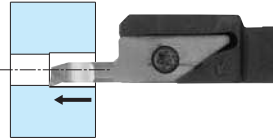
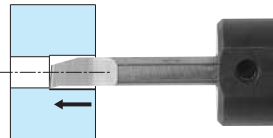
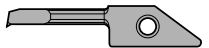
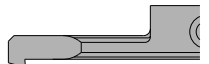
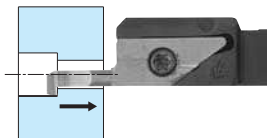
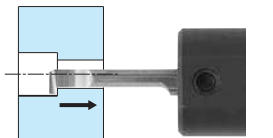


Solid Tip-Bars for Micro Boring

Application	Solid Tip-Bar Type	Shape	Shank Type Max. Overhang Length (L/D)	Min. Bore Dia. ϕA							Ref. Page for Toolholder	Summary		
				1	1.5	2	2.5	3	3.5	4			5	6
Boring	TWB Twin Bar F8		Solid	●	●	●	●	●					F9	 
	TWBT Twin Bar F8		Solid	●	●	●	●	●						
	VNB-S System Tip-Bar F10		Solid	●	●	●	●		●				F12 F13 F14	
	VNB System Tip-Bar F10		Solid			●	●		●	●	●	●		
	VNB-X System Tip-Bar F16		Solid	●	●	●	●	●					F17	
	HPB 2-Edges Tip-Bar F18		Solid L/D= $\sim$ 5			●	●		●	●	●	●	F19	
	PSB-S Tip-Bar F20		Solid L/D= $\sim$ 5			●	●		●	●	●	●	F21	
Back Boring	VNBT System Tip-Bar F10		Solid						●	●			F12 F13 F14	 
	HPBT 2-Edges Tip-Bar F18		Solid L/D= $\sim$ 5						●	●			F19	
	PSBT-S Tip-Bar F20		Solid L/D= $\sim$ 5						●	●			F21	

Toolholder Dimension

Solid Tip-Bar Type: Minimum cutting Dia. 1mm

