

P30 Gear Pump

In diverse heavy-duty equipment and precision industrial systems, the demands on hydraulic power units remain clear and unwavering: they must be robust enough to withstand sustained high loads, precise enough to ensure stable flow rates, and compact enough to fit demanding spatial layouts. Rune Hydraulic Co., Ltd. has deeply researched these requirements, and its P30 series gear pump stands as a powerful response to this series of engineering challenges. Far from a simple standard component, it is a power module integrating mature design, cutting-edge materials, and precision manufacturing. It is dedicated to delivering enduring and reliable power output across a wide range of pressures and flow rates for construction machinery, industrial equipment, and various mobile hydraulic systems.

The design philosophy of the [P30 gear pump](#) is built upon deep optimization of the classic external gear pump structure. Its core lies in a pair of high-strength gears, precisely calculated and machined, operating in minimal clearance within an optimized pump cavity. As the gears rotate, the changing space between the teeth creates a vacuum that draws in fluid, which is then smoothly expelled in the meshing zone. This continuous process generates the flow and pressure required by the system. The P30 series excels by significantly expanding the performance boundaries of this fundamental principle through advanced tooth profiling technology, specially selected bearing systems, and innovative pressure balancing design. It effectively suppresses the flow pulsation and noise common in traditional gear pumps, ensuring smoother and quieter operation. Its robust construction also endows it with the durability to withstand high-pressure impacts and harsh operating conditions.

Robust and durable design assurance. The P30 pump body is cast from high-strength cast iron. Its internal gears and bearings benefit from advanced surface treatment processes, enabling it to comfortably handle continuous operating pressures up to 250 bar and beyond, while also withstanding instantaneous pressure peaks. This inherent robustness makes it an ideal choice for hydraulic systems in outdoor mobile equipment like excavators, loaders, and agricultural tractors, where machines frequently endure vibration, contamination, and significant temperature fluctuations.

Extensive Flow Adaptability. The P30 series offers diverse displacement options to precisely meet varying system flow demands. This flexibility ensures engineers can match the ideal power source for functions ranging from small control devices to large working tools. Combined with its broad permissible speed range, it provides a solid foundation for optimizing system energy efficiency and performance tuning.

Exceptional Efficiency and Compactness. Through optimized internal flow paths and friction pair coordination, the P30 pump maintains high volumetric and mechanical efficiency across low to high pressure ranges, minimizing energy loss and reducing operating costs. Its exceptionally compact design occupies less space and weighs less while delivering equivalent power output, granting greater layout flexibility for complete equipment. This particularly benefits modern machinery pursuing lightweight and integrated designs.

The true value of the P30 gear pump lies in its seamless integration and reliable operation across diverse hydraulic systems. In construction machinery, it serves as the stable, dependable power source behind travel drives, lifting mechanisms, and slewing motions. Within fixed industrial production lines, it delivers sustained power for auxiliary actions like clamping, flipping, and conveying. Its robust environmental adaptability is equally dependable in specialized

equipment like marine deck machinery and sanitation vehicles. Runhe Hydraulics also offers flexible interface and connection solutions, including SAE-compliant splined or flat key shaft extensions and flange mounting options, ensuring the [P30 gear pump](#) integrates efficiently and conveniently into new equipment designs or existing equipment upgrades.

As a technology-driven enterprise specializing in the R&D and manufacturing of high-performance hydraulic components, Runhe Hydraulics consistently prioritizes product reliability and customer value experience. The company maintains comprehensive precision machining, heat treatment, and assembly production lines, complemented by a rigorous end-to-end testing system from raw material intake to finished product shipment. This ensures every P30 gear pump meets its designed performance standards. Our engineering team not only delivers standard products but also collaborates closely with customers to provide customized solutions for specialized applications. From precise displacement adjustments to tailored material and seal configurations, we empower every partner's success with technical expertise. Choosing Runhe Hydraulic's P30 gear pump means selecting enduring power and peace of mind, backed by exceptional engineering capabilities.

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30 hp motor

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305pp bearing

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