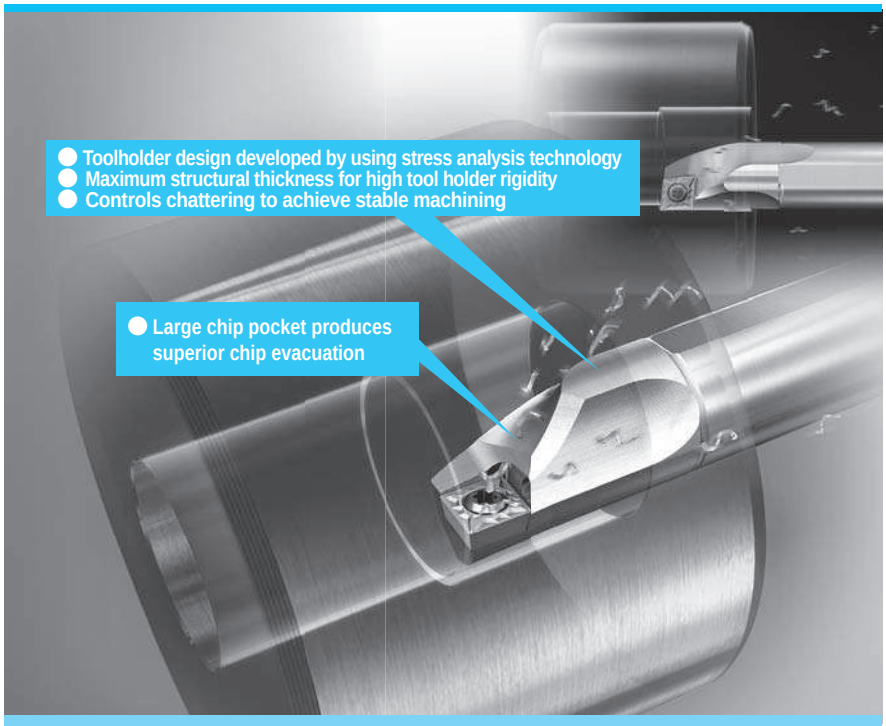
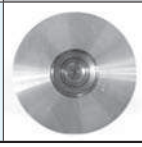
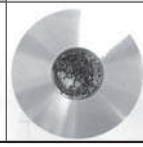
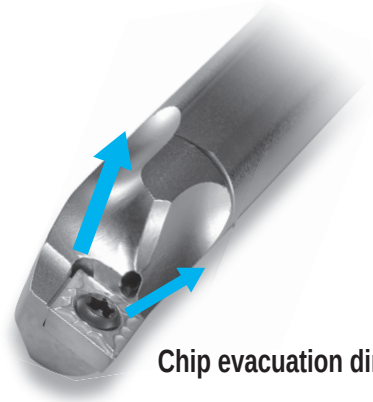


Dynamic design by using the latest computer simulation technology

Superior chip evacuation (External coolant)

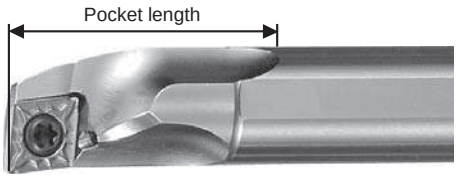
	Dynamic Bar	Competitor A	Competitor B
Inside the workpiece			

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.



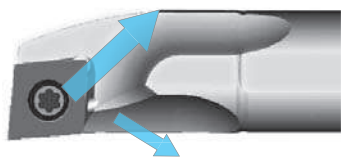
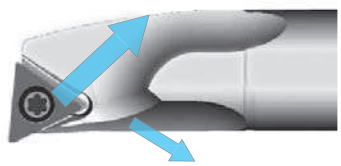
Chip evacuation direction

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

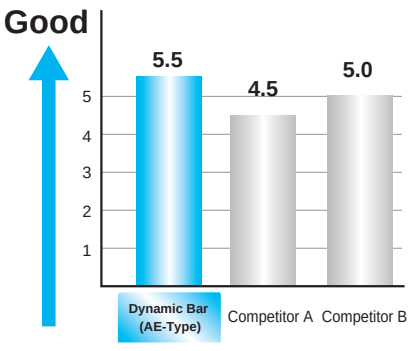
SCLC (P) type	STLB (P) type
	

Better evacuation by backward chip flow

The dynamic Bar achieves superior chip evacuation

High rigidity and chattering resistance are ensured by using a special alloy and with help of stress analysis technology. Previously unattained surface finish and dimensional accuracy are now achieved.

Comparison of vibration tendency

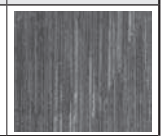
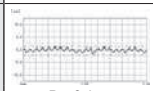
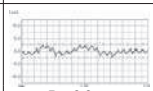
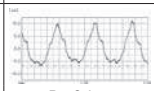
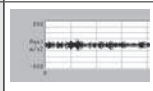
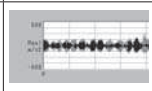
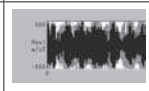


Maximum tool holder overhang (L/D)

<Cutting Condition>
15CrMo5
Vc=150m/min
ap=0.5mm
f=0.1mm/rev
S16-SCLPR09 type
CPMH090304L-Y

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