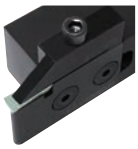
Guideline for grooving HRSA materials

BIDEMICS / Ceramic grooving inserts provide high speed capability to your process. Whisker ceramic is the most versatile option in this category. NTK also offers BIDEMICS and SiAlON grades for more productivity and stability.

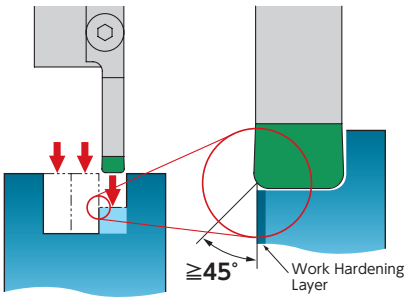
	JX1	JX3	SX3	SX7	SX5	WA1
Speed	1st		2nd		2nd	2nd
Feed			1st		1st	
Versatility	2nd		2nd			1st
Toughness			2nd		1st	
	Can run at up to 1500 SFM. Double the speed of whisker		Double the feed of whisker		Best for Scale and interruption	Versatile grade

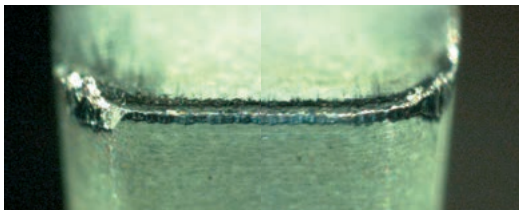
1st : 1st choice　　2nd : 2nd choice

Application	Grade	Work material	Cutting speed (600 800 1000 1200 1400 1600)	Feed (.004 .008 .012 .016 .020)	Depth of cut (.020 .040 .060 .080 .100)	Coolant
Grooving 	JX1 JX3	Overall	1200 (600-1600) SFM	.003 (.002-.004) IPR	When using SX7 / SX5, increase feed rates 100% vs. Whisker Ceramics	WET
	SX5	Waspaloy	700 (600-800) SFM	.006 (.003-.007) IPR		
	SX3 SX7	Overall	750 (600-900) SFM	.0045 (.003-.006) IPR		
	WA1	Overall	800 (600-1100) SFM	.003 (.002-.004) IPR		

*When applying JX1 / JX3, increase speed to over **1000** SFM*
*When applying SX3 / SX7 / SX5, increase feed rates **100%** vs. Whisker Ceramics*

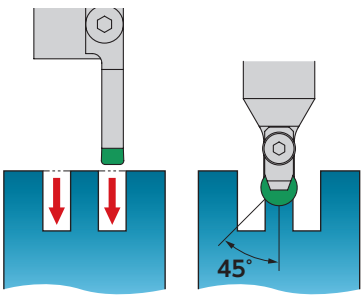
Application Information

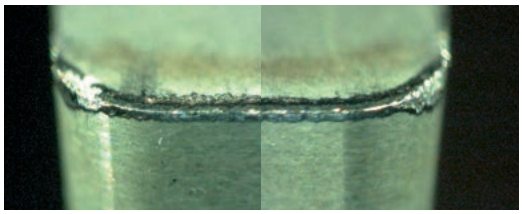




When machining a grooved area with multiple passes, the insert radius engages a potentially work hardened area during the last remaining plunge. This programming procedure sets up the potential of corner radius chipping or notching.

Change to



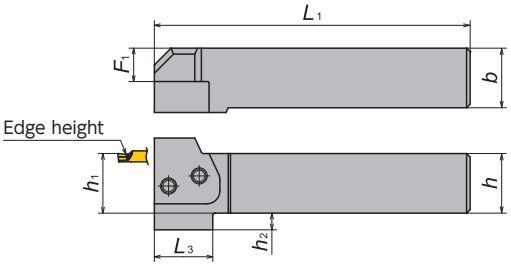


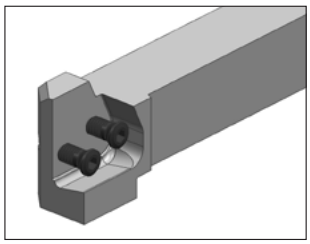
The grooving insert is plunged down both outside walls thus maintaining a good finish. The remaining material can be removed by using a stronger insert shape such as a RCGX style.

Groove DUO Blade

Straight style toolholder

GTWP-H





Right-Hand style shown

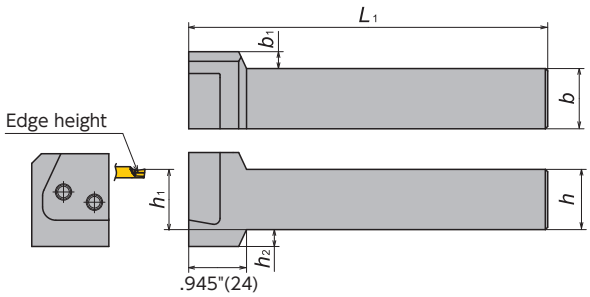
● Toolholder Body

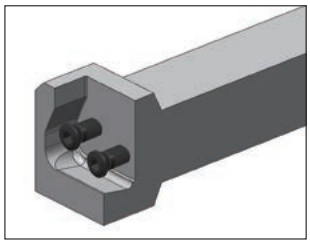
Holder Number	Stock		Dimensions														Blade	Spare Parts	
			h		b		h1		L1		F1		h2		L3			Clamp Screw	Wrench
	R	L	(Inch)	(mm)	(Inch)	(mm)	(Inch)	(mm)	(Inch)	(mm)	(Inch)	(mm)	(Inch)	(mm)	(Inch)	(mm)			
GTWP℞16-IN-H	●	●	1.000	—	1.000	—	1.000	—	5.311	134.9	0.567	14.4	0.260	6.6	0.965	24.5	GBVR/L	FS128-6.0×18	LW-4
GTWP℞20-IN-H	●	●	1.250	—	1.250	—	1.250	—	6.311	160.3	0.817	20.75	—	—	—	—	GBVR/L	FS128-6.0×18	LW-4
GTWP℞24-IN-H			1.500	—	1.500	—	1.500	—	6.311	160.3	1.067	27.1	—	—	—	—	GBRR/L	FS128-6.0×18	LW-4
GTWP℞32-IN-H			2.000	—	2.000	—	2.000	—	6.311	160.3	1.567	39.8	—	—	—	—	GBRR/L	FS128-6.0×18	LW-4
GTWP℞2020-H	○	○	0.787	20.0	0.787	20.0	0.787	20.0	4.232	107.5	0.354	9	0.315	8	1.122	28.5	GBVR/L	FS128-6.0×18	LW-4
GTWP℞2525-H	●	●	0.984	25.0	0.984	25.0	0.984	25.0	5.217	132.5	0.551	14	0.276	7	0.965	24.5	GBVR/L	FS128-6.0×18	LW-4
GTWP℞3232-H	○	○	1.260	32.0	1.000	32.0	1.260	32.0	6.004	152.5	0.827	21	—	—	—	—	GBVR/L	FS128-6.0×18	LW-4

Groove DUO Blade

L-style toolholder

GKWP-H





Right-Hand style shown
＊Use opposite hand blade

● Toolholder Body

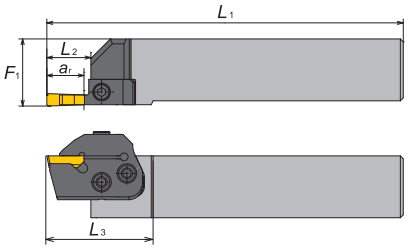
Holder Number	Stock		Dimensions												Blade	Spare Parts	
			h		b		h1		L1		b1		h2			Clamp Screw	Wrench
	R	L	(Inch)	(mm)	(Inch)	(mm)	(Inch)	(mm)	(Inch)	(mm)	(Inch)	(mm)	(Inch)	(mm)			
GKWP℞16-IN-H	●	●	1.000	—	1.000	—	1.000	—	5.961	151.4	0.260	6.6	0.260	6.6	GBVR/L	FS128-6.0×18	LW-4
GKWP℞20-IN-H	●	●	1.250	—	1.250	—	1.250	—	6.961	176.8	—	—	—	—	GBVR/L	FS128-6.0×18	LW-4
GKWP℞2020-H	○	○	0.787	20.0	0.787	20.0	0.787	20.0	4.882	124	0.472	12	0.315	8	GBVR/L	FS128-6.0×18	LW-4
GKWP℞2525-H	●	●	0.984	25.0	0.984	25.0	0.984	25.0	5.866	149	0.276	7	0.276	7	GBVR/L	FS128-6.0×18	LW-4
GKWP℞3232-H	○	○	1.260	32.0	1.000	32.0	1.260	32.0	6.654	169	—	—	—	—	GBVR/L	FS128-6.0×18	LW-4

● : Stock
● : Stock (Newly added)
■ □ R L : While stocks last
R L : Stock (Right / Left-hand only)
R L : Stock (Right / Left-hand only, Newly added)
Ⓜ : Mirror finish
○ : 1-2 week delivery
○ : 1-2 week delivery (Newly added)
💧 : Coolant through
ⓇⓁ : 1-2 week delivery (Right / Left-hand only)
ⓇⓁ : 1-2 week delivery (Right / Left-hand only, Newly added)

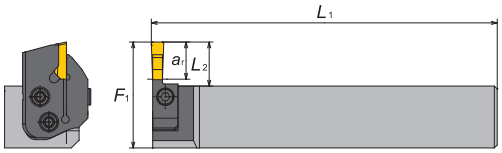
Blade for Straight Grooving

VGW

For GTWP



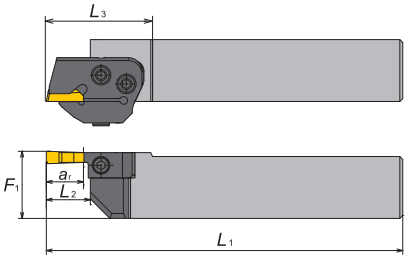
For GKWP



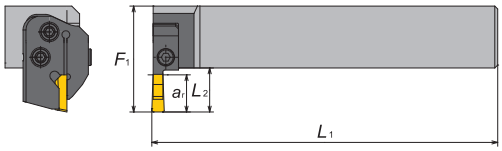
● Right hand

Hand	Blade number	Stock	Insert	Dimensions (inch) a_r	Dimensions (inch) L_2	Holder	Insert	Dimensions (inch) GTWPR-H L_1	GTWPR-H L_3	GTWPR-H F_1	GKWPL-H L_1	GKWPL-H F_1
R	GBVR-VGW4-3T09	●	VGW4125 VGW4156	.375	.441	GTWPR16-IN-H	VGW4125	5.750	1.404	1.090	5.972	1.439
						GKWPL16-IN-H	VGW4156			1.106	5.987	
						GTWPR20-IN-H	VGW4125	6.750	—	1.340	6.972	1.689
						GKWPL20-IN-H	VGW4156			1.356	6.987	
						GTWPR2020-H	VGW4125	4.671	1.561	0.878	4.893	1.226
						GKWPL2020-H	VGW4156			0.893	4.909	
						GTWPR2525-H	VGW4125	5.656	1.404	1.074	5.878	1.423
						GKWPL2525-H	VGW4156			1.090	5.893	
						GTWPR3232-H	VGW4125	6.443	—	1.350	6.665	1.699
						GKWPL3232-H	VGW4156			1.365	6.680	
	GBVR-VGW4-4T14	●	VGW4156 VGW4187	.562	.689	GTWPR16-IN-H	VGW4156	6.000	1.654	1.094	5.976	1.689
						GKWPL16-IN-H	VGW4187			1.109	5.991	
						GTWPR20-IN-H	VGW4156	7.000	—	1.344	6.976	1.939
						GKWPL20-IN-H	VGW4187			1.359	6.991	
						GTWPR2020-H	VGW4156	4.921	1.811	0.881	4.897	1.476
						GKWPL2020-H	VGW4187			0.897	4.913	
						GTWPR2525-H	VGW4156	5.906	1.654	1.078	5.881	1.673
						GKWPL2525-H	VGW4187			1.094	5.897	
						GTWPR3232-H	VGW4156	6.693	—	1.354	6.669	1.949
						GKWPL3232-H	VGW4187			1.369	6.684	
	GBVR-VGW6-6T14	●	VGW6218 VGW6250	.562	.689	GTWPR16-IN-H	VGW6218	6.000	1.654	1.109	5.991	1.689
						GKWPL16-IN-H	VGW6250			1.125	6.007	
						GTWPR20-IN-H	VGW6218	7.000	—	1.359	6.991	1.939
						GKWPL20-IN-H	VGW6250			1.375	7.007	
						GTWPR2020-H	VGW6218	4.921	1.811	0.897	4.913	1.476
						GKWPL2020-H	VGW6250			0.913	4.928	
						GTWPR2525-H	VGW6218	5.906	1.654	1.094	5.897	1.673
						GKWPL2525-H	VGW6250			1.109	5.913	
						GTWPR3232-H	VGW6218	6.693	—	1.369	6.684	1.949
						GKWPL3232-H	VGW6250			1.385	6.700	
	GBVR-VGW6-6T19	●	VGW6250 VGW6281	.750	.890	GTWPR16-IN-H	VGW6250	6.200	1.854	1.106	5.987	1.889
						GKWPL16-IN-H	VGW6281			1.121	6.003	
						GTWPR20-IN-H	VGW6250	7.200	—	1.356	6.987	2.139
						GKWPL20-IN-H	VGW6281			1.371	7.003	
						GTWPR2020-H	VGW6250	5.121	2.011	0.893	4.909	1.676
						GKWPL2020-H	VGW6281			0.908	4.924	
						GTWPR2525-H	VGW6250	6.106	1.854	1.090	5.893	1.873
						GKWPL2525-H	VGW6281			1.105	5.908	
						GTWPR3232-H	VGW6250	6.893	—	1.365	6.680	2.149
						GKWPL3232-H	VGW6281			1.381	6.696	
	GBVR-VGW8-8T19	●	VGW8312 VGW8344	.750	1.089	GTWPR16-IN-H	VGW8312	6.400	2.054	1.138	6.020	2.089
						GKWPL16-IN-H	VGW8344			1.154	6.036	
						GTWPR20-IN-H	VGW8312	7.400	—	1.388	7.020	2.339
						GKWPL20-IN-H	VGW8344			1.404	7.036	
						GTWPR2020-H	VGW8312	5.321	2.211	0.926	4.941	1.876
						GKWPL2020-H	VGW8344			0.942	4.957	
						GTWPR2525-H	VGW8312	6.306	2.054	1.122	5.926	2.073
						GKWPL2525-H	VGW8344			1.139	5.942	
						GTWPR3232-H	VGW8312	7.093	—	1.398	6.713	2.349
						GKWPL3232-H	VGW8344			1.414	6.729	
	GBVR-VGW8-8T28	●	VGW8344 VGW8375	1.125	1.189	GTWPR16-IN-H	VGW8344	6.500	2.154	1.133	6.015	2.189
						GKWPL16-IN-H	VGW8375			1.148	6.030	
						GTWPR20-IN-H	VGW8344	7.500	—	1.383	7.015	2.439
						GKWPL20-IN-H	VGW8375			1.398	7.030	
						GTWPR2020-H	VGW8344	5.421	2.311	0.920	4.936	1.976
						GKWPL2020-H	VGW8375			0.935	4.951	
						GTWPR2525-H	VGW8344	6.406	2.154	1.117	5.920	2.173
						GKWPL2525-H	VGW8375			1.132	5.935	
						GTWPR3232-H	VGW8344	7.193	—	1.393	6.707	2.449
						GKWPL3232-H	VGW8375			1.408	6.723	

For GTWP



For GKWP



● Left hand

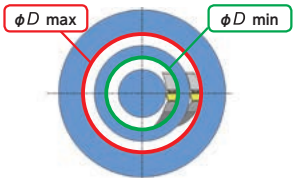
Hand	Blade number	Stock	Insert	Dimensions (inch) a_r	Dimensions (inch) L_2	Holder	Insert	Dimensions (inch) GTWPL-H L_1	GTWPL-H L_3	GTWPL-H F_1	GKWPR-H L_1	GKWPR-H F_1
L	GBVL-VGW4-3T09	●	VGW4125 VGW4156	.375	.441	GTWPL16-IN-H	VGW4125	5.750	1.404	1.090	5.972	1.439
						GKWPR16-IN-H	VGW4156			1.106	5.987	
						GTWPL20-IN-H	VGW4125	6.750	—	1.340	6.972	1.689
						GKWPR20-IN-H	VGW4156			1.356	6.987	
						GTWPL2020-H	VGW4125	4.671	1.561	0.878	4.893	1.226
						GKWPR2020-H	VGW4156			0.893	4.909	
						GTWPL2525-H	VGW4125	5.656	1.404	1.074	5.878	1.423
						GKWPR2525-H	VGW4156			1.090	5.893	
						GTWPL3232-H	VGW4125	6.443	—	1.350	6.665	1.699
						GKWPR3232-H	VGW4156			1.365	6.680	
	GBVL-VGW4-4T14	●	VGW4156 VGW4187	.562	.689	GTWPL16-IN-H	VGW4156	6.000	1.654	1.094	5.976	1.689
						GKWPR16-IN-H	VGW4187			1.109	5.991	
						GTWPL20-IN-H	VGW4156	7.000	—	1.344	6.976	1.939
						GKWPR20-IN-H	VGW4187			1.359	6.991	
						GTWPL2020-H	VGW4156	4.921	1.811	0.881	4.897	1.476
						GKWPR2020-H	VGW4187			0.897	4.913	
						GTWPL2525-H	VGW4156	5.906	1.654	1.078	5.881	1.673
						GKWPR2525-H	VGW4187			1.094	5.897	
						GTWPL3232-H	VGW4156	6.693	—	1.354	6.669	1.949
						GKWPR3232-H	VGW4187			1.369	6.684	
	GBVL-VGW6-6T14	●	VGW6218 VGW6250	.562	.689	GTWPL16-IN-H	VGW6218	6.000	1.654	1.109	5.991	1.689
						GKWPR16-IN-H	VGW6250			1.125	6.007	
						GTWPL20-IN-H	VGW6218	7.000	—	1.359	6.991	1.939
						GKWPR20-IN-H	VGW6250			1.375	7.007	
						GTWPL2020-H	VGW6218	4.921	1.811	0.897	4.913	1.476
						GKWPR2020-H	VGW6250			0.913	4.928	
						GTWPL2525-H	VGW6218	5.906	1.654	1.094	5.897	1.673
						GKWPR2525-H	VGW6250			1.109	5.913	
						GTWPL3232-H	VGW6218	6.693	—	1.369	6.684	1.949
						GKWPR3232-H	VGW6250			1.385	6.700	
	GBVL-VGW6-6T19	●	VGW6250 VGW6281	.750	.890	GTWPL16-IN-H	VGW6250	6.200	1.854	1.106	5.987	1.889
						GKWPR16-IN-H	VGW6281			1.121	6.003	
						GTWPL20-IN-H	VGW6250	7.200	—	1.356	6.987	2.139
						GKWPR20-IN-H	VGW6281			1.371	7.003	
						GTWPL2020-H	VGW6250	5.121	2.011	0.893	4.909	1.676
						GKWPR2020-H	VGW6281			0.908	4.924	
						GTWPL2525-H	VGW6250	6.106	1.854	1.090	5.893	1.873
						GKWPR2525-H	VGW6281			1.105	5.908	
						GTWPL3232-H	VGW6250	6.893	—	1.365	6.680	2.149
						GKWPR3232-H	VGW6281			1.381	6.696	
	GBVL-VGW8-8T19	●	VGW8312 VGW8344	.750	1.089	GTWPL16-IN-H	VGW8312	6.400	2.054	1.138	6.020	2.089
						GKWPR16-IN-H	VGW8344			1.154	6.036	
						GTWPL20-IN-H	VGW8312	7.400	—	1.388	7.020	2.339
						GKWPR20-IN-H	VGW8344			1.404	7.036	
						GTWPL2020-H	VGW8312	5.321	2.211	0.926	4.941	1.876
						GKWPR2020-H	VGW8344			0.942	4.957	
						GTWPL2525-H	VGW8312	6.306	2.054	1.122	5.926	2.073
						GKWPR2525-H	VGW8344			1.139	5.942	
						GTWPL3232-H	VGW8312	7.093	—	1.398	6.713	2.349
						GKWPR3232-H	VGW8344			1.414	6.729	
	GBVL-VGW8-8T28	●	VGW8344 VGW8375	1.125	1.189	GTWPL16-IN-H	VGW8344	6.500	2.154	1.133	6.015	2.189
						GKWPR16-IN-H	VGW8375			1.148	6.030	
						GTWPL20-IN-H	VGW8344	7.500	—	1.383	7.015	2.439
						GKWPR20-IN-H	VGW8375			1.398	7.030	
						GTWPL2020-H	VGW8344	5.421	2.311	0.920	4.936	1.976
						GKWPR2020-H	VGW8375			0.935	4.951	
						GTWPL2525-H	VGW8344	6.406	2.154	1.117	5.920	2.173
						GKWPR2525-H	VGW8375			1.132	5.935	
						GTWPL3232-H	VGW8344	7.193	—	1.393	6.707	2.449
						GKWPR3232-H	VGW8375			1.408	6.723	

Inserts ➡ H10

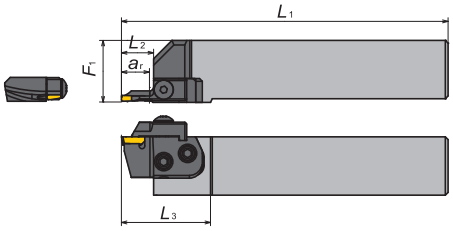
● : Stock
● : Stock (Newly added)
■ □ R L : While stocks last
R L : Stock (Right / Left-hand only)
R L : Stock (Right / Left-hand only, Newly added)
Ⓜ : Mirror finish
○ : 1-2 week delivery
○ : 1-2 week delivery (Newly added)
💧 : Coolant through
Ⓡ Ⓛ : 1-2 week delivery (Right / Left-hand only)
Ⓡ Ⓛ : 1-2 week delivery (Right / Left-hand only, Newly added)

Blade for Face Grooving

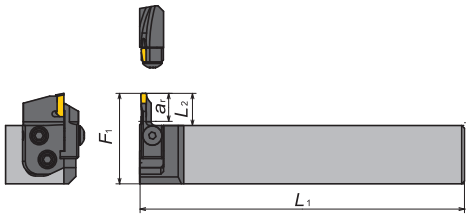
VGW



For GTWP



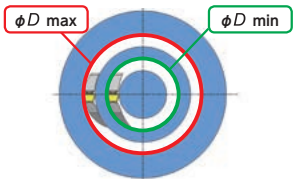
For GKWP

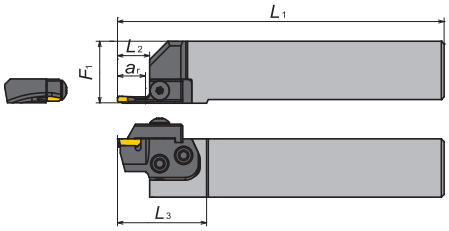


● Right hand

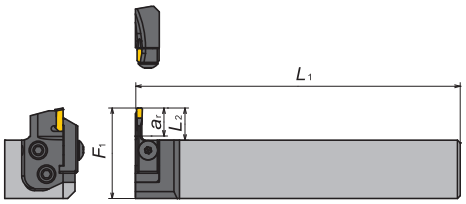
Curve	Blade number	Stock	Insert	O.D. range	Dimensions (inch) a_r	Dimensions (inch) L_2	Holder	Insert	Dimensions (inch) GTWPR-H L_1	GTWPR-H L_3	GTWPR-H F_1	GKWPL-H L_1	GKWPL-H F_1
in	GBI-VGW4R3T15-101177	●	VGW4125 VGW4156	4"-7"	.600	.829	GTWPR16-IN-H	VGW4125	6.000	1.909	1.055	5.937	1.949
							GKWPL16-IN-H	VGW4156			1.070	5.952	
							GTWPR20-IN-H	VGW4125	7.000	1.909	1.305	6.937	1.939
							GKWPL20-IN-H	VGW4156			1.320	6.952	
							GTWPR2020-H	VGW4125	4.921	1.909	0.842	4.858	1.949
							GKWPL2020-H	VGW4156			0.857	4.873	
							GTWPR2525-H	VGW4125	5.906	1.909	1.039	5.842	1.949
							GKWPL2525-H	VGW4156			1.054	5.857	
							GTWPR3232-H	VGW4125	6.693	1.909	1.315	6.630	1.949
							GKWPL3232-H	VGW4156			1.330	6.645	
	GBI-VGW4R3T15-177999	●	VGW4125 VGW4156	7" and over	.600	.829	GTWPR16-IN-H	VGW4125	6.000	1.909	1.055	5.937	1.949
							GKWPL16-IN-H	VGW4156			1.070	5.952	
							GTWPR20-IN-H	VGW4125	7.000	1.909	1.305	6.937	1.939
							GKWPL20-IN-H	VGW4156			1.320	6.952	
							GTWPR2020-H	VGW4125	4.921	1.909	0.842	4.858	1.949
							GKWPL2020-H	VGW4156			0.857	4.873	
							GTWPR2525-H	VGW4125	5.906	1.909	1.039	5.842	1.949
							GKWPL2525-H	VGW4156			1.054	5.857	
							GTWPR3232-H	VGW4125	6.693	1.909	1.315	6.630	1.949
							GKWPL3232-H	VGW4156			1.330	6.645	
	GBI-VGW4R4T15-101177	●	VGW4156 VGW4187	4"-7"	.600	.829	GTWPR16-IN-H	VGW4156	6.000	1.909	1.058	5.940	1.949
							GKWPL16-IN-H	VGW4187			1.074	5.956	
							GTWPR20-IN-H	VGW4156	7.000	1.909	1.308	6.940	1.939
							GKWPL20-IN-H	VGW4187			1.324	6.956	
							GTWPR2020-H	VGW4156	4.921	1.909	0.846	4.861	1.949
							GKWPL2020-H	VGW4187			0.861	4.877	
							GTWPR2525-H	VGW4156	5.906	1.909	1.043	5.846	1.949
							GKWPL2525-H	VGW4187			1.058	5.861	
							GTWPR3232-H	VGW4156	6.693	1.909	1.318	6.633	1.949
							GKWPL3232-H	VGW4187			1.334	6.649	
	GBI-VGW4R4T15-177999	●	VGW4156 VGW4187	7" and over	.600	.829	GTWPR16-IN-H	VGW4156	6.000	1.909	1.058	5.940	1.949
							GKWPL16-IN-H	VGW4187			1.074	5.956	
							GTWPR20-IN-H	VGW4156	7.000	1.909	1.308	6.940	1.939
							GKWPL20-IN-H	VGW4187			1.324	6.956	
							GTWPR2020-H	VGW4156	4.921	1.909	0.846	4.861	1.949
							GKWPL2020-H	VGW4187			0.861	4.877	
							GTWPR2525-H	VGW4156	5.906	1.909	1.043	5.846	1.949
							GKWPL2525-H	VGW4187			1.058	5.861	
							GTWPR3232-H	VGW4156	6.693	1.909	1.318	6.633	1.949
							GKWPL3232-H	VGW4187			1.334	6.649	
	GBI-VGW6R6T15-101177	●	VGW6218 VGW6250	4"-7"	.600	.829	GTWPR16-IN-H	VGW6218	6.000	1.909	1.078	5.960	1.949
							GKWPL16-IN-H	VGW6250			1.094	5.976	
							GTWPR20-IN-H	VGW6218	7.000	1.909	1.328	6.960	1.939
							GKWPL20-IN-H	VGW6250			1.344	6.976	
							GTWPR2020-H	VGW6218	4.921	1.909	0.865	4.881	1.949
							GKWPL2020-H	VGW6250			0.881	4.897	
							GTWPR2525-H	VGW6218	5.906	1.909	1.062	5.865	1.949
							GKWPL2525-H	VGW6250			1.078	5.881	
							GTWPR3232-H	VGW6218	6.693	1.909	1.338	6.653	1.949
							GKWPL3232-H	VGW6250			1.354	6.669	
	GBI-VGW6R6T15-177999	●	VGW6218 VGW6250	7" and over	.600	.829	GTWPR16-IN-H	VGW6218	6.000	1.909	1.082	5.964	1.949
							GKWPL16-IN-H	VGW6250			1.098	5.980	
							GTWPR20-IN-H	VGW6218	7.000	1.909	1.332	6.964	1.939
							GKWPL20-IN-H	VGW6250			1.348	6.980	
							GTWPR2020-H	VGW6218	4.921	1.909	0.869	4.885	1.949
							GKWPL2020-H	VGW6250			0.885	4.901	
							GTWPR2525-H	VGW6218	5.906	1.909	1.066	5.869	1.949
							GKWPL2525-H	VGW6250			1.082	5.885	
							GTWPR3232-H	VGW6218	6.693	1.909	1.342	6.657	1.949
							GKWPL3232-H	VGW6250			1.357	6.672	

For GTWP





For GKWP



● Right hand

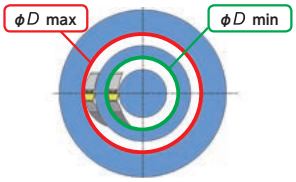
Curve	Blade number	Stock	Insert	O.D. range	Dimensions (inch) a_r	Dimensions (inch) L_2	Holder	Insert	Dimensions (inch) GTWPL-H L_1	GTWPL-H L_3	GTWPL-H F_1	GKWPR-H L_1	GKWPR-H F_1
out	GBO-VGW4R3T15-101177	●	VGW4125 VGW4156	4"-7"	.600	.829	GTWPR16-IN-H	VGW4125	6.000	1.909	1.055	5.937	1.949
							GKWPL16-IN-H	VGW4156			1.070	5.952	
							GTWPR20-IN-H	VGW4125	7.000	1.909	1.305	6.937	1.939
							GKWPL20-IN-H	VGW4156			1.320	6.952	
							GTWPR2020-H	VGW4125	4.921	1.909	0.842	4.858	1.949
							GKWPL2020-H	VGW4156			0.857	4.873	
							GTWPR2525-H	VGW4125	5.906	1.909	1.039	5.842	1.949
							GKWPL2525-H	VGW4156			1.054	5.857	
							GTWPR3232-H	VGW4125	6.693	1.909	1.315	6.630	1.949
							GKWPL3232-H	VGW4156			1.330	6.645	
	GBO-VGW4R3T15-177999	●	VGW4125 VGW4156	7" and over	.600	.829	GTWPR16-IN-H	VGW4125	6.000	1.909	1.094	5.976	1.949
							GKWPL16-IN-H	VGW4156			1.109	5.991	
							GTWPR20-IN-H	VGW4125	7.000	1.909	1.344	6.976	1.939
							GKWPL20-IN-H	VGW4156			1.359	6.991	
							GTWPR2020-H	VGW4125	4.921	1.909	0.881	4.897	1.949
							GKWPL2020-H	VGW4156			0.897	4.913	
							GTWPR2525-H	VGW4125	5.906	1.909	1.078	5.881	1.949
							GKWPL2525-H	VGW4156			1.094	5.897	
							GTWPR3232-H	VGW4125	6.693	1.909	1.354	6.669	1.949
							GKWPL3232-H	VGW4156			1.369	6.684	
	GBO-VGW4R4T15-101177	●	VGW4156 VGW4187	4"-7"	.600	.829	GTWPR16-IN-H	VGW4156	6.000	1.909	1.058	5.940	1.949
							GKWPL16-IN-H	VGW4187			1.074	5.956	
							GTWPR20-IN-H	VGW4156	7.000	1.909	1.308	6.940	1.939
							GKWPL20-IN-H	VGW4187			1.324	6.956	
							GTWPR2020-H	VGW4156	4.921	1.909	0.846	4.861	1.949
							GKWPL2020-H	VGW4187			0.861	4.877	
							GTWPR2525-H	VGW4156	5.906	1.909	1.043	5.846	1.949
							GKWPL2525-H	VGW4187			1.058	5.861	
							GTWPR3232-H	VGW4156	6.693	1.909	1.318	6.633	1.949
							GKWPL3232-H	VGW4187			1.334	6.649	
	GBO-VGW4R4T15-177999	●	VGW4156 VGW4187	7" and over	.600	.829	GTWPR16-IN-H	VGW4156	6.000	1.909	1.094	5.976	1.949
							GKWPL16-IN-H	VGW4187			1.109	5.991	
							GTWPR20-IN-H	VGW4156	7.000	1.909	1.344	6.976	1.939
							GKWPL20-IN-H	VGW4187			1.359	6.991	
							GTWPR2020-H	VGW4156	4.921	1.909	0.881	4.897	1.949
							GKWPL2020-H	VGW4187			0.897	4.916	
							GTWPR2525-H	VGW4156	5.906	1.909	1.078	5.881	1.949
							GKWPL2525-H	VGW4187			1.094	5.897	
							GTWPR3232-H	VGW4156	6.693	1.909	1.354	6.669	1.949
							GKWPL3232-H	VGW4187			1.369	6.684	
	GBO-VGW6R6T15-101177	●	VGW6218 VGW6250	4"-7"	.600	.829	GTWPR16-IN-H	VGW6218	6.000	1.909	1.078	5.960	1.949
							GKWPL16-IN-H	VGW6250			1.094	5.976	
							GTWPR20-IN-H	VGW6218	7.000	1.909	1.328	6.960	1.939
							GKWPL20-IN-H	VGW6250			1.344	6.976	
							GTWPR2020-H	VGW6218	4.921	1.909	0.865	4.881	1.949
							GKWPL2020-H	VGW6250			0.881	4.897	
							GTWPR2525-H	VGW6218	5.906	1.909	1.062	5.865	1.949
							GKWPL2525-H	VGW6250			1.078	5.881	
							GTWPR3232-H	VGW6218	6.693	1.909	1.338	6.653	1.949
							GKWPL3232-H	VGW6250			1.354	6.669	
	GBO-VGW6R6T15-177999	●	VGW6218 VGW6250	7" and over	.600	.829	GTWPR16-IN-H	VGW6218	6.000	1.909	1.082	5.964	1.949
							GKWPL16-IN-H	VGW6250			1.098	5.980	
							GTWPR20-IN-H	VGW6218	7.000	1.909	1.332	6.964	1.939
							GKWPL20-IN-H	VGW6250			1.348	6.980	
							GTWPR2020-H	VGW6218	4.921	1.909	0.869	4.885	1.949
							GKWPL2020-H	VGW6250			0.885	4.901	
							GTWPR2525-H	VGW6218	5.906	1.909	1.066	5.869	1.949
							GKWPL2525-H	VGW6250			1.082	5.885	
							GTWPR3232-H	VGW6218	6.693	1.909	1.342	6.657	1.949
							GKWPL3232-H	VGW6250			1.357	6.672	

Inserts ➡ H10

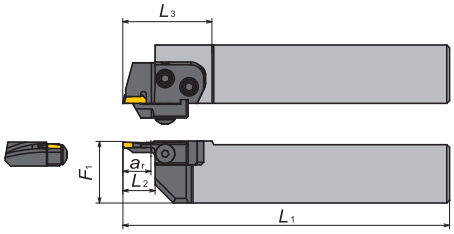
● : Stock
● : Stock (Newly added)
■ □R□L : While stocks last
R L : Stock (Right / Left-hand only)
R L : Stock (Right / Left-hand only, Newly added)
Ⓜ : Mirror finish
○ : 1-2 week delivery
○ : 1-2 week delivery (Newly added)
💧 : Coolant through
ⓇⓁ : 1-2 week delivery (Right / Left-hand only)
ⓇⓁ : 1-2 week delivery (Right / Left-hand only, Newly added)

Blade for Face Grooving

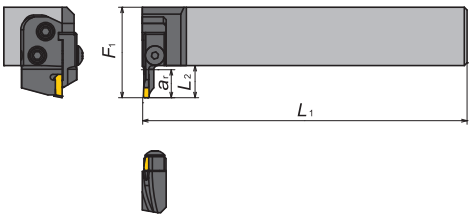
VGW



For GTWP

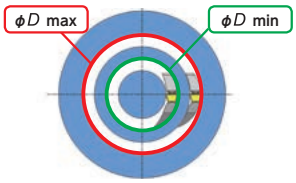


For GKWP

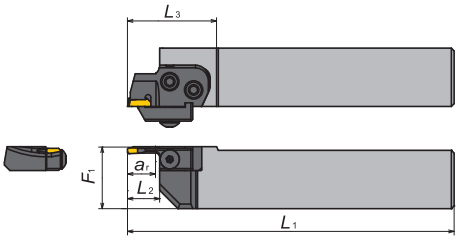


● Left hand

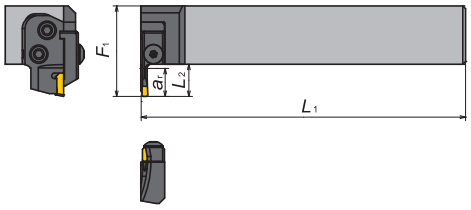
Curve	Blade number	Stock	Insert	O.D. range	Dimensions (inch) a_r	Dimensions (inch) L_2	Holder	Insert	Dimensions (inch) GTWPR-H L_1	GTWPR-H L_3	GTWPR-H F_1	GKWPL-H L_1	GKWPL-H F_1
in	GBI-VGW4L3T15-101177	●	VGW4125 VGW4156	4"-7"	.600	.829	GTWPR16-IN-H	VGW4125	6.000	1.909	1.055	5.937	1.949
							GKWPL16-IN-H	VGW4156			1.070	5.952	
							GTWPR20-IN-H	VGW4125	7.000	1.909	1.305	6.937	1.939
							GKWPL20-IN-H	VGW4156			1.320	6.952	
							GTWPR2020-H	VGW4125	4.921	1.909	0.842	4.858	1.949
							GKWPL2020-H	VGW4156			0.857	4.873	
							GTWPR2525-H	VGW4125	5.906	1.909	1.039	5.842	1.949
							GKWPL2525-H	VGW4156			1.054	5.857	
							GTWPR3232-H	VGW4125	6.693	1.909	1.315	6.630	1.949
							GKWPL3232-H	VGW4156			1.330	6.645	
	GBI-VGW4L3T15-177999	●	VGW4125 VGW4156	7" and over	.600	.829	GTWPR16-IN-H	VGW4125	6.000	1.909	1.055	5.933	1.949
							GKWPL16-IN-H	VGW4156			1.070	5.952	
							GTWPR20-IN-H	VGW4125	7.000	1.909	1.305	6.937	1.939
							GKWPL20-IN-H	VGW4156			1.320	6.952	
							GTWPR2020-H	VGW4125	4.921	1.909	0.842	4.858	1.949
							GKWPL2020-H	VGW4156			0.857	4.873	
							GTWPR2525-H	VGW4125	5.906	1.909	1.039	5.842	1.949
							GKWPL2525-H	VGW4156			1.054	5.857	
							GTWPR3232-H	VGW4125	6.693	1.909	1.315	6.630	1.949
							GKWPL3232-H	VGW4156			1.330	6.645	
	GBI-VGW4L4T15-101177	●	VGW4156 VGW4187	4"-7"	.600	.829	GTWPR16-IN-H	VGW4156	6.000	1.909	1.058	5.940	1.949
							GKWPL16-IN-H	VGW4187			1.074	5.956	
							GTWPR20-IN-H	VGW4156	7.000	1.909	1.308	6.940	1.939
							GKWPL20-IN-H	VGW4187			1.324	6.956	
							GTWPR2020-H	VGW4156	4.921	1.909	0.846	4.861	1.949
							GKWPL2020-H	VGW4187			0.861	4.877	
							GTWPR2525-H	VGW4156	5.906	1.909	1.043	5.846	1.949
							GKWPL2525-H	VGW4187			1.058	5.861	
							GTWPR3232-H	VGW4156	6.693	1.909	1.318	6.633	1.949
							GKWPL3232-H	VGW4187			1.334	6.649	
	GBI-VGW4L4T15-177999	●	VGW4156 VGW4187	7" and over	.600	.829	GTWPR16-IN-H	VGW4156	6.000	1.909	1.058	5.940	1.949
							GKWPL16-IN-H	VGW4187			1.074	5.956	
							GTWPR20-IN-H	VGW4156	7.000	1.909	1.308	6.940	1.939
							GKWPL20-IN-H	VGW4187			1.324	6.956	
							GTWPR2020-H	VGW4156	4.921	1.909	0.846	4.861	1.949
							GKWPL2020-H	VGW4187			0.861	4.877	
							GTWPR2525-H	VGW4156	5.906	1.909	1.043	5.846	1.949
							GKWPL2525-H	VGW4187			1.058	5.861	
							GTWPR3232-H	VGW4156	6.693	1.909	1.318	6.633	1.949
							GKWPL3232-H	VGW4187			1.334	6.649	
	GBI-VGW6L6T15-101177	●	VGW6218 VGW6250	4"-7"	.600	.829	GTWPR16-IN-H	VGW6218	6.000	1.909	1.078	5.960	1.949
							GKWPL16-IN-H	VGW6250			1.094	5.976	
							GTWPR20-IN-H	VGW6218	7.000	1.909	1.328	6.960	1.939
							GKWPL20-IN-H	VGW6250			1.344	6.976	
							GTWPR2020-H	VGW6218	4.921	1.909	0.865	4.881	1.949
							GKWPL2020-H	VGW6250			0.881	4.897	
							GTWPR2525-H	VGW6218	5.906	1.909	1.062	5.865	1.949
							GKWPL2525-H	VGW6250			1.078	5.881	
							GTWPR3232-H	VGW6218	6.693	1.909	1.338	6.653	1.949
							GKWPL3232-H	VGW6250			1.354	6.669	
	GBI-VGW6L6T15-177999	●	VGW6218 VGW6250	7" and over	.600	.829	GTWPR16-IN-H	VGW6218	6.000	1.909	1.082	5.964	1.949
							GKWPL16-IN-H	VGW6250			1.098	5.980	
							GTWPR20-IN-H	VGW6218	7.000	1.909	1.332	6.964	1.939
							GKWPL20-IN-H	VGW6250			1.348	6.980	
							GTWPR2020-H	VGW6218	4.921	1.909	0.869	4.885	1.949
							GKWPL2020-H	VGW6250			0.885	4.901	
							GTWPR2525-H	VGW6218	5.906	1.909	1.066	5.869	1.949
							GKWPL2525-H	VGW6250			1.082	5.885	
							GTWPR3232-H	VGW6218	6.693	1.909	1.342	6.657	1.949
							GKWPL3232-H	VGW6250			1.357	6.672	



For GTWP



For GKWP



● Left hand

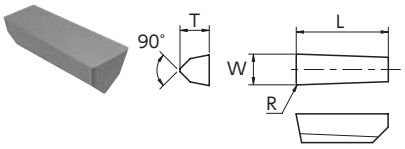
Curve	Blade number	Stock	Insert	O.D. range	Dimensions (inch) a_r	Dimensions (inch) L_2	Holder	Insert	Dimensions (inch) GTWPL-H L_1	GTWPL-H L_3	GTWPL-H F_1	GKWPR-H L_1	GKWPR-H F_1
out	GBO-VGW4L3T15-101177	●	VGW4125 VGW4156	4"-7"	.600	.829	GTWPR16-IN-H	VGW4125	6.000	1.909	1.055	5.937	1.949
							GKWPL16-IN-H	VGW4156			1.070	5.952	
							GTWPR20-IN-H	VGW4125	7.000	1.909	1.305	6.937	1.939
							GKWPL20-IN-H	VGW4156			1.320	6.952	
							GTWPR2020-H	VGW4125	4.921	1.909	0.842	4.858	1.949
							GKWPL2020-H	VGW4156			0.857	4.873	
							GTWPR2525-H	VGW4125	5.906	1.909	1.039	5.842	1.949
							GKWPL2525-H	VGW4156			1.054	5.857	
							GTWPR3232-H	VGW4125	6.693	1.909	1.315	6.630	1.949
							GKWPL3232-H	VGW4156			1.330	6.645	
	GBO-VGW4L3T15-177999	●	VGW4125 VGW4156	7" and over	.600	.829	GTWPR16-IN-H	VGW4125	6.000	1.909	1.094	5.976	1.949
							GKWPL16-IN-H	VGW4156			1.109	5.991	
							GTWPR20-IN-H	VGW4125	7.000	1.909	1.344	6.976	1.939
							GKWPL20-IN-H	VGW4156			1.359	6.991	
							GTWPR2020-H	VGW4125	4.921	1.909	0.881	4.897	1.949
							GKWPL2020-H	VGW4156			0.897	4.913	
							GTWPR2525-H	VGW4125	5.906	1.909	1.078	5.881	1.949
							GKWPL2525-H	VGW4156			1.094	5.897	
							GTWPR3232-H	VGW4125	6.693	1.909	1.354	6.669	1.949
							GKWPL3232-H	VGW4156			1.369	6.684	
	GBO-VGW4L4T15-101177	●	VGW4156 VGW4187	4"-7"	.600	.829	GTWPR16-IN-H	VGW4156	6.000	1.909	1.058	5.940	1.949
							GKWPL16-IN-H	VGW4187			1.074	5.956	
							GTWPR20-IN-H	VGW4156	7.000	1.909	1.308	6.940	1.939
							GKWPL20-IN-H	VGW4187			1.324	6.956	
							GTWPR2020-H	VGW4156	4.921	1.909	0.846	4.861	1.949
							GKWPL2020-H	VGW4187			0.861	4.877	
							GTWPR2525-H	VGW4156	5.906	1.909	1.043	5.846	1.949
							GKWPL2525-H	VGW4187			1.058	5.861	
							GTWPR3232-H	VGW4156	6.693	1.909	1.318	6.633	1.949
							GKWPL3232-H	VGW4187			1.334	6.649	
	GBO-VGW4L4T15-177999	●	VGW4156 VGW4187	7" and over	.600	.829	GTWPR16-IN-H	VGW4156	6.000	1.909	1.094	5.976	1.949
							GKWPL16-IN-H	VGW4187			1.109	5.991	
							GTWPR20-IN-H	VGW4156	7.000	1.909	1.344	6.976	1.939
							GKWPL20-IN-H	VGW4187			1.359	6.991	
							GTWPR2020-H	VGW4156	4.921	1.909	0.881	4.897	1.949
							GKWPL2020-H	VGW4187			0.897	4.916	
							GTWPR2525-H	VGW4156	5.906	1.909	1.078	5.881	1.949
							GKWPL2525-H	VGW4187			1.094	5.897	
							GTWPR3232-H	VGW4156	6.693	1.909	1.354	6.669	1.949
							GKWPL3232-H	VGW4187			1.369	6.684	
	GBO-VGW6L6T15-101177	●	VGW6218 VGW6250	4"-7"	.600	.829	GTWPR16-IN-H	VGW6218	6.000	1.909	1.078	5.960	1.949
							GKWPL16-IN-H	VGW6250			1.094	5.976	
							GTWPR20-IN-H	VGW6218	7.000	1.909	1.328	6.960	1.939
							GKWPL20-IN-H	VGW6250			1.344	6.976	
							GTWPR2020-H	VGW6218	4.921	1.909	0.865	4.881	1.949
							GKWPL2020-H	VGW6250			0.881	4.897	
							GTWPR2525-H	VGW6218	5.906	1.909	1.062	5.865	1.949
							GKWPL2525-H	VGW6250			1.078	5.881	
							GTWPR3232-H	VGW6218	6.693	1.909	1.338	6.653	1.949
							GKWPL3232-H	VGW6250			1.354	6.669	
	GBO-VGW6L6T15-177999	●	VGW6218 VGW6250	7" and over	.600	.829	GTWPR16-IN-H	VGW6218	6.000	1.909	1.082	5.964	1.949
							GKWPL16-IN-H	VGW6250			1.098	5.980	
							GTWPR20-IN-H	VGW6218	7.000	1.909	1.332	6.964	1.939
							GKWPL20-IN-H	VGW6250			1.348	6.980	
							GTWPR2020-H	VGW6218	4.921	1.909	0.869	4.885	1.949
							GKWPL2020-H	VGW6250			0.885	4.901	
							GTWPR2525-H	VGW6218	5.906	1.909	1.066	5.869	1.949
							GKWPL2525-H	VGW6250			1.082	5.885	
							GTWPR3232-H	VGW6218	6.693	1.909	1.342	6.657	1.949
							GKWPL3232-H	VGW6250			1.357	6.672	

Inserts ➡ H10

● : Stock
● : Stock (Newly added)
■ □R□L : While stocks last
R L : Stock (Right / Left-hand only)
R L : Stock (Right / Left-hand only, Newly added)
Ⓜ : Mirror finish
○ : 1-2 week delivery
○ : 1-2 week delivery (Newly added)
💧 : Coolant through
ⓇⓁ : 1-2 week delivery (Right / Left-hand only)
ⓇⓁ : 1-2 week delivery (Right / Left-hand only, Newly added)

VGW

● : 1st Choice ● : 2nd choice

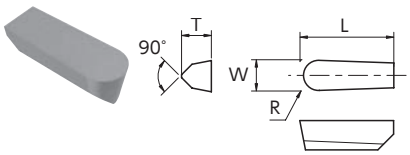


		JX1	JX3	SX7	SX3	SX5	WA1
Steel	P						
Stainless Steel	M						
Cast Iron	K			●	●	●	●
Non-Ferrous Material	N						
Heat Resistant Alloy	S	●	●	●	●	●	●
Hardened Material	H						●

Item Number	W	R	T	L	BIDEMICS JX1	BIDEMICS JX3	SiAlON SX7	SiAlON SX3	SiAlON SX5	Whisker WA1
VGW 41251 E02	.125	.015	.187	.500	●	●				
VGW 41251 EX001	.125	.015	.187	.500						●
VGW 41251 T0220	.125	.015	.187	.500			●	●		
VGW 41252 E02	.125	.031	.187	.500	●	●				
VGW 41252 EX001	.125	.031	.187	.500						●
VGW 41252 T0220	.125	.031	.187	.500			●	●		
VGW 41561 E02	.156	.015	.187	.500	●	●				
VGW 41561 EX001	.156	.015	.187	.500						●
VGW 41561 T0220	.156	.015	.187	.500			●	●		
VGW 41562 E02	.156	.031	.187	.500	●	●				
VGW 41562 EX001	.156	.031	.187	.500						●
VGW 41562 T0220	.156	.031	.187	.500			●	●		
VGW 41871 E02	.187	.015	.187	.500	●	●				
VGW 41871 EX001	.187	.015	.187	.500						●
VGW 41871 T0220	.187	.015	.187	.500			●	●	●	
VGW 41872 E02	.187	.031	.187	.500	●	●				
VGW 41872 EX001	.187	.031	.187	.500						●
VGW 41872 T0220	.187	.031	.187	.500			●	●	●	
VGW 62501 E02	.250	.015	.250	.750	●	●				
VGW 62501 T0220	.250	.015	.250	.750			●	●		●
VGW 62501 T0420	.250	.015	.250	.750						●
VGW 62501 Z0420	.250	.015	.250	.750						●
VGW 62502 E02	.250	.031	.250	.750	●	●				
VGW 62502 EX001	.250	.031	.250	.750						●
VGW 62502 T0220	.250	.031	.250	.750			●	●	●	
VGW 62503 E02	.250	.046	.250	.750	●	●				
VGW 62503 T0220	.250	.046	.250	.750			●	●	●	
VGW 62814 E02	.281	.062	.250	.750	●	●				
VGW 62814 T0220	.281	.062	.250	.750			●	●		
VGW 83122 E02	.312	.031	.337	1.000	●	●				
VGW 83122 EX001	.312	.031	.337	1.000						●
VGW 83122 T0220	.312	.031	.337	1.000			●	●		
VGW 83124 E02	.312	.062	.337	1.000	●	●				
VGW 83124 EX001	.312	.062	.337	1.000						●
VGW 83124 T0220	.312	.062	.337	1.000			●	●	●	
VGW 83752 E02	.375	.031	.337	1.000	●	●				
VGW 83752 EX001	.375	.031	.337	1.000						●
VGW 83752 T0220	.375	.031	.337	1.000			●	●	●	
VGW 83754 E02	.375	.062	.337	1.000	●	●				
VGW 83754 EX001	.375	.062	.337	1.000						●
VGW 83754 T0220	.375	.062	.337	1.000			●	●	●	●

VGW..R

● : 1st Choice ● : 2nd choice



		BIDEMICS		SiAlON			Whisker
Steel	P						
Stainless Steel	M						
Cast Iron	K			●	●	●	●
Non-Ferrous Material	N						
Heat Resistant Alloy	S	●	●	●	●	●	●
Hardened Material	H						●

Item Number	W	R	T	L	JX1	JX3	SX7	SX3	SX5	WA1
VGW 4125R E02	.125	.063	.187	.500	●	●				
VGW 4125R EX001	.125	.063	.187	.500						●
VGW 4125R T0220	.125	.063	.187	.500			●	●		
VGW 4156R E02	.156	.078	.187	.500	●	●				
VGW 4156R EX001	.156	.078	.187	.500						●
VGW 4156R T0220	.156	.078	.187	.500			●	●		●
VGW 4156R Z0820	.156	.078	.187	.500						●
VGW 4187R E02	.187	.094	.187	.500	●	●				
VGW 4187R EX001	.187	.094	.187	.500						●
VGW 4187R T0220	.187	.094	.187	.500			●	●	●	
VGW 6218R E02	.218	.109	.250	.750	●	●				
VGW 6218R EX001	.218	.109	.250	.750						●
VGW 6218R T0220	.218	.109	.250	.750			●	●		
VGW 6250R E02	.250	.125	.250	.750	●	●				
VGW 6250R EX001	.250	.125	.250	.750						●
VGW 6250R T0220	.250	.125	.250	.750			●	●	●	
VGW 6281R EX001	.281	.141	.250	.750						●
VGW 8312R E02	.312	.156	.337	1.000	●	●				
VGW 8312R EX001	.312	.156	.337	1.000						●
VGW 8312R T0220	.312	.156	.337	1.000			●	●	●	
VGW 8344R EX001	.344	.172	.337	1.000						●
VGW 8375R E02	.375	.188	.337	1.000	●	●				
VGW 8375R EX001	.375	.188	.337	1.000						●
VGW 8375R T0220	.375	.188	.337	1.000			●	●	●	

Holders ➡ H8 • H9 • H10 • H11 • H12 • H13

● : Stock
● : Stock (Newly added)
■ □R L : While stocks last
R L : Stock (Right / Left-hand only)
R L : Stock (Right / Left-hand only, Newly added)
Ⓜ : Mirror finish
○ : 1-2 week delivery
○ : 1-2 week delivery (Newly added)
💧 : Coolant through
ⓇⓁ : 1-2 week delivery (Right / Left-hand only)
ⓇⓁ : 1-2 week delivery (Right / Left-hand only, Newly added)