

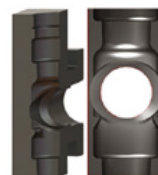
Patriot™ Fluid End

Improved lifespan. Reduced maintenance.
Lower total cost of ownership.

We worked with a number of our customers to develop the longest lasting, easiest to maintain well service fluid end on the market. Our involvement started with extended “Voice of Customer” sessions and design reviews revolving around creating ease of maintenance and maximizing service life in extreme conditions. We achieved these objectives in the development of our proprietary Patriot Fluid End internal geometry. This resulted in a dramatically reduced total cost of ownership through extended lifespan and reductions in maintenance time.

Features and Benefits:

- 40% stress reduction in bore intersection through improved geometry
- Exhibits peak stresses within 5% of a Y-Block Fluid End, realizing low stress advantage without higher maintenance requirements
- Two piece valve retainer allows easier assembly and gives “line of sight” confirmation for proper alignment not present with other “grooveless” fluid ends
- 26% increase in flow area around suction and discharge valves reducing cavitation and fluid end wash outs
- New geometry optimized to enhance the autofrettage process, validated utilizing strain gauges
- Discharge flange allows full access for impact and torque wrenches, allowing accurate meeting of recommended torque specifications
- Wing style gauge connection retainer ensures safer installation by eliminating cheater bar
- Plug and Play interchangeability with most major manufacturers’ quintuplex power ends
- Currently available in Triplex and Quintuplex, 4”, 4.5” and 5” configurations. Other configurations will be available soon, contact us for details



Refined geometry



Two piece valve retainer



Full access discharge flange design



Wing style gauge connection