

## MX DRILL - NEW CHIPBREAKERS AND GRADE FOR HARDENED STEELS AND ALUMINIUM

Smart thinking has led to simple solutions for some old problems associated with indexable insert drilling. Difficulties such as chip clogging on deep holes, dissimilar rates of wear on inner and outer inserts due to differing peripheral speeds, plus flexing and wear of the drill body itself have all been resolved with a new and innovative design.

### New UH breaker for hardened steels and UN breaker for aluminium

The existing range of inserts for steels, stainless and cast iron has been complemented with 2 new chipbreakers and a new insert grade.

The latest PVD coating technology has been applied to the new DP8020 grade to supplement its durable carbide substrate. This makes it the ideal grade to combine with the new UH chipbreaker. The strengthened edge of this chipbreaker provides the properties for reliable drilling of harder materials up to 45HRC.

For aluminium machining, the uncoated TF15 grade now comes equipped with the new UN chipbreaker. With a sharp ground edge, it provides outstanding chip disposal and helps to prevent chip welding for increased reliability.

### Different grades for inner and outer inserts

The outer insert in this type of drill naturally runs at a higher speed than the inner, thereby leading to higher levels of wear. Consequently the inner insert needs to have a higher level of stability and resistance to fracturing at lower speeds. This anomaly has been negated by using a CVD coated outer insert that has higher abrasion resistance, in tandem with a PVD coated inner insert that can cope better with fracturing forces and resistance to welding. This combination means improved reliability and fewer changes of insert for increased levels of productivity.

### Interchangeable inserts with 4 cutting edges

The SOMX type inserts are interchangeable from inner to outer position, have 4 cutting edges and a unique wavy chipbreaker design for improved chip control. The peripheral edge also has a wiper type geometry for excellent hole wall accuracy and surface finishes. The inserts are also positioned in such a way that when cutting, they are both equally in contact with the workpiece, thereby reducing drill body flex to provide a more consistent performance.

### Tool body

The tool body is designed with through coolant holes and an optimum sweep of the flutes that provides extra metal thickness behind the direction of the principal cutting force. This controls tool body deflection and helps to achieve reliable deep hole drilling up to 6 x D. Additionally the body surface is heat treated to prevent wear from chip evacuation.

The sizes available are -

Ø17mm-Ø43mm in L/D=2, 3, 4, 5 and 6.

And Ø17mm-Ø63mm in L/D=2, 3, 4 and 5.

New UN breaker  
for aluminium



New UH breaker  
for hardened steel



Up to 6 x D

