

The world's smallest diameter tool for boring on hardened steel and sintered metals down to * $\phi 0.177''$

* with indexable tools

The smallest indexable CBN inserts in the world

When compared to conventional brazed tools

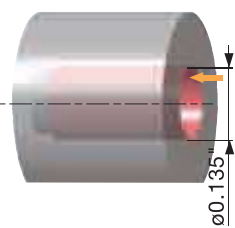
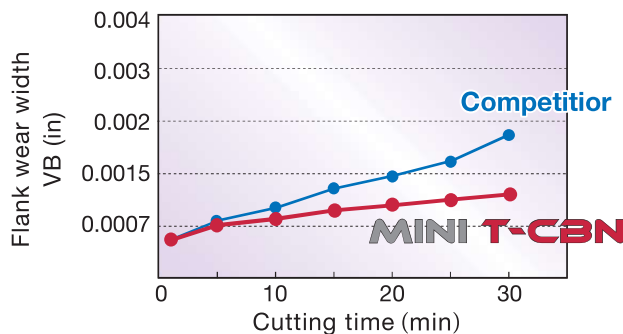
- Higher cutting edge repeatability
- Reduced tool change time
- Longer tool life even at low cutting speeds

Applications

- Fuel injector components
- Boring of rocker arms

High wear resistance

Offers long tool life even when boring small diameters



Insert : 1QP-CCGW03X
 BX310
 Toolholder : E06H-SCLCR04-D070
 Work material : Alloy steel (60 HRC)
 Cutting speed : $V_c = 330$ sfm
 Depth of cut : $a_p = 0.004''$
 Feed : $f = 0.002$ ipr
 Maching mode : Internal turning
 Machine : Swiss type lathe



Excellent surface finish

Sharp cutting edge reduces cutting forces
 → Prevents chattering and provides the finest machined surface.

MINI T-CBN



Outstanding surface quality

Competitor A



Chattering

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 BX310
 Toolholder : E06H-SCLCR04-D070
 Work material : Alloy steel (60 HRC)
 Cutting speed : $V_c = 330$ sfm
 Depth of cut : $a_p = 0.004''$
 Feed : $f = 0.002$ ipr
 Maching mode : Internal turning
 Boring dia. : $\phi 0.315''$

Standard cutting conditions

Application	Grades	Machining mode	Cutting Speed V_c (sfm)	Depth of cut a_p (inch)	Feed f (ipr)
H Hard Materials	BX310	Continuous cutting	100 - 500	0.001 - .008	0.001 - .004
Sintered Irons	BX470				