

Grooving Inserts

Applicable Inserts

Description	A	L	H
GVF ^{R/L} ...-100AA	4.3	12	4.5
...-200AA			
...-300AA			

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

Insert	Description	(Previous Description)	Dimension (mm)			Cermet		PVD Coated Carbide		Carbide		PCD	Applicable Toolholder	Ref. Page for Toolholder
			W	B	rε	TN90	TC40	TC60	PR630	PR930	KW10			
	GVF ^{R/L} 100-005AA	GVF ^{R/L} 100AA	1.00	2.2	0.05					●	□		GVFS ^{R/L} ...-08AA GFVT ^{R/L} ...-08AA	G76
	200-005AA	200AA	2.00							●	□			
	300-005AA	300AA	3.00							●	□			

* Dimension B: shows available grooving depth.

* GVFL...005AA inserts are not compatible with GVFL...-○○○A (see page G83) inserts because their Side Relief Angle is 10°.

◆ Face Grooving Diameter of GFVS-AA (also GFVT-AA)

Description	Face Grooving Dia. øD		Applicable Inserts
	MIN.	MAX.	
GFVS& 1010F-08AA	8	∞	GVFL ^{R/L} 100AA ~ GVFL ^{R/L} 300AA
1212H-08AA			
1616H-08AA			
2020K-08AA			
2525M-08AA	(0)	(∞)	

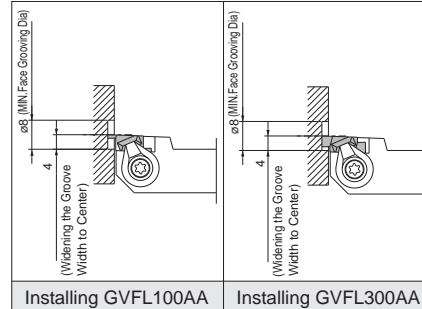
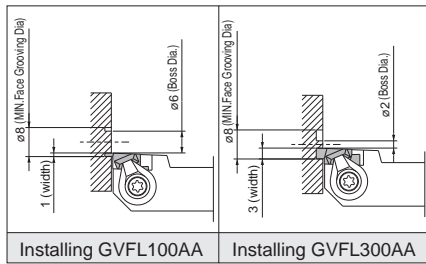
● If the first groove is machined larger than the MIN. value then there is no MAX limit to the further groove machining.

● When machining towards the outer diameter then there is no MAX limit to the further groove machining.

● Refers to the machining of the initial groove with MIN.ø8.

If the initial groove is made smaller than this, the toolholder interferes with the workpiece.

● When widening the groove width to inner diameter. For machining up to the center of the workpiece regardless of insert width.



◆ Recommended Cutting Conditions (GFVS-AA / GFVT-AA)

Workpiece Material	Recommended Insert Grade (Cutting Speed: m/min)			Grooving	Longitudinal turning*		Remarks
	PVD Coated Carbide	Carbide			f (mm/rev)	ap (mm)	
Carbon Steel / Alloy Steel	PR630	PR930	KW10	f (mm/rev)	ap (mm)	f (mm/rev)	Coolant
Stainless Steel	☆ 50~100	★ 50~100		0.01~0.05	Max.0.5	0.01~0.05	
Non-ferrous Metals	☆ 50~80	★ 50~80	★ ~200	0.01~0.03	Max.0.3	0.01~0.02	
				0.01~0.08	Max.0.5	0.01~0.08	

* ap has to be set for less than corner-R(re) when Longitudinal turning of edge width 1.0 mm (GVFL100AA).

★ : 1st Recommendation ☆ : 2nd Recommendation

