

TYPICAL RUN TIMES FOR SOUTHWEST EXPENDABLES

Zirconia Liners

Southwest Zirconia Liners are constructed using a heat-treated steel hull. The zirconia sleeve is much harder and denser than a conventional chrome sleeve and the wear characteristics of zirconia enable a zirconia liner to achieve much longer run times than conventional chrome liners.

BSD Pistons (Single Duro)

Southwest's BSD piston is a bonded single-durometer piston that has a 300-degree F maximum temperature capability. This piston routinely outperforms all competitive pistons. It runs in oil-based mud as well as water-based mud.

BDP Pistons (PitBull)

The Southwest BDP PitBull piston is a dual durometer bonded blunt nose piston for standard temperature use up to 220 degrees F. Works best in oil-based mud.

BDB Pistons (BullDog)

The Southwest BDB BullDog piston is a single-durometer bonded bull nose piston for hi temp operation up to 300-degree F. It runs in oil-based mud as well as water-based mud.

Seals and Gaskets

Southwest manufactures a variety of seals and gaskets in rubber, fabric reinforced rubber, and polyurethane, as well as hi temp polyurethane. Southwest pioneered the use of the tapered seal for valve cover gaskets, called the P-Seal. Our rubber seals are pressure molded and our polyurethane seals are molded with some high-demand sizes that are injection molded. We also can furnish machined lathe cut seals for short run quantities and discontinued seals.

Mud Pump Fluid End Modules

Southwest manufactures fluid end modules for all popular mud pumps, both in L-Shaped and Valve-over-Valve configurations. We make OEM style fluid ends as well as our own design fluid ends with our high-pressure quick-change valve covers with tapered P-Seals. Our valve covers perform so well that we make conversion kits to convert OEM fluid ends to use our valve covers and P-Seals

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Valves and Seats

Southwest furnishes valves and seats for popular mud pumps in a variety of configurations including full open bonded and nonbonded designs, 3-Web and 4-Web center guided, and replaceable rubber type valves. All our valves are made from 8620 casecarburized steel for maximum wear resistance and maximum shock loading resistance.

Our flagship valve is the SWND Bonded valve which uses the same field-proven elastomer as our BSD piston.

Typical run times for our expendable parts under ideal conditions are as follows:

Zirconia Liners	4,000 to 8,000 hours
BSD Pistons	800 to 1,200 hours
BDP Pistons	800 to 1,200 hours
BDB Pistons	800 to 1,200 hours
Seals and Gaskets (discharge side)	800 to 1,200 hours
Seals and Gaskets (suction side)	4,000 to 8,000 hours
Fluid End Modules (discharge)	16,000 hours
Fluid End Modules (suction and V.O.V.)	12,000 hours

Notes on run times

Run times for expendables are highly influenced by pump conditions and operating parameters at the pump, and drilling mud chemistry. Sustained high-temperature and high-pressure operation can affect run times as well as misalignment and condition of other pump components such as rods, valve guides, crossheads, and liner wash systems. Pumping clear water and salt water can lower run times of pistons because of poor lubricating properties of clear water and salt water.

For optimizing run times, ask your Southwest representative for Product Bulletins SW-PB-118 'How to Get the Most Out of Your Liners and Pistons' and SW-PB-119 'How to Get the Most Out of Your Valves and Seats'