SMART FLUID ENDS

DRIVING DOWN OPERATIONAL COSTS ON MUD PUMPS

UNIQUE FEATURES

• Multi-Purpose Valve Module enables Spare Parts Stock Cost reduction due to identical suction and discharge module.
• Carrier Module is suitable to every Mud Pump Brand and Type while the Valve Modules remains identical.
• Increased operational flexibility with identical Spare parts over different brands.
• Even higher advantages in case of a rig fleet renewal of Fluid Ends.
• Less handling weight.
The design of mud pumps hasn’t changed much for decades and this is especially true for L-Shape Fluid Ends which were introduced to the industry more than 30 years ago. At that time this was a major design development enabling users to replace valve and module parts when required instead of the whole fluid end. This was faster and importantly more cost efficient. Since then two piece L-Shape Fluid Ends have slightly improved with the use of more advanced materials and retention systems, but the underlying L-Shape design of these has remained relatively unchanged.

Back in 2009 Bentec identified the need to modernize this key piece of equipment and began to look at ways to improve the operability of mud pumps through innovation and advancements in design. This work recently culminated in a brand new product called a Smart Fluid End which reduces the overall cost of ownership at Mud Pumps.

Using its design and engineering expertise Bentec has been able to successfully modify the two-piece Fluid End into a three-piece Fluid End, with the result that identical valve modules can now be used for mud pump suction and discharge part. The idea for the new Bentec Smart Fluid End came from splitting the pressure module into two, thereby creating a carrier block, mounted to the mud pump body, suitable to the type of Mud Pump while suction and discharge modules remains identical. This new innovation enables drilling contractors and operators to significantly reduce operational costs through the interchangeability of components, simplification of overhaul and minimisation of spare part costs.

Bentec is providing out this Fluid End design in its 2,200hp and the 1,600hp Gear Driven Mud Pump Family. Valve pot sizes 6, 7 and 8 will be served as well as 7,500 and 5,000 psi either with API 7k and API modified valve types.

Important to know:
Bentec can adapt these Smart Fluid End systems to a wide range of other mud pump brands, leading to significant reduction in rig fleet operating costs with common spare parts instead of multiple fluid end brands.