

Product Overview

Power Precision Control

Hydraulic pumps, motors and valves



Welcome

Around the globe, the name **Kawasaki** has become synonymous with **quality and innovation**.

Kawasaki is a total systems engineering company, leading the way in hydraulics and supplying equipment for a huge range of applications including industrial, construction and marine.

Each component we design, and every system we manufacture is the result of nearly 100 years of engineering experience. We not only draw on cutting-edge research from our own R&D facilities, but from across the entire Kawasaki Group. Combining this world-class R&D with global manufacturing means we can keep pushing the boundaries of efficiency and controllability to really maximise our customers' output.

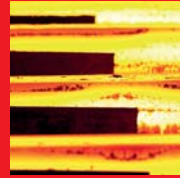
Power Precision Control

Wherever there's a need for lifting, pumping, moving, steering or controlling, you will find Kawasaki's advanced technologies. Every day our products work hard to boost fuel efficiency, cut energy wastage and maximise output.

04 Mobile and Off-Highway



05 Industrial



06 Marine



07 Agriculture



09 Axial Piston Pumps



15 Axial Piston Motors



19 Staffa Radial Piston Motors



24 Control Values



30 Design and Innovation



Mobile and Off-Highway

Our hydraulic components and systems are used in mobile and off-highway industries around the world.

From construction, earthmoving and road building to agricultural and material handling machinery, we have a reputation for providing high-quality components in high-power machines where precision and control are critical.

Our R&D focuses on giving our customers greater output at a lower cost. That means maximised uptime and greater fuel efficiency.

Kawasaki products are rigorously tested to ensure they offer the reliability and controllability our customers need, even in the most difficult operating conditions.

**Excavators
Cranes
Forklifts
Wheel loaders
Crushers
Telehandlers
Backhoe Loaders
Agricultural Tractors
Crop Sprayers**



Industrial

We developed our first product for the industrial sector in 1962.

Now, our total systems engineering has made us leaders in this advancing and demanding sector. Owners of today's industrial machines need control, durability and reliability, wherever their machines are working. Our advanced hydraulic technology not only boosts control and efficiency but also lowers noise and maximises uptime - essential for 24/7 operations.

Designing efficiency

Thanks to recent Kawasaki innovations, our hydraulic pumps now deliver a significant improvement in energy efficiency, making them the most effective on the market.

**Presses
Machine Tools
Injection Moulding Machines
Steel works
Automation
Civil Engineering
Recycling Machinery
Paper Mills**

Quality built in

We design our hydraulics to adapt to a variety of working fluids, with improved tolerance to contamination.

Marine

Whatever the conditions, trust Kawasaki Marine

Extreme weather and rough seas are all part of the course for Kawasaki's hydraulic components and machines in the marine industry. Each has been designed to work hard around the clock in hazardous weather. So whatever the conditions you can rely on Kawasaki's components to give you the highest levels of reliability, efficiency and performance.

Staffa motors

Our Staffa radial piston motors are the most technically advanced on the market, thanks to their hydrostatically balanced design. Built-in efficiency means they wear less, with superior torque due to minimal metal-to-metal contact.

Capstans

Winches

Marine cranes

Deck machinery

Bow thrusters

Steering gear

Off-shore systems

Efficiency built in

We're innovating to deliver improved control of marine systems whilst ensuring safety and reliability.

Agricultural

Innovative technology that's kinder to the planet

Population growth, climate change and economic instability means that as today's agricultural and forestry industries struggle to keep up with demand, efficiency has become a priority.

Kawasaki's leading engineers collaborate to meet the needs of the agriculture and forestry industry with a cutting-edge range of components by drawing on our cross sector expertise and combining it with extensive research, advanced technology and innovation, we have created a range of components that are proven to provide best-in-class efficiency for the agriculture industry.

Tractors
Combine Harvesters
Crop Sprayers
Harvesters
Telehandlers
Forwarders



Kawasaki's complete range

Built for **quality, efficiency and technological excellence**, Kawasaki's components are setting a new standard in construction machinery.

You can use our products individually, but for maximum machine efficiency, we highly recommend using them to **build a total system solution**:

- /// Superior controllability
- /// Greater efficiency
- /// Light & compact
- /// Low noise
- /// High reliability and long life



AXIAL PISTON PUMPS

Kawasaki is a world-leader in pump efficiency and performance. Inside our range you'll find some of the most efficient axial piston pumps available on the market today. And because our engineers understand our customers' needs, each pump has been designed to deliver high performance across a diverse range of applications.

K3VLS



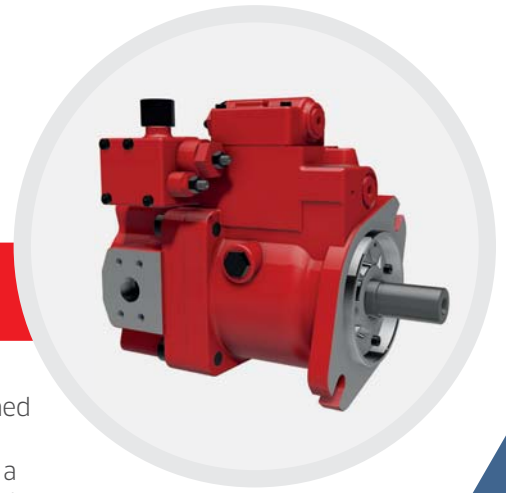
Lighter and more compact than any similar product on the market, the K3VLS Axial Piston Pump has been developed for machines and equipment that use load-sensing or electronic control systems. Its development follows extensive research and development: our engineers combined efficiency with simplicity to deliver the most technologically advanced medium pump available.

While most variable displacement axial piston pumps suffer a dramatic drop in efficiency at lower displacements, the K3VLS demonstrates best-in-class efficiency across the full operating range.

- /// 50, 65, 85, 105, 125 and 150cc displacements
- /// 280 bar continuous pressure rating
- /// 350 bar peak pressure rating
- /// Load sensing, torque limiting, power shift and electronic displacement controls

| Type | | K3VLS50 | K3VLS65 | K3VLS85 | K3VLS105 | K3VLS125 | K3VLS150 |
|-----------------------|-------|---------|---------|---------|----------|----------|----------|
| Displacement (cc/rev) | | 50 | 65 | 85 | 105 | 125 | 150 |
| Pressure (bar) | Rated | 280 | | | | | |
| | Peak | 350 | | | | | |
| Speed (rpm) | Max | 2,700 | 2,600 | 2,500 | 2,300 | 2,200 | 2,200 |

K3VL



The K3VL Series swash plate type axial piston pumps are designed to satisfy a wide variety of construction and off-highway applications. Each has been engineered to be suitable wherever a medium to high-pressure variable displacement pump is required.

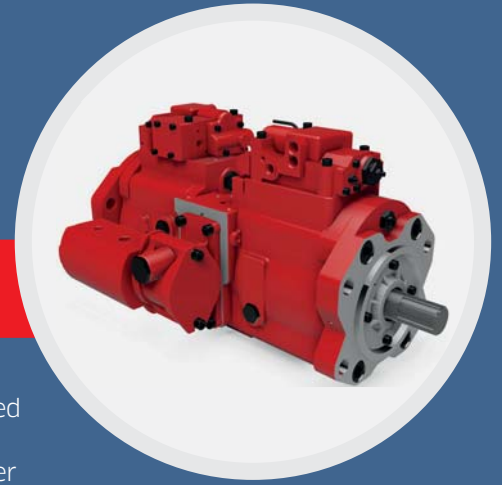
- /// 28 to 200cc displacements
- /// 320 bar continuous pressure rating
- /// Load sensing, torque limiting, power shift and electronic displacement control
- /// Integral impellor pump available on 200cc unit

| Model | | K3VL28 | K3VL45 | K3VL60 | K3VL80 | K3VL112 | K3VL140 | K3VL200 | K3VL200H |
|-----------------------|-----------------------|--------|--------|--------|--------|---------|---------|---------|----------|
| Displacement (cc/rev) | | 28 | 45 | 60 | 80 | 112 | 140 | 200 | 200 |
| Pressure (bar) | Rated | 320 | | 250 | 320 | | | | |
| | Peak | 350 | | 280 | 350 | | | | |
| Speed (rpm) | Max. for self priming | 3,000 | 2,700 | 2,400 | 2,400 | 2,200 | 2,200 | 1,900 | 2,200 |
| | Max. | 3,600 | 3,250 | 3,000 | 3,000 | 2,700 | 2,500 | 2,200 | 2,200 |

Reduced noise

We've optimised the K3VL to deliver low pulsation, providing a much reduced noise level during operation.

K3V/K5V



Kawasaki's K3V/K5V pump range has been specifically designed to meet the tough demands of hydraulic excavators and other mobile machinery. The K5V series now provides an even higher power density as well as industry-leading levels of reliability and a long life.

- /// 63 to 280cc displacements available
- /// 343 bar continuous pressure rating
- /// Single, tandem and parallel versions
- /// Wide range of power, pressure and displacement controls available

| Model | | K3V63 | KV3112 | K3V140 | K3V280 | K5V80 | K5V140 | K5V160 | K5V200 |
|-----------------------|-----------------------|-------|--------|--------|--------|-------|--------|----------------|----------------|
| Displacement (cc/rev) | | 63 | 112 | 140 | 280 | 80 | 140 | 160 | 200 |
| Pressure (bar) | Rated | 343 | 343 | 343 | 343 | 343 | | | |
| | Peak | 392 | 392 | 392 | 392 | 392 | | | |
| Speed (rpm) | Max. for self priming | 3,650 | 2,360 | 2,150 | 1,600 | 2,460 | 2,160 | 2,000 (2,350)* | 1,900 (2,200)* |
| | Max. | 3,250 | 2,700 | 2,500 | 2,000 | 3,000 | 2,500 | 2,350 | 2,200 |

*with centrifugal pump

Handling displacement

The K5V pump range easily handles enlargement of displacement, despite having the same installation dimensions and regulator variations as the K3V.

K8V



The K8V series is Kawasaki's new closed loop pump. Engineered to deliver in any conditions, it provides excellent controllability, low noise and superior efficiency. The K8V is regularly used in hydrostatic transmissions on a variety of off-highway machinery.

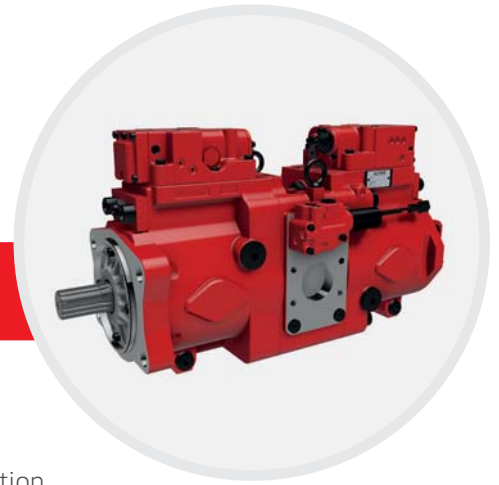
- 71, 90 and 130cc displacements
- 400 bar rated pressure
- Electronic and hydraulic displacement control
- Through drive and tandem versions available

| Type | | K8V71 | K8V90 | K8V125 |
|-----------------------|-------|-------|-------|--------|
| Displacement (cc/rev) | | 71 | 90 | 130 |
| Pressure (bar) | Rated | 400 | | |
| | Peak | 450 | | |
| Speed (rpm) | Max | 3,300 | 3,050 | 2,850 |

New generation of pump

The K8V has been designed to deliver outstanding controllability with multiple control options.

K7V



When your installation space is small, the K7V pump is an excellent choice. While its power density is greater than the K3V and K5V series, its pump still delivers exceptionally high efficiency by optimising clearance and stabilising cylinder rotation.

- /// 63 and 180cc displacements available
- /// 350 bar continuous pressure rating
- /// Tandem configuration
- /// Wide range of power, pressure and displacement controls available

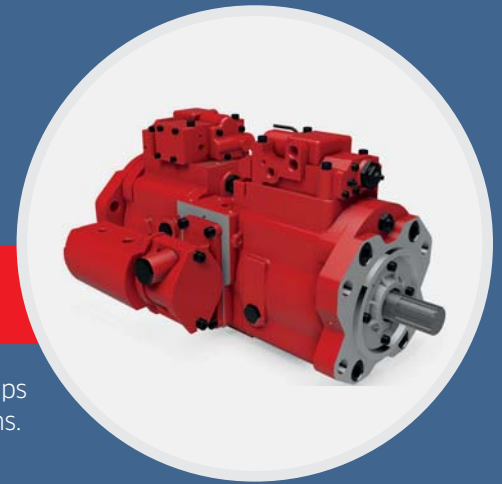
| Model | | K7V63 | K7V125 | K7V140 | K7V160 | K7V180 |
|----------------------------|-------------------|-------|--------|--------|--------|--------|
| Displacement (cc/rev) | | 63 | 130 | 140 | 160 | 180 |
| Pressure (bar) | Rated | 350 | 350 | 350 | 350 | 350 |
| | Peak | 400 | 400 | 400 | 400 | 400 |
| Speed (min ⁻¹) | Max. Self-Priming | 2,650 | 2,360 | 2,200 | 2,100 | 2,000 |
| | Max. | 3,250 | 2,700 | 2,500 | 2,350 | 2,300 |

Long Life

In developing the K7V, Kawasaki's engineers adopted high-load bearings and our friction free hydrostatically balanced piston shoes. The result: an impressively high level of reliability and a much longer life.



K3VG



The K3VG-DT series of tandem swash-plate type axial piston pumps provides excellent performance in high-flow industrial applications. The series is a particularly compact and cost-effective package.

- /// 63 to 560cc displacements
- /// 343 bar continuous pressure rating
- /// Long bearing life
- /// ISO Shaft
- /// Optional through-drive

| Model | | K3VG63 | K3VG112 | K3VG180 | K3VG280 | K3VG180DT | K3VG280DT | |
|-----------------------|-----------------------|--------|---------|---------|---------|-----------|-----------|--|
| Displacement (cc/rev) | | 63 | 112 | 180 | 280 | 360 | 560 | |
| Pressure (bar) | Rated | 343 | | | | | | |
| | Peak | 392 | | | | | | |
| Speed (rpm) | Max. for self priming | 2,600 | 2,200 | 1,850 | 1,600 | 1,850 | 1,600 | |
| | Max. | 3,250 | 2,700 | 2,300 | 2,000 | 2,300 | 2,000 | |

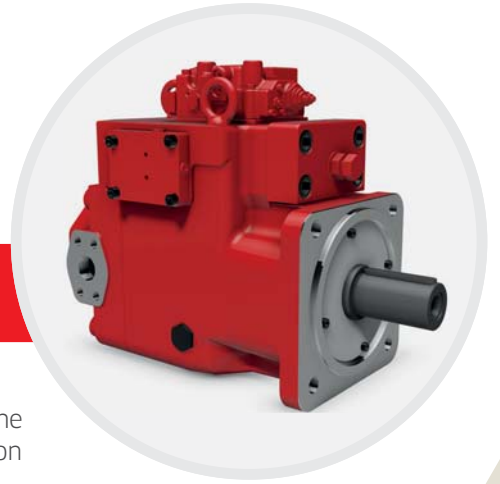
*with centrifugal pump

Responsive

The K3VG has been designed to provide excellence in controllability with an extensive range of highly responsive control options.



K7VG



The K7VG series of high-pressure swash plate type pumps was developed for general industrial machinery use. The adoption of the high-load bearings and friction-free contacting mechanism of piston shoes, results in a high level of reliability and long life.

- /// 180 and 270cc displacements
- /// 350 bar continuous pressure rating
- /// Long bearing life
- /// ISO Mount and Shaft
- /// Optional through-drive
- /// Highly responsive controls

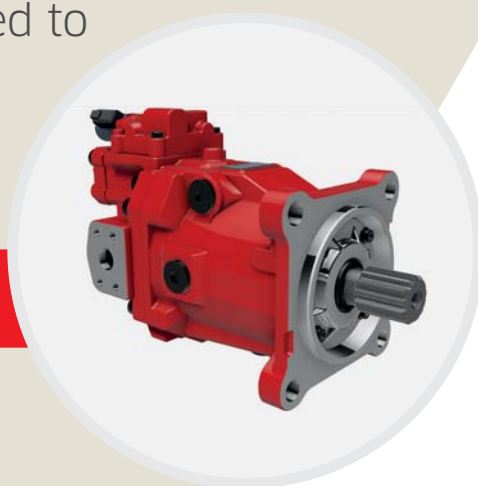
| Model | | K7VG180 | K7VG265 |
|-----------------------|-----------------------|---------|---------|
| Displacement (cc/rev) | | 180 | 270 |
| Pressure (bar) | Rated | 350 | |
| | Peak | 400 | |
| Speed (rpm) | Max. for self priming | 1,850 | 1,600 |
| | Max. | 2,200 | 1,900 |

Reliability

This high pressure pump is based on our unique technologies and rich experiences. Long life are made possible by utilizing an optimized piston/slipper and high-load bearings.

AXIAL PISTON MOTORS

Kawasaki is a world-leader in motor efficiency and performance. Inside our range you'll find some of the most efficient axial piston motors available on the market today. And because our engineers understand our customers' needs, each motor has been designed to deliver high performance across a diverse range of applications.



M7V

The M7V series is a high-speed variable displacement swash plate type axial piston motor. It provides a best-in-class choice in hydrostatic transmissions, drill rigs and crane winch systems.

- /// 85, 112 and 160cc displacements
- /// 400 bar continuous pressure rating
- /// Electronic and hydraulic displacement control
- /// Fixed displacement version available

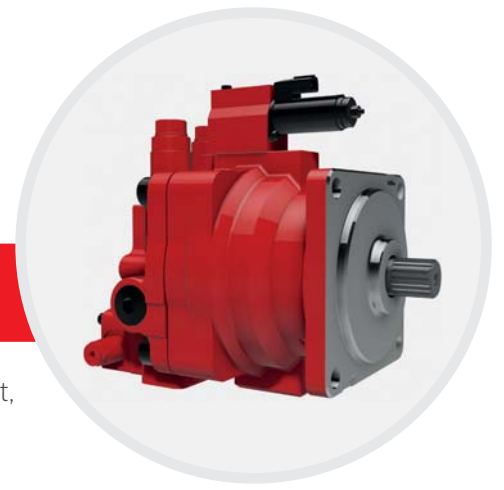
| Type | | M7V85 | M7V112 | M7V160 |
|-----------------------|-------|-------|--------|--------|
| Displacement (cc/rev) | | 85 | 112 | 160 |
| Pressure (bar) | Rated | 400 | | |
| | Peak | 450 | | |
| Speed (rpm) | Max | 3,900 | 3,550 | 3,100 |
| Speed (rpm)* | | 6,150 | 5,600 | 4,900 |

*Max speed at $0.6q_{max}$

Superior results

The M7V combines excellent reliability with exceptionally low noise.

M5X



The M5X series has been developed to provide a lighter weight, more compact swing drive motor. The M5X includes built-in parking brake, antishock valves, deceleration valves and brake release timing valves. It can be combined with the Kawasaki reduction gearbox to provide a complete swing drive solution.

- /// 50 to 250cc displacements
- /// Up to 330 bar continuous pressure rating
- /// Built-in anti-shock, parking brake and deceleration valves
- /// Available with Kawasaki swing drive gearbox

| Model | M5X50 | M5X80 | M5X130 | M5X180 | M5X250 |
|-----------------------|-------|-------|--------|--------|--------|
| Displacement (cc/rev) | 44 | 79 | 129 | 180 | 250 |
| Pressure (bar) | Rated | 280 | 330 | 324 | 330 |
| | Max | 330 | 400 | 392 | 400 |
| Max. Speed (rpm) | 2,000 | 2,200 | 1,850 | 1,650 | 1,520 |

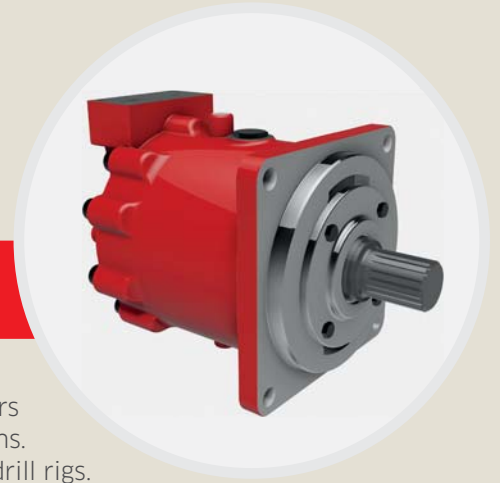
| Model | M5X80-RG08D | M5X130-RG11 | M5X130-RG14 | M5X180-RG14 | M5X180-RG16 | M5X180-RG20 | M5X250-RG27 |
|-----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Displacement (cc/rev) | 1,580 | 2,437 | 2,437 | 3,395 | 4,128 | 4,539 | 6,303 |
| Rated Pressure (bar) | 318 | 255 | 309 | 255 | 240 | 284 | 269 |
| Max. Speed (rpm) | 110 | 92 | 92 | 84 | 68 | 67 | 60 |

| Model | M5X130-RG17C27 | M5X130-RG23C34 | M5X180-RG17C27 | M5X180-RG23C34 |
|---------------------------------------|----------------|----------------|----------------|----------------|
| Displacement (cc/rev) | 3,350 | 4,380 | 4,630 | 5,740 |
| Rated Pressure (bar) | 302 | 322 | 230 | 245 |
| Theoretical output torque N-m (Kgf-m) | 17,000 (1,730) | 22,400 (2,280) | 17,000 (1,730) | 22,400 (2,280) |
| Service Brake | Handbrake | Handbrake | Handbrake | Handbrake |

Developed for excellence

Improving on M2X technology, the M5X combines a best-in-class output power with a compact design.

M3X/M3B



The M3X and M3B series are swash plate type axial piston motors available in fixed (M3X) and variable (M3B) displacement versions. They are used extensively in mobile crusher drives, cranes and drill rigs.

- /// 200, 280, 530 and 800cc displacements
- /// Up to 320 bar continuous pressure rating
- /// Constant horsepower control option
- /// Available with parking brake

| Model | | M3X200 | M3X280 | M3X530 | M3X800 | M3B200 | M3B280 | M3B530 | M3B800 | |
|--------------------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|-------------|
| Displacement (cc/rev) | | 195 | 280 | 533 | 800 | 195 | 280 | 533 | 800 | Max. |
| | | | | | | 106 | 93 | 178 | 267 | Min. |
| Pressure (bar) | Rated | 294 | | | | 320 | 300 | 294 | | |
| | Max | 343 | | | | 350 | 350 | 343 | | |
| Max. Speed (rpm) | | 1,900 | 1,700 | 1,400 | 1,200 | 1,900 | 1,700 | 1,400 | 1,200 | Max. |
| | | | | | | 2,930 | 2,200 | 1,700 | 1,500 | Min. |

Built on experience

The M3X and M3B are based on Kawasaki's long history of designing swash plate type pumps and motors.



STAFFA RADIAL PISTON MOTORS

For more than 60 years the Staffa name has been synonymous with the best in class radial piston hydraulic motors.



HMF 3 Speed Motor

Kawasaki's HMF 3 Speed Motor offers three displacements, providing consistent controlled acceleration. The HMF is the very latest addition to our Staffa motor range and so benefits from all our research and innovation to offer market-leading levels of reliability and performance.

- /// Dynamic displacement change
- /// 3 displacement modes or two displacement modes plus free wheel
- /// Speed sensing
- /// A wide range of displacements from 1475cc/rev to 5326cc/rev
- /// Greater flexibility
- /// Faster response times

| Type | | HMF100 | HMF200 | HMF270 | HMF325 |
|-----------------------|-------|--------|--------|--------|--------|
| Displacement (cc/rev) | | 1,600 | 3,087 | 4,588 | 5,326 |
| Pressure (bar) | Rated | 250 | | | |
| | Peak | 275 | | | |
| Speed (rpm) | Max | 270 | 175 | 150 | 130 |

* Performance figures as HMC range

Innovation

Kawasaki "Staffa" high torque, low speed radial piston motors use hydrostatic balancing techniques to achieve high efficiency, combined with good breakout torque and smooth running capability.

HMB



The fixed displacement HMB series radial piston motors have a well-proven design that incorporates high efficiency with a good breakout torque and smooth running capability.

- ✓ 188 to 6,800cc displacements in 12 frames
- ✓ 250 bar continuous pressure rating
- ✓ High volumetric and mechanical efficiency
- ✓ Unique hydrostatic balancing provides minimum wear and extended life

| Model | HMB10 | HMB30 | HMB45 | HMB60 | HMB80 | HMB100 |
|--|-------|-------|-------|-------|-------|--------|
| Displacement (cc/rev) | 188 | 442 | 740 | 983 | 1,344 | 1,639 |
| Average actual running torque (Nm/bar) | 2.79 | 6.56 | 10.95 | 14.5 | 19.9 | 24.3 |
| Max. continuous speed (rpm) | 500 | 450 | 400 | 300 | | 250 |
| Max. continuous output (Kw) | 25 | 42 | 60 | 80 | 100 | 110 |
| Max. continuous pressure (bar) | 207 | | 250 | | | |
| Max. intermittent pressure (bar) | 241 | 241 | 275 | | | |

| Model | HMB125 | HMB150 | HMB200 | HMB270 | HMB325 | HMB400 | HMB500 |
|--|--------|--------|--------|--------|--------|--------|--------|
| Displacement (cc/rev) | 2,050 | 2,470 | 3,087 | 4,310 | 5,310 | 6,800 | 8,000 |
| Average actual running torque (Nm/bar) | 30.66 | 36.95 | 46.07 | 63.79 | 79.4 | 101 | 114 |
| Max. continuous speed (rpm) | 220 | | 175 | 125 | 100 | 120 | 100 |
| Max. continuous output (Kw) | 100 | 115 | 130 | 140 | | 190 | 170 |
| Max. continuous pressure (bar) | 250 | | | | | 190 | |
| Max. intermittent pressure (bar) | 275 | | | | | 227 | |

Diverse applications

HMB motors are suited to a wide variety of industrial applications, including injection-moulding machines.

HMC



The HMC series variable displacement models have two pre-set displacements that can be chosen to suit your specific application requirements. These motors are also available as a continuously variable version, using either hydro-mechanical or electro-hydraulic control methods.

- /// 492 to 5,326cc displacements in 7 frame sizes
- /// 250 bar continuous pressure rating
- /// Dynamic displacement change
- /// Freewheel option available
- /// Constant horsepower control option

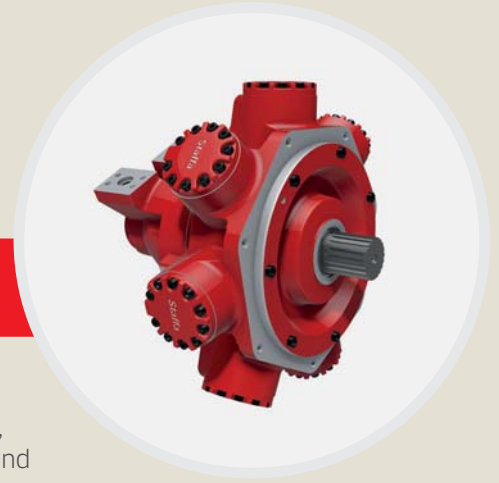
| Model | HMC30 | HMC45 | HMC80 | HMC125 | HMC200 | HMC270 | HMC325 | |
|--|-------|-------|-------|--------|--------|--------|--------|-------------|
| Displacement (cc/rev)* | 492 | 737 | 1475 | 2048 | 3080 | 4588 | 5326 | Max. |
| | 246 | 573 | 737 | 983 | 1470 | 1310 | 1557 | Min. |
| Average actual running torque (Nm/bar) | 6.86 | 10.63 | 23.9 | 29.9 | 46.6 | 69.4 | 80.4 | Max. |
| | 3.2 | 4.4 | 12 | 12.8 | 21 | 22.4 | 27.9 | Min. |
| Max. continuous speed (rpm) | 450 | 450 | 270 | 215 | 175 | 150 | 130 | Max. |
| | 600 | 600 | 500 | 450 | 300 | 375 | 330 | Min. |
| Max. continuous output (Kw) | 60 | 99 | 138 | 135 | 174 | 213 | 213 | Max. |
| | 35 | 42 | 105 | 81 | 105 | 107 | 120 | Min. |
| Max. continuous pressure (bar) | 207 | 250 | | | | | | |
| Max. intermittent pressure (bar) | 241 | 275 | | | | | | |

*Many other displacement options are available upon request

Complete systems

Used individually, the HMC models offer market-leading efficiencies and performance. These benefits are further enhanced when combined with other Kawasaki components.

HPC



The enhanced variable displacement HPC models include special low friction components. Combined with crankcase flushing flow, these achieve increased shaft power. The HPC can be found around the world in numerous marine and offshore winch applications.

- /// 1,344 to 6,555cc displacements in 6 frame sizes
- /// 250 bar continuous pressure rating
- /// Dynamic displacement change
- /// Freewheel option available
- /// Constant horsepower control option

| Model | HPC80 | HPC125 | HPC200 | HPC270 | HPC325 | |
|--|-------|--------|--------|--------|--------|-------------|
| Displacement (cc/rev)* | 1,600 | 2,048 | 4,588 | 2048 | 5,326 | Max. |
| | 819 | 1,147 | 737 | 1,966 | 2,294 | Min. |
| Average actual running torque (Nm/bar) | 24.1 | 30.8 | 47.2 | 70.1 | 81.6 | Max. |
| | 11.9 | 16.5 | 24.1 | 28.6 | 33.6 | Min. |
| Max. continuous speed (rpm) | 270 | 215 | 175 | 150 | 130 | Max. |
| | 500 | 390 | 270 | 310 | 275 | Min. |
| Max. continuous output (Kw) | 165 | 173 | 216 | 278 | 278 | Max. |
| | 120 | 123 | 170 | 156 | 174 | Min. |
| Max. continuous pressure (bar) | 250 | | | | | |
| Max. intermittent pressure (bar) | 275 | | | | | |

*Many other displacement options are available upon request

Reputation

Kawasaki's HPC models are particularly well known for their efficiency and reliability under even the toughest marine conditions.

C400



The HPC400 motor is designed to meet the needs of maritime equipment manufacturers in the 21st century. As part of the Staffa HPC range of motors, the HPC400 boasts a peak shaft power rating of 430 kW and a rated torque of 25,000 Nm.

- /// Max. Continuous Power of 430 kW
- /// Smooth Operation at Low Speed
- /// Dynamic Displacement Change
- /// Rated Torque of 25,000 Nm
- /// Freewheel Option available
- /// Rugged Staffa Design
- /// High Starting Torque
- /// 250 bar Continuous Rating

| Type | | HPC400 |
|-----------------------|-------|--------|
| Displacement (cc/rev) | | 6,555 |
| Pressure (bar) | Rated | 250 |
| | Peak | 275 |
| Speed (rpm) | Max | 220 |

Heavy duty

The C400 model is suitable for heavy duty use and is designed to perform to high standards even within harsh environments. Its long service life makes it suitable even for harsh environments.



VALVES

Kawasaki hydraulic valves and controllers provide superior performance and control for a wide variety of industrial vehicles. Every component in our range offers excellent efficiency and controllability when used alone. However, when combined with our pumps and motors, you will find they provide even greater levels of performance and reliability.



KLSV

The KLSV is a series of flow-sharing, load-sensing main control valves for multifunction construction machinery. Their low hysteresis and excellent pressure-drop characteristics provide superior performance and efficiency.

- /// Post-compensated, flow-sharing design
- /// Hydraulic pilot and electro-hydraulic actuation
- /// Up to 400 bar continuous pressure rating
- /// Special versions for wheel loaders, midi excavators and skid steer loaders
- /// Three sizes with sectional flow rates of 180, 250 and 400 l/min

| Model | | KLSV18 | KLSV22* | KLSV28* |
|-------------------------|---|--------|---------|---------|
| Max. Pressure (bar) | | 400 | 350 | 350 |
| Max. Flow (L/min) | P port | 240 | 350 | 450 |
| | Spool Section at $\Delta P=1.5\text{MPa}$ | 180 | 300 | 400 |
| Max. Number of Sections | | 9 | 10 | 7 |

*under development

Reduced energy wastage

Thanks to the KLSV Series' optimised fluid flow path, the design of these valves significantly reduces energy wastage throughout your entire hydraulic system.

KLW/KLR



The KLW is a flow-sharing, load-sensing main control valve specifically designed for wheel loaders. It provides low hysteresis and superior pressure-drop characteristics to deliver high performance and excellent levels of efficiency.

The KLR is a flow-sharing, load-sensing main control valve designed for skid-steer loaders. The KLR includes a self-levelling feature that delivers real improvements in machine productivity.

- /// Post-compensated, flow-sharing design
- /// Integrated lock valves and integrated damping valve for ride control
- /// Up to 350 bar continuous pressure rating
- /// Regeneration and double actuator ports available
- /// Three sizes with sectional flow rates of 180, 250 and 400 l/min

| Model | | KLW18* | KLW22* | KLW28 | KLR18 |
|----------------------------------|---------|---------------------------|--------|-------|-------|
| Max. Flow (L/min) | P port | 240 | 300 | 450 | 180 |
| | Section | 180 | 250 | 400 | 150 |
| *Differential Pressure = 1.5 MPa | | | | | |
| Max. Pressure (bar) | | 350 | | | 270 |
| Control | | Electro-hydraulic control | | | |
| | | Hydraulic control | | | |

*under development

Precision

The KLR's impressive levels of performance are due to Kawasaki's extensive valve experience across almost every engineering industry.

KMX



The KMX series consists of three sizes of main control valve designed specifically for the control of hydraulic excavators. Their semi-monoblock construction provides a very compact installation for main and pilot circuits. The KMX gives excellent controllability and superior system efficiency.

- // Negacon, Posicon and Electronic Posicon systems supported
- // 130, 240 and 360 l/min service flow rates
- // 343 bar continuous pressure rating
- // Straight travel, swing priority and circuit confluence features

| Model | KMX13 | KMX15 | KMX32 |
|---------------------|-------|-------|-------|
| Max. Pressure (bar) | 343 | | |
| Rated Flow (L/min) | 130 | 240 | 500 |

Built for your needs

Depending on requirements, the KMX can include sets of special-function circuits.



KDRDE5K



The KDRDE5K and KWE5K series valves are proportional pressure-reducing and directional control valves of cartridge type. Available in 12 and 24 VDC versions, they can be used in combination to provide various compact control solutions for agricultural and mobile machinery.

- /// 88 bar supply pressure
- /// 10 l/min and 16 l/min flow rates
- /// Common cavity for KDRDE5K and KWE5K
- /// Excellent hysteresis

| Model | KWE5K/KDRE5K |
|--------------------------|--------------|
| Max. Pressure (bar) | 88 |
| Max. Back Pressure (bar) | 10 |
| Max. Flow (L/min) | 10 |

Reliability

The KDRDE5K is 100% waterproof, making it ideal for use outdoors.



PV



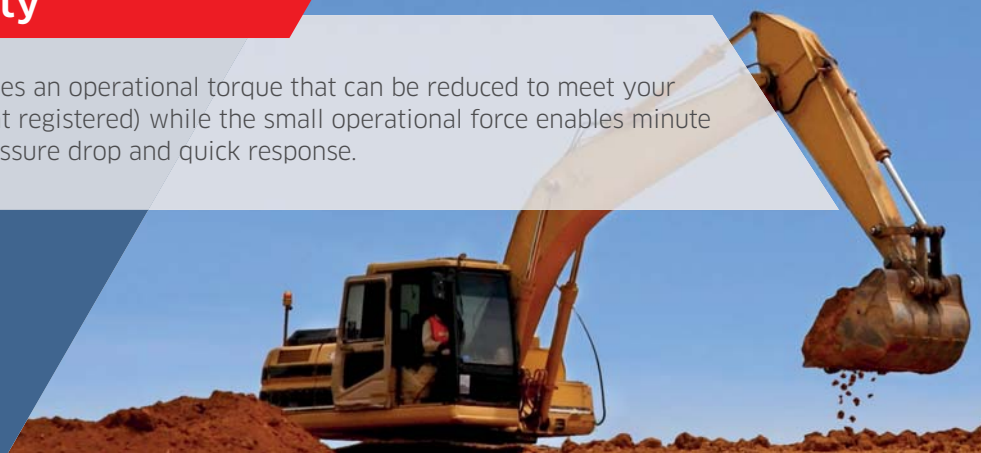
Our PV series valves are pressure-reducing type pilot valves that allow operators to simultaneously control spools of multiple control valves as well as the tilting angle of variable displacement pumps. The operational torque can be reduced to meet your requirements (Patent registered), while the small operational force enables minute control, reduced pressure drop and quick response.

- /// 70 bar supply pressure
- /// Up to 20 l/min flow rate
- /// Excellent operator feel
- /// Excellent hysteresis
- /// Hydraulic damping
- /// Excellent controllability

| Model | PV48K | PV48M | PVD6P | PVD8P | PV6P |
|------------------------------|---------------|-----------------------|----------------------------------|----------------------------------|-----------------------|
| Inlet Pressure (max.) (bar) | 70 | | | | |
| Outlet Pressure (max.) (bar) | 3 | | | | |
| Rated Flow (L/min) | 20 | 15 | 10 | | |
| Application | Excavator | Mini Excavator | (Mini) Excavator | (Mini) Excavator | Rough Terrain Crane |
| Features | Joystick type | Joystick type compact | Pedal for propelling with damper | Pedal for propelling with damper | Bankable type compact |

Controllability

The PV series includes an operational torque that can be reduced to meet your requirements (Patent registered) while the small operational force enables minute control, reduced pressure drop and quick response.



ERU



The ERU Series of electrical remote control units are available in joystick and pedal version. They have the same look, feel and proven performance as Kawasaki's market-leading hydraulic pilot valves.

- /// Joystick, foot pedal, dual and single axis versions available
- /// Wide variety of handle options including potentiometer with integral amplifier
- /// FNR function for transmission control
- /// Integral damping feature on foot pedal type
- /// PWM and CanBus ERU versions available

| Model | ERU2 | ERUP2 | ERUP1 | ERUS1 |
|------------------------|---------------------|------------|--------------|-------------------|
| Type | Joystick | Twin Pedal | Single Pedal | Single Axis Lever |
| Temperature Range (°C) | -40-75 | | | |
| Lever Angle (deg) | 23.0 | 12.4 | 12.4 | 21.5 |
| Operating Torque (Nm) | 1.3-2.6 | 6.5-15.3 | 4.9-8.8 | 0.5-2.0 |
| Output Type | Analogue/PWM/CanBus | | | |

Developed for the environment

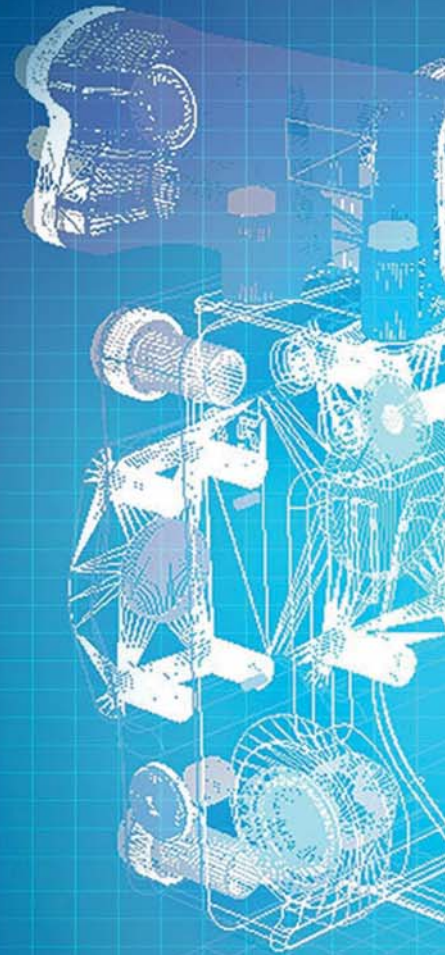
The Kawasaki ERU Series uses an electromagnetic noise-proof, fully waterproof construction making it highly reliable in any conditions.

Design & Innovation

Experts in design

As global leaders in hydraulics and precision machinery, our systems and individual components are based on our wealth of engineering experience right across the Kawasaki Group. Our engineers from aeronautics, marine, agriculture and many more industries collaborate not only on the big innovations, but on the smaller, incremental improvements that give our customers the efficiency and reliability they need to be competitive.

As we look to the future, we will keep building on our successes to develop the next generation of hydraulic systems and products.



Innovating for all

For the end user

We're increasing efficiency and reliability, particularly when our components are used together as a complete system.

For our customers

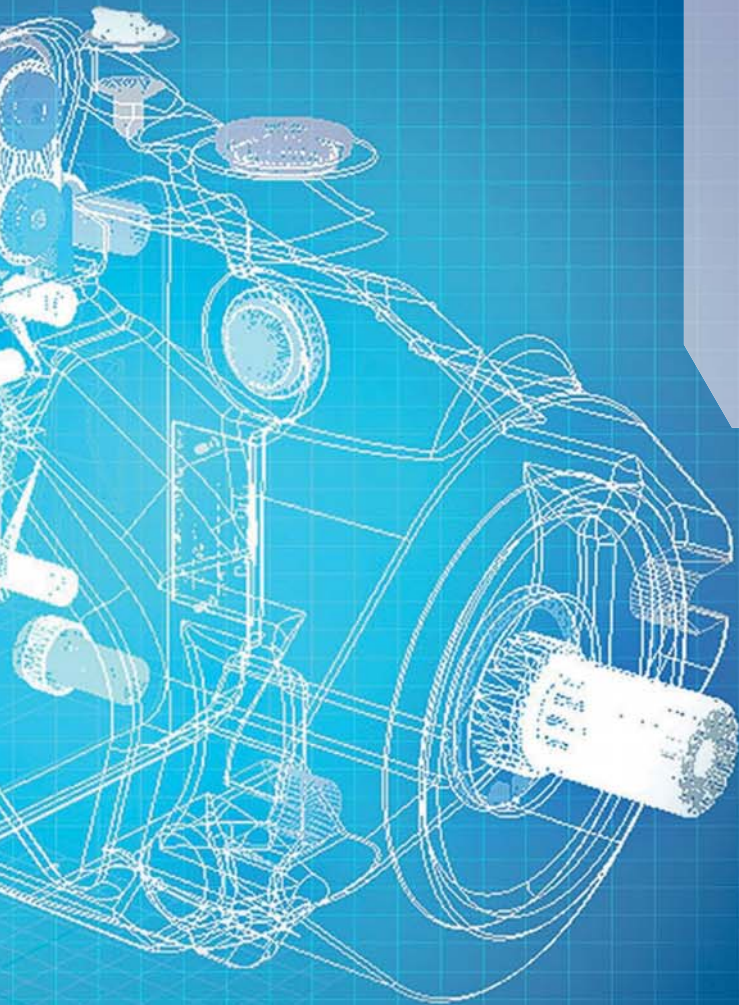
We're boosting efficiency and minimising waste so that our customers can reduce their costs.

For industry

We're pushing the boundaries of hydraulics, shaping the industries we work in.

For future generations

We're developing advanced technologies to help construction companies reduce their impact on the environment.



Power Precision Control

Off-highway / Industrial / Marine / Design

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