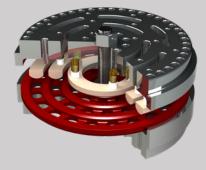


Off-shore & Remote Locations

Hi-Flo™ RS Valves -Easily Replaceable in the Most Remote Locations

The Challenge

Off-shore oil rigs and remote refineries are limited in their capacity to perform complex maintenance and refurbishing. They often have minimal staff and are lacking in repair machinery, space, and time to ship equipment to get serviced efficiently and safely.



Solution Highlights

Hi-Flo[™] RS valves are easily refurbished on site without having to ship them out for maintenance

Replaceable seat eliminates wear to valve body

Because the new seat plate is the same dimensions as the original, there is no need to make the complicated adjustments using shims and gaskets when reinstalling the valve

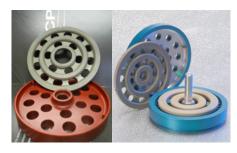
The Hi-Flo $^{\rm m}$ RS valve reduces inventory, which is most beneficial in locations with limited storage space

"The CPI Hi-Flo RS is the response to our problems. We don't need to re-machine or use special tooling for maintenance. Furthermore, we don't need to keep complete valves in stock — only rebuild kits. We have also reduced the unscheduled shutdown time." - CPI Customer



The Solution

After speaking with a customer in the Congo about their specialized needs as a remote operation, CPI, part of the Howden group began working on a product that is quick to install, easy to maintain and minimizes inventory.



CPI developed the Hi-Flo[™] RS valve which features a replaceable PEEK seat plate as a solution. This is the same rugged and durable material that the

sealing rings are made from. The difference in strength of the replaceable PEEK seat plate compared to a traditional seat is negligible, as proven by numerous engineering studies and field tests.

These valves have the benefits of CPI's Hi-Flo[™] RD valves with the added benefit of enabling on-site maintenance that doesn't require special tooling or skill set.

| COUNTRY | APPLICATION | COMPRESSOR MAKE/MODEL | # OF STAGES | FINAL DISCHARGE PRESSURE |
|-----------------|-----------------------|--------------------------|----------------|-----------------------------|
| Gabon | Natural Gas | Ariel JGK/4 | 3 | 84.5 Bar (1226 psi) |
| Congo | Natural Gas | Thermodyn | 3 | 67 Bar (972 psi) |
| Gabon | Natural Gas | Ariel JGE/4 | 4 | 174 Bar (2524 psi) |
| Gabon | Natural Gas | Thermodyn GMVH | 2 | 59 Bar (856 psi) |
| Congo | Natural Gas | Nuovo Pignone 6HM3 | 3 | 81 Bar (1175 psi) |
| Cameroon | Natural Gas | Worthington HB | 1 | 41.4 Bar (600 psi) |
| Cameroon | Natural Gas | Worthington BDC | 1 | 52 Bar (754 psi) |
| The Netherlands | Propane/Propylene | Neuman & Esser 3TZS80 | 3 | 25 Bar (363 psi) |
| Rwanda | Natural Gas | Dresser-Rand 4RDSA-2 | 2 | 20 Bar (290 psi) |
| Sweden | Hydrogen/ Ammonia Mix | LMF B182 | 2 | 132 Bar (1914 psi) |
| South Africa | Refinery Hydrogen Mix | Ingersoll-Rand | 1 | 15.8 Bar (229 psi) |
| Germany | Natural Gas | Ariel KBZ 4 | 1 | 70 Bar (1015 psi) |
| Oman | Methane | Cooper MW64 | 3 | 78 Bar (1134 psi) |
| Serbia | Ethylene | Ingersoll-Rand 6HHE | 1 | 97 Bar (1413 psi) |
| Russia | Hydrocarbons | Sumy-Frunze 4M16M c | 1 | 59 Bar (856 psi) |
| Sweden | Refinery Hydrogen Mix | Clark CMA2 | 1 | 36 Bar (522 psi) |
| Gabon | Refinery Hydrogen Mix | Worthington HB | 1 | 41.4 Bar (600 psi) |
| Gabon | Refinery Hydrogen Mix | Worthington BCD | 1 | 52 Bar (754 psi) |
| Congo | Refinery Hydrogen Mix | Thomassen C72 | 2 | 30.7 Bar (445 psi) |
| Gabon | Refinery Hydrogen Mix | Burton Corblin P166M | 1 | 29 Bar (420 psi) |

Successful Upgrades Around the Globe

