Hydropulsion⁴⁷



G DOWNHOLE TOOLS

Milling Tools

The Hydropulsion wide range of Mills are designed for milling several types of obstructions and loose debris contained within the wellbore All our Mills are manufactured from AISI 4145H Modified Steel and are available in a variety of standard sizes. Hydropulsion Mills can be customised to suit your size, connection type and hardfacing requirements. The Hydropulsion wide range of Mills are designed for milling several types of obstructions and loose debris contained within the wellbore.

The aggressive cutting inserts our Mills are dressed with ensure high material removal rates resulting in reduced milling times.

Our Hydro-Mill is especially efficient in the removal of Scale & Cement, The design of these incorporates a small contact area that reduces the torque on the motor, reducing stalling.



Asymmetric Mill

- Hardfaced with
 Supacutt to ensure
 outstanding milling
 performance
- Optional hardfacing with Starcutt or Sharkstooth



Flat Bottom Mill

- Hardfaced with a greater amount of Supacutt for longer milling life
- Optional hardfacing with Starcutt or Sharkstooth



Concave Mill

- Concave shape is ideal for milling bit cones and other objects by keeping them centred under the mill
- Hardfaced with
 Supacutt for superior
 milling life
- Optional hardfacing with Starcutt or Sharkstooth



TCI Mill

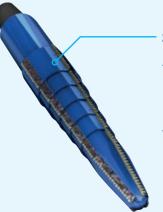
- Hardfaced with Tungsten Carbide Inserts considerably improve ROP and tool life
- Backed up with
 Supacutt to provide
 greater resistance
 downhole
- Allows for a variety of insert configurations to suit all milling requirements





Washover Shoe

- Hardfaced with Supacutt on the ID, OD and end face, as required
- Available in a wave or castellation form



Step Mill

- Hardfaced with
 Supacutt and Brand X
 or Swordfish inserts
- Customised to suit your step number and dimension requirements



Bladed Mill

- Increased blade length to provide extended milling operation
- Hardfaced with
 Tungsten Carbide
 Inserts which can
 be backed up with
 Supacutt to provide
 greater resistance
 downhole
- Optional hardfacing with Starcutt or Sharkstooth



Taper Mill

- Available with straight or spiral blades
- Available as a long or short version
- Customised hardfacing combining Supacutt with specialised Tungsten Carbide Inserts



String Mill

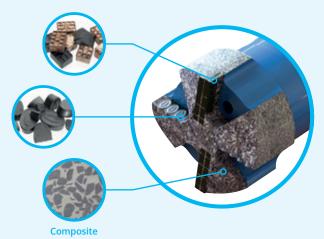
- Optional spiral or straight blades
- Customised hardfacing combining Supacutt and metal cutting inserts when appropriate



Hydro Mill

- Tungsten Carbide Inserts ensure high material removal rates
- Design allows for a reduced contact area resulting in a lower torque consumption reducing stalling

MILLING TOOL FACE



COMPOSITE ROD



Supacutt Rod

A range of sizes, (the largest fragment size denotes the mesh size of the rod), are then blended to optimize packing density when laid and laying characteristics when combined with high strength nickel bronze brazing alloy (100,000 PSI).



Starcutt Rod Our "high performance" cutting composite rod. The tungsten

carbide has 12 sharp cutting points and is equivalent to 1/4 (6.4mm) mesh size. Composition 55% Starcutt insert, 45% matrix.



Sharkstooth Rod

The tungsten carbide is a tetrahedral shape giving sharp aggressive cutting edges with high strength and is available in one size equivalent to 5/16 (8mm) mesh size.

MILLING INSERTS



Oval

Made from premium CW6 cutting grade tungsten carbide, our Oval Inserts are optimised for use with our QuickTip process with feet placed on the bottom of the inserts for ease of application.



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> optimised for use with our QuickTip process with 3 feet placed on the bottom of the inserts for ease of application.



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