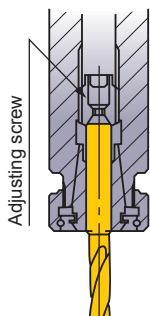
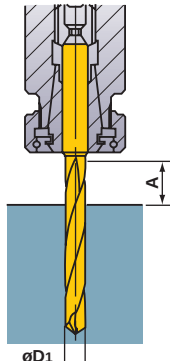
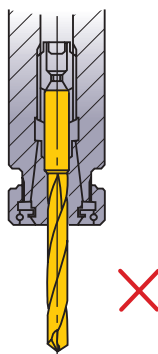
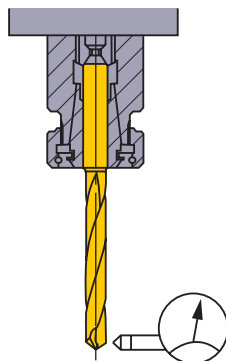
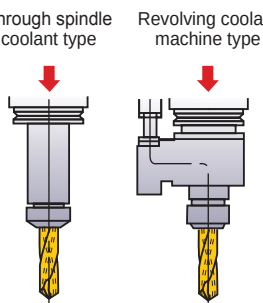
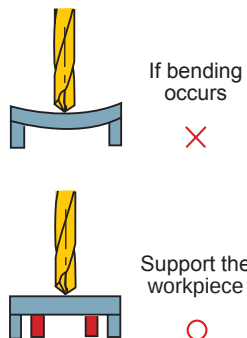
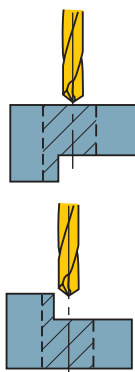
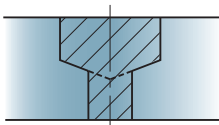
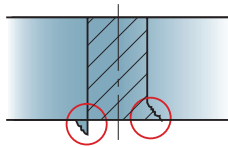


DRILLING (SOLID CARBIDE)

MNS

CARBIDE

OPERATIONAL GUIDANCE FOR THE MNS DRILL (L/D 3, 5, 8)

Drill holding  Adjusting screw Thrust bearing type collet chuck holds the drill securely.	Drill length  $\phi D1$ $A : \geq D1 \times 1.5$	Drill installation  Do not clamp on the flutes.	Installation tolerance  Runout $\leq 0.03\text{mm}$
Coolant method (MNS) Through spindle coolant type Revolving coolant machine type  Coolant pressure is approx. 0.5—7MPa.	Coolant handling < MNS type > 1) Dirt and dust particles in old coolant can clog the oil hole and prevent effective flow. Regular coolant exchange is recommended. 2) Small particles of swarf will jam in the oil hole. Use a filter as a preventative measure. When using small diameter drills, use a fine mesh filter.	Thin workpieces  If bending occurs Support the workpiece	Interrupted cutting  One process ① Lower the feed when drilling the interrupted part. Requires prior machining ① Spot face with an end mill prior to drilling.
Stepped holes  ① Divide the machining into two processes. ② Drill the larger hole first. ★Tools for chamfering and spot facing can be produced to order.	Burring and workpiece chipping  ① Lower the feed rate when breaking through. ② Add a chamfer. ③ Change the point angle.		