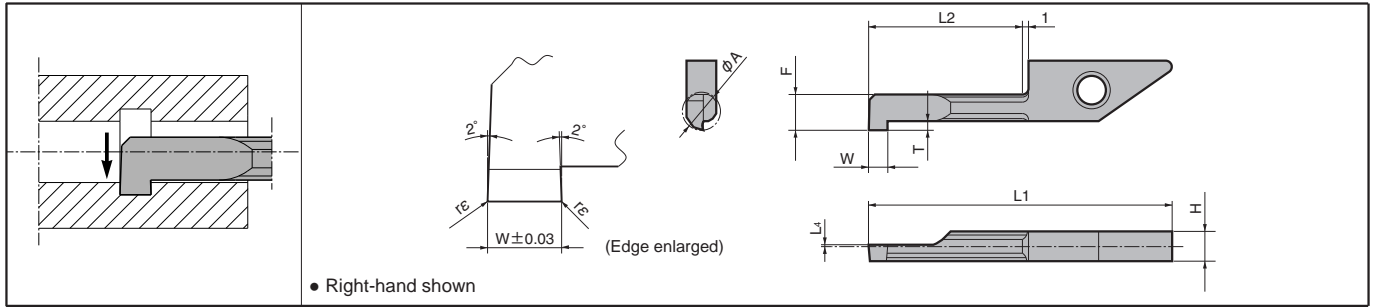


# System Tip-Bar for Micro Internal Grooving

## VNG



• Right-hand shown

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)										●	

### Insert Dimensions

Description	Min. Cutting Dia. øA	Dimension (mm)										Cermet TC60	PVD Coated Carbide PR630	PVD Coated Carbide PR915	Carbide PR930	Carbide KW10	PCD KPD001	PCD KPD010	Ref. Page for Toolholder									
		W	rε	øD	H	L1	L2	L3	L4	F	T																	
VNGR 0410-11 0420-11 0510-11 0520-11 0610-20 0620-20 0710-20 0720-20	4	1.0	0.05	-	3.9	30.8	11	-	0.1	3.5	0.8				●	●												
		2.0																										
	5	1.0																	4.4	1.0	●	●	●	●	●			
		2.0														●	●	●	●	●								
	6	1.0								39.8	20	-	0.3	5.2	1.8	●	●	●	●	●								
		2.0																										
		7				1.0								6.2	2.0	□		●	●									
	2.0											□																
VNGR 0410-11NB 0420-11NB 0510-11NB 0520-11NB 0610-20NB 0620-20NB 0710-20NB 0720-20NB	4	1.0	0.05	-	3.9	30.8	11	-	0.1	3.5	0.8							□	□									
		2.0																										
	5	1.0																	4.4	1.0								
		2.0																										
	6	1.0								39.8	20	-	0.3	5.2	1.8													
		2.0																										
		7				1.0								6.2	2.0													
	2.0																											

- Dimension T shows available grooving depth.
- Dimension L4 indicates the cutting edge is above the Tool's Center Position.

### Recommended Cutting Conditions

Workpiece Material	Recommended Insert Grade (Cutting Speed: m/min)				VNG04 VNG05	VNG06 VNG07	Remarks
	Cermet	PVD Coated Carbide	Carbide				
	TC60	PR630	PR930	KW10	f (mm/rev)		
Carbon Steel / Alloy Steel	☆ 60~120	☆ 30~100	★ 30~100		~0.03	~0.05	Coolant
Stainless Steel	☆ 50~100	☆ 30~80	★ 30~80		~0.02	~0.03	
Non-ferrous Metals				★ ~300	~0.05	~0.08	

★ : 1st Recommendation ☆ : 2nd Recommendation

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

System Tip-Bars (VNG) are sold in 5 piece boxes.

CBN & PCD Inserts are sold in 1 piece boxes.

