# Z3500 Pump

## For Truck and Stationary Applications

Reversible sideplates add twice the life. Sideplates are easily reversed/replaced by removing just twelve head bolts.

Computer designed porting and profiling of the cam reduces cavitation and improves the pumping efficiency. Unique elongated flange configuration enables you to retrofit other three-inch pumps with little or no change in piping.

Patented needle roller thrust bearings rated for 4,000 lbs minimizes sideplate wear. Typically, no field adjustment is required.



# New Z-Series pump with higher flow rates for faster loading and unloading!

The Z3500 is a three-inch foot mount pump designed for stationary and truck applications such as loading and unloading single and dual bobtails. It offers the same locked rotor design used in the Corken Z-Series truck pumps to ensure a longer pump life and excellent performance. The Z3500 also delivers higher flow rates than other three-inch competitive pumps, so your loading times are shortened.

Lastly, installation is easy because the Z3500 retrofits the Corken model 1021 pump and other competitive three-inch pumps with little or no change in piping.

Advantages:

- Large diameter non-metallic pins are not speed sensitive so you can operate the pump at a higher RPM and not damage the pump.
- High tech materials used on cam and blades extend the life of the pump.
- Up to 7% or more capacity at 640 RPM.

• Unlike other three-inch stationary pumps rated at 640 RPM, the Z3500 is rated up to 800 RPM providing higher capacity without damage.

- Maintenance is made simple. When it becomes necessary to service the pump, all you need to do is remove twelve head bolts to inspect the bearings, seals, sideplates, rotor, vanes and vane drivers.
- Retrofits the Corken model 1021 pump and other three-inch competitive pumps with little or no change in piping.

| CAPACITY COMPARISON*  |          |           |           |           |
|---|----------|-----------|-----------|-----------|
|   | RPM      |           |           |           |
|   | 420      | 520       | 640       | 780       |
| Corken gpm (L/min)  | 86 (326) | 116 (439) | 143 (541) | 177 (670) |
| Competitor gpm (L/min)  | 80 (303) | 108 (409) | 133 (503) |           |
| * 411 approximation and rated at 50 paid and material application dependent |          |           |           |           |

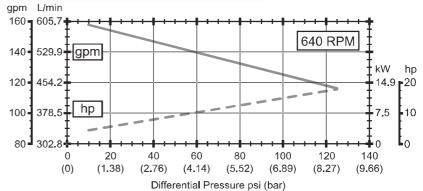
<sup>\*</sup>All capacities are rated at 50 psid and system and condition dependent.

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### **Operating Specifications**

| RPM range:                          | 420-800 RPM     |
|-------------------------------------|-----------------|
| Max working pressure:               | 400 psig        |
|                                     | (28.6 bar)      |
| Temperature range:                  | -25°F–225°F     |
|                                     | (-32°C–107°C)   |
| Internal relief valve:              | Yes             |
| Max differential pressure: 150 psid |                 |
| -                                   | (10.3 bar d)    |
| Flow range:                         | 52–197 gpm      |
| -                                   | (197–746 L/min) |

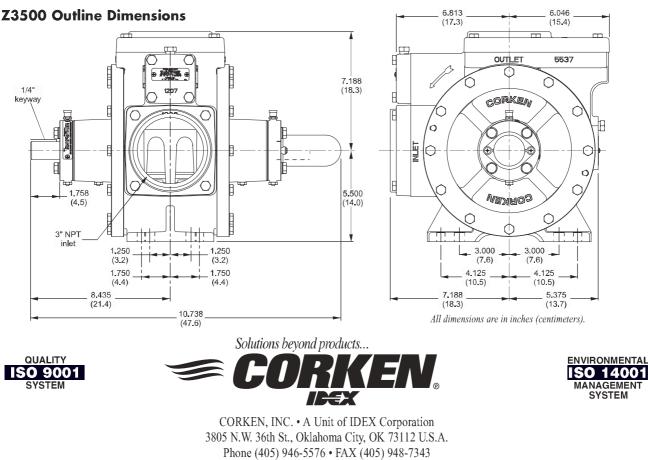
### **Performance Curves**



### **Material Specifications**

| Part   | Standard Material            | Optional Material                                 |
|--|------------------------------|---|
| Case, head, rotor, relief-valve cap, bearing cap | Ductile iron ASTM A536       |   |
| Cam  | Gray iron ASTM A48, Class 50 |   |
| Sideplate  | Gray iron ASTM A48, Class 30 |   |
| Welding flange                                   | Steel                        |   |
| Seal seat  | Gray iron                    | Stainless steel & Ni-Resist                       |
| Seal metal parts                                 | Steel                        |   |
| Shaft  | 8620 steel                   |   |
| Vanes and vane drivers                           | Advanced polymers            |   |
| Relief valve spring                              | Stainless steel              |   |
| Relief valve                                     | Steel                        |   |
| Bearing  | Steel                        |   |
| Thrust bearing                                   | Steel                        |   |
| O-rings  | Buna-N                       | PTFE, Viton <sup>®</sup> , Neoprene <sup>®1</sup> |
| Retainer rings                                   | Steel                        |   |

IViton<sup>(®)</sup> and Neoprene<sup>(®)</sup> are a registered trademarks of the DuPont company.



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# Z4500 Stationary Pump

## Reduces Fill Times to Save Time and Money

Reversible sideplates add twice the life. Sideplates are easily reversed/replaced by removing just eight head bolts.

Computer designed porting and profiling of the cam reduces cavitation and improves the pumping efficiency. Patented needle roller thrust bearings rated for 4,000 lbs minimizes sideplate wear. Typically, no field adjustment is required.



### Higher capacities shorten fill times for transports and multiple bobtail loading.

The Z4500 is a four-inch stationary pump designed for transport loading and multiple bobtail loading applications. If you have two or more bulkheads to load bobtails and transports and would like to shorten your fill times, then the Z4500 is the stationary pump for you. The Z4500 can fill two 3,000 gallon bobtails in 20 minutes or less at typical operating RPMs.

- Large diameter non-metallic pins are not speed sensitive so you can operate the pump at a higher RPM and not damage the pump.
- High tech materials used on cam and blades help extend the life of the pump.
- Unlike other four-inch stationary pumps rated at 640 RPM, the Z4500 is rated up to 800 RPM providing higher capacity without damage.

- Maintenance made simple. When it becomes necessary to service the Z4500 stationary pump, all you need to do is remove eight head bolts to inspect the bearings, seals, sideplates, rotor, vanes and vane drivers.
- Higher capacities than other four-inch stationary pumps—up to 15% more at typical operating conditions.

| CAPACITY COMPARISON*   |           |           |             |             |
|------------------------|-----------|-----------|-------------|-------------|
|                        | RPM       |           |             |             |
|                        | 420       | 520       | 640         | 780         |
| Corken gpm (L/min)     | 197 (746) | 248 (939) | 309 (1,170) | 382 (1,446) |
| Competitor gpm (L/min) | 170 (643) | 220 (833) | 270 (1,022) |             |

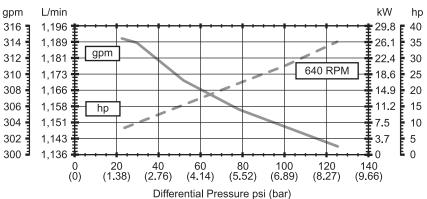
\*All capacities are rated at 50 psid and system and condition dependent.

Solutions beyond products...

### **Operating Specifications**

| RPM range:                 | 420-800 RPM       |
|----------------------------|-------------------|
| Max working pressure:      | 400 psig          |
|                            | (28.6 bar)        |
| Temperature range:         | -25°F–225°F       |
| -                          | (-32°C-107°C)     |
| Internal relief valve:     | Yes               |
| Max differential pressure: | 125 psid          |
|                            | (8.6 bar d)       |
| Flow range:                | 190–382 gpm       |
|                            | (719-1,457 L/min) |
|                            |                   |

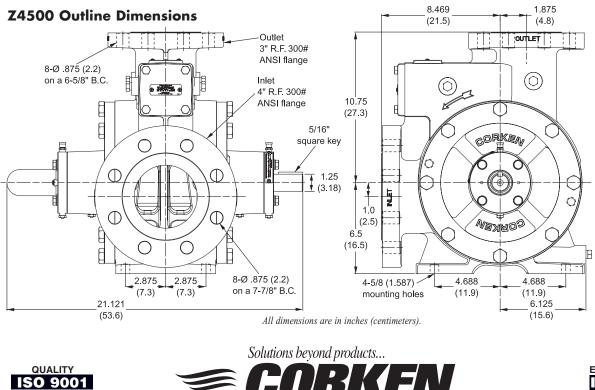
#### **Performance Curves**



### **Material Specifications**

| Part   | Standard Material            | Optional Material                                 |
|--|------------------------------|---|
| Case, head, rotor, relief-valve cap, bearing cap | Ductile iron ASTM A536       |   |
| Cam  | Gray iron ASTM A48, Class 50 |   |
| Sideplate  | Gray iron ASTM A48, Class 30 |   |
| Welding flange                                   | Steel                        |   |
| Seal seat  | Gray iron                    | Stainless steel & Ni-Resist                       |
| Seal metal parts                                 | Steel                        |   |
| Shaft  | 8620 steel                   |   |
| Vanes and vane drivers                           | Advanced polymers            |   |
| Relief valve spring                              | Stainless steel              |   |
| Relief valve                                     | Stainless steel              |   |
| Bearing  | Steel                        |   |
| Thrust bearing                                   | Steel                        |   |
| O-rings  | Buna-N                       | PTFE, Viton <sup>®</sup> , Neoprene <sup>®1</sup> |
| Retainer rings                                   | Steel                        |   |

<sup>1</sup>Viton<sup>®</sup> and Neoprene<sup>®</sup> are a registered trademarks of the DuPont company.



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