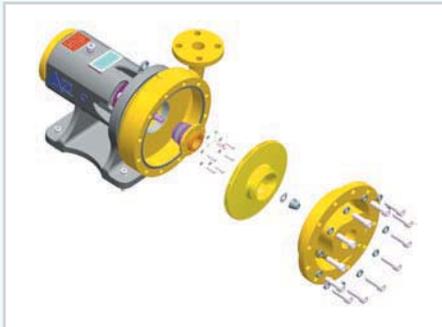


# Trailer off loading and transfer applications

## The ACD TOP Series outperforms its competitors

ACD's new TOP Series (Trailer Oil-lubricated Pump), with its robust design and many features, has proven itself to operators in the trailer off-loading and transfer pump marketplace. The TOP exceeds industry standards for mechanically sealing and overall product performance. In direct comparison to other trailer off-loading pumps, the TOP 260 outperforms all competitors for sealing life and pressure/output flows. As predicted, the TOP Series stands to revolutionize how centrifugal pumps are designed and operated for transfer applications.

A sealed bearing housing requires no maintenance or periodic filling of oil between recommended service intervals (up to 6,000 hours or three (3) cartridge seal exchanges). Oxygen-compatible oil is used as the standard lubricant and the bearing housing is designed in compliance with CGA G-4.7 and EIGA/IGC 11/82 guidelines for centrifugal oxygen pumps.



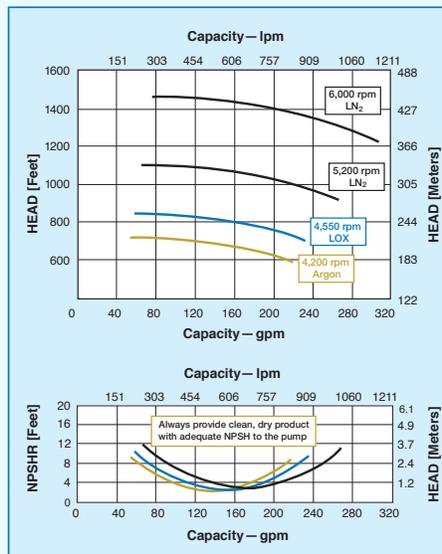
If the configuration of the trailer's plumbing allows, the cartridge seal can be replaced in the field... without removing the pump!

Simplifying mechanical seal repairs/exchanges is solved with the TOP Series. In addition to ease of replacement, the cartridge seal ensures proper installation and minimizes human error. The seal features the latest composite face material and comes preset for guaranteed performance.

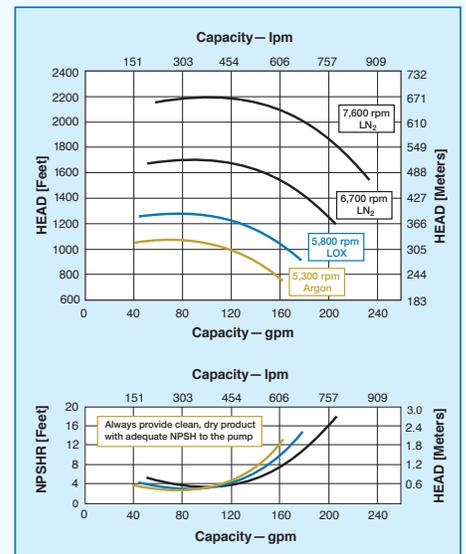
The flow and pressure capacities are not pump-design limited, rather power-input



TOP 260J or HD



TOP 180 – 2s J or HD



limited from the on-board power (pony engine or PTO) of the trailers. With designed maximum power capacity of 134 hp (100 Kw), the TOP 260 can reach differential pressures up to 1,475 ft (450m) and flows up to 290 gpm (1,100 lpm). For laser-fill applications where higher pressures are needed, the TOP 180-2s is available with maximum flows and pressures up to 225 gpm (850 lpm) and 2,200 ft (670 m) differential head, respectively.

The TOP 260 can be interchanged with the existing trailer pump installation. The bolt-hole pattern and mating flange connections

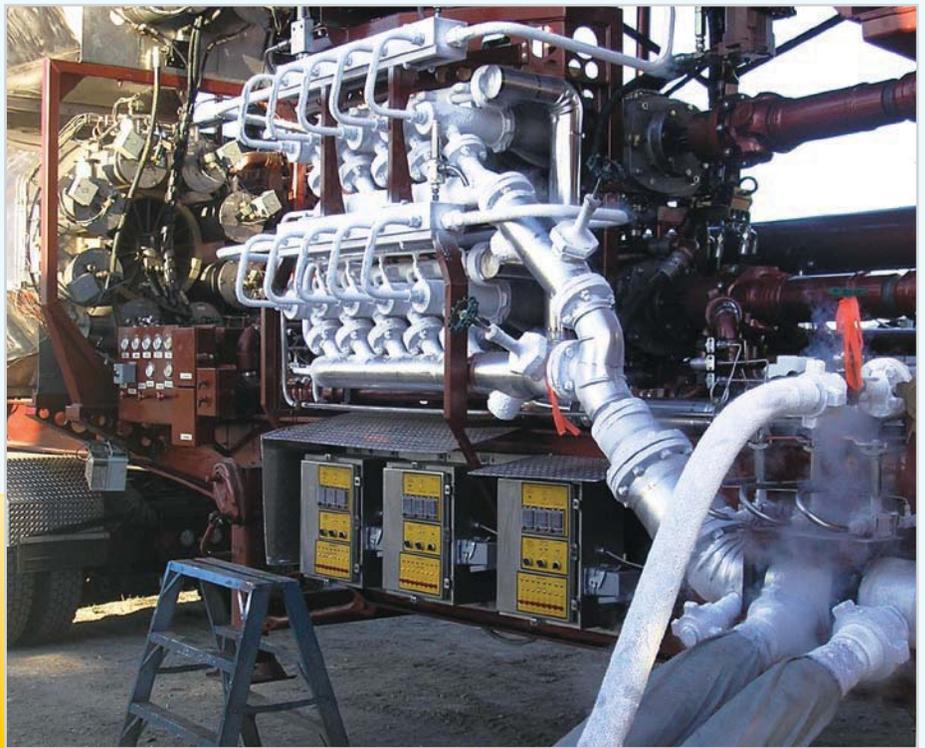
are the same dimensions and height locations.

The TOP Series is user-friendly and provides real-world operational benefits, i.e., cost savings. The extended life of the cartridge seal and the sealed bearing housing, which does not need serviced for up to 6,000 hours, means two things: 1) lower maintenance costs, and 2) more reliable operation.



The versatility of the TOP Series reaches into other markets/applications: oil well service. For natural gas and oil production, the TOP Series is used as a 'boost' pump to feed ACD's larger SLS series pumps. The TOP 215H (hydraulically driven) is used to accommodate the inlet flow and pressure requirements of 350 gpm (1,330 lpm) at 150 psi (10 bar) of the 5-SLS.

For more information contact Denis DePierro at ACD, +1.949.261.7533, [ddepierro@acdc.com](mailto:ddepierro@acdc.com). Or a worldwide ACD authorized sales and service center at [www.acdc.com](http://www.acdc.com).



The severe duty requirements of natural gas/oil production illustrate the rugged design and features of the TOP Series... which benefit industrial gas applications for trailer off-loading and/or transfer – design features and performance exceed industry standards...a proven performer.



Shipped to the Pacific Rim late last year, ACD's largest set of turboexpanders will be commissioned in 2009. Both the TC-12000 and TC-9000 deliver almost 3300 hp of refrigeration for the plant process. Both were cryogenically tested before shipping, and proved to exceed the guaranteed customer requirements. These units were designed to

meet stringent customer and end user specifications including a full API 614 lubrication system.

ACD turboexpanders are custom designed to suit your plants requirements. Sizes range from 765 acmh (450 acfm) and 335 kw (450 hp) to 27,200 acmh (16,000 acfm) and 6000 kw (8000 hp). The ACD turboexpander

cryogenic test facility ensures performance at full operating temperature and up to full load or full speed. Cryogenic testing uses nitrogen as the working fluid with a modified PTC-10 test arrangement.

For more information contact Tom Gerhard at ACD, +1.949.261.7533 or [tgerhard@acdc.com](mailto:tgerhard@acdc.com).