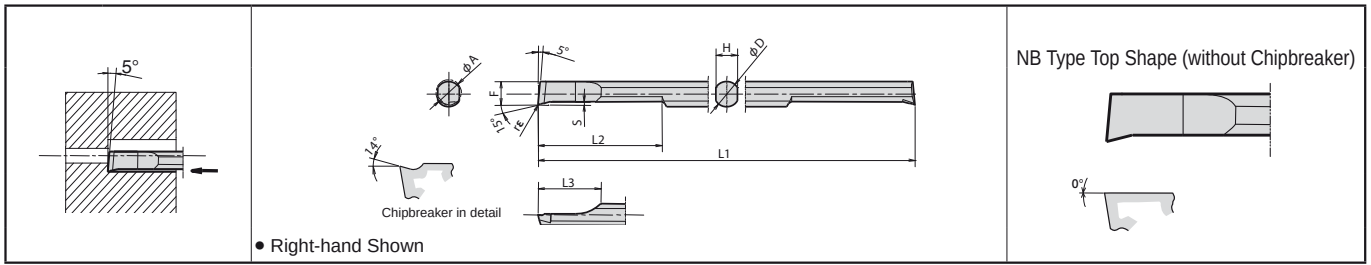
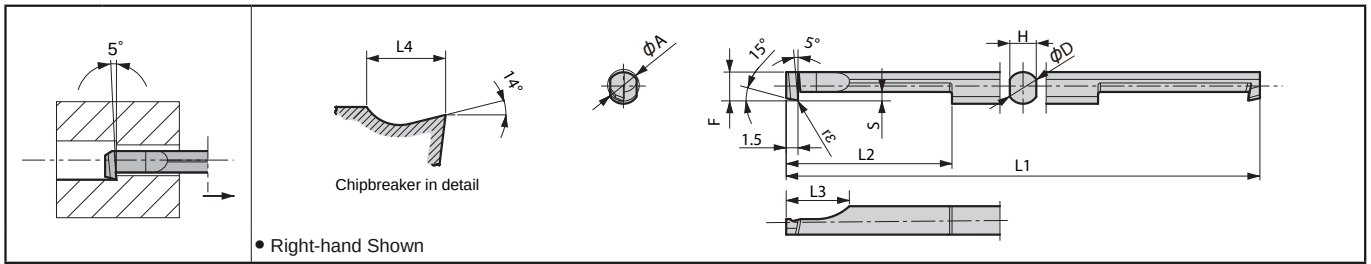


2 Edges Tip-Bar HPB / HPBT

HPB (Boring)



HPBT (Back Boring)



Tip-Bar Dimensions

Description		Min. Bore Dia.	Dimension (mm)							Insert Grade				Refer Page for Applicable Sleeve		
										PVD Coated Carbide		Carbide				
		øA	øD	H	L1	L2	L3	F	S	rε	PR930		KW10			
R	L										R	L				
HPB ^{R/L} 0202-005	2	2	1.7	50	10	5	1.75	0.25	0.05	⁺⁰ _{-0.02}	●	●	●		F19	
	0303-005	3	3		2.5	15	7	2.7			0.3	●	●	●		
	0404-005	4	4	3.35	60	20	10	3.65			0.5	●	●	●		
	0505-005	5	5	4.3	70	25	12	4.55				●	●	●		
	0606-005	6	6	5.2				5.5				●	●	●		
	0707-005	7	7	6.2	80			6.45				●	●	●		
HPB ^{R/L} 0202-005NB	2	2	1.7	50	10	5	1.75	0.25	0.05	⁺⁰ _{-0.02}	●		●			
	0303-005NB	3	3		2.5	15	7	2.7			0.3	●		●		
	0404-005NB	4	4	3.35	60	20	10	3.65			0.5	●		●		
	0505-005NB	5	5	4.3	70	25	12	4.55				●		●		
	0606-005NB	6	6	5.2				5.5				●		●		
	0707-005NB	7	7	6.2	80			6.45				●		●		
HPBT ^{R/L} 0404-005	4	4	3.35	60	21	8	3.65	1.0	0.05	⁺⁰ _{-0.02}	●	●	●	●	F19	
	0505-005	5	5	4.3	70		26	4.55			1.3	●	●	●		●

Recommended Cutting Conditions

[Cut: ap (mm), Feed: f (mm/rev)]

Workpiece Material	Recommended Insert Grade (Cutting Speed: m/min)		HPB02 Type		HPB03 Type		HPB04 Type HPBT04 Type		HPB05 / 06 / 07 Type HPBT05 Type		Remarks
	PVD Coated Carbide	Carbide	Cut: ap (mm), Feed: f (mm/rev)								
	PR930	KW10	ap	f	ap	f	ap	f	ap	f	
Carbon Steel / Alloy Steel	30~100	-	~0.3	~0.03	~0.4	~0.04	~0.45	~0.07	~0.5	~0.1	Coolant
Stainless Steel	30~80	-	~0.3	~0.02	~0.4	~0.03	~0.45	~0.05	~0.5	~0.07	
Non-ferrous Metals	-	30~100	~0.3	~0.05	~0.4	~0.06	~0.45	~0.1	~0.5	~0.15	