Variable and Fixed Axial Piston Pumps



Standard With Every Oilgear Component

Every Oilgear product is shipped to you with our Performance Assurance - a corporate commitment to stay with your installations until our equipment performs as specified.

Hydraulic equipment and systems have been Oilgear's primary business since 1921. For decades, we have developed hydraulic techniques to meet the unique needs and unusual fluid power systems to tremendous range of applications and industries.

Our exclusive Performance Assurance program is built upon that strong foundation.

As a customer, you also benefit from access to Oilgear's impressive technical support network. You'll find factory trained and field-experienced applications engineers on staff at every Oilgear facility. They are backed by headquarters staff who can access the records and knowledge learned from decades of solving the most difficult hydraulic challenges.

When your design or purchase is complete, our service is just beginning. If you ever need us, our Oilgear engineers will be there, ready to help you with the education, field service, parts and repairs to assure that your installation runs smoothly - and keeps right on running.

Online Pump Configurator

Available on line @ Oilgear.com

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When Uptime is Critical

Oilgear variable-displacement, axial-piston pumps thrive on low viscosity fluids. Unlike the competition, our pump are not limited by bearing life.

Featuring proprietary hard-on-hard technology in which the running surfaces exceed Rockwell 65, Oilgear pumps are some of the most rugged, longest lasting variable -displacement pumps on the market.

BASICS

Oilgear variable-displacement axial-piston pump enables high pressure, high horsepower precision control in a compact package.

In an axial-piston pump, the pistons and cylinder rotate around the center, longitudinal axis. The pistons and shoes move in and out of the cylinder because they are sliding upon a stationary, variable angle, swashblock.

As the pistons rotate, they alternate between being connected to an inlet port and an outlet port. As the pistons pass over the inlet port, they draw fluid into the piston chamber. As they move over the outlet port, they expel fluid from the piston chamber.

The rate at which the pistons are rotating is controlled by the mechanical rotational input on the pump shaft. The amount of fluid that is drawn into the piston chamber during a rotation is controlled by the angle of the swashblock.

All Oilgear pumps are designed to thrive on low-viscosity fluids, such as high water content and fire resistant fluids, like Skydrom[™], Stack Magic[™], Erifon[™], and 98/2.



THE OILGEAR ADVANTAGE

Hard-on-Hard

The most distinguishing component of our pumps is the patented "hard-on-hard" technology for our rotating group. With our proprietary design, your pump will have a greater resistance to contaminants, higher operations pressures, and the ability to work with low viscosity fluids. This unsurpassed durability can only be found in genuine Oilgear pumps.

Hydro-Dynamic

Most of the competition's axial-piston pumps rely on load-carrying, mechanical bearings to support the shaft and rotating group. Oilgear pumps, however, utilize a proprietary hydro-dynamic bearing. The cylinder barrel rides on a thin film of oil.

While other manufacturers are limited by their bearing life (i.e. B10), our hydro-dynamic bearing has no moving parts to wear out, allowing for an infinite bearing life.

Additionally, because there is no concern about contaminating a mechanical bearing, Oilgear pumps are able to run on a wide variety of tough fluids.

Sealed Front Shaft

In an Oilgear pump, the load is supported by the hydrodynamic bearing, not the shaft bearing. This allows for a sealed front shaft bearing.

Some advantages of this design approach include:

- Easy maintenance of shaft, bearing, and shaft seal
- Quick conversions (i.e. keyed to splined)
- Operation with special fluids
- Capable of being belt driven





PVWJ

LOW HORSEPOWER, OPEN LOOP, AXIAL PISTON PUMP FOR HIGH PERFORMANCE APPLICATIONS.



A cost-effective, rugged pump

The PVWJ is a variable-displacement, axial-piston pump with medium control response. The PVWJ thrives on low viscosity fluids and is available in a variety of control and porting options. It is designed to be cost-effective for your demanding applications.

PVWJ open loop, axial piston hydraulic pump by Oilgear are uniquely designed for enhanced stability and less maintenance in low- to medium horsepower applications. Incorporating static seals (o-ring), the PVWJ family of pumps reduces control noise and features a more aesthetic design.

Available in three frame sizes and ten displacements, PVWJ pumps allow for greater flexibility to selectively match pressure and capacity.

Ex II 2G ATEX Certificate available for this pump line!

FRAME		LEN	GTH	l Wi	DTH	HEI	GHT	WEI	GHT	l -
SIZE	UNIT SIZE	in.	mm.	in.	mm.	in.	mm.	lbs.	kg.	FACE MOUNTING
А	011, 014, 022	7.20	182,9	4.32	109,7	4.50	114,3	32	14,5	SAE "A" 2 Bolt
В	025, 034, 046	8.50	215,9	5.80	147,3	6.11	155,2	68	30,9	SAE "B" 2 Bolt
С	064, 076, 098, 130	10.44	265,2	6.76	171,7	7.18	182,4	103	46,8	SAE "C" 2 Bolt

Nominal Dimensions

Nominal Performance Specification

EDAME	UNIT	Theof Max Displa	retical Imum Cement	RAT Contin Pres	TED NUOUS SURE	PE PRES	AK SURE	FLOV at 1800 cont. pr 14.7 psi inlet co	/ RATE rpm, rated ressure & (bar _{abs}) onditions	MINIM	UM INLET PI psia (bar)	RESSUF	E	Maximum Speed*	POWEF at rate press 180/	R INPUT ed cont. sure & D rpm
SIZE	SIZE	in ³ /rev	ml/rev	psi	bar	psi	bar	gpm	l/min	1200 rpm	1500 rpm	1800	rpm	rpm	hp	kw
A	011	0.66	10,8	5000	344,8	5800	400,0	4.2	15,9	5.4 (,37)	5.7 (,39)	6.1	(,42)	3000	16.3	12,2
	014	0.86	14,1	4000	275,9	4500	310,3	5.9	22,4	5.5 (,38)	5.9 (,41)	6.4	(,44)	3000	17.7	13,2
	022	1.35	22,1	3000	206,9	3500	241,4	9.5	36,0	5.5 (,38)	6.0 (,41)	7.0	(,48)	3000	20.2	15,1
В	025	1.55	25,4	5000	344,8	5800	400,0	10.9	41,3	7.0 (,48)	7.3 (,50)	8.2	(,57)	3000	36.5	27,2
	034	2.06	33,8	3500	241,4	4000	275,9	14.7	55,7	7.0 (,48)	7.6 (,52)	8.4	(,58)	3000	35.5	26,5
	046	2.83	46,4	2500	172,4	3000	206,9	20.6	78,1	7.2 (,50)	7.9 (,54)	9.0	(,62)	2400	35.0	26,1
C	064	3.88	63,6	5000	344,8	5800	400,0	27.4	103,8	7.6 (,59)	8.5 (,59)	9.5	(,66)	2400	95.1	70,9
	076	4.67	76,5	3500	241,4	4000	275,9	33.7	127,7	8.0 (,55)	8.6 (,59)	9.6	(,66)	2400	80.4	60,0
	098	6.00	98,3	2500	172,4	3000	206,9	43.3	164,1	7.6 (,52)	8.6 (,59)	9.8	(,68)	2400	74.1	55,3
	130	7.94	130,2	1500	103,4	2000	137,9	58.2	220,3	8.0 (,55)	9.3 (,64)	14.5	(1,00)	1800	64.0	48,8

PVWC

LOW HORSEPOWER, CLOSED LOOP, AXIAL PISTON PUMP FOR HIGH PERFORMANCE APPLICATIONS.

The closed-loop pump for low-viscosity fluids

Rugged and tough, PVWC closed-loop, hydrostatic, axial-piston hydraulic pumps by Oilgear offer low horsepower for highperformance applications. Designed around Oilgear's proven rotating group, the PVWC pump combines quiet operation, high efficiency and competitive pricing in a compact design.

PVWC variable displacement pumps feature a large line of controls with several types of mechanical, hydraulic, and electrohydraulic service valve controls which permit easy field interchangeability.

Capable of operating with low-viscosity or other special fluids, and with excellent contamination resistance properties, PVWC pumps feature a hardened cylinder surface running on a hardened valve plate, and pistons that run on a hardened swashblock surface.

Nominal Dimensions

FRAME		LEN	GTH	WI	DTH	HEI	GHT	WEI	GHT	
SIZE	UNIT SIZE	in.	mm.	in.	mm.	in.	mm.	lbs.	kg.	FACE MOUNT
А	022	10.60	269,2	5.12	130	7.53	191,3	38.14	17,3	SAE "A" 2 Bolt
В	022	10.60	269,2	5.12	130	7.53	191,3	38.14	17,3	SAE "B" 2Bolt

Nominal Performance Specification

	THEOR MAX DISPLA	RETICAL IMUM CEMENT	RAT CONTII PRESS	TED NUOUS SURE	PE PRES 10% of d	AK SURE lutycycle	PE PRES	AK SURE	FLOW at 1800 r cont. pr 14.7 psi inletco	r RATE pm, rated essure & (bar _{abs}) nditions	MAXIMUM CONTINUOUS SPEE D
SIZE	in ³ /rev	ml/rev	psi	bar	psi	bar	psi	bar	gpm	l/min	rpm
022	1.35	22,1	3000	207	3500	241	5000	350	8.5	32,2	3600





PVG

MEDIUM HORSEPOWER, OPEN LOOP, AXIAL PISTON PUMP FOR HIGH PERFORMANCE APPLICATIONS.

An extremely responsive high-speed pump

The PVG is a variable-displacement, axialpiston pump with control response. The PVG thrives on low viscosity fluids and is available in a variety of control and porting options. It is designed to be a high-performance solution for your demanding applications.

PVG open loop, axial piston hydraulic pumps by Oilgear offer high-pressured and superior performance in a compact design. PVG pumps provide an almost instantaneous response to system commands through a high-response fourway pilot-operated control - a first for this size and price of pump.

PVG pumps feature Oilgear's advanced "hardon-hard" rotating system that provides longer operational life, resistance to contamination, and allows for operation with low-viscosity or other special fluids.

	LEN	GTH	WI	DTH	HEI	GHT	WEI	GHT	
UNIT SIZE	in.	mm.	in.	mm.	in.	mm.	lbs.	kg.	FACE MOUNTING
048, 065 & 075	12.0	303,9	6.9	174,5	6.3	160,4	68	31	SAE "B" 2 & 4 Bolt
100 & 130	13.0	330,5	8.4	212,9	7.3	185,7	110	50	SAE "C" 2 Bolt
150 & 180	14.2	360,7	7.9	200,7	8.1	205,7	171	78	SAE "D" 4 Bolt

Nominal Dimensions

Nominal Performance Specification

UNIT	THEOF Max Displa	Retical Imum Cement	RAT Contin Press	'ED IUOUS SURE	PE PRES	eak Ssure	FLOV at 1800 cont. pi 14.7 psi inlet co	V RATE rpm, rated ressure & (bar abs) onditions	Maximum Speed	POWEF at rate press 1800	R INPUT d cont. sure &) rpm
SIZE	in ³ /rev	ml/rev	psi	bar	psi	bar	gpm	l/min	rpm	hp	kw
048	2.93	48,0	5000	344,8	5800	400,0	21.1	79,9	2700	73	54,5
065	3.98	65,0	5000	344,8	5800	400,0	28.8	108,9	2700	100	74,6
075	4.60	75,4	3750	258,6	4250	293,1	33.3	126,0	2700	89	66,4
100	6.00	98,3	5000	344,8	5800	400,0	42.4	160,5	2400	150	111,9
130	7.94	130,2	3750	258,6	4250	293,1	57.6	218,0	2400	150	111,9
150	9.16	150,0	5000	344,8	5800	400,0	63.0	238,5	2400	215	160,4
180	10.98	180,0	5000	344,8	5800	400,0	78.0	295,5	2200	260	193,9

HIGH HORSE POWER, OPEN LOOP, AXIAL PISTON PUMP FOR HIGH PERFORMANCE APPLICATIONS.

P, **PVV** H S.



The flagship, high-horsepower pump

The PVV line of Oilgear pumps represents the pinnacle of performance in a variabledisplacement, axial-piston pump. Pressure and flow demands continue to rise for our customers. The PVV is a pump that rises to the challenge.

Designed for power and speed, PVV open-loop, axial-piston hydraulic pumps by Oilgear deliver the punch that is required for large, heavy-duty systems. Utilizing advanced engineering, the PVV pump line delivers up to 560 horsepower - four times the horsepower at approximately one third the cost of other models.

PVV pumps offer a large selection of controls that are readily interchangeable. With improved high-response controls and reduced noise levels, the rugged cylinder design of the PVV pump enhances optimal performance.

Nominal Dimensions

	LEN	GTH	WI	DTH	HEI	HEIGHT WEIGHT		GHT	FACE MOUNTING
UNIT SIZE	in.	mm.	in.	mm.	in.	mm.	lbs.	kg.	FLANGE Bolt Circle
200 & 250	20.78	527,7	16.31	414,3	11.82	300,2	355	161	ISO 200 4 Bolt/SAE "E"
440	22.5	647,7	22.8	577,9	15.50	393,7	750	340	ISO 250 4 Bolt
540	28.15	715	21.62	549,1	15.19	385,8	735	333	ISO 250 4 Bolt

Nominal Performance Specification

RATED FLOW AT CONTINUOUS RATED PRESSURE

	1 THEOR	ETICAL	i RAT	TED	1		l I												1
	MAXI	MUM	CONTI	NUOUS	PE	AK			Ν	ON-SUPE	RCHARC	ied				SUPERC	HARGED)	MAXIMUM
UNIT	DISPLAC	EMENT	PRES	SURE	PRESS	SURE	1000) rpm	1200) rpm	1500) rpm	1800	rpm	1500	rpm	1800) rpm	SPEED
SIZE	in ³ /rev	ml/rev	psi	bar	psi	bar	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	rpm
200	12.20	200	6092	420	6500	450	47	178	58	219	72	273	86	326	72	273	86	326	1800
250	15.26	250	5076	350	5800	400	59	223	72	273	91	344	109	413	91	344	109	413	1800
440	26.28	440	6527	450	7250	500	104	394	125	473	—	—	—	—	158	600	—	—	1500
540	33.00	540	5076	350	5800	400	129	488	155	587	*	*	—	—	194	737	—	—	1500







PFBA

HIGH PRESSURE, HEAVY DUTY, OPEN LOOP MULTIPLE FIXED **DELIVERY PUMP** (rated up to 1000 bar)



Nominal Dimensions

	LEN	GTH	WI	OTH	HEI	HEIGHT		GHT
UNIT SIZE	in.	mm.	in.	mm.	in.	mm.	lbs.	kg.
02 - 8	13.6	346	8.3	211	8.3	211	99	45

Nominal Performance Specification

RATED

CONTINUOUS

14500 1000

bar

1000

1000

1000

700

420

PRESSURE

psi

14500

14500

6000

6000

THEORETICAL

MAXIMUM

DISPLACEMENT

in³/rev ml/rev

0.564 9,25

3

4,5

9

0.839 13,75 6000

18,5

0.183

0.275

0.549

1.129

UNIT

SIZE

PFBA02

PFBA2

PFBA2/2

PFBA4

PFBA6

PFBA8

- Inlet and Delivery Check Valves are Positively • Seated for High Efficiency
- Hardened Steel Pistons Located in Stationary • Cylinder Allow for High-Speed Operation
- Integral Supercharge Pump
- Thru Drive Available .
- Rugged, High-response, Lightweight Poppet Construction Assures Long Life
- Multiple Deliveries





DUTY, OPEN LOOP MULTIPLE FIXED DELIVERY PUMP (rated up to 1000 bar)

HIGH PRESSURE, HEAVY

Nominal Dimensions

	LEN	GTH	WI	OTH	HEIGHT		WE	GHT
UNIT SIZE	in.	mm.	in.	mm.	in.	mm.	lbs.	kg.
033-065	23.3	593	14.4	366	14.1	359	423	210
							with Foc	t Mount

OILGEAR

Nominal Performance Specification

- Inlet and Delivery Check Valves are Positively Seated for High Efficiency
- Cartridge Construction Inlet and Delivery Valves Allow for Easy Maintenance
- Hardened Steel Pistons Located in Stationary Cylinder Allow for High-Speed Operation
- Optional Integral Super Charge Pump
- Hydrodynamic Thrust Bearing
- Rugged, High-Response, Lightweight Poppet **Construction Assures Long Life**
- Single or Double Discharge
- Multiple Deliveries
- Thru Drive Available

UNIT	THEORI MAXI DISPLAC	etical Mum Cement	RAT CONTIN PRESS	'ED IUOUS URE
SIZE	in ³ /rev	ml/rev	psi	bar
PFBK033	0.183	3	14500	1000
PFBK043	0.275	4,5	10000	700
PFBK052	0.549	9	10000	700
PFBK065	0.564	9,25	6000	420

HIGH PRESSURE, HEAVY DUTY, OPEN LOOP MULTIPLE FIXED DELIVERY PUMP (rated up to 1000 bar)



Nominal Dimensions

	LENGTH		WIDTH		HEIGHT		WEIGHT	
UNIT SIZE	in.	mm.	in.	mm.	in.	mm.	lbs.	kg.
066-130	32.4	823	20.6	522	14.4	367	681	287
							with Foo	t Mount

Nominal Performance Specification

- Inlet and Delivery Check Valves are Positively Seated for High Efficiency
- Cartridge Construction Inlet and Delivery Valves Allow for Easy Maintenance
- Hardened Steel Pistons Located in Stationary Cylinder Allow for High-Speed Operation
- Optional Integral Supercharge Pump
- Hydrodynamic Thrust Bearing
- Rugged, High-Response, Lightweight Poppet Construction Assures Long Life
- Single or Double Discharge
- Overload Sensing Device
- Multiple Deliveries
- Thru Drive Available

	i i heori		RAIED			
	MAXI	MUM	CONTINUOUS			
UNIT	DISPLAC	EMENT	PRESSURE			
SIZE	E in ³ /rev ml/re		psi	bar		
PFCM066	4.26	26 69,8 14		1000		
PFCM086	5.46	89,5	10000	700		
PFCM104	6.66	109,2	10000	700		
PFCM130	8.34	136,7	6000	420		

HIGH PRESSURE, HEAVY DUTY, OPEN LOOP MULTIPLE FIXED DELIVERY PUMP (rated up to 700 bar)

Nominal Dimensions

	LENGTH		WIDTH		HEIGHT		WEIGHT	
UNIT SIZE	in.	mm.	in.	mm.	in.	mm.	lbs.	kg.
440-580	46.42	1179	24.57	624	22.72	577	2469	1120

- Inlet and Delivery Check Valves are Positively Seated for High Efficiency
- Cartridge Construction Inlet and Delivery Valves Allow for Easy Maintenance
- Hardened Steel Pistons Located in Stationary Cylinder Allow for High-Speed Operation
- Hydrostatically Balanced Piston Shoe Design
- Double Sided Counterbalanced Swashblock
 with Replaceable Thrust Plates
- Multiple Deliveries
- Overload Sensing Device
- Thru Drive Available

Nominal Performance Specification

FCS

LINIT	THEORI MAXI DISPLAC	etical Mum Cement	RATED CONTINUOUS PRESSURE		
SIZE	in ³ /rev	ml/rev	psi	bar	
PFCS440	28.6	468	10000	700	
PFCS580	35.8	587	7250	500	



The low-viscosity pumping company

The Oilgear line of pumping products is focused on extreme reliability when pumping high water content fluids (HWCF, HWBF) or alternative fluids at high pressure. Below is a partial listing of challenging applications and fluids for which the Oilgear pump product line has proven successful.

Oilgear pumps are some of the most reliable pumps available for classic hydraulic media. For the sake of brevity, classic hydraulic fluids are not listed here.

Listed below are examples of compatible fluids by industry.

FLUID COMPATIBILITY EXAMPLES – INDUSTRIAL						
Application	Fluid Category	Fluid Type	Duty Cycle	Verified Pump Product Lines		
Press Control	Water-Based	Hydrolubric® 120-B	Continuous	PFBA, PFBK, PFCM, PFCS		
Metal Forming	Water-Glycol	lrus®	Continuous	PVWJ, PVG, PVV, PFBA, PFBK, PFCM, PFCS		
Machining	Fatty Oil	Honilo®	Continuous	PVWJ, PVG		
Nuclear Power	Triaryl Phosphate Ester	Fyrquel®	Continuous	PVWJ, PVG, PVV, PFBA, PFBK, PFCM, PFCS		
Nuclear Power	Triaryl Phosphate Ester	Houghto-Safe® 1120	Continuous	PVWJ, PVG, PVV, PFBA, PFBK, PFCM, PFCS		
FLUID COMPATIBILITY	EXAMPLES - MARINE / (OFFSHORE				
Application	Fluid Category	Fluid Type	Duty Cycle	Verified Pump Product Lines		
Motion Compensation	Water-Glycol	Houghto-Safe®	Intermittent	PVWJ, PVG, PVV, PFBA, PFBK, PFCM, PFCS		
Vessel HPU	Polyalkylene Glycol (PAG)	UCON® Trident®	Continuous	PVWJ, PVG		
Controllable Pitch Propeller	Synthetic	Aware™	Continuous	PVWJ, PVG, PVV, PFBA, PFBK, PFCM, PFCS		
Painting	Polymer	Polyurethane	Intermittent	PVWJ, PVG		

Available with ATEX certificate:

PVWJ Ex II 2G ATEX

Certificate

FLUID COMPATIBILITY	EXAMPLES – AEROSPA			
Application	Fluid Category	Fluid Type	Duty Cycle	Verified Pump Product Lines
Jet Fuel	Petroleum	Kerosene	Intermittent	PVWJ, PVG
Aviation Hydraulics	Phosphate-Ester	Skydrol®	Continuous	PVWJ, PVG, PVV, PFBA, PFBK, PFCM, PFCS
Jet Fuel	Petroleum	RP-1	Intermittent	PVWJ, PVG
FLUID COMPATIBILITY	EXAMPLES – SUBSEA			
Application	Fluid Category	Fluid Type	Duty Cycle	Verified Pump Product Lines
Managed-Pressure Drilling	Water-Glycol	Oceanic®	Intermittent	PVWJ, PVG, PFBA, PFBK, PFCM, PFCS
BOP / Control Fluid	Water-Glycol	Stack Magic®	Intermittent	PVWJ, PVG, PFBA, PFBK, PFCM, PFCS
ROV BOP Intervention	Water-Glycol	Erifon®	Intermittent	PVWJ, PVG, PFBA, PFBK, PFCM, PFCS
BOP / Control Fluid	Water-Glycol	Pelagic®	Intermittent	PVWJ, PVG, PFBA, PFBK, PFCM, PFCS
FLUID COMPATIBILITY	- MOBILE MACHINERY			
Application	Fluid Category	Fluid Type	Duty Cycle	Verified Pump Product Lines
Hydraulic / Transmission	Mineral Oil	Hy-Gard™	Continuous	PVWJ, PVG, PVV, PFBA, PFBK, PFCM, PFCS
Lawn Care	Seed Oil	GreensCare™	Continuous	PVWJ, PVWC, PVG
Automatic Transmission	Varies	ATF	Continuous	PVWJ, PVWC, PVG
Automatic Transmission	Synthetic	Dexron™	Continuous	PVWJ, PVWC, PVG

EXAMPLE APPLICATIONS

The ability of our pumps to thrive on environmentally friendly, high-water content fluids has caused the Oilgear name to become linked to a number of fluid brands, such as Skydrol®, Houghto-Safe®, Erifon®, Stack Magic®, Pelagic®, and Oceanic®.





Pressure Compensator

Ensures maximum pump flow until unit reaches preset control pressure setting then regulates output flow to match the requirements of the system while maintaining preset output pressure.



Dual Pressure Compensator

Provides two independently adjustable pressure compensated settings as selected by an integral solenoid.



Low Pressure Compensator

Works the same as the Pressure Compensator Control except it provides a lower minimum pressure. Can be adjusted from 250 psi working pressure up to a maximum of 1500 psi.



Load Sensing

A constant flow output is maintained for a given flow control valve setting regardless of changes in drive speed and/or working pressure.





Dual Pressure Compensator with Load Sensing

Maintains a constant flow rate at up to either of two independently adjustable pressures as selected by an integral solenoid.



Soft Start Pressure Compensator

Pump starts "softly" by going quickly at low pressure to a reduced flow setting, thereby reducing start-up torque requirements.



High-Low Pressure Compensator

Ensures maximum pump flow until unit reaches preset control pressure setting, then destrokes the pump to provide an adjustable minimum preset flow rate regardless of system pressure.

PUMP CONTROLS



Load Sense Plus

A constant flow output is maintained for a given flow control valve setting regardless of change in drive speed and/ or working pressure. The Load Sense Plus control enables the user to externally adjust the minimum pressure setting without affecting the load sense differential.



Horsepower Limiter

Automatically reduces delivery, as unit pressure rises, to limit horsepower consumption.



Horsepower Limiter with Load Sensing

Load sensing control matches flow and pressure to load demand until (limited) horsepower setting is reached. Control then automatically reduces delivery as unit pressure rises.



Horsepower Limiter with Load Sensing Plus

Load sensing control matches flow and pressure to load demand until (limited) horsepower setting is reached. Control then automatically reduces delivery as unit pressure rises. The Load Sense Plus control enables the user to externally adjust the minimum pressure setting without affecting the load sense differential.



Dual Pressure Compensator with Horsepower Limiter

Provides two independently adjustable pressure compensated settings as selected by an integral solenoid. Automatically reduces delivery, as unit pressure rises, to limit horsepower consumption. 15



Soft Start Pressure Compensator with Horsepower Limiter

Pump starts "softly" by going quickly at low pressure to a reduced flow setting, thereby reducing start up torque requirements. Automatically reduces delivery, as unit pressure rises, to limit horsepower consumption.

Electronic Displacement Control (EDC)

Pump displacement is linearly proportional to an electrical input. An increase in coil current will decrease pump displacement. Pressure compensator control overrides the EDC when preset control pressure setting is reached, then regulates output flow to match the requirements of the system while maintaining preset output pressure.

Electronic Displacement Control (EDC) with Load Sensing

Pump displacement is linearly proportional to an electrical input. An increase in coil current will decrease pump displacement. Load sensing control overrides the EDC and a constant flow output is maintained for a given flow control valve setting regardless of changes in drive speed and/ or working pressure. Pressure compensator control overrides the EDC when preset control pressure setting is reached, then regulates output flow to match the requirements of the system while maintaining preset output pressure.

Electronic Proportional Pressure Compensator

Provides an infinite number of independent, remotely adjustable pressure settings in response to an electrical command.



CURRENT

FLOW

16



Oílgear

Handwheel

Provides simple manual handwheel adjustment of delivery.

Fixed Displacement

Pump stroke (displacement) is locked in place and cannot be adjusted (changed).

Lever Operated with Neutral Bypass

Varies displacement proportional to rotation of a pintle which is equipped with a "neutral" bypass to prevent creep when centered.

Lever Operated

Varies displacement proportional to the rotation of a pintle.

Electronic Servo Valve

An electrohydraulic servo valve positions the swashplate mechanisms with a closed loop position control (with LVDT feedback) providing high accuracy remote variable delivery control.

Proportional Electrical Control

A proportional DC coil controls a pilot control that provides infinitely variable displacement control.

Remote Pressure Operator

Remote control module can be used with most pressure controls. The control itself may be mounted remote from the pump and convenient to the operator for ease of adjustment.







Control Style	PVWJ	PVG	PVV
Single Pressure Compensator	P-1NN	P-1NN	P-1NN
Single Low Pressure Compensator	P-LNN		
Single Pressure Compensator w/Fixed Load Sense	P-1NN/F		
Single Pressure Compensator w/Adjustable Load Sense		P-1NN/F	P-1NN/F
Single Pressure Compensator w/Adjustable Load Sense	P-1NN/J, P-1NN/K		
Single Pressure Compensator w/Horsepower Limiter	P-1NN/H	P-1NN/H	P-1NN/H
Single Pressure Compensator w/Horsepower Limiter w/Fixed Load Sense		P-1NN/G	P-1NN/G
Single Pressure Compensator w/Load Sense Plus		P-1NN/K	
Single Pressure Compensator w/Horsepower Limiter w/Load Sense Plus		P-1NN/L	
Single Pressure Soft Start (N.O)	P-C	P-C	P-C
Single Pressure Soft Start (N.C)	P-K	P-K	P-K
Single Pressure Soft Start w/Horsepower Limiter		P-CXX/H	P-CXX/H
Single Pressure Soft Start w/Load Sense			P-CXX/F
Dual Pressure Soft Start			P-DXX
Single Pressure Soft Start w/Horsepower Limiter w/Load Sense			P-CXX/G
Dual Pressure Compensator	P-2	P-2	P-2
Dual Pressure Compensator w/Horsepower Limiter		P-2XX/H	
Triple Pressure Compensator			P-3
Triple Pressure Soft Start			P-EXX
Electronic Proportional Pressure Compensator			P-ANX (N.O) P-BNX (N.C)
Electronic Displacement Control (EDC), Increasing Voltage to Decrease Flow		P-E	
EDC, w/Fixed Load Sense, Increasing Voltage to Decrease Flow		P-E/F	
EDC, Increasing Voltage to Increase Flow		P-F	
EDC w/Fixed Load Sense, Increasing Voltage to Increase Flow		P-F/F	
Remote Pressure Compensator			P-RXX
Remote Pressure Compensator w/Horsepower Limiter			P-RXX/H

VARIABLE AXIAL PISTON PUMPS

Pressure Controls

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Displacement Displacement Controls Re So Pro

ked Delivery			F
anual Handwheel	M-H		
anual Lever Operated	M-N, M-S		
Stage Servo Valve		V-S	V-S
ngle Stage Servo Valve		V-M	V-M
mote Electronic Servo Valve			V-R
lenoid Operated Two Volume			R-U
oportional Force Amplifier			А

Standard Control

Available Upon Request

Not Available

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