

COMPRESSED AIR TREATMENT

Oil / Water Separators

Performance through experience.
British design & manufacture.

AN AVERAGE OF 20% MORE CAPACITY ACROSS THE RANGE



THE PRODUCT OF EXPERIENCE

PL15 – PL1100

The **PL15** compact oil/water separator is a unique concept in the on-site treatment of condensate from any oil-lubricated air compressor package or system of up to **90 cfm (2.5 m³/min)** capacity, at pressures below 16 barg.

Key Features

- ✓ Quick, secure installation, wall and floor mounting options included
- ✓ Rapid, no-tools servicing, rotate the lid, lift off, remove the old cartridge, insert the replacement
- ✓ No overspray, four levels of protection ensure untreated condensate cannot exit the depressurising vents
- ✓ Visual Time-in-Service (TIS) indicator
- ✓ Up to 4,000-hour service life
- ✓ Quick change of inexpensive service cartridge (PL15SK)



Why treat condensate?

Over an 8,000-hour working life, even a small 11 kW compressor can produce more than 7,500 litres of condensate containing several litres of compressor oil, enough to de-oxygenate hectares of open water. Discharged untreated, it also inhibits the biological processes at waste-water treatment plants.

Collection by a licensed waste contractor is costly; treating condensate at source is a fraction of the price. Ask your air compressor sales and service company to install a STERLING separator on every oil-lubricated compressor system.

Installation Summary

- ✓ Wall or floor mount, hardware for both supplied
- ✓ Always drains automatically, no adjustment required
- ✓ 6 mm and 8 mm push-fit condensate connections
- ✓ At service, simply order service kit **PL15SK**

General Specification

Dimensions (H × W × D)	270 × 185 × 195 mm
Weight	2 kg
Maximum capacity	90 cfm (2.5 m ³ /min) at ≤16 barg
Moulded parts	Polyethylene
Filter medium	Processed polypropylene
Maximum cartridge life	24 months, never exceed

Cartridge Life Guide

Annual run hours	Light duty	Typical	Arduous
2,000	24 mo	21 mo	18 mo
4,000	18 mo	15 mo	12 mo
8,000	12 mo	9 mo	6 mo



Time-in-Service (TIS) Indicator

A visual indicator clipped into the lid shows at a glance when the cartridge is due for replacement. A new TIS indicator is included with every service kit.

What's In The Box?

- 📦 Outer body, lid, cartridge and foam diffuser, fully assembled
- 📦 Wall-mount bracket and optional floor-mount hardware
- 📦 TIS indicator, polybag and installation & maintenance manual

The proven design you know, now with an average of **20% more capacity** across all sizes, along with a few of the things you've been asking for.



01

Upgraded manifold

Precision machined from anodised aluminium, with **extra ports on top**, where they should be.



02

Chamfered rim

A small feature that makes it **quicker and easier to locate, open or close** the lid.



03

Built-in stability

Integrated threaded fittings as standard, to ensure stability when installed on a **shelf or stand**. Our optional stand will follow.



04

Spring retainer shoulder

We've taken the guesswork out of installation with a **positive location for the spring retainer**, get it right, every time.

PL30 · PL75 · PL160

British design and manufacture from STERLING Separation



The classic gravity separator design, comprehensively updated. The **PL30, PL75 and PL160** treat condensate from systems of up to **200, 530 and 1,150 cfm** (5.7, 15.0 and 32.6 m³/min) respectively.

There is no weir and no stagnant standing water: condensate flows through the filter beds under gravity alone. Larger installations are served by connecting multiple units through the CSEQ3 ported manifold, which splits the flow evenly across two or three streams.

Flared bases give greater stability; brass inserts replace plastic threads; twin test points, a sample-jar holder and the Time-in-Service indicator complete the package.

Easy, economical, effective excellence.

- ✓ Quality mouldings with brass fittings, no plastic screw threads
- ✓ No-tools servicing throughout
- ✓ Time-in-Service indicator mounted in the lid
- ✓ Up to 4,000-hour service life
- ✓ Sample point part-way through treatment, outlet quality always exceeds the sample
- ✓ Lifetime warranty across the PURE Line range
- ✓ Lightweight multi-part filters in the PL160 reduce wet weight and protect engineers
- ✓ Wide, stable flared base
- ✓ 'AF' active filter option for emulsified condensates and PAG lubricants
- ✓ Secure storage for the test jar; twin test points; OEM options available

Servicing made simple: lift the lid, exchange the lightweight filter parts, clip in the new TIS indicator. Complete service kits, **PL30SK, PL75SK, PL160SK**, are dispatched same-day from stock.

Every PURE Line separator treats condensate from well-maintained plant running on mineral lubricants to below **20 ppm** residual oil at the outlet, with service intervals of up to 4,000 running hours.

Handling emulsified condensate or PAG oils?

Some compressor installations produce stable emulsions that will not separate under gravity, and polyglycol (PAG) lubricants resist conventional treatment altogether. For these, specify the **'AF' active filter option**: an active component within the filter bed digests the oil rather than merely trapping it, restoring reliable treatment where gravity separation fails.



How does it work?

- 1 Condensate enters through four ½" BSP inlets into the pressure-relief chamber, where compressed air expands safely.
- 2 The first filter traps particulate matter and removes the bulk of the oil.
- 3 The second filter polishes the flow, trapping the smaller droplets to below 20 ppm. In the PL160 this filter is split in two, keeping each service part light and manageable.
- 4 Clean water discharges under gravity to the foul drain, no moving parts, no power, no adjustment.





The **PL550 and PL1100** IBC separators are the economical alternative to banks of smaller units, treating systems of up to **3,800 and 7,600 cfm** (107 and 215 m³/min) from a single, standard-footprint IBC.

Key Features

- ✓ Lightweight blended filter media, no pre-soaking required
- ✓ No moving parts, no adjustments, no power supply
- ✓ Huge capacity from a small footprint
- ✓ No maintenance beyond a weekly check, up to **16,000 hours** service life
- ✓ Up to 2 years between services at full rated capacity
- ✓ Cartridge-style replacement, the service kit is a new pre-filled IBC
- ✓ Lowest cost of ownership of any large-system treatment
- ✓ Availability within 10 working days

How the IBC series works

Condensate de-pressurises in a relief chamber before entering a standard 600 or 1,000-litre commercial IBC filled with STERLING's proprietary blended filter media. Flow passes down through the media bed to a collection channel at the base, then out through an isolator valve and riser to drain.

A tee and tap allow sampling at any time. At end of life, up to two years later, the complete container is exchanged for a new pre-filled IBC; only the diffuser and outlet pipe are swapped over. The spent unit is disposed of at a registered site. Outlet quality: below 20 ppm throughout.

The Need For Oil/Water Separation

Discharging untreated compressor condensate to drain is illegal.

Treatment before disposal is a legal requirement in the UK and throughout the EU. Ignorance is not a defence.

Compressed air condensate is an oily waste. Every oil-lubricated compressor continuously discharges a mixture of water and lubricant, and responsibility for its correct disposal rests with the operator. On-site treatment through a correctly sized oil/water separator reduces disposal volumes by over 99%, the small quantity of recovered oil is disposed of as waste oil, and the treated water passes legally to the foul drain.

Correct sizing matters: an undersized separator passes oil to drain; a poorly designed one channels, floods or turns septic. PURE Line separators are gravity-fed, self-regulating and independently verified to below 20 ppm, the product of decades of British condensate-management experience.

Years of experience, full of ideas

- In-house condensate laboratory and product development
- Designed, moulded and assembled in Britain
- Continuous improvement driven by field feedback from service engineers

Customer service partnership

- FREE technical training for your sales and service teams
- Stock profiles tailored to your installed base, same-day dispatch
- Unbranded and own-label options for OEMs and distributors

Model	Max capacity (cfm)	m ³ /min	Service life (hrs)	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)	Service kit
PL15	90	2.5	4,000	270	185	195	2	PL15SK
PL30	200	5.7	4,000	560	220	255	3.4	PL30SK
PL75	530	15.0	4,000	750	310	335	4.5	PL75SK
PL160	1,150	32.6	4,000	980	400	430	16	PL160SK
PL320	2,300	65.1	4,000	980	900	430	35	PL320SK
PL480	3,450	97.0	4,000	980	1,400	430	51	PL480SK
PL550	3,800	107.0	16,000	1,350	800	1,270	650	PL550SK
PL1100	7,600	215.0	16,000	1,520	1,000	1,270	1,060	PL1100SK

Model number denotes maximum system power (kW). Capacities based on well-maintained plant running on mineral lubricants.

'AF' active filter variants

Same dimensions as standard models. Service life 2,000 hours (8,000 hours for IBC models). Service kit codes carry the suffix 'AF', e.g. PL75SKAF. AF service kits may be retrofitted to standard units without modification. For PAG lubricants, use AF models or reduce rated capacity by up to 50%.

Accessories

STD floor stand, for the PL30 and PL75, raises the separator by approximately 300 mm where drain height demands it.

CSEQ3 manifold, splits condensate flow evenly across two or three separators for larger installations.

All PURE Line separators are designed to meet or exceed current environmental legislation for the treatment and disposal of compressor condensate. Specifications may change without notice as part of our continuous improvement programme.

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