

**The DES line of mud motors integrates the latest generation mud-lubed bearing technology with the most recent power sections designs.** Our power sections have been carefully chosen from Dyna-Drill® Technologies, an oilfield supplier of superior products since 1958. Recognized as technological leaders, their products deliver reliable service in the most extreme drilling applications worldwide.

These power sections\* come with the latest elastomer offering, the NBR-HR™ featuring improved fluid resistance, superior mechanical properties and reduced thermal expansion. DES has also integrated the float valve into the top sub or dump sub, eliminating an additional connection.

\* Power section sizes range from 2 7/8" through to 11 1/2". Please call for our current available size selection.

- Performance power sections
- Latest elastomer composition
- Broad application range
- Integrated float sub
- Mud-lubed bearing pack
- Larger connecting shaft
- Larger output shaft

MOTOR POWER SECTION CATEGORIES				
Designation	Torque	Lobe	Bit Speed / RPM	Formation Type
High	Low	2:3 or 3:4	270 - 600	Soft
Medium	Moderate	4:5 or 5:6	90 - 270	Soft to Medium
Low	High	6:7 or 7:8	70 - 190	Medium to Hard
Ultra-Low	High	7:8	35 - 90	Extremely Hard

### PATENTED 3° ADJUSTABLE BENT HOUSING

This unique patented design allows for increased radial distances, allowing larger universal joints to be utilized. Should the drilling parameters dictate the requirement for a further reduction in the bit to bend distance, a fixed bend housing can be utilized.

### UNIVERSAL JOINT

The constant velocity joints are used to connect the rotor through a connecting shaft to the output shaft and bit box. These larger CV joints are sealed with lubricant and due to the increased internal tolerances reduces the chance of any lockup and provides superior life when coupled with today's high performance, high torque output power sections.

### DUMP SUBS

The dump sub valve is typically located above the power section and is ported and bored to accept a float valve. This sub can also be substituted for a top sub which is not ported.

### MOTOR STABILIZERS/OFFSET PADS

All DES motors allow for the addition of unique slide-on stabilizers in a variety of sizes in either concentric straight or curve blades and eccentric pads when higher build rates are required. Additional stabilization can also be provided for use at the top of the motor.

