



UTEX INDUSTRIES, INC.

SMOOTHDRILL® PRODUCTS

King Cobra™



**Increases
Productivity
while
Protecting
Equipment**

FEATURES

SAFETY

Longer Drill Life

Repairable on Drill

Hard Faced Wear Surfaces

BENEFITS

- Modular construction
- Replaceable wear items
- Less handling
- No welding

- Protects drive heads and mast from damage caused by axial and torsional shock vibration

- Less downtime
- Simple redress/repair

- Increased life of shock absorber and element

King Cobra™ Specifications

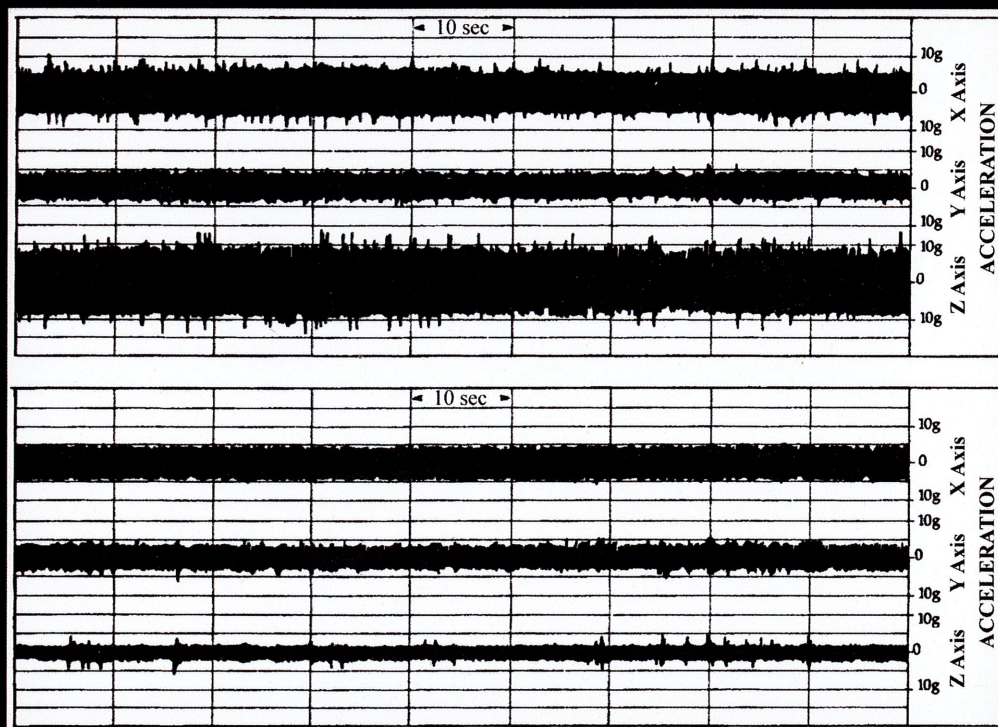
Model Size	Load Range (Pull Down)	Clearance Diameter	Shoulder to Shoulder Length	Assembly Weight
28"	Up to 150,000 lbs.	34"	36"	2,300 lbs.
22"	Up to 90,000 lbs.	27"	30"	1,275 lbs.
18"	Up to 75,000 lbs.	22"	28"	835 lbs.
14"	Up to 60,000 lbs.	20"	28"	650 lbs.

Effectiveness of SmoothDrill® in Blasthole Drilling

A field study was conducted by an independent geotechnical and materials engineering company using an accelerometer to evaluate SmoothDrill effectiveness. The actual charts to the right show results from a blasthole drill equipped with a SmoothDrill and one with a standard coupling.

Testing conditions were identical: Pulldown was 85,000 lbs., rotary speed was 90 rpm and average penetration rate was 0.80 ft./min. The upper vibrograph represents vibrations at the drill head without SmoothDrill and the lower vibrograph represents the vibrations with SmoothDrill.

The third chart reveals a summary comparison of the 2 vibrographs.



Without SmoothDrill®

With SmoothDrill®



Aspect

	Without SmoothDrill®	With SmoothDrill®
X Axis Average Acceleration	9g	5.5g
X Axis Peak Acceleration	12g	9g
Y Axis Average Acceleration	5g	4.5g
Y Axis Peak Acceleration	9g	11g
Z Axis Average Acceleration	12g	2.5g
Z Axis Peak Acceleration	22g	11g
Reduction of Vibrations in X Axis	$(9g - 5.5g) / 9g = 39\%$	
Reduction of Vibrations in Y Axis	$(5g - 4.5g) / 5g = 10\%$	
Reduction of Vibrations in Z Axis	$(12g - 2.5g) / 12g = 79\%$	

