

Tools for a very wide range of small parts machining

External Turning	Tools for front turning, back turning, grooving, threading and cutting off
Internal Turning	Tools for boring, internal grooving and internal threading
Drilling	Drills
End Milling	End Mills

Tools for CNC automatic and small lathes

Types of Tool Posts	Gang type, turret type, cam type (radial pattern type)
Tool Sizes	Square shank: 8–16 mm Round shank : less than $\phi 25.4$

Indexable inserts developed under the concept of "high quality, high efficiency and long tool life."

High Quality	E class tolerance, sharp cutting edge, high accuracy small corner R, smooth surface finish
Long Tool Life	Miracle Coating (VP15TF), cermet (NX2525), cemented carbide (HTi10)
High Efficiency	Regrinding not necessary due to the employment of indexable inserts. A wide variety of top cutting edge geometries

TOOLS FOR CAM TYPE AUTOMATIC LATHES

- The most suitable for use with cam type automatic lathes (radial pattern tool posts)
- The most suitable for machining of small parts with work diameter 5mm or smaller
- Single holder for front turning, back turning, grooving, threading and cutting off operations



INTERNAL TURNING TOOLS

Solid type **MICRO-MINI TWIN Boring Bars**

Minimum cutting diameter $\phi 2.2$ –

Boring
Grooving
Threading



Round Shank

Square Shank

MICRO-DEX Boring Bars

Minimum cutting diameter $\phi 5.0$ –



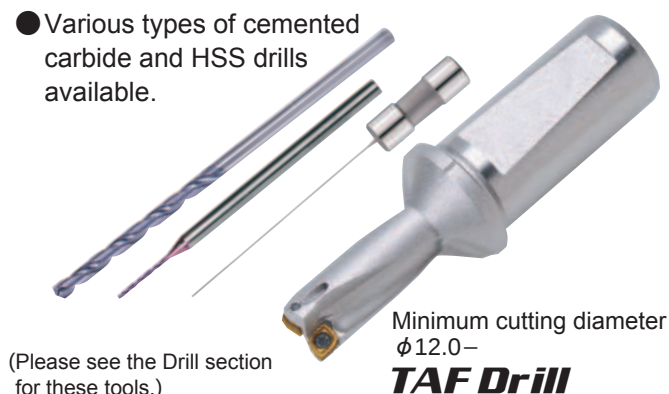
Minimum cutting diameter $\phi 10.0$ –

DIMPLE BAR

(Please see the Boring Bar section for these tools.)

DRILLING TOOLS

- Various types of cemented carbide and HSS drills available.



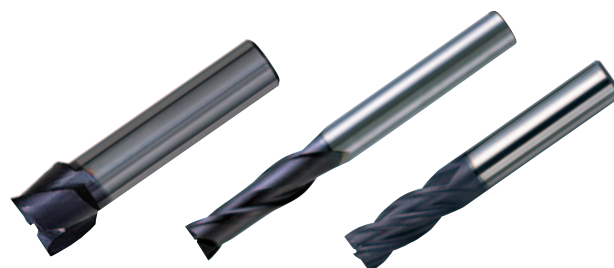
Minimum cutting diameter $\phi 12.0$ –

TAF Drill

(Please see the Drill section for these tools.)

END MILLING TOOLS

- Various types of cemented carbide and HSS end mills available.



(Please see the Solid End Mill section for these tools.)