



# 2000 Series



The heart of every...  
great machine

# 2000 Series range overview

The Perkins 2000 Series is a range of 13, 15 and 18 litre diesel engines providing prime and standby power from 350-700 kVA at 1500 rpm, and 320-600 kWe at 1800 rpm. They have been developed to meet the tough demands of the power generation industry, and are uncompromising in the reliability and superior performance they offer to our customers.

The success of the 2000 Series reflects Perkins commitment to develop a power solution which meets the requirements of our customers and the needs of the environment. These turbocharged, air-to-air charge-cooled units offer exceptional fuel consumption, low emissions and excellent service access features, delivered in a compact size.

Our customers require a big return on investment when they purchase Perkins engines. This is reflected in the care package and support we offer them through our Global Product Support network. It gives our customers complete peace of mind knowing their engines are maintained to the highest standards by our engine experts - wherever they are located in the world.

By listening to our customers, Perkins continues to build on its global reputation as a market leader for the provision of diesel engines to the power generation industry.



## Economic, durable, clean operation



## Product features

- In-line 6 cylinder
- Turbocharged, air-to-air charge-cooled
- Available as either ElectropaK or Fan-to-Flywheel specification
- Mechanically actuated, electronically controlled unit injectors (MEUI system) with full-authority electronic control giving governing to ISO 8528 class G3
- 'Ecoplus' fuel filters with replaceable elements and primary water/fuel separator
- 'Ecoplus' oil filter with integral oil cooler and filter header
- Gear driven coolant pump, engine-mounted belt-driven fan and mounted air filter designed for ambient conditions up to 50°C
- Available in 50 Hz and 60 Hz variants
- Developed using the latest engineering techniques and finite element analysis
- Mechanically operated unit fuel injectors with advanced electronic control give exceptional, low fuel consumption
- High compression ratio gives clean, rapid starting in all conditions
- Exceptional power to weight ratio and compact size gives optimum power density for ease of installation and cost effective transportation
- Excellent service access for ease of maintenance

### 2206A/C/D

- 350 to 450 kVA (1500 rpm)
- 320 to 400 kWe (1800 rpm)
- 13 litre

#### Emissions

- 'A' Unregulated
- 'C' EU2007 Stage 2 certified / 1/2 TA Luft capable
- 'D' EPA Tier III certified



### 2506A/C/D

- 455 to 550 kVA (1500 rpm)
- 400 to 550 kWe (1800 rpm)
- 15 litre

#### Emissions

- 'A' Unregulated
- 'C' EU2007 Stage 2 certified / 1/2 TA Luft capable, or EPA Tier II certified
- 'D' EPA Tier III certified



### 2806A/C

- 591 to 700 kVA (1500 rpm)
- 500 to 600 kWe (1800 rpm)
- 18 litre

#### Emissions

- 'A' Unregulated
- 'C' EU2007 Stage 2 certified / 1/2 TA Luft capable, or EPA Tier II certified



# Customer benefits

## Power

Single-piece cast iron cylinder head features four valves-per-cylinder, with a centrally located unit injector for improved volumetric efficiency and reduced emissions. Variable injection timing and duration reduce emissions and optimise load acceptance and fuel consumption.

## Package size

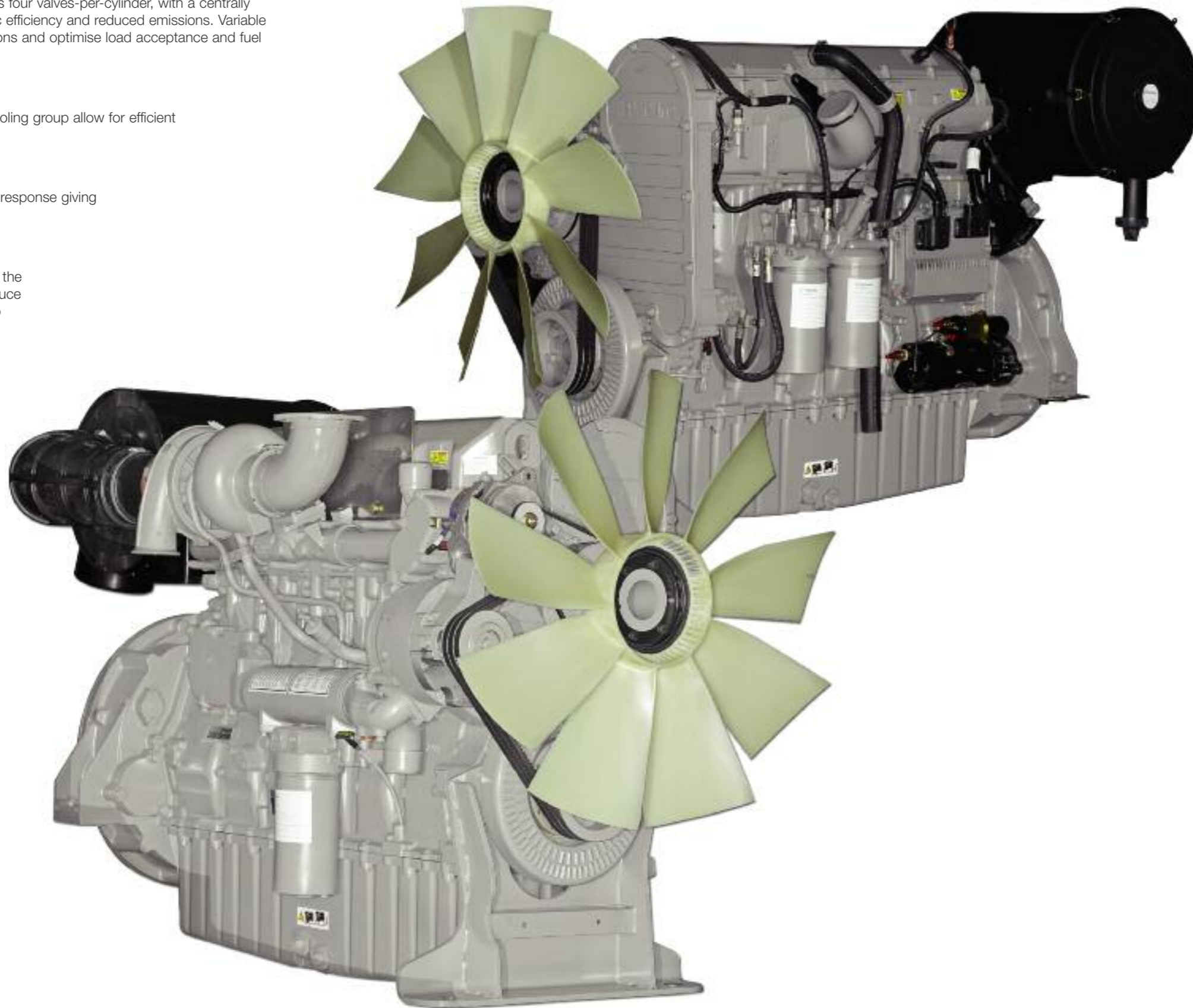
ElectropaK specifications with optimised cooling group allow for efficient packaging in customer application.

## Load acceptance

High efficiency turbochargers provide rapid response giving excellent load acceptance characteristics.

## Noise

The use of composites on components like the sump, top cover, and timing gear cover reduce the noise signature of the engine whilst also helping to reduce overall engine weight.



## Engine protection

Ecoplus filters with reusable canisters and replaceable biodegradable elements allow for clean, easy maintenance, whilst improving engine protection and allowing for longer oil change intervals with a low environmental impact.

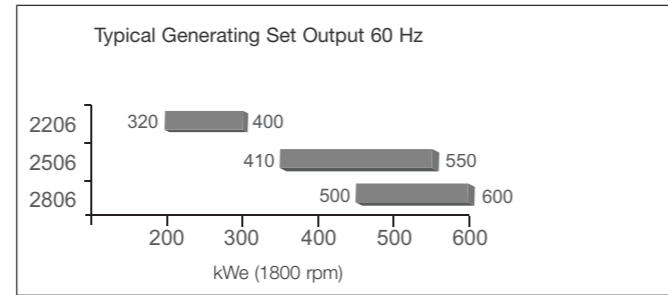
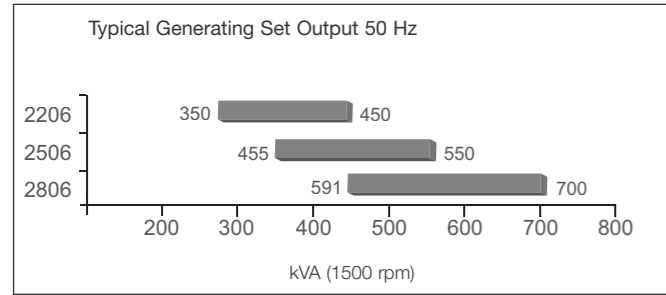
## Engine control

Full authority electronic control providing governing to ISO 8528-5 class G3, TIPSS data link and full engine protection.

## Worldwide power solution

Perkins product support ensures engine expertise is available throughout the world and around the clock. Surpassing customer's needs and keeping Perkins powered machines productive.

## Engine power range



## Engine ratings

50Hz 1500 rpm	Baseload		Prime		Standby	
	kWe	kVA	kWe	kVA	kWe	kVA
2206A-E13TAG2	*	*	280	350	320	400
2206A-E13TAG3	*	*	320	400	360	450
2206C-E13TAG2	*	*	280	350	320	400
2206C-E13TAG3	*	*	320	400	360	450
2506A-E15TAG1	*	*	364	455	400	500
2506A-E15TAG2	*	*	400	500	440	550
2506C-E15TAG1	*	*	364	455	400	500
2506C-E15TAG2	*	*	400	500	440	550
2806A-E18TAG1A	*	*	480	600	528	660
2806A-E18TAG2	*	*	520	650	560	700
2806C-E18TAG1A	*	*	473	591	520	650

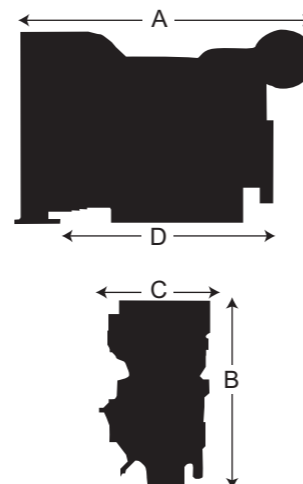
60Hz 1800 rpm	Baseload		Prime		Standby	
	kWe	kVA	kWe	kVA	kWe	kVA
2206A-E13TAG5	*	*	320	400	350	438
2206A-E13TAG6	*	*	350	438	400	500
2206D-E13TAG2	*	*	320	400	350	438
2206D-E13TAG3	*	*	350	438	400	500
2506A-E15TAG3	*	*	410	513	450	563
2506A-E15TAG4	*	*	455	569	500	624
2506C-E15TAG3	*	*	455	569	500	625
2506C-E15TAG4#	-	-	-	-	550	687
2506D-E15TAG1	*	*	400	500	450	563
2806A-E18TAG1A	-	-	500	625	550	687
2806A-E18TAG3	*	*	545	681	600	750
2806C-E18TAG3	*	*	545	681	600	750

### Notes

- \* available on application.
- # Emergency Standby Power only.
- All ratings are for guidance only, please refer to the specific engine technical data sheet for final powers.
- All engines available as standard in ElectropaK specification including radiator, pipework, guards, belts, hoses and clamps.

## General engine data

	2206	2506	2806
Configuration	In-line 6 cylinder	In-line 6 cylinder	In-line 6 cylinder
Cycle	4 stroke	4 stroke	4 stroke
Bore/Stroke	130/157 mm	137/171 mm	145/183 mm
Capacity	12.5 litres	15.2 litres	18.1 litres
Combustion system	Direct injection	Direct injection	Direct injection
Induction system	Turbocharged, air-to-air charge-cooled	Turbocharged, air-to-air charge-cooled	Turbocharged, air-to-air charge-cooled
Cooling system	Water-cooled	Water-cooled	Water-cooled
Length (A)	2440 mm	2657 mm	2545 mm
Height (B)	1617 mm	1718 mm	1807 mm
Width (C)	1120 mm	1120 mm	1536 mm
Length (D)			2050 mm



## Standard specification

- Mounted air filter
- Mechanically actuated electronically controlled unit fuel injectors with full authority electronic control
- Governing to ISO 8528-5 class G3 with isochronous capability
- Replaceable 'Ecoplus' fuel filter elements with primary filter/water separator
- Fuel cooler
- Wet sump with filler and dipstick
- Full-flow replaceable 'Ecoplus' filter
- Gear-driven circulating water pump
- Mounted belt-driven pusher fan
- Radiator incorporating air-to-air charge cooler (supplied loose)
- System designed for ambients up to 50°C
- 24V starter motor and 24V 70 amp alternator with DC output
- ECM (Electronic Control Module) mounted on engine with wiring looms and sensors
- 3 level engine protection system
- High inertia flywheel
- Front engine mounting bracket
- User Handbook and Parts Manual
- Customer harness interface connector kit

## Options

- Second electric starter motor
- Closed circuit breather (2500 Series)
- Immersion heaters 110V or 240V
- Additional speed sensor
- Coolant temperature switch/sender
- Oil pressure switch/sender
- 5 metre customer harness
- Fuel cooler (delete option)
- Air cleaner rain hood
- Gloss paint



# Extended Service Contract (ESC)

Extended Service Contracts (ESC) protect you from the stress that unexpected repair work brings to your life by covering the costs of getting your engine up and running again. Unlike other extended warranties, Perkins Platinum ESC protects you against all component part failures.



**Saving you from unexpected repair bills**

## Why buy an Extended Service Contract?

- No surprises - Total protection from unexpected repair costs (parts, labour and travel)
- Enjoy longer lasting product support from Perkins global network
- Genuine Perkins parts ensure continued engine performance
- Highly trained technicians carry out all repairs
- Transferable coverage should you sell your machine

## Cost effective comprehensive coverage

- Flexible coverage provides the right level of protection for your Perkins Engine
- Total cost management system
- Coverage can be extended to 2 years/1,000 hours right up to 5 years/8,000 hours
- You can buy an ESC at anytime during standard warranty – even the last day!

## Platinum coverage

- Complete protection against all defective part failures
- Covers labour and travel costs
- Free software upgrades

## Gold coverage

- Safeguards you against almost all part failures
- Covers labour and travel costs



**Purchased in minutes, protected for years**

## Protecting you from unexpected costs

If the worst happened, would you have the money available to cover the cost of an unexpected failure? With an ESC you wouldn't need to worry.

## Supporting you every step of the way

Each Perkins Distributor has highly trained and experienced Perkins Product Support Service Technicians, equipped and available around the clock to get your engine running again with the minimum of downtime. Buying an ESC means you get all this for free. No hassles. No worries. Job done.

## How do I purchase an Extended Service Contract?

Quickly and simply. Contact your local Perkins Distributor now, and they can provide you with a quote in minutes. You can locate your nearest Perkins Distributor by visiting [www.perkins.com](http://www.perkins.com)

## What's not covered by an ESC?

- The costs of normal maintenance or regular servicing of your Perkins engine
- Any accessories or proprietary equipment not fitted by Perkins
- Costs for the repair/replacement of any machine component that has failed as a consequence of a Perkins engine failure

For full details of all exclusions please contact your local Perkins Distributor.



# Product Support Excellence

In the modern, global marketplace, Perkins recognises it is not enough to be a manufacturing company with a quality product. It is also about creating relationships and building trust, and getting to know the specific needs of our customers.

Our customers expect quick, proactive responses to their requirements. Perkins understands that these requirements are different, according to each specific customer. Product Support Excellence is a key element in delivering a consistent, high quality response and a fundamental part of the total Perkins power solution.

Our global network is the strength and presence of Perkins Product Support. It forms the foundation of the enduring, quality relationships we have with our customers and delivers the promise we have made.

Our product support promise to keep Perkins' engines running, wherever they are located in the world, is a reality. To ensure we keep this promise, our investment in the skills and training of our people is constant. Perkins Regional Training Centres set the high standards required of our engine experts to meet the challenges of new technology and the commitment of quality service to our customers.



Our Product Support Excellence has one purpose - to give our customers peace of mind that our engines will keep their equipment running. So, whatever the age or condition of a Perkins engine, wherever it is, and whether it needs standard maintenance, complete overhaul or comprehensive repair, we have the people with the expertise and tools to do the job - so our customers' equipment can do theirs.

The cornerstones of our Product Support Excellence are:

- Global Distributor/Dealer Network - our customers' portal to quality service and support
- Parts Distribution - genuine parts to extend engine life and performance
- Service Excellence - on-line information and tools; TIPSS (The Integrated Product Support Solution) - providing the very latest diagnostic and technical information
- Service Solutions - Power Exchange Components - a sustainable, cost effective, high quality service solution

Retaining our position as a market leader is proof that we listen to our customers and focus on their needs. It is this commitment that differentiates Perkins from our competitors and enables us to meet and exceed our customers expectations.

# Global Network

## Worldwide Service Support

### Over 75 Years Experience

- 132 distributors
- 184 countries
- Technical support
- Warranty support



# Service Excellence

## Distributor/Dealer Service Standards

- Product Training – skilled on the latest technology
- Required Tooling – electronic and speciality tools for fast, high quality repair
- Information Systems – on-line access for up to date technical data
- Parts in stock – critical parts on the shelf to minimise down time



# Parts Distribution

## Global Parts Network

- Genuine Parts – designed specifically for your engine
- High availability – over 40,000 parts in stock
- On-line Parts information – ensures the correct part
- Direct Ship – next day delivery for most of Europe



# Service Solutions

## Lower Owning and Operating Cost

- Power Exchange Components – a sustainable solution
  - Remanufactured to like new specification
  - Typically 60 to 70% the price of a new component
- Extended Service Contracts – added protection for your engine



# Related Literature

Publication No. PP1107	Publication No. PN1891	Publication No. PP1144	Publication No. PP827

Product Support excellence is all about commitment to our customers; giving them the assurance that we understand their specific needs, and that our engines will keep their equipment running



# Ecoplus

**Clean Change System Technology**  
Ecoplus exclusive design and construction provides an easy and cleaner solution for replacing filters. This unique filtration gives a higher performance solution which promotes better engine protection and lower running costs.

## Oil Filtration

Ecoplus oil flow is the reverse of conventional spin-on or element filters. Dirt and abrasive particles are captured on the inside of the element ensuring:

- Canister remains clean
- Replacement and disposal of used filters is simple and hassle free
- Oil filtration to 35 microns

Ecoplus oil filtration system has a unique canister and filter head design incorporating:

- Drain plug - no spillage or mess
- Heavy duty construction - impact resistant
- Square drive 'cast in' - simple canister removal
- 'Quick lock' thread design - ensures the canister cannot be damaged or fitted incorrectly during element change
- Option of oil sampling valve

## Fuel Filtration

- Ease of maintenance
- Low cost of ownership
- 500 hour standard service intervals

**New acrylic beads**  
Eliminates pleat bunching to capture contaminates. This makes a significant contribution to the removal of more debris, the Ecoplus filters can be up to 66%\* more effective at removing debris.

**New non-metallic centre tube**  
30% stronger than metal tubing used in conventional filters. The risk of metal contaminates being introduced during the manufacturing process is removed. This subsequently stops damage to critical engine components.

**New spiral roving**  
This unique feature eliminates 'pleat dancing' or flexing, resulting in a dramatic increase in filtration efficiency, helping to maximise engine life.

**New moulded end cap**  
Filter pleats are actually moulded into the caps during manufacture. When hardened an impenetrable bond is formed, putting an end to leaks!



\* The information in this publication came from testing randomly sampled Ecoplus and conventional filters. Test results are on file and certified to represent only the parts actually tested. Perkins implies nothing further, and no one should infer that these parts typify the makers overall production

**Asia**

Perkins Engines (Asia Pacific) Pte Ltd  
14 Tractor Road  
Singapore 627973  
Telephone +65 6828 7469  
Fax +65 6828 7414

**Europe, Middle East and Africa**

Perkins Engines Company Limited  
Peterborough PE1 5NA  
United Kingdom  
Telephone +44 (0)1733 583000  
Fax +44 (0)1733 582240

**North America**

Perkins Engines Inc  
N4 AC 6160  
PO Box 610  
Mossville, IL 61552-0610, USA  
1-888-PERK-ENG  
Telephone +1 309 578 7364  
Fax +1 309 578 7329

**Latin America**

Perkins Motores do Brasil Ltda  
Rua Alexandre Dumas, 1711 Ed. Birman 11, 9º andar  
Chácara Santo Antonio  
São Paulo / SP - Brasil  
Cep: 04717-004  
Telephone +55 11 2109 2038  
Fax +55 11 2109 2089



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[www.perkins.com](http://www.perkins.com)