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### **PERFORMANCE ASSURANCE –** STANDARD WITH EVERY OILGEAR COMPONENT

# **Oilgear** PERFORMANCE ASSURANCE

**Every** Oilgear product is shipped to you with our Performance Assurance a corporate commitment to stay with your installation 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 problems of machinery builders and users worldwide, matching fluid power systems to a 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 application 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.



## **PVG Open Loop Pumps**

Computer optimized, high pressure high volume pump, with Oilgear's time proven rotating group.

Four-way pilot operated control.

- Provides fast on and off stroke time.
- Maintains constant pressure over full volume range.
- Delivers high performance in a compact package.

SAE Heavy duty shaft.

- Allows high thru torque capability.
- Dual units can handle full pressure and volume.

2

(3)

■ SAE keyed or SAE splined shaft.

### Sealed front shaft bearings.

Enables operation with low viscosity or other special fluids.

Patented pressure lubricated swashblock.

- Delivers high performance for high pressure high cycle operation.
- Pressure lubricated upper and lower saddle bearings provide for long life.

Hardened steel shoes with specially designed face for increased fluid retention, running on hardened swashblock surface.

- Provides a higher degree of contaminate resistance.
- Allows higher pressure operation.
- Enables operation with low viscosity or other special fluids.
- Provides long life at rated pressure.

Swashblock with polymerous bearings.

- Allows running on low viscosity or 6 other special fluids.
- Permits constant control reaction with low hysteresis.
- Eliminates troublesome yoke bearings
- Provides long life.

Large control selection.

- Pressure and volume controls are available with a large variety of options.
- Field interchangeability without disconnecting from drive or system piping.

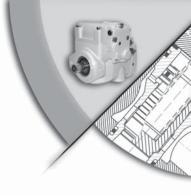
(11) Rugged cylinder design.

 Hardened nodular iron construction for improved performance and contamination resistance.

4

Dilgear

Features and Benefits



Cylinder mounted polymerous journal bearings.

- Allows operation with low viscosity or other special fluids.
- Provides infinite bearing life.

8

Enables compact design.

Hardened cylinder surface running on hardened valve plate "hard-on-hard".

- Provides greater resistance to contamination.
- Provides long life.

9

(10)

 Allows operation with low viscosity or other special fluids.

Valve plate selection.

- Top and bottom port connections available.
- Allows for multiple pump installation from a single drive shaft.
- Dual configuration with capability of full load on both pumps.
- Has provisions for mounting "AA" thru "D" sizes for rear pumps.
- Both 2 and 4 bolt SAE mounts available.





(12) Quiet valve plate design.

- Minimizes noise at typical electric motor speeds.
- Hardened nodular iron construction for long life.

### SPECIFICATIONS



### **Nominal Performance Specifications**

UNIT SIZE	MAX	etical Mum Cement	CONTI	ted Nuous Sure		AK SURE	FLOW at 1800 η cont. pro 14.7 psia inlet co	om, rated essure & a (bar <sub>abs</sub> )	MAXIMUM SPEED	at rate	R INLET d cont. sure & ) rpm
	in³/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	63.0	238,5	2400	215	160,4

Case pressure should be less than 25 psi (1,7 bar).

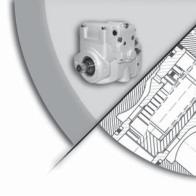
For higher pressure, consult factory.

Higher speeds available - consult factory.

### **Nominal Dimensions**

	LEN	GTH	WIE	отн	HEI	GHT	WEIG	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	115	52	SAE "C" 2 Bolt
150	14.2	360,7	7.9	200,7	8.1	205,7	171	78	SAE "D" 4 Bolt

All dimensions (without controls) are approximate. For detailed dimensions, contact your Oilgear Representative. Weights are with P-1 control. 048, 065, 075, 100 & 130 models are with rear ported valve plate. 150 model is with side ported valve plate.



### PVG 048/065/075

3500 IN-LB = MAXIMUM ALLOWABLE TORQUE APPLIED TO REAR OUTPUT

MODEL CODE DESIGNATOR	SHAFT SIZE	ALLOWABLE INPUT TORQUE IN-LB
"Υ"	1.00" KEY LONG	3,500
"S"	SPINE 15 TOOTH 16/32 DP	7,000
"K"	SPINE 13 TOOTH 16/32 DP	3,500
"R"	SLINE 14 TOOTH 12/24 DP	7,000
"B"	1.25" KEY LONG	6,400

### PVG 100/130

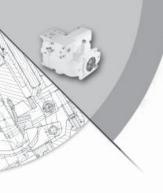
5250 IN-LB = MAXIMUM ALLOWABLE TORQUE APPLIED TO REAR OUTPUT

MODEL CODE DESIGNATOR	SHAFT SIZE	ALLOWABLE INPUT TORQUE IN-LB
"Υ"	1.50" KEY LONG	10,500
"Z"	1.50" KEY SHORT	6,000
"S"	SPINE 17 TOOTH 12/24 DP	10,500
"K"	SLINE 14 TOOTH 12/24 DP	7,000
"R"	SPLINE 13 TOOTH 8/16 DP	10,500

### **PVG 150**

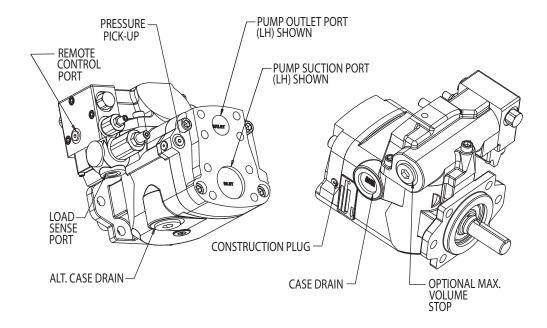
7500 IN-LB = MAXIMUM ALLOWABLE TORQUE APPLIED TO REAR OUTPUT

MODEL CODE DESIGNATOR	SHAFT SIZE	ALLOWABLE INPUT TORQUE IN-LB
"Y"	1.75" (44.45) KEYED X 2.94 (74,6) LG	15,000
"L" or "S"	SPLINE 13 TOOTH 8/16 DP X 2.94 (74,6) LG	15,000

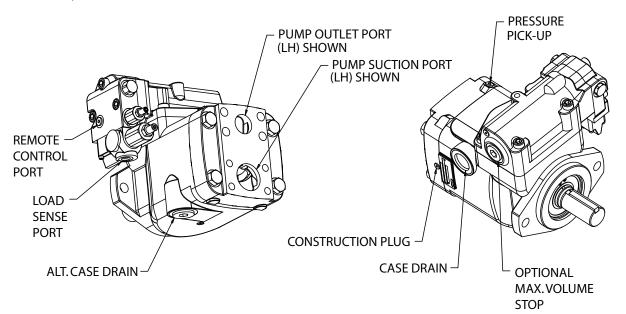


### PRESSURE PICK-UP POINTS FOR INSTRUMENTATION

048/-065/-075 "B" Frame



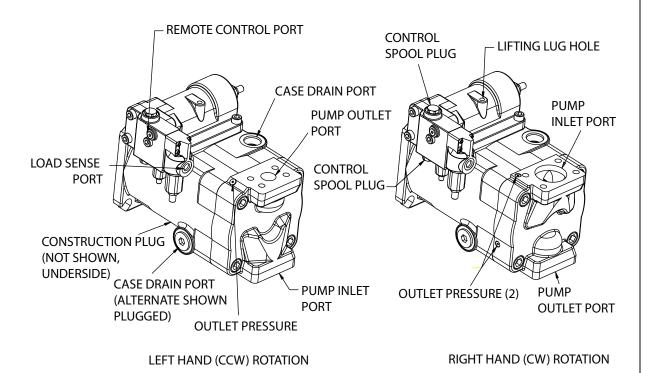
PVG 100/130 "C" Frame

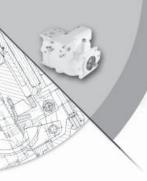


**Dilgear** Pressure Pick-Up Points

### PRESSURE PICK-UP POINTS FOR INSTRUMENTATION

PVG-150 "D" Frame



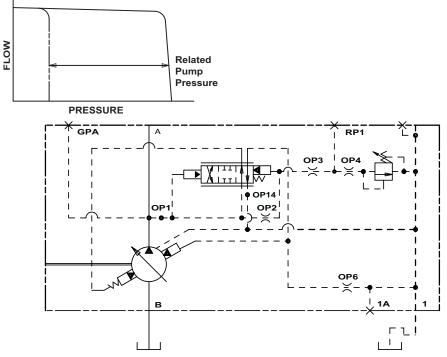


# Pump Controls\*\* PRESSURE\*

### Pressure Compensator "P-1"

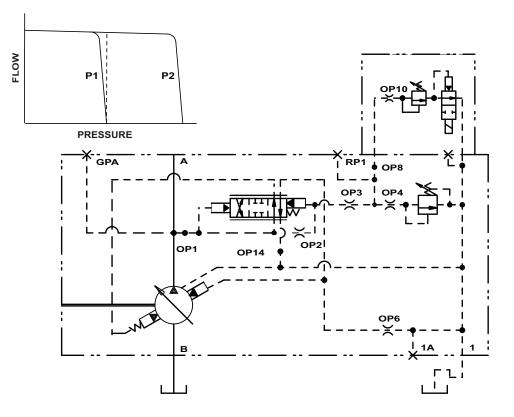
Ensures maximum pump flow until unit reaches preset control pressure setting then regulates output flow to match the requirements of the system while maintaining preset output pressure.

Can be adjusted from 200 psi working pressure up to the maximum pressure rating of pump.



### Dual Pressure Compensator "P-2"

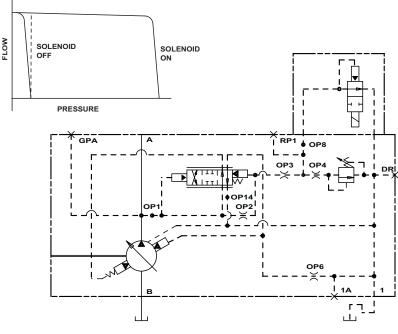
Provides two independently adjustable pressure compensated settings as selected by an integral solenoid.



### PRESSURE\*

### Soft Start Pressure Compensator "P-C"

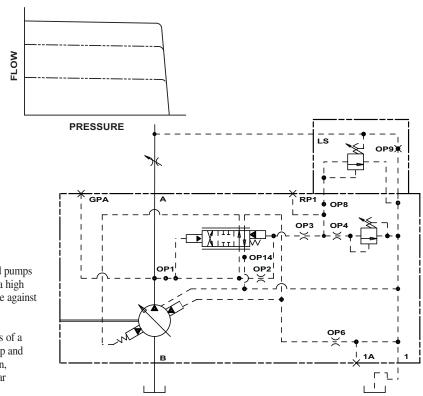
Pump starts "softly" by going quickly at low pressure to a reduced flow setting, thereby reducing start up torque requirements.

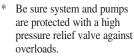


### VOLUME/PRESSURE SENSING\*

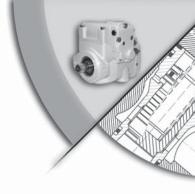
### Load Sensing "P/F"

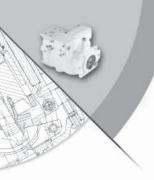
A constant flow output is maintained for a given flow control valve setting regardless of changes in drive speed and/or working pressure.





\*\* For detailed circuits of a particular size pump and control combination, contact your Oilgear Representative.

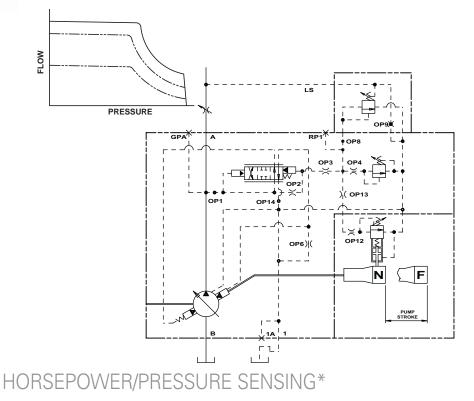




# **Pump Controls \* \*** VOLUME/PRESSURE SENSING/HORSEPOWER\*

### Horsepower Limiter w/Load Sensing "P/G"

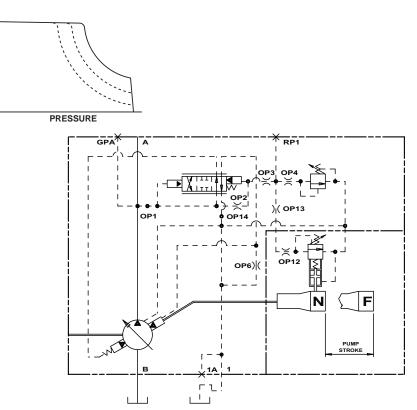
Load sensing control matches flow and pressure to load demand until (limited) horsepower setting is reached. Control then automatically reduces delivery as system pressure rises.



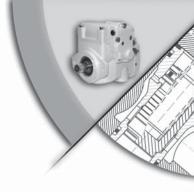
### Horsepower Limiter "P/H"

FLOW

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



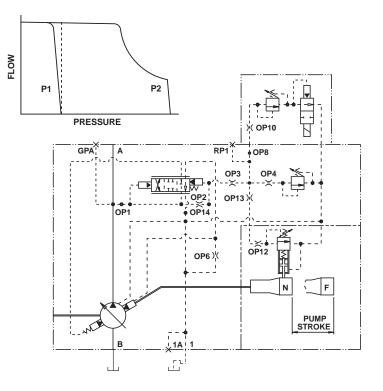
**Oilgear** Pump Controls



### HORSEPOWER/PRESSURE SENSING\*

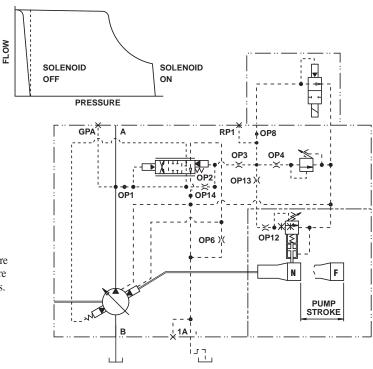
### Dual Pressure Compensator w/Horsepower "P-2/H"

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

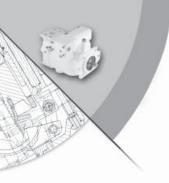


### Soft Start Pressure Compensator w/Horsepower "P-C/H"

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.



- \* Be sure system and pumps are protected with a high pressure relief valve against overloads.
- \*\* For detailed circuits of a particular size pump and control combination, contact your Oilgear Representative.

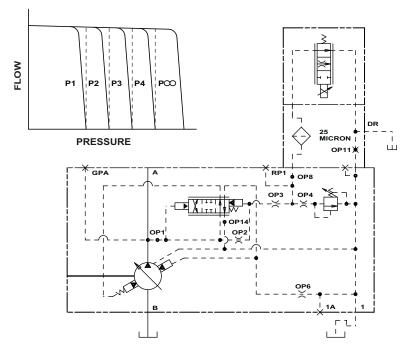


# Pump Controls\*\*

### ELECTRONIC\*

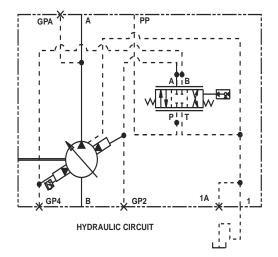
### Electronic Proportional Pressure Compensator "P-A" "P-B"

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



### Electronic Servo Valve "V-M" "V-S"

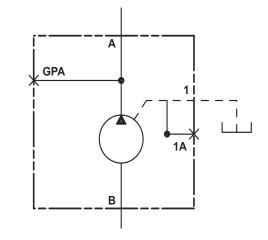
An electrohydraulic servo valve positions the swashplate mechanism with a closedloop position control (with LVDT feedback) providing a highly accurate remote variable delivery control.



### VOLUME\*

### Fixed Volume "F"

Fixed displacement units available with stroke setting of three quarters and full volume.

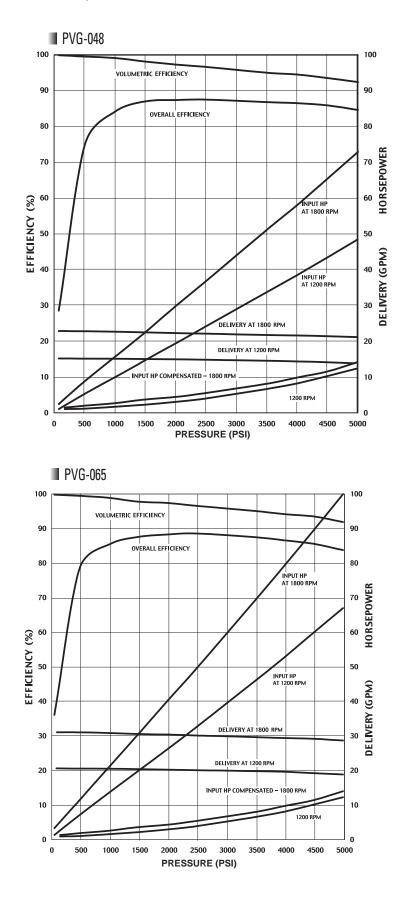


\* Be sure system and pumps are protected with a high pressure relief valve against overloads.

\*\* For detailed circuits of a particular size pump and control combination, contact your Oilgear Representative.

### PERFORMANCE

Performance curves are based on a viscosity of 160 SSU.

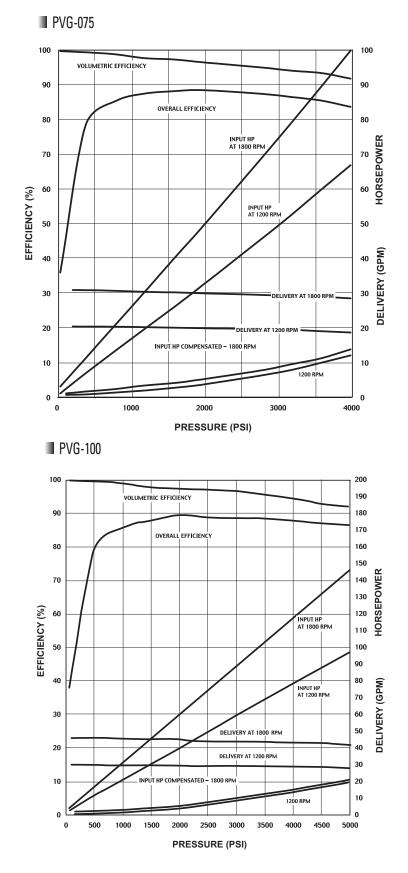


Igear Performance Curves



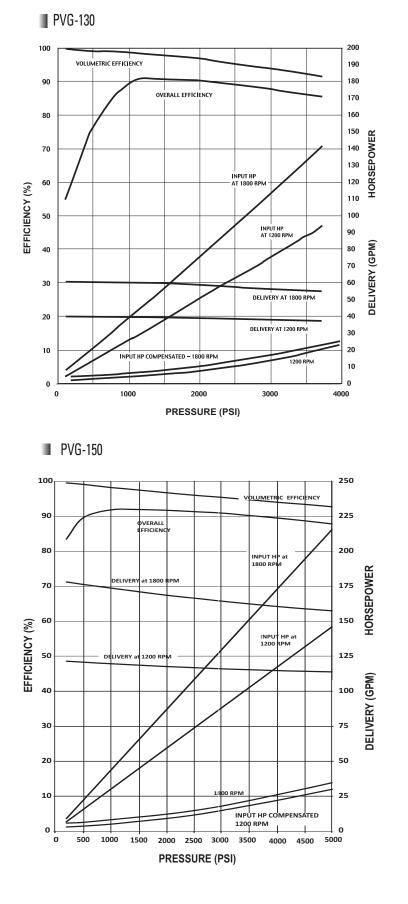
### PERFORMANCE

Oilgear Performance Curves



16

### PERFORMANCE

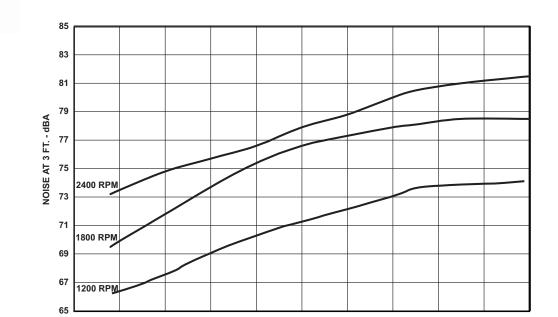


Dilgear Performance Curves



### SOUND

All of the sound curves are based on pump delivering full volume.

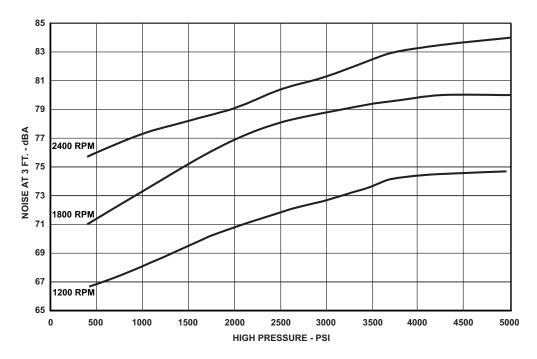


PVG-048



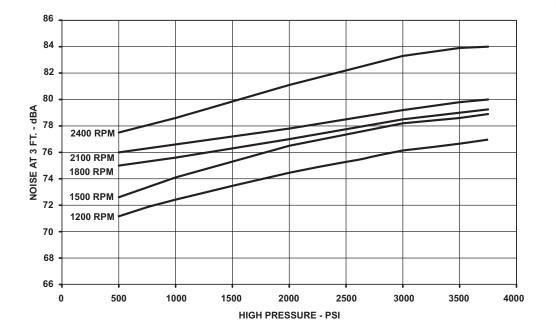


**HIGH PRESSURE - PSI** 

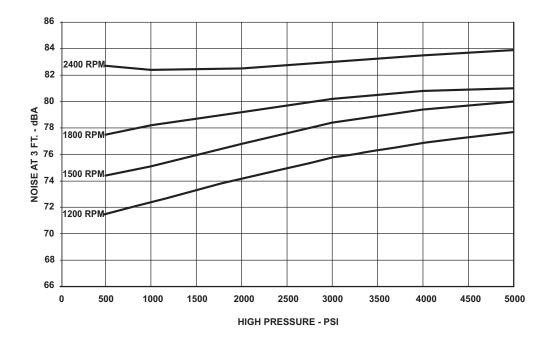


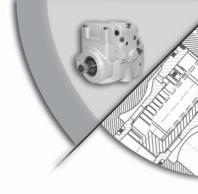
### SOUND

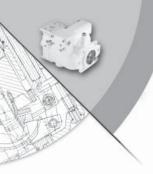
PVG-075



PVG-100

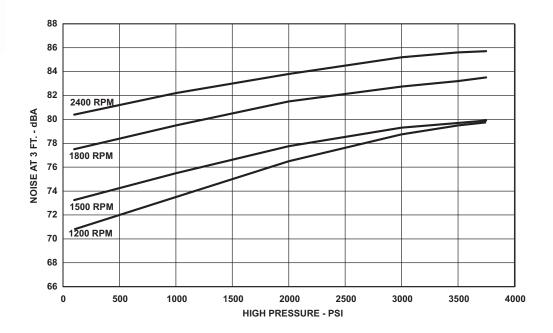






SOUND

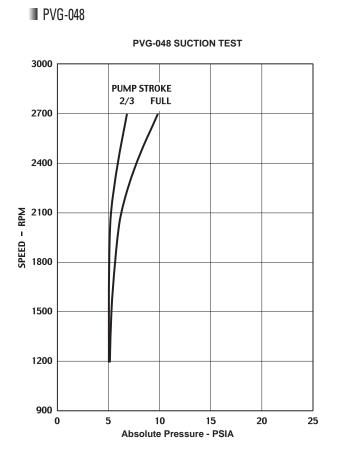
PVG-130



# oigear Sound Curves

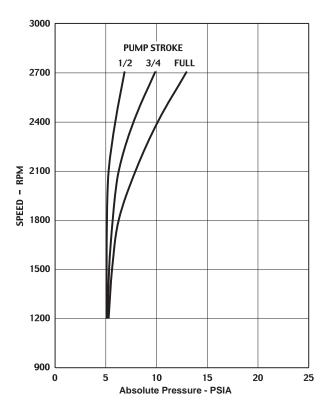
### INLET SUCTION/SUPERCHARGE

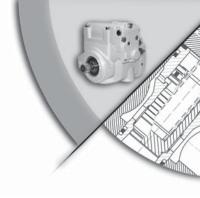
Inlet/supercharge and sound curves are based on a viscosity of 500 SSU.



PVG-065

**PVG-065 SUCTION TEST** 



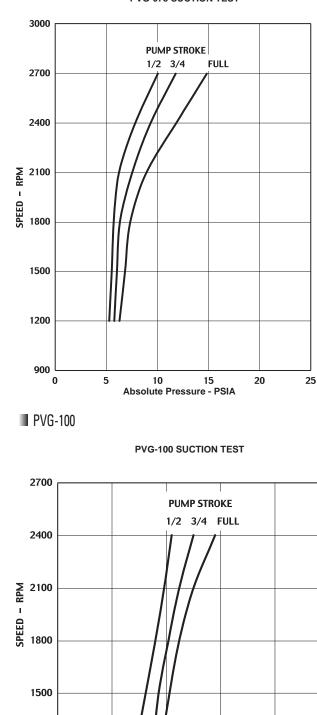


gear Inlet/Suction Curves

### INLET SUCTION/SUPERCHARGE

PVG-075

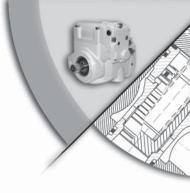
Absolute Pressure - PSIA



**PVG-075 SUCTION TEST** 

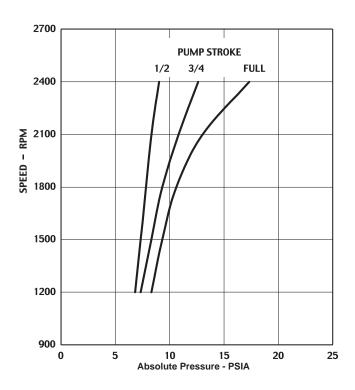


### INLET SUCTION/SUPERCHARGE



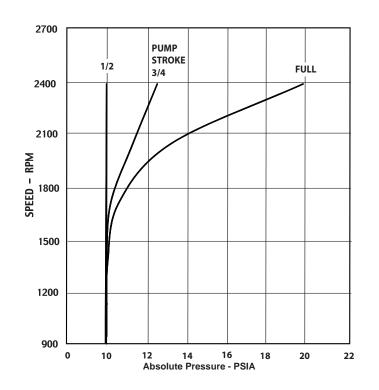
PVG-130

**PVG-130 SUCTION TEST** 





**PVG-150 SUCTION TEST** 



Dilgear Inlet/Suction Curves



### HOW TO ORDER - PVG 048, 065, 075

	CK NUMBER ANATION	1	2	3	3 -	4	-	5	6	7	-	8	9 10	11	-	12	-	13	14	15	1	16	17			
	ABLE PUMP MPLE	Р	v	G	à -	075	-	F1	U	v	-	L	D F	Y	-	Р	-	1NN	SN	N	/	NN	-			
2 = 3 =	UNIT P = Pump TYPE V = Variable DESIGN TY G = Type UNIT SIZE	ΈE					1	<b>3</b> =	b F C 075 100	10: = =	c NTR 75% Full	<b>13</b> / / OL O % Stro Strok	ke e		9	13b = SOLENOID VOLTAGE           0 = 115/60 - 110/50 VAC           1 = 230/60 - 220/50 VAC           2 = 12 VDC           3 = 24 VDC           13c = CONNECTOR           R = .500 NPT w/o Lite           W = .500 NPT w/Lite										
	048 = 48 0 065 = 65 0 075 = 75 0 DESIGN SE F1 = Curren	cc/re cc/re ERIE t	3 cipr ) cipr	)	1	3a =	PRE OP 1 = 2 = A =	SS TIO S D P	SUR NS ingli ingli ingli ingli	e Sett Settin ortiona	MPEN ing	0.	<b>13a</b> = TYPE M = With Direct Operation													
6 =	DESIGN SE U = SAE Co									S	ingl		sure v		0.	13b = SIZE 20 = Servo Valve Size 20 (Type										
7 =	SEALS V = Viton (S B = Buna-N P = EPR				<b>13b</b> = SOLENOID VOLTAGE N = None Required 0 = 115/60 - 110/50 VAC 1 = 230/60 - 220/50 VAC 2 = 12 VDC											25 = Servo Valve Size 25 (Ty <b>14</b> = VOLUME STOPS NN = No Volume Stop SA = Adjustable Minimum										
8 =	ROTATION L = Left-han R = Right-ha						1	3c =	3 = COI	2 NN	4 VI ECT	ŐČ	iired					Volume Stop (for "V" Control Only) SB = Adjustable Maximum and Minimum								
9 =	D = One-wa Side Po G = One-wa Side Po	R = Right-hand (CW) VALVE PLATE TYPE D = One-way Service; Side Ported (thru shaft) G = One-way Service; Side Ported S = One-way Service;						R = .500 NPT w/o Lite *W = .500 NPT w/Lite S = PG-11 w/o Lite *L = PG-11 w/Lite *Not Available w/P-A or P-B /Omit if Not Required 13d = CONTROL MODIFIER										Volume Stop (for "R" Control Only) SN = Adjustable Maximum and Minimum (Not available for "V" Control)								
10 =	CONNECTION F = Flange			Έ			'	*	*F =	L H	oad lorse	Sens epowe	e er Limi	ing w	ith			OMIT THE FOLLOWING IF								
	SHAFT ENE Y = SAE B-F S = SAE B-F K = SAE B S B = SAE C F R = SAE C S	th Fit	Load Sensing Option H = Horsepower Limiter Option **K = Load Sense w/Minimum Standby Option **L = Load Sense w/Horsepower and Minimum Standby Option **Not Available with pressure compensator options 2, A, B or C <b>13e</b> = INPUT HORSEPOWER @ 1800 RPM Example: limited to 70 HP Input										5	Req Blan AA = AN =	for al all no upling E A- upling E A	DAPTERS III thru-shaft un on-thru-shaft u g & Adapter -A 2-Bolt g & Adapter 2-Bolt										
12 =	$\begin{array}{l} \text{CONTROL} \\ \text{N} = \text{None} \\ \text{F} = \text{Fixed} \\ \text{P} = \text{Pressu} \\ \text{R} = \text{Soleno} \\ \text{V} = \text{Electrol} \\ \text{(with fe} \end{array}$												BB = Coupling & Adapter SAE B-B 2-Bolt BN = Coupling & Adapter SAE B 2-Bolt CP = Cover Plate NN = None													
	(with feedback)						70 = 0.70 HP Input (52.2 kw) <u>R CONTROL ONLY</u> <b>13a</b> = TYPE U = Two Volume Control									6 = OPTIONAL GEAR PUMPS 05 = 0.488 cipr (8 ml/rev.) 07 = 0.672 cipr (11 ml/rev.) 10 = 0.976 cipr (16 ml/rev.) 14 = 1.403 cipr (23 ml/rev.) 20 = 2.015 cipr (40 ml/rev.)										

- 14 = 1.403 cipr (23 ml/rev.) 20 = 2.015 cipr (49 ml/rev.)
- 17 = SPECIAL PUMP MOD Assigned by Factory if necessary

### HOW TO ORDER - PVG -100, 130

BLOCK NUMBER EXPLANATION	1 2	3	-	4	-	5	6	7	-	8	9	10	11	-	12	-	13	14	15	/	16	17	]
VARIABLE PUMP EXAMPLE	ΡV	G	-	100	-	F1	U	v	-	L	D	F	Y	-	Р	-	1NN	SN	SN	/	NN	-	
VARIABLE PUMP	PE c/rev. ( c/rev. ( RIES nn. & N andarc d (CCV nd (CV TE TY y Servic	6.00 7.94 MOE /loun () (PE ce;	cipr cipr DIFIE ting	)	-	13 2 13a	$= ($ $= ($ $\frac{F}{2})$ $= ($ $= ($ $F$ $= ($ $F$	b           con           b           con           con	DN = F SOSIDPRSS NO SOSIDPRSS NO 1222 NO 50	OL I OL I I C C TRO 75% Sull S TRO 75% Sull Sull Sull Sull Sull Sull Sull Sull	MOD 3 / L ON Stroke DL ON Stroke COI Setting tiona Pres art, N VOL Requ - 11 - 22 CO R Requ PT w	IFIEF	NSAT	e 	_	13 13 13 13	$\mathbf{b} = S = S = 0$ $1 = 2 = 3$ $\mathbf{c} = C = C = R = S$ $\mathbf{b} = S = V = N$ $\mathbf{b} = S = S = 2!$ $\mathbf{b} = S = V = N$ $\mathbf{b} = S = V = N$	OLEN = = = = ONN = = / = = <u>COI</u> YPE I = = IZE 0 = Si 0 = Si Si Si Si Si Si Si Si Si S	NOID 115/6 230/6 12 VI 24 VI ECT( .500 PG-1 PG-1 NTRC With Servo With Servo With Servo Volur (for "\ Adjus	VC 30 - 30 - 50	L DLTA( 110/5 220/5 7 w/oi 7 w/Liti 220/5 7 w/Liti 7 Lite 2001 2001 2001 2001 2001 2001 2001 200	Lite erate 20 (T 225 (T pp imun	C ype ype n y)
G = One-way Side Port S = One-way Rear Por 10 = CONNECTIO F = Flange 11 = SHAFT END Y = SAE C-C Z = SAE C-C X = SAE C-C K = SAE C S R = SAE D S 12 = CONTROL T N = None F = Fixed P = Pressure R = Solenoid V = Electroh	v Servid ted v Servid DN TY DESIC Key, 1 Key, 2 Spline, 1 Spline,	ce; Ce; PE GNA <sup>-</sup> Full L 1" Sh Loosi Loosi Loosi Loosi Peens	TOR Leng norte ose e Fit e Fit satin	th r than Fit	"Υ	,	* \ * \ * \ * \ * \ * \ * \ * \	W = S = S = S Not <i>I</i> Omi CON $S = S = S$ $K = S$ Not <i>I</i> Comp	.50 PC Ava t if Lo Lo Lo Lo Lo Lo Lo Lo Lo Lo Lo Lo Lo	00 N $\hat{a}$ -11 $\hat{a}$ -11 Not OL OL Sorsep ad S orsep ad S or	PT w/o w/Lii e w/F Requ MOE Bense Gense Gense Gense ower Sense nimu e witt optic RSEF	//Lite Lite P-A or uired DIFIEI r Limit Climit w/M	r P-B R ting v otion er Op inimu rsepc andby ssure A, B (	vith ition im ower	ſ	15	S ON E = A R B A B A B	N = MIT <sup>-</sup> OT F UXILI equir lank f A = N = B =	and N Volur Contri Adjus Volur (Not : "V" C THE I REQU IARY ed foi for all Coup SAE Coup SAE Coup SAE	Miniii ne { rol C stabil ne { avai ontr FOLE AE nor AI A A A A A A A B-B	mum Stop ( Dnly) le Ma: Stop lable rol) LOW ED	for "F kimur for ING I ERS shaft shaft shaft apter apter apter	R" m IF unit t un r r
(with fee						13a	1 1 <u>F</u> = 1	Exar 100   100 = 100 = <u>R C(</u>	npl HP = 1( <u>ON</u> =	e: lin Inpu 00 H <u>TRC</u>	nited it P Inj <u>)L OI</u>	out (7		w)		16	C C N = O B 0!	N = P = N = PTIC lank u 5 =	SAE Coup SAE Cove None NAL unless 0.488	B 2 ling C 2 r pla GE S ree S cip	2-Bolt & Ad 2-Bolt atep	apter PUMI I optio ml/re	r PS on ev.)



- 07 = 0.672 cipr (11 ml/rev.) 10 = 0.976 cipr (16 ml/rev.) 14 = 1.403 cipr (23 ml/rev.) 20 = 2.015 cipr (49 ml/rev.)
- 17 = Special Pump Mod Assigned by Factory if necessary





Oilgear How to Order

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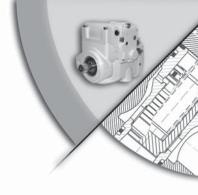
### HOW TO ORDER - PVG 150

BLOCK NUMBER EXPLANATION	1	2	3	-	4	-	5	6	7	-	8	9	10	11	-	12	-	13	14	1	15	/	16	17			
VARIABLE PUMP EXAMPLE	Ρ	v	G	-	150	-	A1	U	v	-	L	D	F	Y	-	Ρ	-	1NN	SN	1	A2	/	7	-			
1 = UNIT P = Pump							13	= C(	DNT	RO	LM	-	FIER			14 = VOLUME STOPS NN = No Volume Stop											
2 = TYPE V = Variable	)						a b c / d e									SN = Adjustable Maximum Volume Stop											
<b>3</b> = DESIGN TY G = Type	ΡE						<b>13a</b> = CONTROL OPTIONS 1 = Single Setting										OMIT THE FOLLOWING IF NOT REQUIRED										
4 = UNIT SIZE 150 = 150 c	150 = 150 cc/rev. (9.16 cipr)								= [ = F	Dua Prop	l Se ortic	tting onal	o Devio	e, N.	15 = AUXILIARY ADAPTERS												
5 = DESIGN SE	DESIGN SERIES A1 = Current									<ul> <li>B = Proportional Device, N.C.</li> <li>C = Single Pressure Device, with Soft Start, N.O.</li> </ul>										Required for all thru-shaft units Blank for all non-thru-shaft							
	<ul> <li>DESIGN SERIES MODIFIER</li> <li>U = SAE Connections &amp; Mounting</li> </ul>									Sing Elec	le S tron	ettin ic Di	g Dev splac	<i>i</i> ice, emer	nt	AA = SAE Adapter & Coupling A2 = Coupling & Adapter											
7 = SEALS V = Viton (S	= SEALS V = Viton (Standard) B = Hydragenated Buna Nitrile								Control Dec Flow/Inc Current Signal <b>13b</b> = SOLENOID VOLTAGE N = None Required										SAE Cou SAE Cou	A 2 pline B 2 pline	2-Bolt g & A 2-Bolt g & A	dap dap	ter				
8 = ROTATION L = Left-han R = Right-ha							0 = 115/60 - 110/50 VAC 1 = 230/60 - 220/50 VAC 2 = 12 VDC 3 = 24 VDC										SAE A 4-Bolt C2 = Coupling & Adapter SAE C 2-Bolt C4 = Coupling & Adapter										
9 = VALVE PLA G = One-wa D = One-wa Thru-Shaft	y Se	ervic	e; S	ide ide	Porte Portec	d	<b>13c</b> = CONNECTOR N = Non-electrical Control Options or Connector R = .500 NPT w/o Lite										SAE C 4-Bolt D4 = Coupling & Adapte SAE D 4-Bolt) NN = None SAE B-B & SAE C-C Cou										
10 = CONNECTION F = SAE Flat			ΡE					S	=	PG	11 \	PT w N/o l	ite					also a	vailat	ole.				-			
L = SAE "D' S = SAE "D	<ul> <li>= SAE Flange</li> <li>SHAFT TYPE (See Shaft Note)</li> <li>= SAE "D"</li> <li>S = SAE "D" Splined, Loose Fit</li> <li>Y = SAE "D" Keyed, Full Length</li> </ul>									* L = PG-11 w/Lite * Not available w/P-A or P-B / Omit if not required 16 = OPTIONAL GEAR PL Blank unless required of 05 = 0.488 cipr (8 ml/ 07 = 0.672 cipr (11 ml) 10 = 0.976 cipr (16 ml)											ed o ml/ ml	ption rev.) /rev.)					
	CONTROL TYPE P = Pressure Compensating								Blank unless required option **/F = Load Sense **/K = Load Sense with									14 = 20 =	1.40	3 ci	pr (23	3 ml	/rev.)				
Shaft Note:								CC	ot av	vaila ensa	able ation	m St with opti	andby press ons	/ sure		17	=	SPEC Assigi					neces	sary			

Shaft Note: Spline Shaft "S" should be used for rigid internal drives such as gear boxes and internally splined electric motors.

Spline Shaft "L" should be used for clamped and slip fit flexible couplings.

Subject to change without notice.

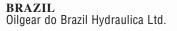


# **Oilgear** Notes

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NOTES





**CANADA** The Oilgear Company

**CHINA** Oilgear China Co. Ltd.

**FRANCE** Oilgear Towler S.A.

**GERMANY** Oilgear Towler GmbH

**INDIA** Oilgear Towler Polyhydron Pvt. Ltd. Towler Automation Pvt. Ltd.

**ITALY** Oilgear Towler S.r.l.

JAPAN The Oilgear Japan Company

**KOREA** Oilgear Towler Korea Co. Ltd.

MEXICO Oilgear Mexicana S.A. De C.V.

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TAIWAN Oilgear Towler Taiwan Co. Ltd.

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For more information about your application or the products in this brochure, please contact your nearest Oilgear facility.



