FPT
POWERTRAIN TECHNOLOGIES

OFF-ROAD
CONSTRUCTION

Our efficiency.
Your edge.

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ABOUT FPT INDUSTRIAL

FPT Industrial is a brand of Iveco Group, dedicated to the design, production, and sale of powertrains and solutions for on- and off-road vehicles, as well as marine and power generation applications.

At FPT Industrial, sustainability is a common underlying commitment, through the entire product development and as a corporate approach.

The extensive product offering includes six engine ranges with power outputs from 30 hp to over 1,000 hp, transmissions with torque up to 500 Nm and front and rear axles from 2.45 to 32 tonne GAW (Gross Axle Weight).

FPT Industrial offers the most complete range of natural gas engines for on- and off-road applications on the market, with power outputs ranging from 50 to 520 hp.

A dedicated ePowertrain division is accelerating the path towards net zero mobility with electric drivetrains, battery packs, and battery management systems.

This extensive offering and its strong focus on R&D makes FPT Industrial a world leader in industrial powertrain solutions.

We are proud to be a sustainability and innovation driven Company, which builds Customer advantage through continuous research and improvement, and creates value by leveraging this advantage.

Construction is about imagining a future and creating it step by step. This is what we do too, every day.



FPT Industrial: shaping the future of the construction sector

At FPT Industrial, technological excellence and product innovation are the driving forces behind our mission. We are committed to being the leading innovator in the construction powertrain sector, achieving this through our relentless focus on research and development. Our sustainable, leading-edge solutions empower a wide range of demanding operations, maximizing efficiency and productivity while minimizing environmental impact.

With more than 150,000 units sold yearly in the Off-Road sector, we are a recognized leader in the EU market. We collaborate with key OEMs across all construction applications, ensuring our technology reaches a wide range of machinery. Our extensive global network allows us to serve both large/medium OEMs and regional customers, fostering strong partnerships at every level.

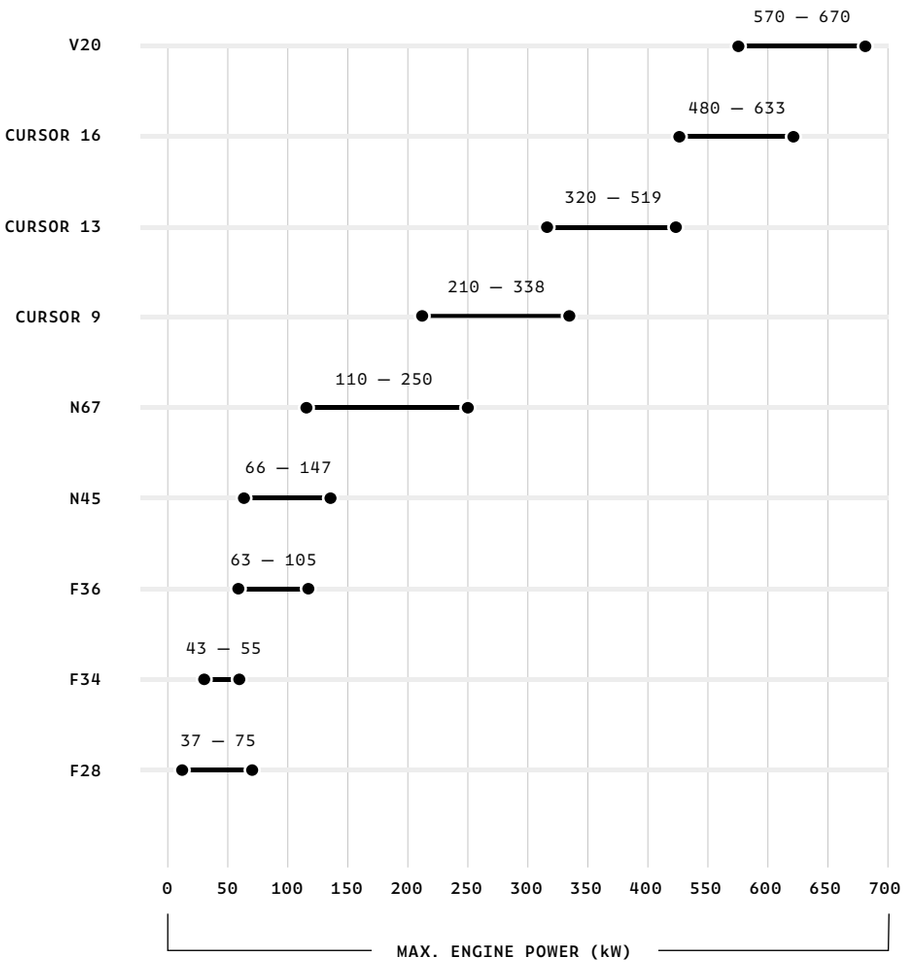
Our comprehensive engine portfolio caters to all your needs, ranging from compact 2.8L versions to powerful 20L offerings. We are pioneers in developing technical solutions that deliver exceptional performance, maximize fuel efficiency, and minimize maintenance costs.

We go beyond just providing engines. We are your trusted partner, dedicated to exceeding your expectations. Whether you require custom-designed solutions or fully pre-validated packages, we have the expertise to meet your specific needs.



FPT Off-Road Engine Portfolio

STAGE V / TIER 4F





Off-Road Construction Stage V engines

Engine name	Cyl. Arrangement Injection System Air handling	Turbocharging	Displacemet (litres)	Dimensions (LxWxH) mm	Dry weight (kg)	Max power			Max Torque			EGR	Exhaust system
						kW	HP	RPM	Nm	lb/ft	RPM		
F28	4L / CR / TCA	WG	2.8	691 x 594 x 806	290	75	102	2,500	415	306	1,600	•	Compact Hi-eSCR2
F28	4L / CR / TCA	WG	2.8	691 x 547 x 804	290	55	75	2,500	375	277	1,400	•	DOC (Tier 4F) DOC + DPF (Stage V)
F28	4L / CR / TC	WG	2.8	691 x 585 x 839	290	55	75	2,500	260	192	1,800	•	DOC (Tier 4F) DOC + DPF (Stage V)
F28	4L / CR / TC	WG	2.8	691 x 585 x 839	290	43	58	2,500	250	184	1,400	•	DOC (Tier 4F) DOC + DPF (Stage V)
F28	4L / CR / TC	WG	2.8	691 x 585 x 839	290	37	50	2,500	206	152	1,400	•	DOC (Tier 4F) DOC + DPF (Stage V)
F34	4L / CR / TCA	WG	3.4	690 x 603 x 902	315	55	75	2,500	424	313	1,200	•	DOC + DPF
F34	4L / CR / TC	WG	3.4	690 x 603 x 902	315	55	75	2,500	314	232	1,400	•	DOC + DPF
F34	4L / CR / TC	WG	3.4	690 x 603 x 902	315	43	58	2,500	265	195	1,300	•	DOC + DPF
F36	4L / CR / TCA	WG	3.6	702 x 614 x 898	320	105	143	2,300	600	442	1,500	•	Compact HI-eSCR2
F36	4L / CR / TCA	WG	3.6	702 x 614 x 898	320	90	122	2,300	490	361	1,400	•	Compact HI-eSCR2
F36	4L / CR / TCA	WG	3.6	702 x 614 x 898	320	75	102	2,300	430	317	1,400	•	Compact HI-eSCR2
F36	4L / CR / TCA	WG	3.6	702 x 614 x 898	320	63	86	2,300	354	261	1,400	•	Compact HI-eSCR2
N45	4L / CR / TCA	WG	4.5	817 x 684 x 890	426	147	200	2,200	744	549	1,400		HI-eSCR2
N45	4L / CR / TCA	WG	4.5	817 x 684 x 890	426	127	173	1,900	710	524	1,500		HI-eSCR2
N45	4L / CR / TCA	WG	4.5	817 x 684 x 890	402	114	155	1,800	630	465	1,300		HI-eSCR2
N45	4L / CR / TCA	WG	4.5	817 x 684 x 890	402	98	133	1,900	549	405	1,500		HI-eSCR2
N67	6L / CR / TCA	VGT	6.7	1,065 x 664 x 1,163	530	250	340	1,800	1,398	1,031	1,400		HI-eSCR2
N67	6L / CR / TCA	WG	6.7	1,065 x 664 x 1,163	530	230	313	2,000	1,160	855	1,500		HI-eSCR2
N67	6L / CR / TCA	WG	6.7	1,065 x 664 x 1,163	530	199	271	1,800	1,159	855	1,500		HI-eSCR2
N67	6L / CR / TCA	WG	6.7	1,065 x 664 x 1,163	530	165	224	1,800	940	693	1,500		HI-eSCR2
N67	6L / CR / TCA	WG	6.7	1,065 x 664 x 1,163	530	142	193	1,800	802	591	1,500		HI-eSCR2
CURSOR 9	6L / CR / TCA	WG	8.7	1,216 x 877.8 x 1,071.3	870	338	460	2,000	1,800	1,327	1,500		HI-eSCR2
CURSOR 9	6L / CR / TCA	WG	8.7	1,216 x 877.8 x 1,071.3	870	305	415	2,000	1,675	1,235	1,500		HI-eSCR2
CURSOR 9	6L / CR / TCA	WG	8.7	1,216 x 877.8 x 1,071.3	870	275	374	2,000	1,510	1,114	1,500		HI-eSCR2
CURSOR 13	6L / CR / TCA	TST	12.9	1,365 x 1,106 x 1,342	1,435	519	706	1,900	3,092	2,280	1,400		HI-eSCR2
CURSOR 13	6L / CR / TCA	WG	12.9	1,378 x 1,036 x 1,155	1,304	466	634	1,900	2,663	1,964	1,600		HI-eSCR2
CURSOR 13	6L / CR / TCA	WG	12.9	1,355 x 953 x 1,213	1,320	415	564	1,900	2,401	1,771	1,400		HI-eSCR2
CURSOR 13	6L / CR / TCA	WG	12.9	1,355 x 953 x 1,213	1,320	390	530	1,900	2,258	1,665	1,400		HI-eSCR2
CURSOR 13	6L / CR / TCA	WG	12.9	1,355 x 953 x 1,213	1,320	348	473	1,900	2,012	1,484	1,400		HI-eSCR2
XCURSOR 13	6L / CR / TCA	WG	12.9	1,404 x 826 x 1,434	1,230	500	680	1,900	2,800	2,065	1,500		HI-eSCR2
XCURSOR 13	6L / CR / TCA	VGT	12.9	1,404 x 826 x 1,434	1,230	460	626	1,900	2,850	2,102	1,500		HI-eSCR2
CURSOR 16	6L / CR / TCA	TST	15.9	1,367 x 1,244 x 1,344	1,630	633	861	1,900	3,717	2,741	1,400		SCR
CURSOR 16	6L / CR / TCA	WG	15.9	1,378 x 1,043 x 1,197	1,334	570	775	1,900	3,323	2,451	1,500		SCR
CURSOR 16	6L / CR / TCA	WG	15.9	1,477 x 927 x 1,366	1,450	515	700	1,900	2,990	2,205	1,500		HI-eSCR2
CURSOR 16	6L / CR / TCA	WG	15.9	1,477 x 927 x 1,366	1,450	480	653	1,900	2,750	2,028	1,500		HI-eSCR2
V20	8V / CR / TCA	WG	20.1	1,625 x 1,190 x 1,340	1,600	670	911	1,800	4,095	3,020	1,500		SCR

Legend

* Dimensions and weight may vary according to engine options.

Arrangement
- L In line vertical
- V V-configuration (90°)

Air Handling
- TCA Turbocharged After Cooled
- TC Turbocharged

Injection System
- CR Common Rail

Turbocharging
- WG Fixed geometry turbocharger with Wastegate valve
- TST Two Stage Turbo
- VGT Variable Geometry Turbocharger

Exhaust System
- EGR Exhaust Gas Recirculation
- DOC Diesel Oxidation Catalyst
- DPF Diesel Particulate Filter
- SCR Selective Catalyst Reduction
- HI-eSCR2 FPT Industrial's patented ATS

THE F28 SERIES



Power range
37 to 75 kW

Torque
Up to 415 Nm

Engine model
F28 (4 cyl., 2.8L)

Exhaust system
Compact HI-eSCR2 (above 55kW).

Key Advantages

Performance

- Top performance with enhanced low-end torque (23% higher than the market average).
- Specific high-performance version designed for 75 kW (100 hp) / 415 Nm.
- Rapid engine response & high productivity.

Compactness

- 3.4L performance in a 2L package.
- Compact after-treatment system (ATS) with simple installation and layout.
- Matches both space and performance driven applications.

Ease of use and low cost of ownership

- Single side serviceability and up to 600-hour service interval.
- Low running costs and easier maintenance.

Multipower & Modularity

- Ready for Natural Gas & Hybrid, with a modular design sharing common base components with Diesel.
- Same installation interfaces and interoperability within engines.

THE F5 SERIES



Power range
43 to 105 kW

Torque
Up to 600 Nm

Engine model
F34 (4 cyl. , 3.4L)
F36 (6 cyl. , 3.6L)

Exhaust System
<56kW: DOC+DPF
>56kW: Compact Hi-eSCR2

Key Advantages

Performance

- Top performance with high torque-oriented approach ensuring rapid engine response to variable loads in compact applications.
- Lowest EGR rate in the market (<10%), improving fuel consumption and reducing operational costs.
- The F5 Series engines are available in 3.4L and 3.6L configurations. The 3.6L version features an enhanced turbocharger and redesigned pistons, resulting in increased power and exceptional torque density.

Compactness

- No changes in engine and ATS dimensions nor in the cooling package.
- Even in the more powerful 3.6L version, the F36, there is no need for compromise between power and compactness. The F36 is able to deliver, in the same dimensions of the F34, an higher amount of power.

Ease of use and low cost of ownership

- Best in class 600h service intervals with one-side filter access.
- Maintenance-free Compact HI-eSCR2 system.
- Reduced operating costs & maximized vehicle uptime.

THE NEF SERIES



Power range
66 to 250 kW

Torque
Up to 1,400 Nm

Engine model
N45 (4 cyl., 4.5L)
N67 (6 cyl., 6.7L)

Exhaust System
HI-eSCR2

Key Advantages

Performance

- Best-in-class power and torque density in 6cyl. engine range.
- Maximized power, torque and transient response.
- Lean design with no EGR and single stage turbocharging solution.

Engine Architecture

- New high-capacity filters with clogging sensor.
- Wide range of applications and extensive configuration portfolio to meet a wide range of design needs.
- A natural gas solution based on 25 years of research for enhanced performance and low environmental impact.

Reliability

- Proven technology and reliability, with over 2 million units sold.
- Best in class service interval up to 1,200 hours.
- Low running costs over the life-cycle.
- Maintenance-free ATS maximizing vehicle uptime.

THE CURSOR SERIES



Power range
210 to 633 kW

Torque
Up to 3,717 Nm

Engine model
CURSOR 9
(6 cyl., 8.7L)
CURSOR 13
(6 cyl., 12.9L)
CURSOR 16
(6 cyl., 15.9L)

Exhaust System
<560 kW: Hi-eSCR2
>560 kW: SCR-only

Key Advantages

Performance

- Outstanding performance and best-in-class power density for the heavy-duty segment.
- Wide engine range covering up to 633kW.
- Effective performance and maximized power, torque, and transient response.

Flexibility

- No changes in the cooling package required providing a unique solution across emission stages (Stage IIIA to Stage V).
- Portfolio for any Off-Road mission thanks to a large product portfolio with engine displacements from 9 to 16L.

Reliability

- Heavy-duty design with high pressure common rail injection to reduce fuel consumption.
- Proven system reliability thanks to hundreds of thousand hours of successful on field missions.

Low Operating Costs

- A large number of turbocharging solutions: wastegate, variable geometry, and two-stage turbochargers.
- Maintenance-free ATS.
- Low running costs over the lifecycle.
- Maximum uptime: 600-hours service intervals.
- Lean design with no EGR and single stage turbocharging solution.

THE XCURSOR 13 ENGINE



Power range
Up to 500 kW

Torque
Up to 2,850 Nm

Engine model
XCURSOR 13
(6 Cyl., 12.9L)

Exhaust System
Hi-eSCR2

Key Advantages

Performance

- Top performance: highest energy density in 13L Off-Road.
- Extended power range (up to 500 kW) offering 16L power in a compact 13L package.

Engine Architecture

- New modular platform: designed with a common core and modularized for operation with multiple fuels: diesel, natural gas, hydrogen and renewables.
- WG and VGT versions for all missions and the harshest load requirements.
- Improved architecture, with CGI cylinder head and engine block, improved combustion pressure up to 270 bar, low-friction cranktrain and steel pistons.

Total Cost of Ownership

- Low CO_2 hardware for up to 6% fuel consumption reduction.
- Downspeed-ready architecture for additional efficiency gains of up to 2%.
- Extended 1,200-hour oil change intervals reduce total cost of ownership for the farmer and minimize downtime.

Reliability

- Be10 extended from 8,000 to 10,000 hours.

THE V SERIES



Power range
Up to 670 kW

Torque
Up to 4,095 Nm

Engine model
V20 (8 Cyl. V, 20.1L)

Exhaust System
SCR only

Key Advantages

Performance

- No EGR & 220 bar of in-cylinder pressure.
- Turbochargers resistant to high temperatures.
- The most compact high-performance engine optimized combustion.
- Uncompromised performance output in all conditions.

Efficiency & Total Cost of Ownership

- Maintenance-free Tier4 Final and Stage V SCR-only solution ensures low operating cost and maximize uptime.
- EGR-free architecture & 2,200 crankshaft bar capable Common Rail system.
- Optimized fluid dynamics.

Robustness & Reliability

- Steel pistons and high-pressure injection system from Cursor series.
- New advanced materials on valves, turbochargers, and cylinder head.
- SCR-only and DPF-free after-treatment solution.



Our wide range of solutions for construction machines offers optimum flexibility, improves efficiency and boosts productivity



YOU ASK FOR THE BEST. WE MAKE IT HAPPEN.

When the market becomes increasingly challenging, it is essential to have reliable partners.

We work closely with you to provide tailor-made solutions, maximizing engine performance and durability. We are committed to doing everything possible to support you and your business.

Extended Warranty.
Closer to your everyday needs.

As an add-on to the Base Warranty, our Extended Warranty program covers all required FPT Industrial Genuine parts along with any repairs carried out by highly qualified technicians.

The FPT Industrial Extended Warranty offers:

- A warranty customized to your needs.
- Warranty costs of your FPT Industrial Product are known in advance.
- Assistance carried out by FPT Industrial qualified technicians.
- Optimal Product performance thanks to FPT Industrial Genuine Parts.

Our FPT Industrial Extended Warranty has been developed with the aim of being closer to you in your everyday activities. You can customize it according to your needs and extend it for up to five years. To request a quote, please contact your listed FPT Industrial Dealer.

	OPERATING KM	COVERAGE	DURATION
	Max. limit depending on rating ☐ Up to 5000 hrs	☐ BRONZE Main engine components only* ☐ SILVER Engine only ☐ GOLD Engine + Aftertreatment System	☐ 2 years ☐ 3 years ☐ 4 years ☐ 5 years

(*) List of main components: cylinder head; cylinder block; crankshaft; camshaft; connecting rod; pistons; timing gears; flywheel; flywheel housing; oil pump; exhaust manifold; engine control unit.

Proactive Assistance.
Your direct connection to the Control Room.

Thanks to our telematic systems, ensuring optimal engine performance and smooth operation has never been easier. Installing the Telematic Kit on your engine you will allow FPT's Control Room to analyse your engine data in real-time. Through this advanced system, we can quickly identify action that will maximize the performance of your vehicle.

Our dedicated team is always ready to provide prompt assistance and support. With this proactive approach, we can address any potential issues, ensuring that your engine performs at its best.

Experience the convenience of enhanced engine performance and the peace of mind that comes with our close monitoring and support.

- Engine status monitoring.
- Maximize uptime with rapid activation of the FPT Industrial service, with remote pre-diagnostics before the engine leaves the workshop.
- Engine diagnostics and repair based on FPT Industrial technical know-how and experience in the field.
- Monitor the performance of agricultural vehicle in real time, with periodic reports tailored to your mission.
- Minimized downtime reduces total cost of ownership.



RAS – Remote Assistance Support. Ready-to-go digital assistance.

Remote Assistance, the latest assistance tool by FPT Industrial, introduces users to a new digital experience.

This user-friendly solution is remarkably easy to install and use. All it takes is for a technician to plug the hardware key into the machine's OBD (On-Board Diagnostics) port and configure it through the FPT Industrial RAS Workshop APP.

Remote Assistance enables the efficient diagnostics and resolution of specific errors and fault codes, allowing the engine to be restored quickly to its normal operating conditions.

FPT Industrial has developed this product specifically for its own engines, drawing upon its expertise as a manufacturer and its engineering know-how.
RAS is specially designed to meet Customers' needs, offering maximum reliability and comprehensive coverage across our full range of engines.
As an official diagnostic tool, RAS is perfectly aligned with the latest engine updates, including the incorporation of specific error codes.

Main features:

- Maximizes uptime by immediate remote assistance.
- Complies with ECU regulations: over-the-air DPF service regeneration and error reset.
- Enables remote real-time pre-diagnosis through the Workshop Portal.



Genuine Parts.
Original is better.

Our Genuine Parts are manufactured with the same rigorous procedures and premium materials as your FPT Industrial engine. They ensure:

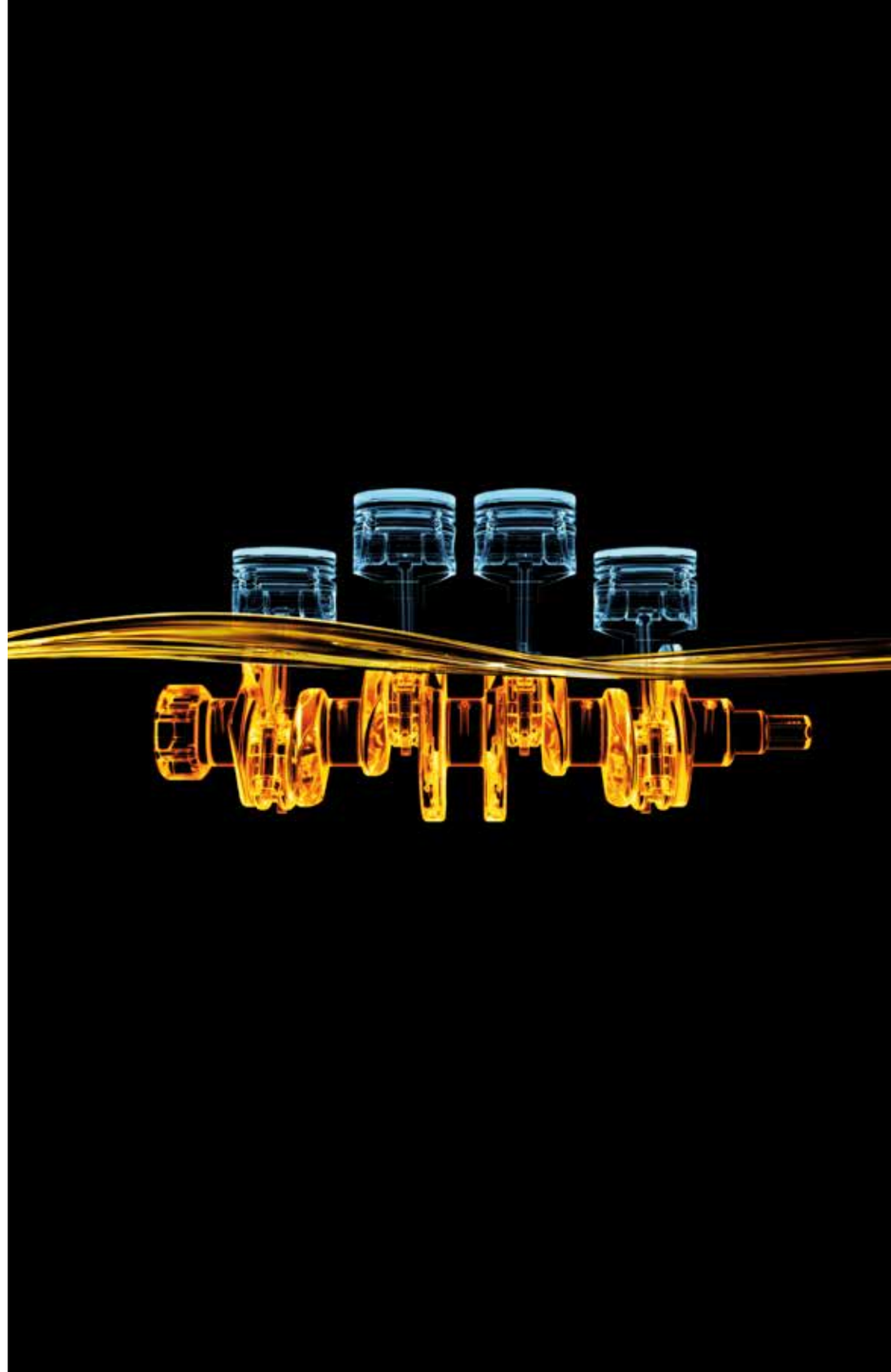
- **Total Compatibility:** guaranteed to perfectly fit your engine.
- **Optimized Service Life:** exceptional durability without compromising engine performance.
- **Guaranteed Operation:** for optimal engine output.

By choosing FPT Industrial Genuine Parts, you can keep your engine in perfect condition, maximizing output and uptime.
Our network of Authorised Workshops offers highly qualified technicians ready to expertly assist you in achieving peak engine efficiency.

Genuine Oils.
The perfect combination.

FPT Industrial Genuine Engine Oils are designed with your missions in mind. Developed for exceptional performance under any condition, our lubricants deliver:

- **Enhanced Protection & Durability:** extended engine life and minimized downtime with superior wear and tear resistance.
- **Maximized Uptime & Fuel Efficiency:** our core focus is to keep your equipment running at full efficiency. FPT Industrial Fluids are developed to guarantee the highest level of cleanliness, protection and efficiency, resulting in:
  - +87% cleaner pistons and +68% improved top ring protection.
  - +41% Cylinder Wear protection.
  - +20% improved Soot Handling and Sludge Control.
  - -20% in Total Cost of Ownership (TCO).
  - Reduced fuel and oil consumption for a greener future



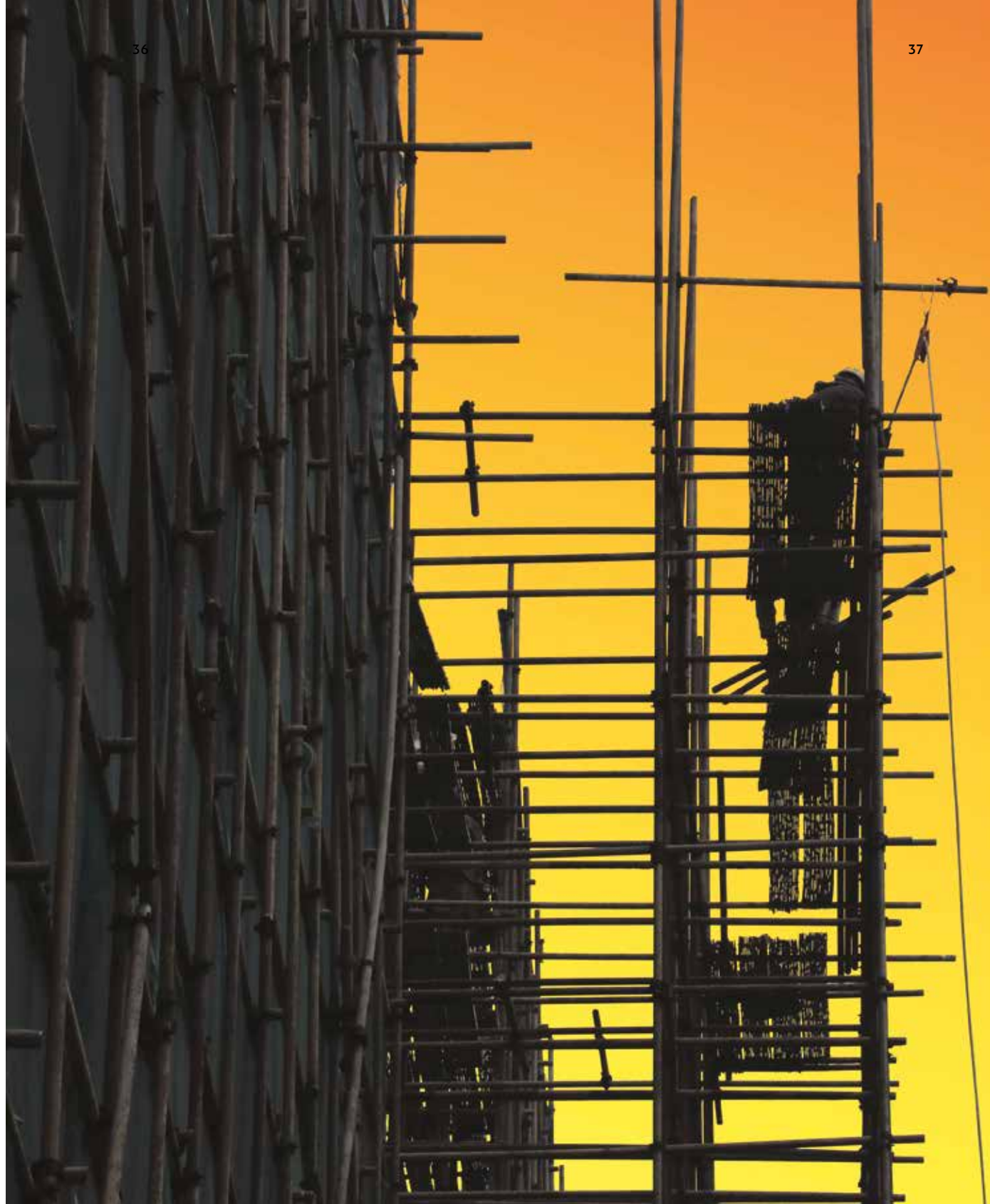
You need help?
We're here for you.

Because you never stop, and neither do we. Our Customer Contact Centre is active 24/7, to assist you and to activate our local support network.

For any issue or need, our technical and expert support service is ready to help you anytime, anywhere.

If you need technical support or assistance on-site, you can rely on a global network of 70 dealers and over 900 Service Points.

Discover our global dealers' network:





All the pictures, drawings illustrations and descriptions contained in this brochure are based on product information available to FPT Industrial at the time of printing (28/02/2025). Some of the engine line-ups may refer to a specific market configuration which may not be present or offered for sale available in all other markets. The colors featured in this brochure may differ from the originals. FPT Industrial reserves the right to introduce any modifications, at any time and without any prior advance notice, to design, material, components, equipment and/or technical specifications.

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