

## High Productivity in Small Hole Drilling

**Deep Drilling = BTA = High Productivity!**  
**+ Space Saving**

### Advantages of BTA drilling (STS)

- High Accuracy** 1. Good hole accuracy
- High Quality** 2. Fine surface finish by burnishing effect
- High Productivity** 3. Head exchange - no need for regrinding or recoating
- High Productivity** 4. Quick head change on machine
- High Productivity** 5. Non-step drilling



**MBU**  
 ø8~14.79mm

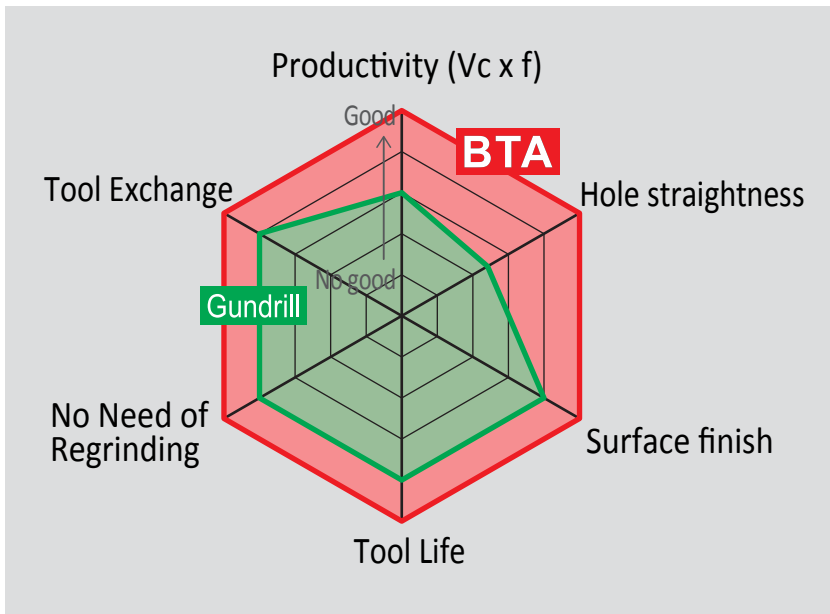
**UTE**  
 ø12.6~20mm

**BTU**  
 ø12.6~65mm

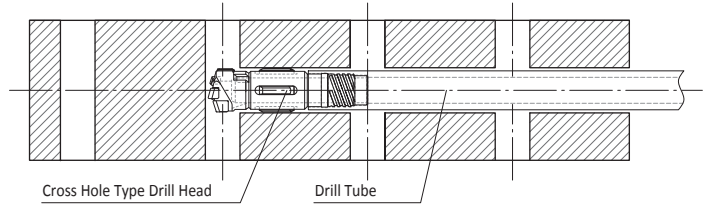


Long life brazed drill heads with coating

### Performance comparison between BTA and Gundrilling



## High Productivity Drilling of Cooling Hole

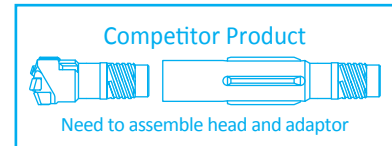


Cross Hole Type BTU Drill Head



Head & Adaptor Integrated Design

- High rigidity
- Optimized for cross hole drilling

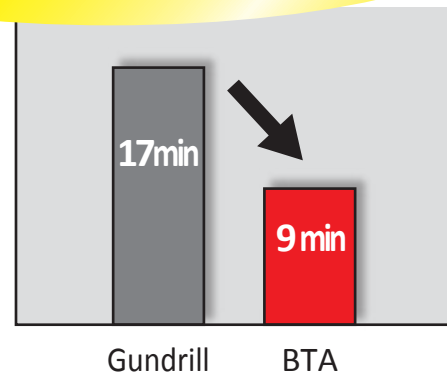


**7 Axis CNC BTA Machine**  
BTA, Gundrill, Milling, Threading and Tapping

**By replacing from gundrill to BTA drilling  
Drilling Time Shortened by Half!**

Component	Large Die & Mold
Material	Die steel
Drilling Method	Solid drilling
Diameter	ø15.00mm
Length	1200mm
Coolant	Oil based

	BTA	Gundrill
Cutting Speed	70m/min	85m/min
Feed per Rev	0.09mm/rev	0.04mm/rev
Feed	134mm/min	72mm/min
Drilling Time	9 min.	17 min.



Cutting time and cost were reduced by replacing gundrill with BTA and also using CNC BTA machine.

