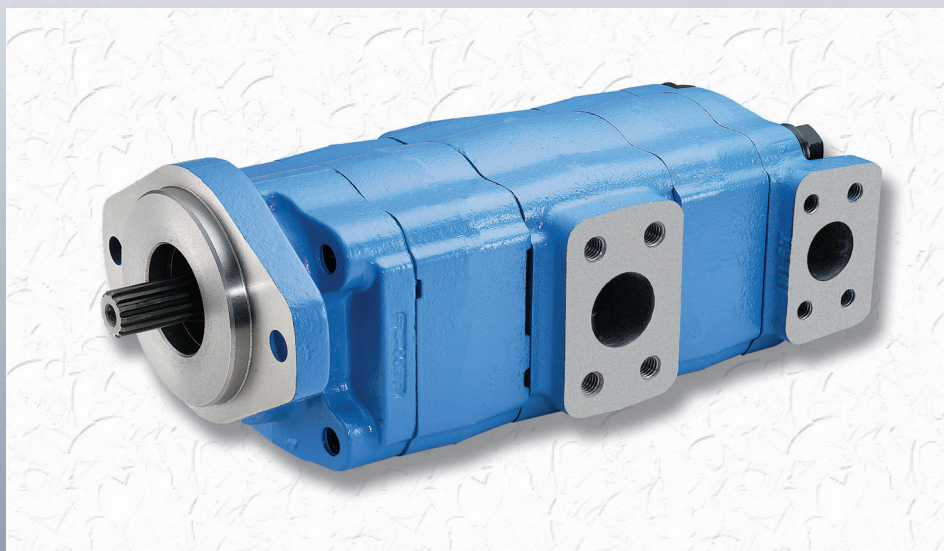




## Hydraulic Pumps, Motors, Flow Dividers/Intensifiers, Accessories, & Replacement Parts



For mobile and industrial applications:



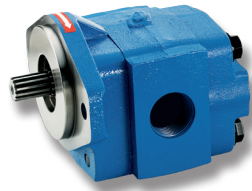
- Construction Equipment
- Refuse Equipment
- Mining Machinery
- Agricultural Equipment
- Oil Field Equipment
- Industrial Equipment
- Forestry Equipment



# Roller Bearing Pumps and Motors

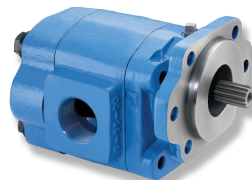
## Specifications

## Gear Width



**P2100/3100**

Series	Spec	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00
2100/3100	GPM/1000RPM/2000 PSI	**	**	6.5	8.5	11.0	12.5	15.0				
	LPM/1000 RPM	**	**	25	32	42	47	57				
	IN <sup>3</sup>	1.0	1.5	2.0	2.5	3.0	3.5	4.00				
	CC	16.4	24.6	32.8	41.0	49.2	57.3	65.5				
	*** Max RPM	2400	2400	2400	2400	2400	2400	2400	2400			
	# 2100 - Max PSI	3000	3000	3000	3000	3000	2500	2500				
	# 3100 - Max PSI	3000	3000	3000	3000	3000	2500	2500				
	* Motor/Input GPM	**	**	12.0	14.0	16.5	19.0	21.0				
	* Motor/Output in-lbs	**	**	570	730	895	1035	1175				
	* Motor/Output HP	**	**	9.0	11.5	14.0	16.5	18.6				



**P5100/5151**

5100/5151	GPM/1000RPM/2000 PSI	**	**	9.5	12.0	14.5	17.5	19.5	21.0	23.5		
	LPM/1000 RPM	**	**	36	45	55	66	74	79	89		
	IN <sup>3</sup>	1.29	1.93	2.57	3.22	3.86	4.50	5.15	5.79	6.43		
	CC	21.1	31.6	42.2	52.7	63.2	73.8	84.3	94.9	105.4		
	+ Max RPM	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	
	5151 - Max Peak PSI	N/A	N/A	N/A	N/A	N/A	3000	3000	3000	3000		
	# 5100 - Max PSI	3000	3000	3000	3000	3000	3000	2500	2500	2500		
	* Motor/Input GPM	**	**	13.5	16.5	19.5	23.0	26.0	29.0	32.0		
	* Motor/Output in-lbs	**	**	725	925	1130	1320	1510	1695	1885		
	* Motor/Output HP	**	**	11.5	15.0	18.0	21.0	24.0	27.0	30.0		



**P7600**

7600	GPM/1000RPM/2000 PSI	**	**	14.5	19.0	23.0	27.0	31.0	35.5	39.0	44.0	49.0
	LPM/1000 RPM	**	**	55	72	87	102	117	134	148	167	185
	IN <sup>3</sup>	2.02	3.03	4.04	5.06	6.07	7.08	8.09	9.1	10.1	11.1	12.1
	CC	33.1	49.7	66.3	82.8	99.4	116.0	132.5	149.1	165.7	182.2	198.8
	Max RPM	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400
	# 7600 - Max PSI	3000	3000	3000	3000	3000	3000	2500	2500	2500	2000	2000
	* Motor/Input GPM	**	**	23.0	28.0	33.0	37.5	42.0	46.5	51.0	56.0	61.0
	* Motor/Output in-lbs	**	**	1095	1390	1690	1980	2265	2590	2915	3300	3690
	* Motor/Output HP	**	**	17.5	22.0	27.0	31.5	36.0	41.0	46.5	52.5	58.5

\*Motor Specifications are given at 1000 RPM and @ 2000 PSI

\*\* Consult Permco on these gear sizes.

\*\*\*2000 RPM Maximum on Motors

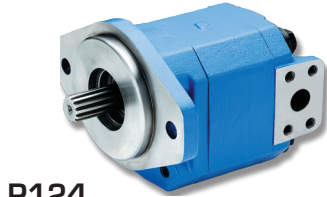
# The information shown above represents the maximum continuous operating conditions.

+ Maximum 3000 RPM for 5151 series.

# Sleeve Bushing Pumps and Motors

## Specifications

## Gear Width



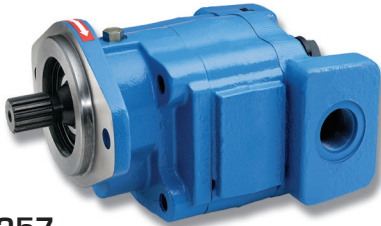
**P124**

Series	Spec	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50
124	GPM/1000RPM/RatedPSI	2.0	3.5	5.0	6.0	7.5	9.0	10.0		
	LPM/1000 RPM	8	13	19	23	28	34	38		
	IN <sup>3</sup>	0.62	0.93	1.24	1.55	1.86	2.17	2.48		
	CC	10	15	20	25	30	35	40		
	Max RPM	3000	3000	3000	3000	3000	3000	3000		
	# Max PSI	3500	3500	3500	3500	3300	2900	2500		
	# Max Bar	241	241	241	241	227	200	172		
	* Motor/Input GPM	**	**	8.0	9.0	10.5	12.0	13.5		
	* Motor/Output in-lbs	**	**	660	825	930	955	945		
	* Motor/Output HP	**	**	10.5	13.0	15.0	15.0	15.0		



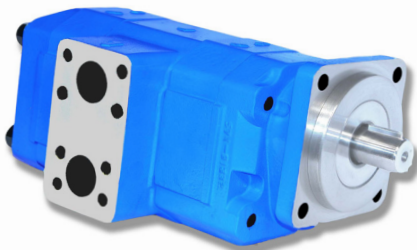
**P197 Tandem**

P197	GPM/1000RPM/RatedPSI	**	**	7.0	9.0	11.0	13.0	15.0		
	LPM/1000 RPM	**	**	26	34	42	49	57		
	IN <sup>3</sup>	0.99	1.48	1.97	2.46	2.96	3.45	3.94		
	CC	16.1	24.2	32.3	40.4	48.4	56.5	64.6		
	Max RPM	2400	2400	2400	2400	2400	2400	2400		
	# Max PSI	**	**	4000	4000	3750	3500	3250		
	# Max Bar	**	**	276	276	259	241	224		



**M257**

257	GPM/1000RPM/RatedPSI	**	**	9.0	12.0	14.5	17.0	19.5	22	25
	LPM/1000 RPM	**	**	34	45	55	64	74	83	95
	IN <sup>3</sup>	1.29	1.93	2.57	3.21	3.86	4.50	5.14	5.78	6.43
	CC	21.1	31.6	42.1	52.6	63.2	73.7	84.2	94.8	105.3
	Max RPM	2400	2400	2400	2400	2400	2400	2400	2400	2400
	# Max PSI	4500	4500	4500	4500	3500	3250	3000	2750	2500
	# Max Bar	310	310	310	310	241	224	207	190	172
	+ Motor/Input GPM	**	**	14.5	17.5	20.5	23.5	26.0	29.5	31.5
	+ Motor/Output in-lbs	**	**	1250	1600	1950	2150	2250	2350	2350
	+ Motor/Output HP	**	**	19.5	25.5	31.0	34.0	36.0	37.5	37.5



**P360 Tandem**

360	GPM/1000RPM/RatedPSI	**	**	12.7	16.5	20.4	24.2	28.1	31.9	35.8
	LPM/1000 RPM	**	**	48.8	63.3	77.7	92	106.6	121	135.5
	IN <sup>3</sup>	1.80	2.70	3.60	4.50	5.40	6.30	7.20	8.10	9.00
	CC	29.5	44.2	59.0	73.8	88.5	103.3	118.0	132.8	147.5
	Max RPM	2400	2400	2400	2400	2400	2400	2400	2400	2400
	# Max PSI	3500	3500	3500	3500	3500	3500	3500	3250	3000
	# Max Bar	241	241	241	241	241	241	241	224	207
	+ Motor/Input GPM	**	**	14.5	17.5	20.5	23.5	26.0	29.5	31.5
	+ Motor/Output in-lbs	**	**	1250	1600	1950	2150	2250	2350	2350
	+ Motor/Output HP	**	**	19.5	25.5	31.0	34.0	36.0	37.5	37.5

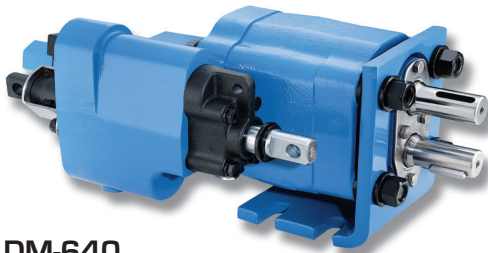
\*These motor specifications are given at 1000 RPM @ rated PSI.

\*\*Consult Permco on these gear sizes.

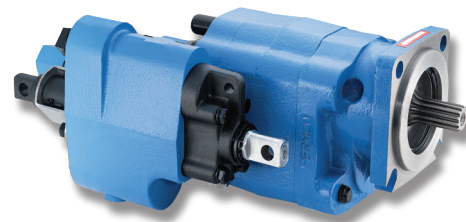
#The information shown above represents the maximum continuous operating conditions.

+These motor specifications are given at 1000 RPM @ 3000 PSI for 1", 1.5", 1.75", and 2"; @ 2750 PSI for 2.25"; and @ 2500 PSI for 2.5"

# Dump Pumps and Accessories



Pump/valve assembly for heavy and medium duty dump trucks and dump trailers



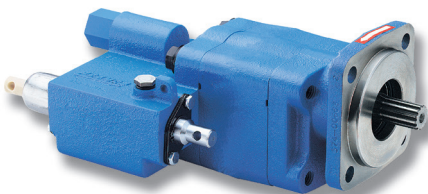
**DMD-25**

**DM-640**

Series	IN <sup>3</sup> (CC)	GPM/900 RPM/2000 PSI	GPM/1200 RPM/2000 PSI	GPM/1500 RPM/2000 PSI
DM-512-20/DMD-20	5.12 (84.3)	17.5	24.0	30.5
DM-640-25/DMD-25	6.40 (105.4)	21.0	29.0	37.5

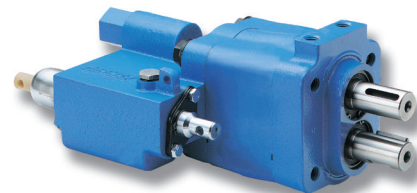
## Permco Dump Pump Features

- Direct mount SAE "B" 4 bolt or twin shafted remote mount with bracket (DM-640) or built-in mounting bracket (DMR-400)
- Manual shift, "OEM" air shift (DM-640 and DMD-25 only), or after market air shift, each with full metering capabilities
- 100% factory tested
- Heavy duty roller bearings
- Pump and cylinder protected in the raise and neutral position of the spool
- 2 or 3 line configurations available
- 2 extended studs for easy installation of pump support bracket on direct mount (DMD-20 and DMD-25 only)
- Built-in load check maintains dump body angle and is installed in the cylinder port for superior self-cleaning
- Built-in direct acting relief valve set at factory
- Neutral lock-out safety cap for use with pull-out cable
- High strength alloy steel gear and shaft set



**DMD-400**

Pump/valve assembly for medium and light duty dump trucks



**DMR-400**

Series	IN <sup>3</sup> (CC)	GPM/900 RPM/2000 PSI	GPM/1200 RPM/2000 PSI	GPM/1500 RPM/2000 PSI
DMR/DMD-300	3.0 (49.2)	10.0	14.0	17.5
DMR/DMD-400	4.0 (65.5)	13.5	19.0	24.0

## Air Shift Controls and Towers



The PAVC-295-T-8 series towers come in either an 8" or 13" tower. The PTO is kicked out of gear when the pump lever is put into the "lower" position.

**PAVC-295-T-8**



The PCONV-PER-4 series towers come in an 8" tower. It also comes with a PTO valve cutout for a Chelsea PTO. The air valve shown is supplied with the PTO.

**PCONV-PER-4**

The P1229 air valve controls both the Dump Pump and the PTO in one lever. There are options for detent of the lever controlling the pump and a PTO kickout. The valve can be ordered with a bracket for installation on an air seat.



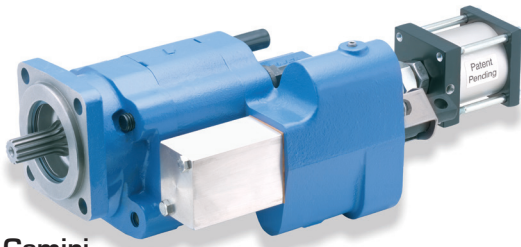
**P1229**

The 997-00971A is an after market air shift cylinder that fits the DMD-25 and DM-640 Dump Pump as well as all other units of similar design.



**997-00971A**

# Gemini Dual-Use Pumps



Gemini

**Gemini Dual Use Pump Features:** Designed to be used with dual use applications, typically a dump trailer and a live floor or goose neck

- Dual pressure relief valve: low for dump trailer, high for other application, each field adjustable
- Direct mount SAE "B" 4 bolt or twin shafted remote mount with bracket
- Heavy duty roller bearings

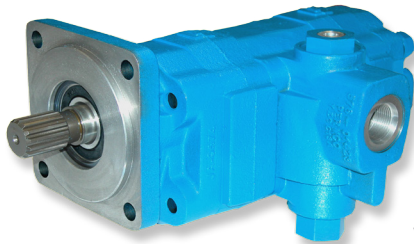
997-01444

Series	IN <sup>3</sup> (CC)	GPM/900 RPM/2000 PSI	GPM/1200 RPM/2000 PSI	GPM/1500 RPM/2000 PSI	Max RPM	Max PSI
DG-20 / RG-20	5.12 (84.3)	17.5	24.0	30.5	1800	3200



The 997-01444 air tower controls the pump/valve, PTO, cylinder, and the high/low pressure setting on the relief valve for the dual pressure. Safety features include auto kickout to low pressure when PTO is disengaged and optional safety latch PTO switch with auto kickout in lower position. Other tower options available: consult factory

# Two-Speed Motors



W5100  
Two-Speed

The Two-Speed Motor has the two-speed valve built into the bearing carrier providing compact packaging and offering lower system cost by eliminating expensive external components. The two-speed can be shifted on the fly to either the low speed/high torque or high speed/low torque modes. Two-Speed Motors are ideal for winch, crawler, conveyer, auger and many other types of applications with low speed/high torque and high speed/low torque requirements. Two-Speed Motors can be constructed with our standard tooth count gears or our high tooth count winch motor gears depending on the application. In low speed/high torque applications the high tooth winch motor gears provide improved starting torque, smoother low speed operations and lower torque ripple.

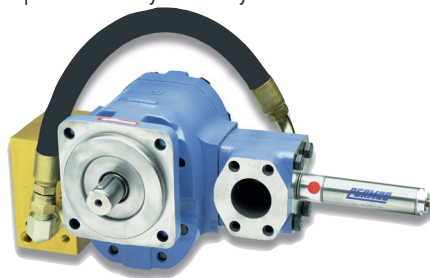
# Versa-Pak/Refuse Systems

Versa-Pak  
Unloading  
System



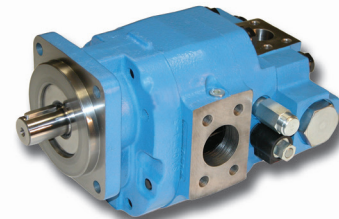
The Versa-Pak Unloading System limits the flow to the system while in use to prevent hydraulic overspeeding. While in the off mode the flow is diverted back to the tank at low pressures to control horsepower losses. Available with optional speed sensor and digital speed controller to further protect the hydraulic system.

The Versa-Pak Dry Valve System incorporates an air operated dry valve which permits hydraulic operation while the vehicle is in motion. It reduces fuel consumption during the off mode and eliminates heat build-up associated with "live" systems in the on mode. Available with optional speed sensor and digital speed controller to further protect the hydraulic system.



Versa-Pak Dry Valve  
System

Versa-Pak  
Flow Control/Unloader System



The Versa-Pak Flow Control/Unloader System allows a preset amount of flow to the hydraulic system with the excess flow being returned to tank; this function protects the system's main relief valve from being flooded. In addition, the priority type pressure compensated flow control minimizes heat generation by returning unused oil back to tank at only a few hundred PSI more than system pressure.



Permco offers Port End Covers for the P3100 and P5100 pumps which incorporate a built-in relief valve. Pressure settings are factory set at 2500 or 3200 PSI. Settings are field adjustable. The tank port on the P3100 are either internally or externally exhausted. The P5100 is externally exhausted only.



**P5100 Port End Cover with Relief Valve**

Permco offers a complete line of hydraulic filters and tank strainers. Both 10 and 25 micron filter elements are available with filter heads ranging from 20 gallon with 3/4" NPT ports to 90 gallon with 1 1/2" split flange ports. 1/8" NPT gauges are optional.

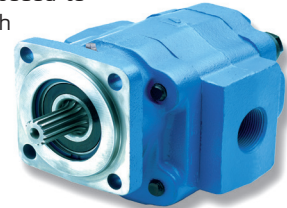
Permco's remote mounted Relief Valve AZ5514J-100-25 or AZ5514J-100-32 comes with 1" NPT ports. It is available with either 2500 or 3200 PSI maximum settings, and is field adjustable. It is easily mounted with 3 mounting holes and



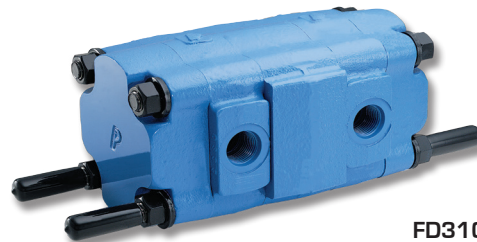
**AZ5514J-100-25**

directly replaces common relief valves currently found from other manufacturers. Available in 3/4" and 1" NPT ports; 3/4" and 1" O-ring ports and available with optional pilot operated relief cartridges.

Hydraulic Winch Motors are now available from Permco. These motors are equipped with a special high tooth count gear as opposed to the traditional standard tooth count gear. This allows for better start-up torque and less "torque ripple". They are available in the W3100, W5100, and W7600 series.



**W5100**



**FD3100**

Permco offers a complete line of hydraulic Flow Dividers and Intensifiers. FD3100, FD5100, and FD7600 are available in the roller bearing series. Input flows up to 70 GPM per section with a maximum pressure drop of 2500 PSI.



Permco uses only the best material available in all of our parts which assures you the most reliable gear technology products available. Permco has built a reputation on quality and service.

Permco  
1500 Frost Rd.  
P. O. Box 2068  
Streetsboro, OH 44241

Copyright © 2009 Permco

Phone: 330-626-2801  
Toll Free: 800-626-2801  
Fax: 330-626-2805

web: [www.permco.com](http://www.permco.com)  
twitter: @permco  
e-mail: [info@permco.com](mailto:info@permco.com)

Bulletin #BG-0103 (Rev 1016)