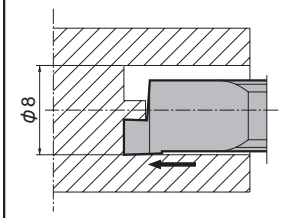
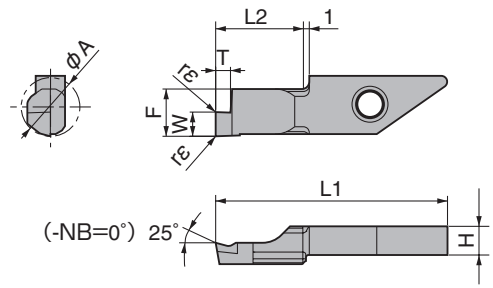
Small Diameter Face Grooving

VNFG (System Tip-Bar)





• Right-hand Shown

Insert Dimensions

Classification of usage									
● : Continuous / 1st Choice ○ : Continuous / 2nd Choice	P	Carbon Steel / Alloy Steel				●			
	M	Stainless Steel				○			
	K	Cast Iron					●		
	N	Non-ferrous Metals					○	●	
	S	Titanium Alloy					○	●	
	H	Hard materials (under 40HRC)				●			
		Hard materials (over 40HRC)							

Description		Min. Cutting Dia. øA		Dimension (mm)							Cermet	PVD Coated Carbide			Carbide	PCD		Ref. Page for Toolholder
		MIN.	MAX.	W±0.03	rε	H	L1	L2	F	T	TC60	PR630	PR915	PR930	KW10	KPD001	KPD010	
VNFGR	0810-10	8 (0)	∞ (∞)	1.0	0.05	3.9	29.6	10	7.3	2.0	□			●	●			F16 F17 F18
	0820-10			2.0							□			●	●			
	0830-10			3.0						3.0	□			●	●			
VNFGR	0820-10NB			2.0	0.05	3.9	29.6	10	7.3	2.0						□	□	
	0830-10NB			3.0						3.0						□	□	

• Dimension T shows available grooving depth.

• Face grooving diameter øD MIN. (0) means that you can make the initial groove within MIN – MAX and then widen it to the center.

Recommended Cutting Conditions

Workpiece Material	Recommended Insert Grade (Cutting Speed: m/min)				VNFG0810	VNFG0820	VNFG0830	Remarks
	Cermet	PVD Coated Carbide		Carbide				
	TC60	PR630	PR930	KW10	f (mm/rev)			
Carbon Steel / Alloy Steel	☆ 60~120		★ 30~100		~0.02	~0.04	~0.05	Coolant
Stainless Steel	☆ 50~100		★ 30~80		~0.01	~0.02	~0.03	
Non-ferrous Metals				★ ~300	~0.04	~0.06	~0.08	

★ : 1st Recommendation ☆ : 2nd Recommendation

System Tip-Bars are sold in 5 piece boxes.

CBN & PCD Tools are sold in 1 piece boxes.

● : Std. Item □ : Check Availability
R : Std. Item (R-hand Only) L : Std. Item (L-hand Only)