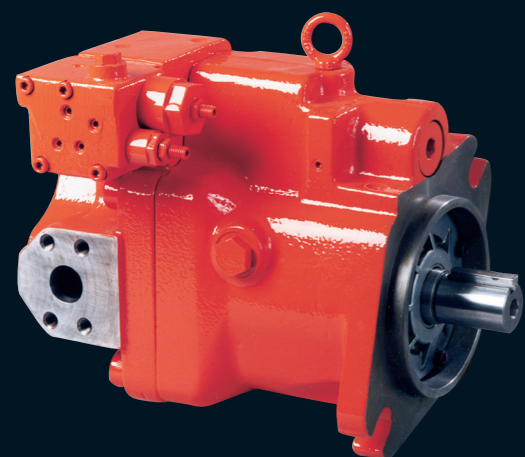


# K3VL Pump Range\*

Product Specification

PUMP MODEL		45		80		112		140		200													
Capacity		cc/rev		45		80		112		200													
Pressure Ratings	Rated	bar		320		320		320		320													
	Peak	bar		350		350		350		350													
Speed Ratings	Self Prime	rpm	2,700		2,400		2,200		2,100		1,900												
	Max. Boosted	rpm	3,250		3,000		2,700		2,500		2,200												
Minimum Operating Speed		rpm	600		600		600		600		600												
Case Drain Pressure	Max. Continuous	bar	1		1		1		1		1												
	Peak	bar	4		4		4		4		4												
Weight	kg	25		35		65		65		95													
Case Fill Capacity	L	0.6		0.8		1.5		1.5		2													
Maximum Allowable Input Torque #1 (Basic Coupling Arrangement)		Nm	140	225	225	225	400	400	400	400	765	980	980	980	400	765	980	980	980	980	980	1800	
Mounting Flange	Type	SAE B	SAE B-B		ISO 100		SAE C		ISO 125		SAE D		ISO 180		SAE D		ISO 180		SAE E				
	Bolts	2		2		2		4		2		4		4									
Input Shaft	Type	SAE B-B		ISO 25mm		SAE C		ISO 32mm		SAE C		SAE C-C		SAE D		ISO 45mm		SAE D		SAE F			
	Form	Spline	Spline	Key	Key	Spline	Key	Key	Spline	Spline	Key	Key	Spline	Spline	Key	Key	Spline	Key	Spline	Key	Spline		
Allowable Through Drive Torque #2	SAE "A"	123																					
	SAE "B"	290		340																			
	SAE "B-B"	290		400				550															
	SAE "C"/"C4"			400				700														990	
	SAE "C-C"							700														990	
	SAE "D"							700														990	
SAE "E"																					990		
Temperature Range	Oc	-20 to +95																					
Viscosity Range	Cst	10 To 1,000																					
Max Allowable Contamination Level		20 / 18 / 15 ISO/DIS 4406 or SAE as 4059E Table 1 Class 9 (Nas1638 Class 9)																					

\* Please refer to the K3VL technical specification (P-1002) prior to application



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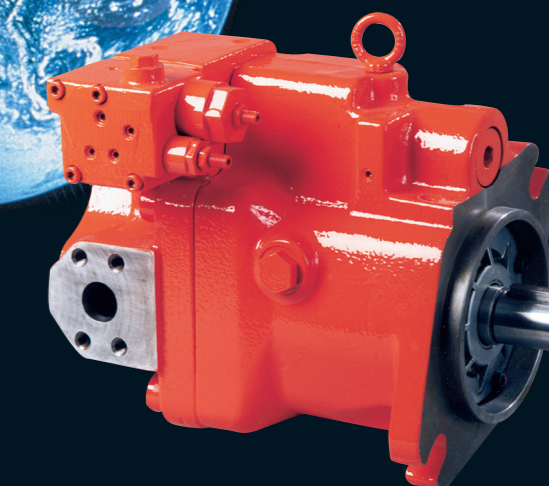
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MOVE FORWARD WITH KAWASAKI



# K3VL Series

Medium <sup>high</sup> pressure axial piston pump



ISO 14001  
Certification  
No. 0772945



ISO 9001  
Certification  
No. 891150

The right to modification for technical improvement is reserved.  
Printed in England 11/2011



## Move forward with Kawasaki

With over 100 years of experience in the hydraulic industry, Kawasaki is a world leader with some of the most advanced designs on the market. Kawasaki's hydraulic products are renowned world-wide for power, efficiency, quality and reliability.

Kawasaki has expertise in supplying hydraulic equipment for mobile, industrial, marine, and many other engineering applications where there is a requirement for reliable fluid power.

Kawasaki Precision Machinery (UK) Ltd is the Sales, Marketing and Manufacturing centre for Hydraulic components for Europe, India and the Middle East, Africa and Australia.

This European base is located on the banks of the River Tamar in Plymouth, Devon. The Modern Manufacturing facility produces a range of hydraulic components to include, Staffa High Torque Low speed Radial Piston Motors, Axial Piston Pumps, Axial Piston Motors.

Inward investment in personnel, training and machine tools has enabled a process of continuous improvement to accommodate both efficient and cost-effective manufacture and assembly of an extensive and highly competitive hydraulic product range.

Kawasaki strives to achieve a 'best in the marketplace' level of service. Gaining accreditation for Investors in People, ISO 9001 and ISO 14001 has enabled a highly motivated and flexible work force to adopt pioneering manufacturing techniques in making Kawasaki Hydraulic Products on short production lead times and with an enviable reputation for performance and reliability.

**Kawasaki Precision Machinery, the complete hydraulic solution.**

## K3VL<sup>B-SERIES</sup> Features & Benefits

### Through Drive Capability:

Standardised SAE interfaces and adaptor kits are provided for a variety of through drive options. The interface design typically ensures that a pump of similar power capacity can be mounted thereby providing a highly flexible build capability.

### Torque Limiter Control Option:

A separate dual spring type torque limiter control is available which being internally ported to the dual spool regulator provides a highly compact extension to the control range.

### Solid Pistons:

Provides reduced dead volume under compression and thereby increased volumetric efficiency. New piston Shoe material and enables further improved wear characteristics.

### Large Opposed Stroking Pistons:

Reduces structural deflections and swash plate support loading. Their large size ensures optimal on stroking response characteristics.

### Pillow Type Support Mechanism:

The large Surface area and hydrostatic bearings on both the High and Low-pressure load surfaces reduces frictional loading and increases pump reaction times.

### Integral Dual Spool Regulator:

Dual spool controls provide a variety of highly responsive pressure and load sense regulator options which include unique, integrated unload and remote proportional pressure pilot options.

### Rigid Compact Structure:

The small exposed surface area of this unit, combined with its rigid structure, significantly reduces structural vibration and consequent airborne noise emissions.

### Piston Shoes:

Shoe material selected to offer improved wear characteristics and increases the capability with the use of biodegradable and other fluids.

### Spherical Valve Plate\*:

The Balanced Spherical valve plate ensures ideal cylinder block contact and provides excellent axial stability, reduced bearing reaction force and a high self-priming speed capability. The K3VL B series provides optimised valve timing at the points of pressure increase and decrease, and a subsequent reduction in high frequency noise emissions.

### High Durability:

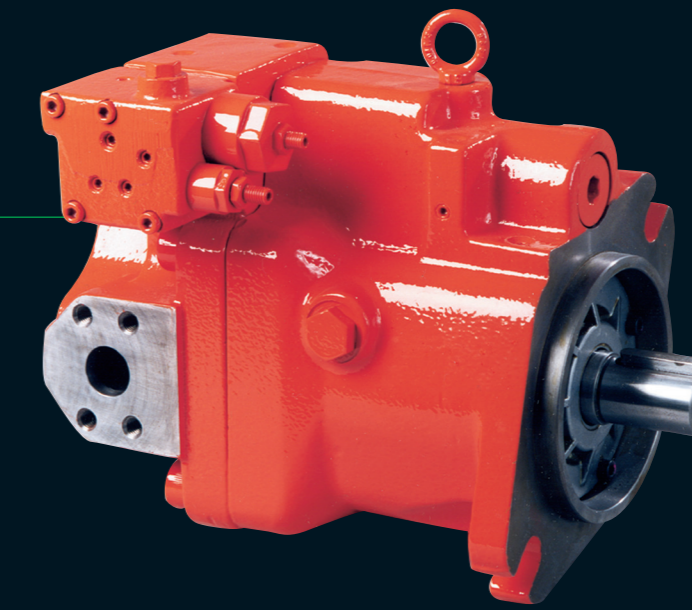
Equipped with heavy duty long life roller bearings, combined with the low resultant rotating group mechanism reaction force, provide an extremely durable, pump package.

### Self Compensating Piston Return Mechanism\*:

Individual springs ensure consistent shoe contact with the swash plate, allowing 320 bar continuous running capability and minimal wear so ensuring a long maintenance free service life.

\*Except the K3VL45 model

## Kawasaki Medium<sup>HIGH</sup> Pressure Axial Piston Pump



The K3VL series of axial piston pumps incorporates the latest pump technology from Kawasaki. Building on the success of the proven and highly reliable K3V range the K3VL series was developed for the global Marine, Mobile and Industrial markets where low noise emissions, high efficiency, controllability, flexibility, reliability and extended pump life are all considered essential.

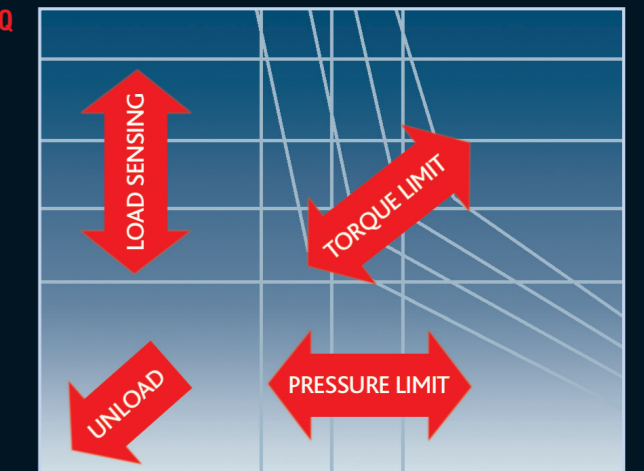
Pioneering technology has been employed in the design of the spherical valve plate, material composition and hydrostatic bearing techniques to enable many market leading features.

The K3VL offers a highly efficient, compact design with through drive capability, high self priming speeds, and with a 320 bar continuous pressure rating it is very robust and reliable.

The K3VL B series comes with an extensive range of integral control options enabling exceptional overall specification and performance.

Available in SAE and ISO mounting options the Kawasaki K3VL B series medium pressure, variable displacement open circuit pump provides customers with the opportunity to truly differentiate their machinery by selecting high performance hydraulic components from Kawasaki Precision Machinery.

## Control Options



- Pressure limiter and remotely operated pressure compensator combination (Type P0), with integral unload (Type PN\* & PM\*) and proportional relief remote control (Type PV\*)
- Pressure limiter and load sense combination (Type L0 & L1) with integral unload (Type LN\* & LM\*) and proportional relief remote control (Type LV\*)
- Torque limiter control (Type /1-S,L,M or H settings\*) which can be integrated with any of the foregoing combinations
- Electrical displacement control (Type E0\*)
- Hydraulic pilot operated displacement control (Type Q0\*)