

Oilgear

PUMP REFERENCE GUIDE



Table of Contents

PWWJ Pumps	page 3
PVG Pumps	page 4
PVM Pumps	page 5
PVWW Pumps	page 6
PVW Pumps	page 7
PVK Pumps	page 8
PVWC Pumps	page 9
PFBA Pumps	page 10
PFBK Pumps	page 11
PFCM Pumps	page 12
PFCS Pumps	page 13
Pump Controls	page 14-18
Controls Available	page 19

Information in this bulletin subject to change without notice. Current versions of the documents referenced in this bulletin may have a letter at the end to denote the revision level. The latest release of any document, including this one, can be found on the Oilgear web site or by contacting your Oilgear representative.

PVWJ pumps



- Multiple Frame Sizes Available
- Multiple Displacements, Each Frame Size
- Controls Readily Interchanged
- Proven Rotating Group Design
- Rugged Cylinder Design
- Hardened Cylinder on Hardened Valve Plate
- Cylinder Mounted in Polymerous Journal Bearing
- Swashblock Mounted in Polymerous Saddle Bearing
- Lubricated Swashblock
- Steel Piston Shoes on Hardened Surface
- Valve Plate Ported Rear or Top and Bottom
- Quiet Valve Plate
- Sealed Front Bearings
- SAE Heavy-Duty Shaft
- Thru Shaft Available
- High Pressure Relief Valve Available

Low horsepower, open loop,
axial piston pump for high
performance applications.



Oilgear PVWJ Pumps

Nominal Dimensions

FRAME SIZE	UNIT SIZE	LENGTH		WIDTH		HEIGHT		WEIGHT		FACE MOUNTING
		in.	mm.	in.	mm.	in.	mm.	lbs.	kg.	
A	011, 014, 022	7.20	182,9	4.32	109,7	4.50	114,3	32	14,5	SAE "A" 2 Bolt
B	025, 034, 046	8.50	215,9	5.80	147,3	6.11	155,2	68	30,9	SAE "B" 2 Bolt
C	064, 076, 098, 130	10.44	265,2	6.76	171,7	7.18	182,4	103	46,8	SAE "C" 2 Bolt

Nominal Performance Specifications

FRAME SIZE	UNIT SIZE	THEORETICAL MAXIMUM DISPLACEMENT		RATED CONTINUOUS PRESSURE		PEAK PRESSURE		FLOW RATE at 1800 rpm, rated cont. pressure & 14.7 psi (bar abs) inlet conditions		MINIMUM INLET PRESSURE psia (bar)			MAXIMUM SPEED*	POWER INPUT at rated cont. pressure & 1800 rpm	
		in ³ /rev	ml/rev	psi	bar	psi	bar	gpm	l/min	1200 rpm	1500 rpm	1800 rpm		rpm	hp
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
B	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

*Higher speeds available — consult factory.
For Complete Information, See Bulletin 47085.

PVG pumps



Medium horsepower,
open loop, axial piston pump for
high performance applications.

- Multiple Frame Sizes Available
- Multiple Displacements, Each Frame Size
- Large Control Selection
- Controls Readily Interchanged
- Proven Rotating Group Design
- Rugged Cylinder Design
- Hardened Cylinder on Hardened Valve Plate
- Cylinder Mounted in Polymerous Journal Bearing
- Swashblock Mounted in Polymerous Saddle Bearing
- Lubricated Swashblock
- Steel Piston Shoes on Hardened Surface
- Valve Plate Ported Rear or Top and Bottom
- Quiet Valve Plate
- Sealed Front Bearings
- SAE Heavy-Duty Shaft
- Thru Shaft Available
- High Pressure Relief Valve Available

Nominal Dimensions

UNIT SIZE	LENGTH		WIDTH		HEIGHT		WEIGHT		FACE MOUNTING
	in.	mm.	in.	mm.	in.	mm.	lbs.	kg.	
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	14.2	360,7	7.9	200,7	8.1	205,7	171	78	SAE "D" 4 Bolt

Nominal Performance Specifications

UNIT SIZE	THEORETICAL MAXIMUM DISPLACEMENT		RATED CONTINUOUS PRESSURE		PEAK PRESSURE		FLOW RATE at 1800 rpm, rated cont. pressure & 14.7 psi (bar abs) inlet conditions		MAXIMUM SPEED rpm	POWER INPUT at rated cont. pressure & 1800 rpm	
	in ³ /rev	ml/rev	psi	bar	psi	bar	gpm	l/min		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

For Complete Information, See Bulletin 47019.

PVM pumps



- Multiple Frame Sizes Available
- Multiple Displacements, Each Frame Size
- Lubricated Saddle Bearing
- Proven Rotating Group Design
- Rugged Cylinder Design
- Hardened Cylinder on Hardened Port Plate
- Cylinder Mounted in Polymerous Journal Bearing
- Swashblock Mounted in Composite Material Saddle Bearing
- Steel Piston Shoes on Hardened Surface
- Sealed Front Bearings
- SAE Heavy-Duty Spline and Keyed Shafts
- Thru Shaft Available

Value-engineered, open loop
axial piston pump for high
performance applications.

Nominal Dimensions

FRAME SIZE	UNIT SIZE	LENGTH		WIDTH		HEIGHT		WEIGHT		FACE MOUNT
		in.	mm.	in.	mm.	in.	mm.	lbs.	kg.	
A	011, 014 & 022	7.95	201,9	7.28	184,9	6.63	168,4	37.5	17,0	SAE "A" 2 Bolt
B	025, 034 & 046 065 & 075	9.51	241,5	9.00	228,6	8.88	225,6	73.0	33,1	SAE "B" 2/4 Bolt
		10.00	254,0	9.03	229,4	8.88	225,6	75.0	34,0	
C	064, 076, 098 & 130	11.91	302,5	10.73	272,5	10.45	265,4	136.0	61,7	SAE "C" 2/4 Bolt

Nominal Performance Specifications

FRAME SIZE	UNIT SIZE	THEORETICAL MAXIMUM DISPLACEMENT		RATED CONTINUOUS PRESSURE		PEAK PRESSURE		FLOW RATE at 1800 rpm, rated cont. pressure & 14.7 psia (1.0 bar) inlet conditions		MINIMUM INLET PRESSURE psia (bar)			MAXIMUM SPEED rpm	POWER INPUT at rated cont. pressure & 1800 rpm	
		in ³ /rev	ml/rev	psi	bar	psi	bar	gpm	l/min	1200 rpm	1500 rpm	1800 rpm		hp	kw
A	011	0.66	10,8	3750	258,6	4250	293,1	4.3	16,3	5.0 (.34)	5.3 (.37)	5.6 (.39)	3600	12.8	9,5
	014	0.86	14,1	3750	258,6	4250	293,1	5.8	22,0	5.0 (.34)	5.0 (.34)	5.5 (.38)	3600	16.4	12,1
	022	1.35	22,1	3750	258,6	4250	293,1	9.5	36,0	6.6 (.46)	7.6 (.52)	8.6 (.60)	3600	26.1	19,5
B	025	1.55	25,4	3750	258,6	4250	293,1	10.1	38,2	5.0 (.34)	5.0 (.34)	6.5 (.45)	2700	28.8	21,5
	034	2.06	33,8	3750	258,6	4250	293,1	14.1	53,4	5.0 (.34)	5.0 (.34)	5.7 (.40)	2700	37.7	28,1
	046	2.83	46,4	3750	258,6	4250	293,1	19.7	74,6	5.0 (.34)	5.0 (.34)	5.7 (.40)	2400	51.9	38,7
	065	4.00	65,5	3750	258,6	4250	293,1	27.9	105,6	5.0 (.34)	5.0 (.34)	6.2 (.43)	2700	71.0	52,9
	075	4.61	75,5	3750	258,6	4250	293,1	31.3	118,5	5.0 (.34)	5.0 (.34)	6.5 (.45)	2700	83.8	62,5
C	064	3.88	63,6	3750	258,6	4250	293,1	26.6	100,7	6.1 (.42)	6.2 (.43)	7.3 (.50)	2450	70.2	52,4
	076	4.67	76,5	3750	258,6	4250	293,1	32.4	122,6	6.2 (.43)	6.3 (.43)	8.2 (.57)	2450	85.7	63,9
	098	6.00	98,3	3750	258,6	4250	293,1	41.2	156,0	6.7 (.46)	7.1 (.49)	8.3 (.57)	2450	109.2	81,4
	130	7.94	130,2	3750	258,6	4250	293,1	57.8	218,8	6.7 (.46)	7.1 (.49)	8.7 (.60)	2450	150.8	112,5

For Complete Information, See Bulletin 47070.



Oilgear PVM Pumps

PVWW pumps



- Multiple Frame Sizes Available
- Multiple Displacements, Each Frame Size
- Large Control Selection
- Controls Readily Interchanged
- Proven Rotating Group Design
- Rugged Cylinder Design
- Hardened Cylinder on Hardened Valve Plate
- Cylinder Mounted in Polymerous Journal Bearing
- Swashblock Mounted in Polymerous Saddle Bearing
- Steel Piston Shoes on Hardened Surface
- Valve Plate Ported Rear or Top and Bottom
- Sealed Front Bearings
- SAE Heavy-Duty Shaft
- Thru Shaft Available
- High Pressure Relief Valve Available

Low horsepower, open loop,
axial piston pump for high
performance applications involving
fluids with low viscosity or
that contain water.

Nominal Dimensions

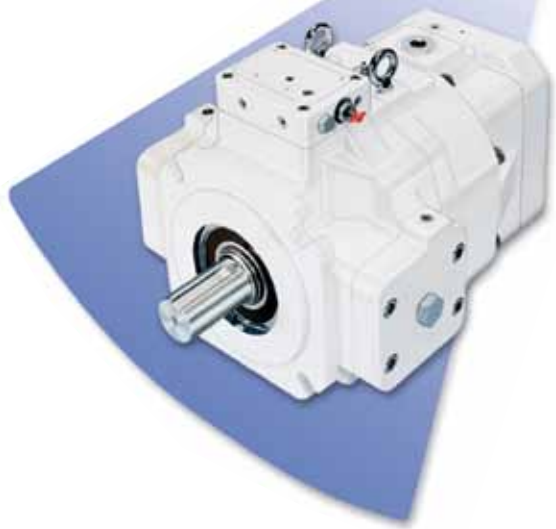
FRAME SIZE	UNIT SIZE	LENGTH		WIDTH		HEIGHT		WEIGHT		FACE MOUNTING
		in.	mm.	in.	mm.	in.	mm.	lbs.	kg.	
A	06 & 10	7.20	182,9	4.32	109,7	4.50	114,3	32	14,5	SAE "A" 2 Bolt
B	15 & 20	8.50	215,9	5.80	147,3	6.11	155,2	68	30,9	SAE "B" 2 Bolt
C	34, 45 & 60	10.44	265,2	6.76	171,7	7.18	182,4	103	46,8	SAE "C" 2 Bolt

Nominal Performance Specifications

FRAME SIZE	UNIT SIZE	THEORETICAL MAXIMUM DISPLACEMENT		RATED CONTINUOUS PRESSURE		PEAK PRESSURE		FLOW RATE at 1800 rpm, rated cont. pressure & 14.7 psi (bar abs) inlet conditions		MAXIMUM SPEED	POWER INPUT at rated cont. pressure & 1800 rpm	
		in ³ /rev	ml/rev	psi	bar	psi	bar	gpm	l/min		rpm	hp
A	06 10	0.86	14,1	3000	206,9	3500	241,4	5.5	20,8	1800	12.9	9,6
		1.35	22,1	2000	137,9	2500	172,5	9.0	34,1	1800	13.3	9,9
B	15 20	2.06	33,8	3000	206,9	3500	241,4	12.7	48,1	1800	30.4	22,7
		2.83	46,4	2000	137,9	2500	172,5	20.3	76,9	1800	27.8	20,7
C	34	4.67	76,5	3000	206,9	3500	241,4	32.6	123,6	1800	68.4	51,0
	45	6.00	98,3	2000	137,9	2500	172,5	42.8	162,2	1800	59.7	44,5
	60	7.94	130,2	1200	82,7	1500	103,4	56.6	214,2	1800	51.1	38,1

For Complete Information, See Bulletin 47013.

PVV pumps



- Large Control Selection
- Controls Readily Interchanged
- Proven Rotating Group Design
- Rugged Cylinder Design
- Cylinder Mounted in Polymerous Journal Bearing
- Swashblock Mounted in Polymerous Saddle Bearing
- Lubricated Swashblock
- Valve Plate Ported Rear or Top and Bottom
- Quiet Port Plate
- Sealed Front Bearings
- SAE or ISO Heavy-Duty Shaft
- Thru Shaft Available



Oilgear PVV Pumps

High horsepower, open loop,
axial piston pump for
high performance applications.

Nominal Dimensions

UNIT SIZE	LENGTH		WIDTH		HEIGHT		WEIGHT		FACE MOUNTING FLANGE Bolt Circle
	in.	mm.	in.	mm.	in.	mm.	lbs.	kg.	
200 & 250	17.14	435,4	16.31	414,3	12.01	305,1	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	21.11	536,2	20.93	531,6	15.40	391,2	735	333	ISO 250 4 Bolt

Nominal Performance Specifications

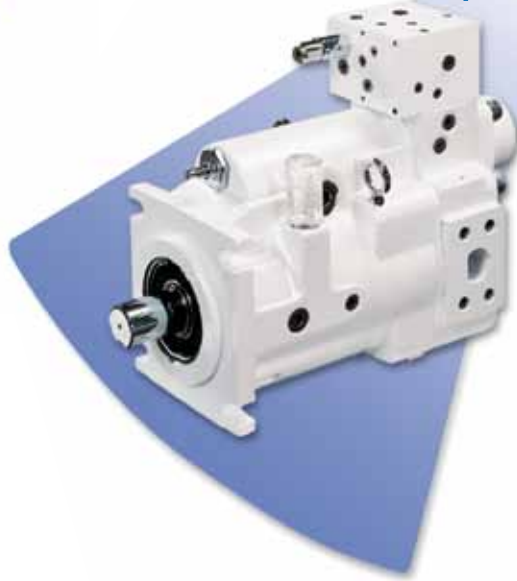
UNIT SIZE	THEORETICAL MAXIMUM DISPLACEMENT		RATED CONTINUOUS PRESSURE		PEAK PRESSURE		RATED FLOW AT CONTINUOUS RATED PRESSURE										MAXIMUM SPEED		
							NON-SUPERCHARGED					SUPERCHARGED							
							1000 rpm		1200 rpm		1500 rpm		1800 rpm		1800 rpm			2200 rpm	
	in ³ /rev	ml/rev	psi	bar	psi	bar	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	rpm
200	12.20	200	6000	414	6500	450	47	178	58	219	72	273	86	326	86	326	106	401	1800
250	15.26	250	5000	345	5800	400	59	223	72	273	91	344	109	413	109	413	134	507	1800
440	26.28	440	6500	450	7250	500	104	394	125	473	*	*	—	—	—	—	—	—	1200
540	33.00	540	5000	345	5800	400	129	488	155	587	*	*	—	—	—	—	—	—	1200

*Consult factory.

For Complete Information, See Bulletin 47028.

Note: PVV-440 is supercharged only (2-8 bar)

PVK pumps



- Multiple Frame Sizes Available
- Multiple Displacements
- Large Control Selection
- Controls Readily Interchanged
- Proven Rotating Group Design
- Rugged Cylinder Design
- Cylinder Mounted in Polymerous Journal Bearing
- Swashblock Mounted in Polymerous Saddle Bearing
- Lubricated Swashblock
- Quiet Valve Plate
- Sealed Front Bearings
- SAE Heavy-Duty Shaft
- Thru Shaft Available
- High Pressure Relief Valve Available

Medium to high horsepower,
open loop, axial piston pump for
high performance applications.

Nominal Dimensions

UNIT SIZE	LENGTH		WIDTH		HEIGHT		WEIGHT		FACE MOUNTING FLANGE
	in.	mm.	in.	mm.	in.	mm.	lbs.	kg.	
140	14.81	376,2	8.25	209,6	10.78	273,8	200	91	SAE "D" 4 Bolt
270 & 370	21.25	539,8	11.75	298,5	15.69	398,5	550	250	SAE "F" 4 Bolt

Nominal Performance Specifications

UNIT SIZE	THEORETICAL MAXIMUM DISPLACEMENT		RATED CONTINUOUS PRESSURE		PEAK PRESSURE 10% of duty cycle		MAXIMUM RATED SPEED*	FLOW RATE at max. rated rpm, rated cont. pressure & 14.7 psia (1 bar abs) inlet conditions		POWER INPUT at rated cont. pressure & max. rated rpm	
	in ³ /rev	ml/rev	psi	bar	psi	bar		rpm	gpm	l/min	hp
140	8.61	141	5000	345	5800	400	1800	63.0	238,7	207.2	154,6
270	16.30	267	5000	345	5800	400	1500	100.0	379,0	326.9	244,0
370	22.40	367	3500	241	4100	283	1500	135.1	512,0	324.5	242,2

*Higher operating speeds may be approved. Consult the Oilgear application engineering department.
For complete information, See Bulletin 47025.

PVWC pumps



- Multiple Displacements with Two Mountings
- Large Control Selection
- Controls Readily Interchanged
- Neutral Bypass Control is Available
- Proven Rotating Group Design
- Rugged Cylinder Design
- Hardened Cylinder on Hardened Valve Plate
- Cylinder Mounted in Polymerous Journal Bearing
- Swashblock Mounted in Polymerous Saddle Bearing
- Steel Piston Shoes on Hardened Surface
- Sealed Front Bearings
- SAE Heavy-Duty Shaft
- Thru Shaft Available
- Integral Supercharge (Implement) Pump and Relief Valve Circuit Available
- Towing Valve Available

Low horsepower, closed loop,
axial piston pump for high
performance applications.

Nominal Dimensions

UNIT	LENGTH		WIDTH		HEIGHT		WEIGHT	
	in.	mm.	in.	mm.	in.	mm.	lbs.	kg.
w/Integral Charge Pump	9.4	238,8	5.2	132,1	5.4	137,2	38.0	17,3
w/o Integral Charge Pump	7.1	180,3	5.2	132,1	5.4	137,2	33.4	15,2

Nominal Performance Specifications

UNIT SIZE	THEORETICAL MAXIMUM DISPLACEMENT		RATED CONTINUOUS PRESSURE		PEAK PRESSURE 10% of duty cycle		PEAK PRESSURE		FLOW RATE at 1800 rpm, rated cont. pressure & 14.7 psi (bar abs) inlet conditions		MAXIMUM CONTINUOUS SPEED rpm
	in ³ /rev	ml/rev	psi	bar	psi	bar	psi	bar	gpm	l/min	
011	0.66	10,8	4000	275	4500	310	5000	350	4.1	15,5	3600
014	0.86	14,1	4000	275	4500	310	5000	350	5.4	20,4	3600
022	1.35	22,1	3000	207	3500	241	5000	350	8.5	32,2	3600

PFBA pumps



- 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

High pressure, heavy-duty,
open loop multiple
fixed delivery pumps.

Nominal Dimensions*

UNIT	LENGTH		WIDTH		HEIGHT		WEIGHT	
	in.	mm	in.	mm	in.	mm	lb.	kg
02	13.6	346	8.3	211	8.3	211	99	45
2								
2/2								
4								
6								
8								

*All dimensions are approximate. For detailed information consult your factory representative.

Nominal Performance Specifications

UNIT	THEORETICAL DISPLACEMENT		RATED CONTINUOUS PRESSURE		DRIVE SPEED (flow and input power at rated pressure)													
					1200 rpm				1500 rpm				1800 rpm					
					FLOW RATE		INPUT		FLOW RATE		INPUT		FLOW RATE		INPUT			
in. ³ /rev.	ml/rev.	psi	bar	USgpm	lpm	hp	kw	USgpm	lpm	hp	kw	USgpm	lpm	hp	kw			
02	0.183	3	14500	1000	0.87	3,3	10.8	8,0	1.09	4,1	13.5	10,1	1.30	4,9	16.2	12,1		
2	0.275	4,5			1.30	4,9	16.2	12,1	1.63	6,2	20.2	15,1	1.96	7,4	24.3	18,1		
2/2	0.549	9			2.61	9,9	32.4	24,2	3.26	12,3	40.5	30,2	3.91	14,8	48.6	36,2		
4	0.564	9,25			2.75	10,4	33.1	24,7	3.44	13,0	41.4	30,9	4.12	15,6	49.7	37,1		
6	0.839	13,75			10150	700	4.12	15,6	30.6	22,8	5.15	19,5	38.2	28,5	6.17	23,4	45.9	34,2
8	1.129	18,5			8700	500	5.71	21,6	32.2	24,0	7.14	27,0	40.2	30,0	8.56	32,4	48.3	36,0

For Complete Information, See Bulletin 46005.

PFBK pumps



- 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
- Multiple Deliveries
- Thru Drive Available

High pressure, heavy-duty,
open loop multiple
fixed delivery pumps.

Nominal Dimensions (with Discharge Block*)

UNIT	LENGTH**		WIDTH		HEIGHT		WEIGHT			
	in.	mm	in.	mm	in.	mm	FOOT MOUNT		FLANGE MOUNT	
							lb.	kg	lb.	kg
033	23.3	593	14.4	366	14.1	359	462	210	423	192
043										
052										
065										

*All dimensions are approximate. For detailed information consult your factory representative.

**Length without integral supercharge=22.3 in. (566 mm).

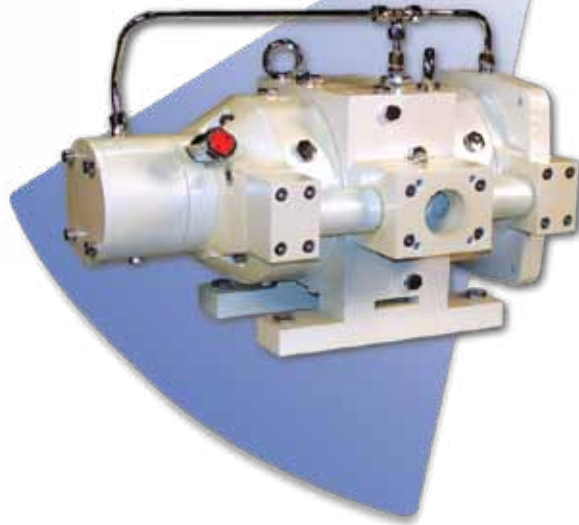
Nominal Performance Specifications

UNIT	THEORETICAL DISPLACEMENT		RATED CONTINUOUS PRESSURE		RATED DRIVE SPEED														
					1200 rpm*				1500 rpm*				1800 rpm*						
					INPUT		INPUT		INPUT		INPUT								
in. ³ /rev.	ml/rev.	psi	bar	USgpm	lpm	hpkw	USgpm	lpm	hp	kw	USgpm	lpm	hp	kw	USgpm	lpm	hp	kw	
WITH INTEGRAL SUPERCHARGE																			
033	2.13	34.9	14500	1000	9.6	36,4	111.0	82,8	12.0	45,5	138.0	103,0	14.4	54,6	166,0	124,0			
043	2.73	44.7	10000	700	12.7	48,3	92.6	69,1	15.9	60,4	116.0	86,6	19.1	72,5	139,0	104,0			
052	3.33	54.5	10000	700	15.5	58,9	109.0	81,3	19.4	73,6	136.4	101,8	23.3	88,4	163,8	122,2			
065	4.17	68.4	6000	415	19.5	73,9	84.3	62,9	24.4	92,4	105.0	78,4	29.3	110,9	127,0	94,5			

Note: With external supercharge, 80-to-100 psi (5,5-to-6,9 bar) is required.

*At rated pressure.

PFCM pumps



- 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

High pressure, heavy-duty,
open loop multiple
fixed delivery pumps.

Nominal Dimensions (with Double Discharge Blocks*)

UNIT	LENGTH**		WIDTH †		HEIGHT		WEIGHT			
	in.	mm	in.	mm	in.	mm	FOOT MOUNT		FLANGE MOUNT	
							lb.	kg	lb.	kg
066	32.4	823	20.6	522	14.4	367	681	309	633	287
086										
100										
130										

*All dimensions are approximate. For detailed information consult your factory representative.

† Width with single discharge=20.0 in. (507 mm).

** Length without integral supercharge=30.8 in. (783 mm).

Nominal Performance Specifications

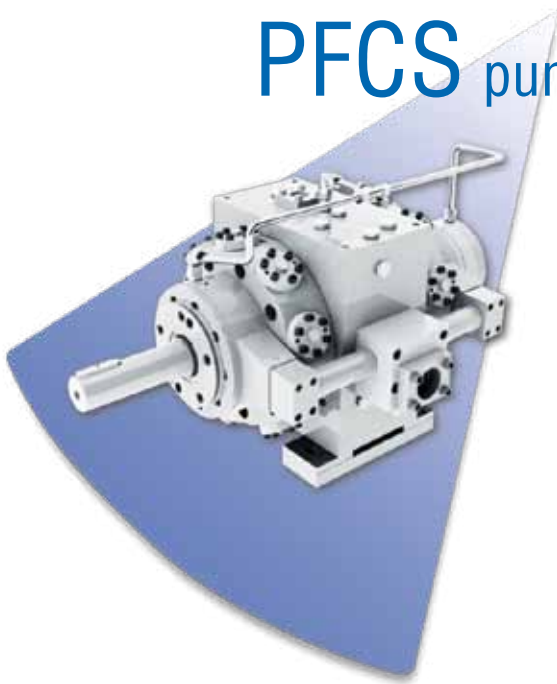
UNIT	THEORETICAL DISPLACEMENT		RATED CONTINUOUS PRESSURE		RATED DRIVE SPEED											
					1200 rpm*				1500 rpm*				1800 rpm*			
					INPUT		INPUT		INPUT		INPUT		INPUT		INPUT	
in. ³ /rev.	ml/rev.	psi	bar	USgpm	lpm	hp	kw	USgpm	lpm	hp	kw	USgpm	lpm	hp	kw	
WITH INTEGRAL SUPERCHARGE																
066	4.26	69,8	14500	1000	19.2	72,8	213	159	24.0	91,0	266	198	28.8	109	319	238
086	5.46	89,5	10000	700	25.4	96,3	179	134	31.8	121	224	167	38.2	145	269	201
104	6.66	109,2	10000	700	31.0	118	218	163	38.8	147	273	204	46.6	177	328	245
130	8.34	136,7	6000	415	39.0	148	159	119	48.8	185	199	149	58.6	222	239	178

Note: With external supercharge, 80-to-100 psi (5,5-to-6,9 bar) is required

*At rated pressure.

For Complete Information, See Bulletin 46005.

PFCS pumps



- 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
- Hydrostatically Balanced Piston Shoe Design
- Double Sided Counterbalanced Swashblock with Replaceable Thrust Plates
- Multiple Deliveries
- Overload Sensing Device
- Thru Drive Available

High pressure, heavy-duty,
open loop multiple
fixed delivery pumps.



Oilgear PFCS Pumps

Nominal Dimensions (without Discharge Blocks*)

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

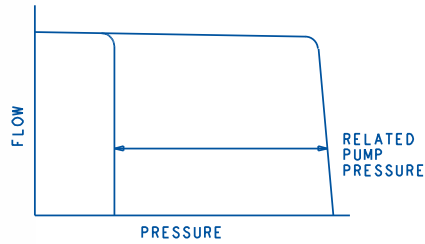
*All dimensions are approximate. For detailed information consult your factory representative.

Nominal Performance Specifications

UNIT	THEORETICAL DISPLACEMENT		RATED CONTINUOUS PRESSURE		RATED DRIVE SPEED											
					1200 rpm				1500 rpm				1800 rpm			
	in. ³ /rev.	ml/rev.	psi	bar	INPUT*		INPUT*		INPUT*		INPUT*					
440	28.6	468	7250	500	135	511	649	484	169	640	812	606	203	769	976	728
580	35.8	587	5000	350	169	641	633	472	212	801	791	590	-	-	-	-

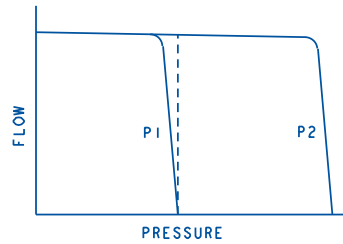
*Approximate at rated speed and pressure.

Note: External supercharge pressure of 150-to-180 psi (10,3-to-12,4 bar) is required.



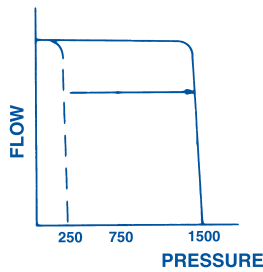
■ Pressure Compensator

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.



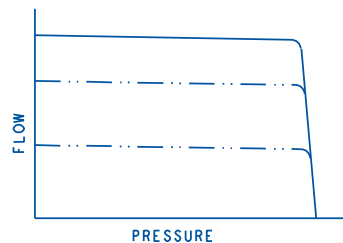
■ Dual Pressure Compensator

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



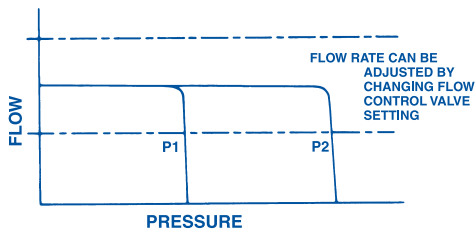
■ Low Pressure Compensator

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.



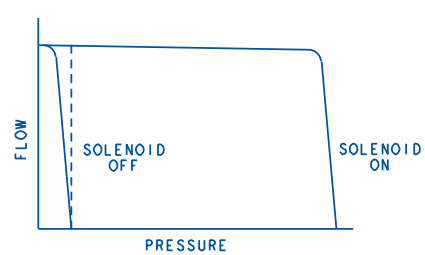
■ Load Sensing

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



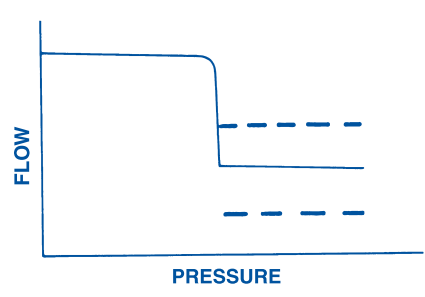
Dual Pressure Compensator with Load Sensing

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



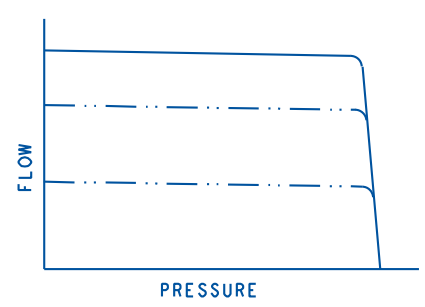
Soft Start Pressure Compensator

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



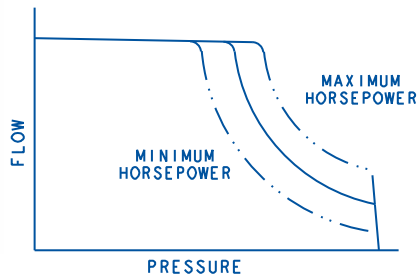
High-Low Pressure Compensator

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



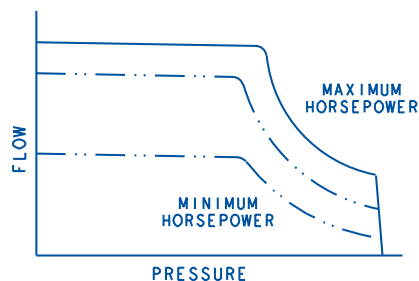
Load Sense Plus

A constant flow output is maintained for a given flow control valve setting regardless of changes 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.



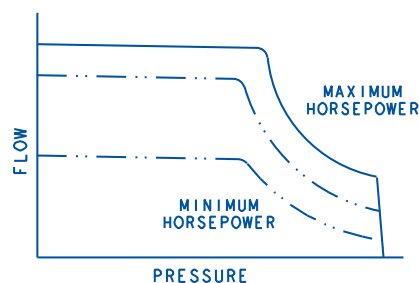
Horsepower Limiter

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



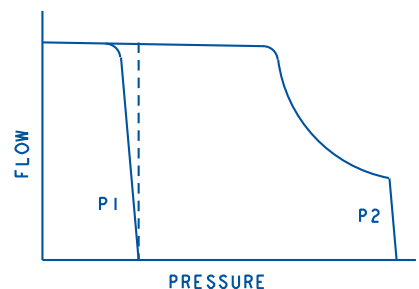
Horsepower Limiter With Load Sensing

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 Sense Plus

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

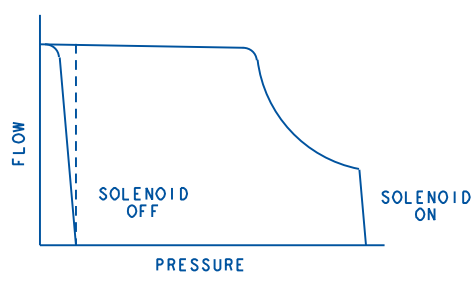


Dual Pressure Compensator With Horsepower Limiter

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

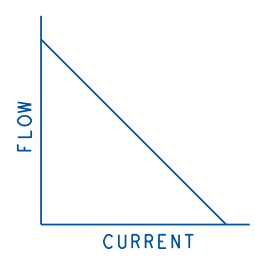


Oilgear Pump Controls



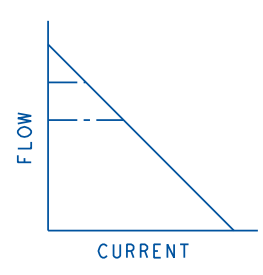
Soft Start Pressure Compensator With Horsepower Limiter

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.



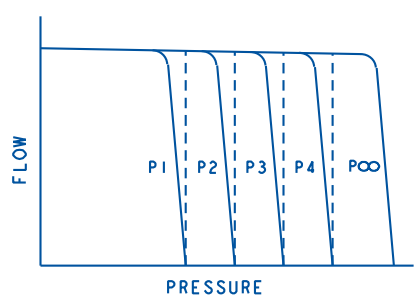
Electronic Displacement Control (EDC)

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.



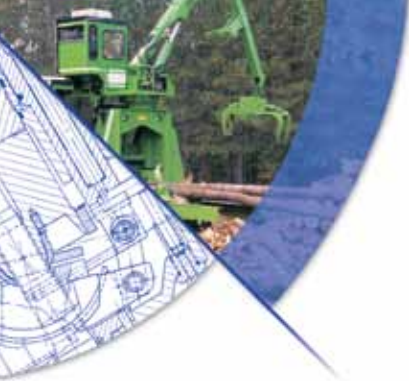
Electronic Displacement Control (EDC) With Load Sensing

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.



■ 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

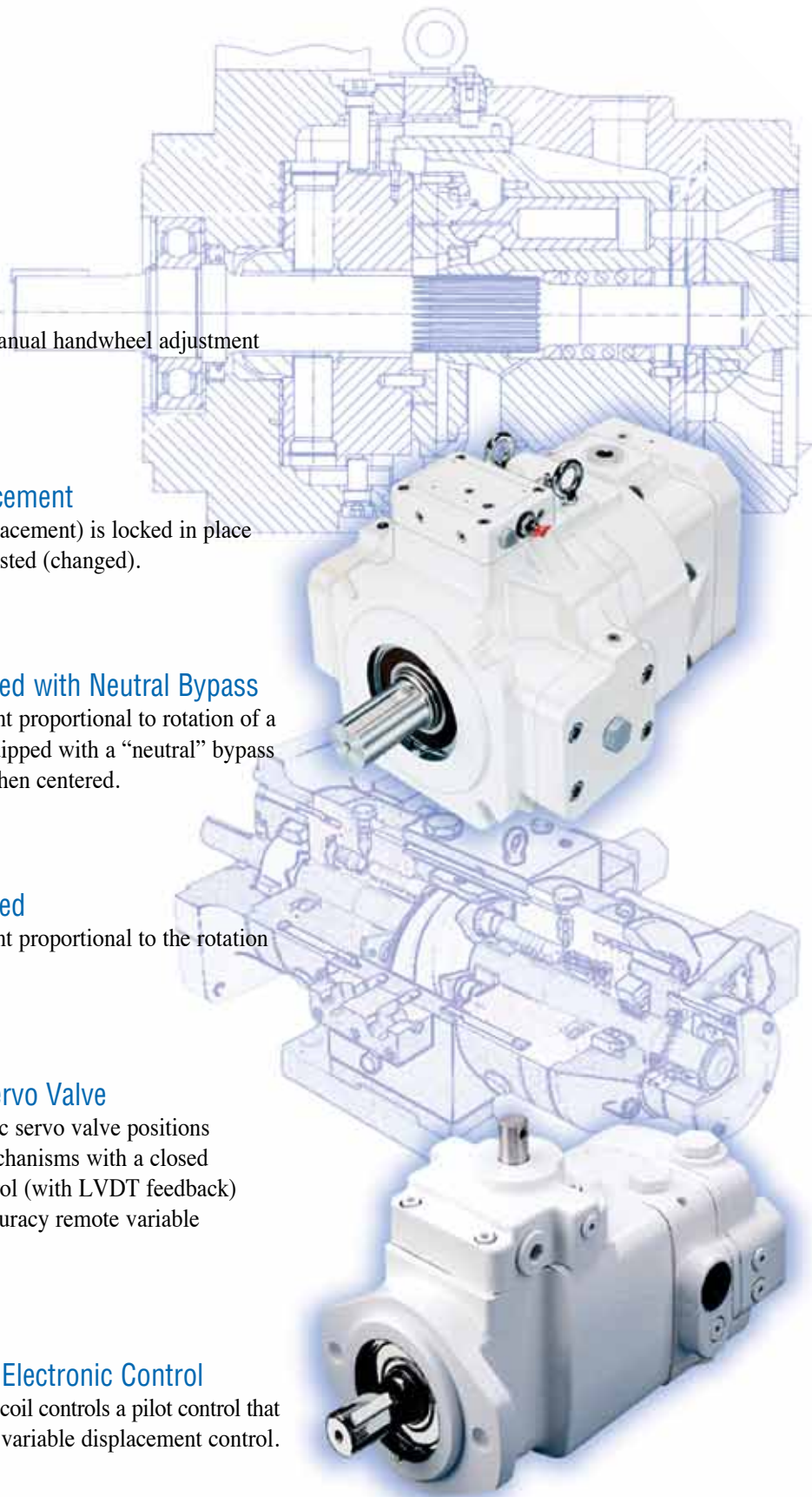
An electrohydraulic servo valve positions the swashplate mechanisms with a closed loop position control (with LVDT feedback) providing high accuracy remote variable delivery control.

■ Proportional Electronic 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.





Oilgear Controls Available

PVWJ pumps
 PVG pumps
 PVM pumps
 PVWW pumps
 PVV pumps
 PVK pumps
 PVWC pumps
 PFBA pumps
 PFBK pumps
 PFCM pumps
 PFCG pumps

P R E S S U R E

■	■	■	■	■	■	x	x	x	x	x	Pressure Compensator
■	x	x	■	x	x	x	x	x	x	x	Low Pressure Compensator
■	x	x	■	x	x	x	x	x	x	x	High-Low Pressure Compensator
■	■	x	■	■	■	x	x	x	x	x	Dual Pressure Compensator
x	■	x	x	■	■	x	x	x	x	x	Dual Pressure Compensator w/Horsepower Limiter
■	■	■	■	■	■	x	x	x	x	x	Soft Start Pressure Compensator
■	■	x	x	■	■	x	x	x	x	x	Soft Start Pressure Compensator w/Horsepower Limiter
■	■	■	■	■	■	x	x	x	x	x	Remote Pressure Operator
■	■	x	x	■	■	x	x	x	x	x	Horsepower Limiter
■	■	■	■	■	■	x	x	x	x	x	Load Sensing
x	■	x	x	x	x	x	x	x	x	x	Load Sense Plus
x	■	x	■	■	■	x	x	x	x	x	Dual Pressure Compensator w/Load Sensing
■	■	x	x	■	■	x	x	x	x	x	Horsepower Limiter w/Load Sensing
x	■	x	x	x	x	x	x	x	x	x	Horsepower Limiter w/Load Sense Plus
■	■	■	x	■	■	x	x	x	x	x	Electronic Proportional Pressure Compensator

D I S P L A C E M E N T

x	■	x	x	■	■	■	x	x	x	x	Electronic Servo Valve with Feedback
x	■	x	x	x	x	■	x	x	x	x	Electronic Displacement Control
x	■	x	x	x	x	x	x	x	x	x	Electronic Displacement Control (EDC) w/Load Sensing
■	■	x	■	■	■	x	■	■	■	■	Fixed
■	■	x	■	x	x	x	x	x	x	x	Handwheel
■	x	x	■	x	x	■	x	x	x	x	Lever Operator
■	x	x	x	x	x	■	x	x	x	x	Lever Operator with Neutral Bypass

■ Controls Available for Standard Applications
 x Not Available

Oilgear

World Headquarters

The Oilgear Company

2300 South 51st Street Milwaukee, WI USA 53219
phone: 414/327-1700 fax: 414/327-0532

www.oilgear.com

For more information about your application or the products in this brochure, please contact your nearest Oilgear facility. A complete listing of our global locations can be found on the Oilgear web site.