



**HPHT**  
DRILLING TOOLS

## **“The Centrefire” - Axial Vibration Technology**



### **Product Features and Benefits:**

- Supports weight transfer with less DP compression
- No elastomers within the tool
- Reliable drilling performance
- Longer below rotary table (BRT) circulation hours
- Reduces effect of stick-slip at BHA and drill string
- Can be used with PDC and/or roller cone bits
- Reduces torque and drag
- No lateral vibrations produced by tool
- Reduces drag for sliding applications
- Assists in tool-face orientation
- Can be used multiple times throughout drill string
- Compact design, can be used at the bit
- Extremely short design compared to alternate tools

### **Drilling Applications:**

HPHT Drilling Tools Pty. Ltd. introduces a down-hole tool that produces a true axial vibration without a lateral vibration component. “The Centrefire” improves directional drilling performance in motor steerable applications, through applying controlled axial vibration to the BHA. “The Centrefire” has ability to provide a true axial vibration that has proven to show reduced pressure drop, extended vibrate signal propagation, reduced failure of complementary tools such as MWD’s, improved ROP in tortuous lateral drilling programs, and lower overall drilling costs.

### **Additional Features and Benefits:**

Due to the unique design of “The Centrefire”, the tool can be employed throughout multiple sections of the drill string. With “The Centrefire” producing a combination of controlled axial oscillation and torsional loading, the tool can also be utilized directly above the drill bit, meaning the rock’s failing properties at the bit face are significantly enhanced, thus resulting in increased ROP, longer bit life and an overall higher drilling efficiency.



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## Tool Sizes and Specifications:



<b>2-7/8" OD (1.25" ID)</b>	
Overall Length	2.42' (740mm)
Weight	44.10 lbs. (20 kg)
Recommended Flow Rate	90-150 GPM
Temp Range	572°F (300°C)
Operating Frequency	3-7
Operational Pressure Drop	60 PSI (Fluid Dependent)
Pulse Height	500 PSI
Max Pull	118,000 lbs.
Connection size	2-3/8" PAC or client specified

<b>4-3/4" OD (2.28" ID)</b>	
Overall Length	4.26' (1300mm)
Weight	187.39 lbs. (85 kg)
Recommended Flow Rate	200-420 GPM
Temp Range	572°F (300°C)
Operating Frequency	4-10 hz
Operational Pressure Drop	60 PSI (Fluid Dependent)
Pulse Height	500 PSI (Adjustable)
Max Pull	253,500 lbs.
Connection size	NC38 or client specified

<b>6-1/2" OD (2.48" ID)</b>	
Overall Length	4.59' (1400mm)
Weight	429.90 lbs. (195 kg)
Recommended Flow Rate	350-800 GPM
Temp Range	572°F (300°C)
Operating Frequency	5-12 hz
Operational Pressure Drop	80 PSI (Fluid Dependent)
Pulse Height	500 PSI Adjustable
Max Pull	750,000 lbs.
Connection size	NC46 or client specified

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US Patent Application: 14/523271  
PCT Application: PCT/AU2015/000032