

SPB Type

Very Small Diameter Machining Tool Holders



Characteristics

- High rigidity type expansion for gang-type autolathes
- Inserts for various purposes can be use on a single holder
- Can also be use on turret-type tool posts
- Utilizing BL 130, which has both a very sharp edge, as well as high wear resistance
- Ultra-fine grained carbide grade F1, which was previously meant for brazed bite, is now available as an insert grade
- Customers can modify the blank inserts according to their own requirements

Adopted Grades

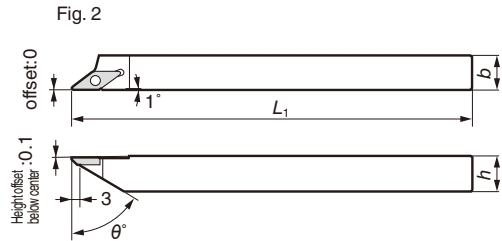
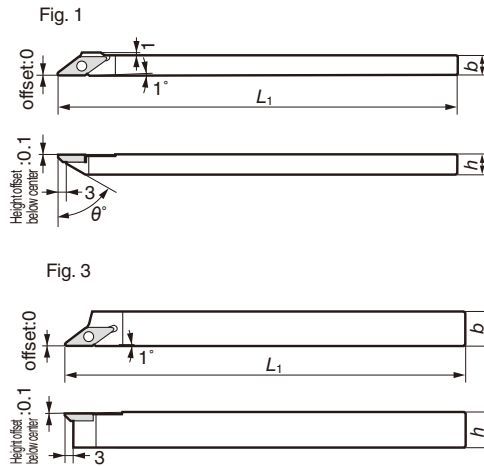
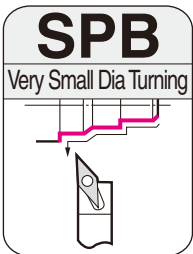
Work Material	Stainless Steel		Brass, Non-Ferrous metals
	General Steel	Austenitic Ferritic Martensitic	
Grade	General Steel	Austenitic Ferritic Martensitic	Brass, Non-Ferrous metals
BL130	○	○	○
F1	○	◎	○

Application Examples

Watch component

Tool: BL130 (PBVFN1102R)
Work: SUS420F
Conditions:
 $v_c=7$ to 11m/min
 $f=0.006\text{mm/rev}$

Very Small Product Turning



Parts



Holder

Above figures show right hand tools.

Tool Post	Cat. No.	Stock		Dimensions (mm)				Fig.	Screw	Recommended Tightening Torque (N·m)	Wrench
		R	L	h	b	L ₁	θ°				
Turret-type	SPB R/L0707-70	●	●	7	7	140	70	1	BFTX02505N	1.1	LT08-06
	SPB R/L0808-60	●	●	8	8	140	60	2	BFTX02506N	1.5	
	SPB R/L0808-70	●	●	8	8	140	70	2	BFTX02505N	1.1	
	SPB R/L0909-70	●	●	9.5	9.5	140	70	2	BFTX02505N	1.1	
	SPB R/L1010-60	●	●	10	10	140	60	2	BFTX02506N	1.5	
	SPB R/L1212-60	●	●	12	12	140	60	2	BFTX02506N	1.5	
Gang-type	SPB R0808	●	—	8	8	140	—	3	BFTX02506N	1.5	LT08-06
	SPB R1010	●	—	10	10	140	—	3	BFTX02506N	1.5	
	SPB R1212	●	—	12	12	140	—	3	BFTX02506N	1.5	

■ Insert

● Blank Insert

Cat. No.	Dimensions (mm)	Application	Fig	BL 130	F1
	ℓ				
PBVX 1102R-NB	17.2	General	1	●	●
PBVX 1102L-NB	17.2	General	1	●	●
PBVX 1102R-SB	(20.14)	Sharp edge	2	●	●
PBVX 1102L-SB	(20.14)	Sharp edge	2	●	●
PBVX 1102R-BB	17.2	Special	3	●	●
PBVX 1102L-BB	17.2	Special	3	●	●

● Grooving Insert

Cat. No.	Dimensions (mm)		BL 130	F1
	Groove Depth a_r	w		
PBVG 1102R-030	0.5	0.3	●	
PBVG 1102L-030	0.5	0.3	●	
PBVG 1102R-050	1.0	0.5	●	
PBVG 1102L-050	1.0	0.5	●	
PBVG 1102R-100	2.0	1.0	●	
PBVG 1102L-100	2.0	1.0	●	

● Turning Insert

Cat. No.	Dimensions (mm)	Wiper Edge	Fig	BL 130	F1
	Cutting Edge				
PBVFW 1102R	1.0	Yes	1	●	
PBVFW 1102L	1.0	Yes	1	●	
PBVFN 1102R	1.0	No	2	●	
PBVFN 1102L	1.0	No	2	●	

● Cut-Off Insert

Cat. No.	Dimensions (mm)		Fig	BL 130	F1
	Max. Cut-Off Dia.	w			
PBVC 1102R-50	$\phi 5.0$	1.0	1	●	
PBVC 1102L-50	$\phi 5.0$	1.0	2	●	

● Back-Turning Insert

Cat. No.	Dimensions (mm)	Wiper Edge	Fig	BL 130	F1
	Cutting Edge				
PBVBW 1102R	1.0	Yes (2°)	1	●	
PBVBW 1102L	1.0	Yes (2°)	1	●	
PBVBN 1102R	1.0	No (5°)	2	●	
PBVBN 1102L	1.0	No (5°)	2	●	

● Threading Insert

Cat. No.	Dimensions (mm)		Fig	BL 130	F1
	Pitch				
PBVTF 1102R	0.2 to 0.5		1	●	
PBVTF 1102L	0.2 to 0.5		1	●	
PBVTB 1102R	0.2 to 0.5		2	●	
PBVTB 1102L	0.2 to 0.5		2	●	

■ Recommended Cutting Conditions

Work	P Carbon Steel	P Free Cutting Steel	M Stainless Steel	N Non-Ferrous Metal
Cutting Speed v_c (m/min)	5 to 80	5 to 80	5 to 50	5 to 100
Feed Rate f (mm/rev)	0.003 to 0.05			
Coolant	Oil-base			