for allowing water to pass through, while maintaining heavier oil droplets within.

Stage Two features an added element of filtration with Organoclay filters, eliminating residual oil within the condensate.



Walker Filtration provides a reliable separation solution, leaving condensate clean for easy disposal.

Simplified Solutions for Condensate Management

Walker Filtration's SmartSep Oil Water Separators deliver reliable separation in line with purity standards for the highest performing compressed air system.

The SmartSep Oil-Water Separator features a wide range of models engineered to fit your compressed air system usage and eliminate oil in condensate down to the last drop.

For Everyday Separation and Synthetic Condensate Jobs

Organoclay filters use organically modified clay to separate strong oil-water emulsions and trap a wider range of particles than traditional carbon filters, including those found in compressed air systems that use synthetic oils during production. All separators in the SmartSep series contain Organoclay cartridges that purify condensate to an oil trace as low as 5 mg/m³ to ensure peak compressor performance with minimal environmental impact.

Organoclay cartridges ensure that the SmartSep exceeds current and future environmental regulations as water conservation efforts become more stringent.

Environmentally-conscious Condensate

Environmental compliance eliminates costly violations, while long service periods help save money on frequent upkeep of equipment.

Economic and eco-friendly: the choice in efficient oil-water separation has never been more clear.

Improper disposal of oil condensate created by compressed air systems can disrupt environmental preservation efforts and lead to costly fines from local and federal environmental agencies.

Complete filter ranges for the toughest emulsions.

Unlike other oil water separators that rely solely on gravitational separation, our multi-stage filtration system ensures lesser risks for oil spills or concerns caused by stagnant or contaminated water. With the SmartSep Oil-Water Separator, discharged condensate produced by the device can be drained away directly into the sewer.



Oil-Water Separators

Technical Specification

Model	Max capacity - Mild climate without dryer & filters*			Max capacity - Mild climate with dryer & filters*			Dimensions							Service kit model***
	Nm³/hr	l/s	SCFM	Nm³/hr	l/s	SCFM	Depth	Width	Height	Weight		Connections		
							mm (in)	mm (in)	mm (in)	kg	lbs	Condensate inlet	Water outlet	
SSEP0032M	54	15	32	43	12	25	250 (10)	147 (6)	216 (9)	2.4	5.3	6mm (1/4")**	10mm (3/8")**	-
SSEP0066M	113	31	66	90	25	53	250 (10)	147 (6)	216 (9)	3.0	6.6	6mm (1/4")**	10mm (3/8")**	-
SSEP0132	225	63	132	180	50	106	390 (15)	278 (11)	428 (17)	7.5	16.5	2 x 1/2"	1/2"	SSEPSK0132
SSEP0225	383	106	225	306	85	180	397 (16)	278 (11)	507 (20)	10.8	23.8	2 x 1/2"	1/2"	SSEPSK0225
SSEP0450	765	213	450	612	170	360	490 (19)	396 (16)	576 (23)	17.4	38.4	2 x 1/2"	1/2"	SSEPSK0450
SSEP0795	1350	375	795	1080	300	636	583 (23)	446 (18)	721 (28)	32.4	71.4	2 x 3/4"	3/4"	SSEPSK0795
SSEP1655	2813	781	1655	2250	625	1324	692 (27)	568 (22)	970 (38)	55.9	123.2	2 x 3/4"	3/4"	SSEPSK1655
SSEP3311	5625	1563	3311	4499	1250	2648	975 (38)	782 (31)	1000 (39)	115.0	253.5	2 x 3/4"	3/4"	SSEPSK3311
SSEP6621	11250	3125	6621	8998	2500	5296	2 x 975 (38)	2 x 782 (31)	2 x 1000 (39)	240.0	529.1	2 x 3/4"	3/4"	SSEPSK6621

*Rated capacities based upon 12 hour/day operation, 60% relative humidity, ambient temperature of 25°C (77°F) & system operating pressure of 7 barg (100 psig)

**Inlet and outlet connections available in either 6mm and 10mm respectively, or imperial 1/4" and 3/8" respectively. Standard product comes with metric connection. For the imperial option, replace the M designator at the end of the part number with an N - example SSEP0032N.

Correction Factors		Apply correction factors to model capacity above						
Relative humidity	%	50	60	70	80	90	-	-
	Correction factor	1.10	1.00	0.85	0.74	0.66	-	-
Ambient temperature °C (°F)	°C (°F)	15 (59)	20 (68)	25 (77)	30 (86)	35 (95)	40 (104)	-
	Correction factor	1.33	1.17	1.00	0.76	0.50	0.30	-
Running hours per day	Hours	12	14	16	18	20	22	24
	Correction factor	1.00	0.86	0.75	0.67	0.60	0.55	0.50

Note: For example, (50% RH = 1.10) x (ambient temp 30°C = 0.76) x (running hours 24 = 0.50) = 0.42 x model capacity = adjusted model capacity



SSEP0032M and SSEP0066M

Single-usage units ideal for space-saving and cost-efficiency



SSEP0132 to SSEP1655

Uses dual-stage filtration technology to remove a range of contaminants



SSEP3311

Utilises multi-stage filtration for heavier condensate flows and further purification



SSEP6621

Comes with a flow divider to split condensate flow between two units

***Service Kits Components (includes 1 of each)

Condensate inlet system	Pre filter system	Fine filter	Miscellaneous parts
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Accessories

SSEPM1	Manifold for models SSEP0132 up to SSEP0450
SSEPM2	Manifold for models SSEP0795 up to SSEP6621
SSEPMBK1	Wall mounting kit (for sizes 54 Nm³/hr - 113 Nm³/hr)



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