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**KelairPumps**

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## FEATURE

### Positive displacement pumps on diesel duty

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In pumping diesel fuel, we need to take into consideration that it is a thin fluid with low lubricity. Now water is also a thin fluid with low lubricity. And if diesel, transfer and feed duties were similar to water duties, we could use centrifugal pumps as we do for water. Diesel fluid would pump just as well as water using a centrifugal. Diesel duties however, have criteria that set them apart from typical water duties.

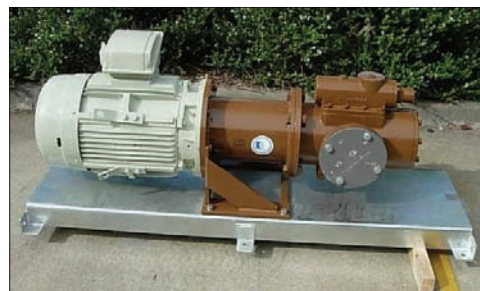
Let's look at generator duties to feed a day tank at a particular flow rate. The flow rate required may be quite low (20 l/min to 50 l/min) with a high head that would vary from case to case. A constant flow rate may also be required. For a centrifugal pump, to get the flow rate spot on, you would need to re-design your piping for each system so that the static head and system resistance will give you the specific flow that you need. That means every system needs to be engineered individually. Why do that, when you could use a positive displacement (PD) pump? Run the PD pump at selected rpm and you will have the perfect flow rate for every system, whatever the system pressure. The Viking pump pictured is ideal for that type of duty.

Let's have a look at another typical duty for diesel fuel which is burner feed. When feeding the burners that fire a steam boiler, high flows may be required. Not only that, high pressures may also be required (could be 20 Bar to 40 Bar). But that pressure won't stay constant. As burners come off line, and then go back on line, with the system still running, control valves have to regulate the flow, and pressure spikes occur. In some cases centrifugal pumps can be used, but it's a lot easier to run a PD pump because they are purpose-built for this type of duty.

Pictured are KRAL 'triple screw' pumps. They are being used successfully on diesel fuels, at the pressures mentioned. They are pictured in the horizontal flanged configuration for a stand-alone pump. They are also pictured in the vertical flanged configuration,



Above KRAL vertical. Below KRAL horizontal



Viking pump

for skid mounting. This vertical configuration is excellent for space-saving that lends itself well for skid design.

If you have an industrial feed or transfer duty for pumping diesel fuel, contact Kelair Pumps, as we have a range of industrial pumps well suited to this application.

• For further product information visit [www.kelairpumps.com.au](http://www.kelairpumps.com.au)