



MPK KEMMER
PCB TOOLS GMBH

TOTAL DRILLING SOLUTION



Total Drilling Solution

Reduction of manufacturing costs, economy and reproducible drilling quality are central themes of today's tool requirements.

Together with our partner Topoint Technology we provide you with our customized „Total Drilling Solution“ a comprehensive package to improve your drill performance and to increase your productivity.

The development parameters for the „Total Drilling Solution“ are defined in relation to the customer and process requirements: Optimisation of production and re-pointing costs, increased tool life, reduction of breakage rate, high infeed rates and tighter tolerances.

Alle 3 elements of our „Total Drilling Solution“ are harmonised which enables you to achieve more efficiency.

Step 1: Semi-Single Flute Drill MU42S



The innovative design of MU42S is a perfect synthesis. The advantages of a standard drill bit and a single flute drill are combined and thus used to advantage.



MU42S in comparison



Standard type design:
Normal chip removal from two flute design. Drill suffers from weakness at the end of the flute when high aspect ratio drilling.



MU42S design
Maintaining point geometry and two flutes at the drill tip ensure good entry. Changing to one flute to provide good rigidity and good hole wall quality.



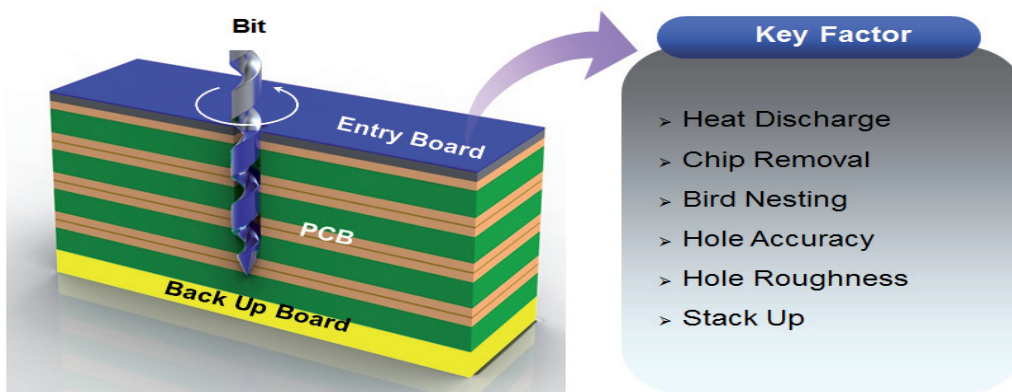
Single flute design:
Single flute provides increased rigidity and therefore a reduced breakage. But, reduced flute volume means poor chip removal which leads to poor hole wall quality.



Step 2: Entry Board for Drilling

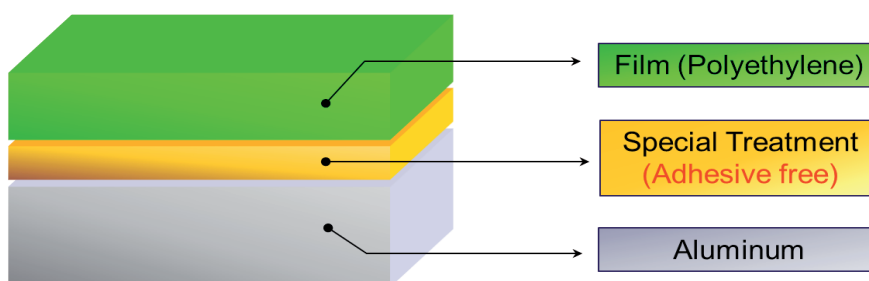
Especially designed and aligned to our semi-single flute drill MU42S the TAR180 topsheet material offers further advantages: A significant improvement of production costs, durability, process safety and wear reduction.

Entry Board for Drilling



Composition of Entry Board TAR 180

❖ Special treatment (Adhesive free) between Polyethylene film and AL

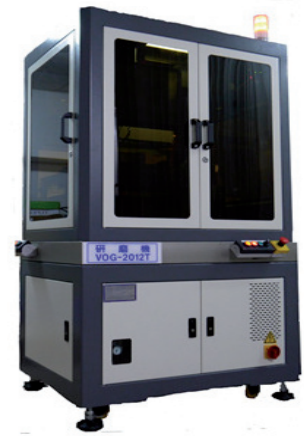


Step 3: Auto Re-Pointing

With our especially developed auto re-pointing machine we offer you the opportunity of a professional re-grinding of your microdrills.

Performance characteristics:

- Capacity: Dia. 0.10mm – 0.45mm
- Reliable: 100% quality inspection and record
- Accurate: Measurement range below <math><1.5\mu\text{m}</math>



Total Drilling Solution – Your Advantages:

- Semi-single flute drill MU42S allows increased stack height and hit count. It also decreases drill deviation.
- Entry material TAR 180 decreases drill entry deviation.
- Fully automatic re-pointing concept for microdrills starting at dia. 0.10mm.

