

New Boring Bar **Dynamic Bar**

- Tool holder design developed through stress analysis
- Maximum structural thickness for high tool holder rigidity
- Controls chattering to achieve stable machining

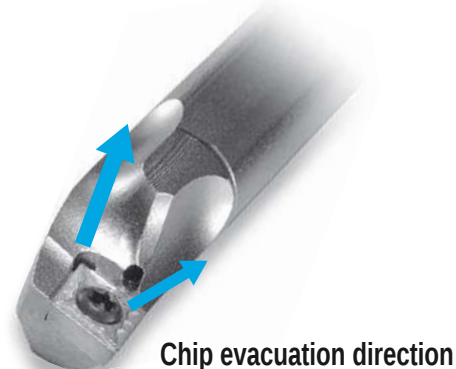
- Large chip pocket produces superior chip evacuation

Dynamic design driven by the latest computer simulation technology

Superior chip evacuation (External coolant)

	Dynamic Bar	Competitor A	Competitor B
Inside the workpiece			

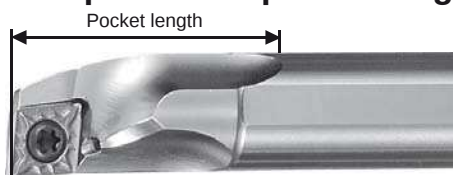
In the products of competitor A and B chips remain inside the workpiece, but chips from the Dynamic Bar are all evacuated from the workpiece.



F

Boring

Comparison of pocket length



Description	Pocket length (mm)	
	Dynamic Bar	Competitor A
A16-SCLPR09-18 type	37	29
A20-SCLCR09-22 type	48	32

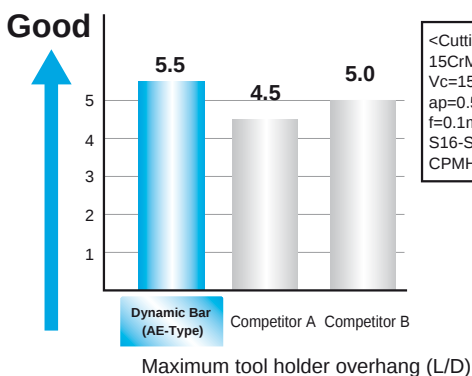
Chip evacuation direction

SCLC (P) type	STLB (P) type
Better evacuation by backward chip flow	

The dynamic Bar achieves superior chip evacuation

High rigidity and chattering resistance are ensured through the use of a special alloy and stress analysis technology. Previously unattained surface finish and dimensional accuracy are now achieved.

Anti chatter vibration performance



Comparison of surface finish

Vibration of the Dynamic Bar was minimal even at high cutting speeds, enabling stable machining.

	Dynamic Bar	Competitor A	Competitor B
Surface wall			
Surface Roughness	 Ra=0.4μm Rz=2.3μm	 Ra=0.6μm Rz=3.6μm	 Ra=3.4μm Rz=14.0μm
Oscillatory waveform			

<Cutting Condition>
15CrMo5
Vc=210m/min
ap=0.5mm
f=0.1mm/rev
A16Q-SCLPR09-18 type
CPMT090304XP (PV7020)
L/D=4
External coolant

Direction of vibration measurement