



## Refuse Systems *The Sensible Choice*

### EVO Refuse

- Rust resistant coated; no need for paint
- Bi-rotation; simplifying field adjustment
- Longevity and reliability; trouble free operation
- Compatible and interchangeable with most major manufacturers
- Highest quality material available globally!

### Gear Products

- Heavy duty roller and sleeve bearing designs
- Pressures up to 3500 PSI
- Doweled and high strength cast iron construction
- Wide range of porting, mounting, and shaft options
- Pressure balanced wear plates for high pump efficiency
- Unloader, dry valve, speed sensor and electronic control options available



### EVO Refuse

#### The PT6 and PT7 Series single section vane type units

These EVO vane type units come in many sizes and configurations. They are seen in refuse equipment where flow is electronically controlled to gain maximum efficiency for both the hydraulic system and fuel economy. This type units is commonly found on commercial and residential front and rear loaders with single hydraulic systems.



#### The EVO PT6 and PT7 Series tandem section vane type units

The PT6 and PT7 series are common on many of today's refuse hydraulics systems; tandem units provide the ability to operate (2) independent hydraulic systems with one pump. These type units are seen on automated side loader refuse vehicles where two different flow rates are required for the packer and grapple arm. The flows are electronically controlled to provide constant flow to each hydraulic system to maintain efficiency for the hydraulic system and provide optimum fuel economy for the vehicle.



### Versa-Pak Refuse

**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.



**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.



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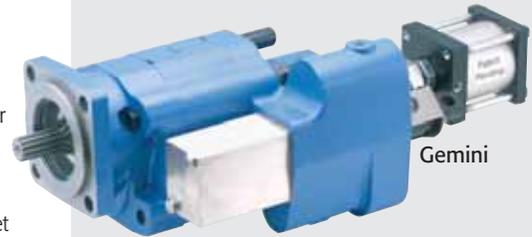


## Dual-Use Pumps

### Gemini Refuse Dual Use Pump Features:

Designed to be used with dual use system applications, typically a dump trailer and/or a live floor or goose neck trailer

- Dual pressure relief valve: low for dump trailer, high for other applications, each field adjustable
- Direct mount SAE-B-4 bolt or twin shafted remote mount with mounting bracket



Gemini

**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 refuse system. 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.



**The PEK/2100 and PEL/5151 Series** fits a variety of applications in the refuse industry, designed with both side and rear ports, SAE-B 2&4 bolt mounting flange, Bi-Rotation and setup for use as a pump or motor providing versatility for uses in many application. Commonly seen in refuse roll-off, live floor, small and large rear loaders, recovery vehicles, container haulers and many other utility type vehicle applications.



PEK/2100 and PEL/5151

**Permco Bushing Series in our 257 and 360 series** are becoming more popular in the refuse market; bushing units typically have higher pressure ratings and longer life. Many are used today on front and rear loaders and also on automated side loader applications. Typically these are used in unloader applications where manifolds equipped with solenoids turn the system on and off.



Permco Bushing Series

**The CH-640 and CH-512 Series pumps** have been specifically designed for the refuse truck market. The CH Series pumps are made of high strength cast iron and alloy steel incorporating Permco's rugged and dependable gear pump design. CH pumps are pad mounted with double 1-1/8 inch drive shafts and large port end cover with 1-1/2 inch NPT inlets and a choice of 3/4 inch or 1 inch O-ring outlets.



CH-640 and CH-512

**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 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.

**Permco offers Port End Covers** P3000, P3100, P5000 and P5100, pump series which incorporate a built-in relief valve. Pressure settings are factory set with ranges from 500 to 3200 PSI. Settings are field adjustable. The tank port on the P3000 and P3100 are either internally or externally exhausted. The P5000 and P5100 are externally exhausted only.



Port End Covers

Relief Valve



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