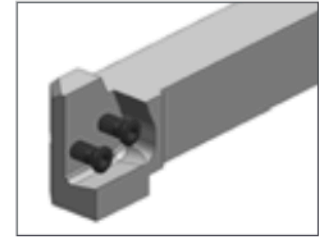
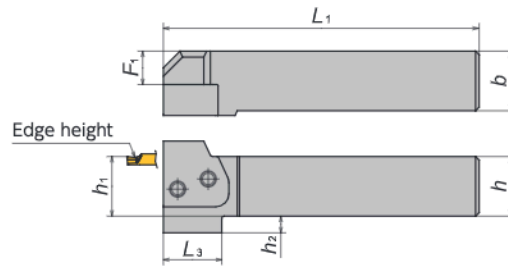


Groove DUO Blade

Straight style toolholder

GTWP-H



Right-Hand style shown

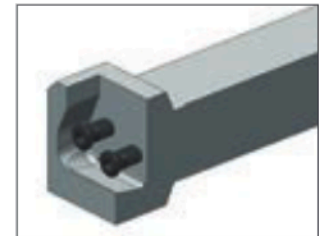
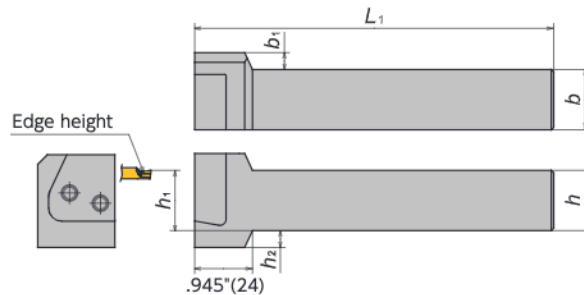
Toolholder Body

Holder Number	Stock		Dimensions												Blade	Spare Parts			
			<i>h</i>		<i>b</i>		<i>h</i> ₁		<i>L</i> ₁		<i>F</i> ₁		<i>h</i> ₂			<i>L</i> ₃		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

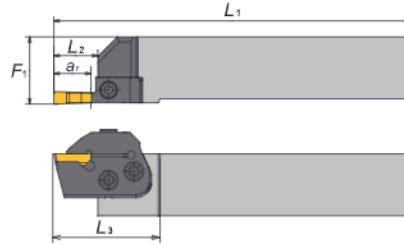
Toolholder Body

Holder Number	Stock		Dimensions										Blade	Spare Parts			
			<i>h</i>		<i>b</i>		<i>h</i> ₁		<i>L</i> ₁		<i>b</i> ₁			<i>h</i> ₂		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

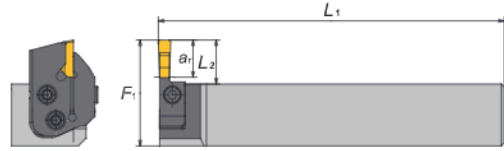
Blade for Straight Grooving

VGW

For GTWP



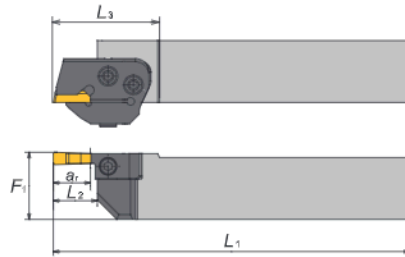
For GKWP



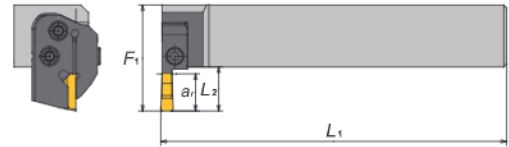
● Right hand

Hand	Blade number	Stock	Insert	Dimensions (inch)		Holder	Insert	Dimensions (inch)				
				a _r	L ₂			GTWPR-H			GKWPL-H	
								L ₁	L ₃	F ₁	L ₁	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	
	GBVR-VGW4-4T14	●	VGW4156 VGW4187	.562	.689	GTWPR3232-H	VGW4125	6.443	—	1.350	6.665	1.699
						GKWPL3232-H	VGW4156			1.365	6.680	
						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	
	GBVR-VGW6-6T14	●	VGW6218 VGW6250	.562	.689	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	
						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	
	GBVR-VGW6-6T19	●	VGW6250 VGW6281	.750	.890	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	
						GTWPR16-IN-H	VGW6250	6.200	1.854	1.106	5.987	1.889
						GKWPL16-IN-H	VGW6281			1.121	6.003	
	GBVR-VGW8-8T19	●	VGW8312 VGW8344	.750	1.089	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-VGW8-8T28	●	VGW8344 VGW8375	1.125	1.189	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	
	GBVR-VGW8-8T28	●	VGW8344 VGW8375	1.125	1.189	GTWPR3232-H	VGW8312	7.093	—	1.398	6.713	2.349
						GKWPL3232-H	VGW8344			1.414	6.729	
						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	
	GBVR-VGW8-8T28	●	VGW8344 VGW8375	1.125	1.189	GTWPR2525-H	VGW8344	6.406	2.154	1.117	5.920	2.173
						GKWPL2525-H	VGW8375			1.132	5.935	
	GBVR-VGW8-8T28	●	VGW8344 VGW8375	1.125	1.189	GTWPR3232-H	VGW8344	7.193	—	1.393	6.707	2.449
						GKWPL3232-H	VGW8375			1.408	6.723	

For GTWP



For GKWP

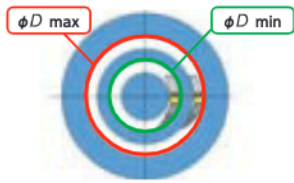


● Left hand

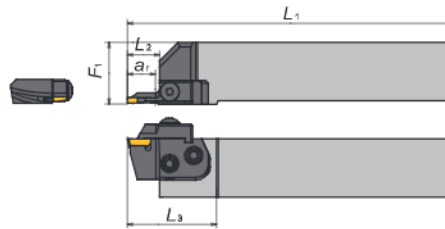
Hand	Blade number	Stock	Insert	Dimensions (inch)		Holder	Insert	Dimensions (inch)					
				a_1	L_2			GTWPL-H			GKWPR-H		
								L_1	L_3	F_1	L_1	F_1	
L	GBVL-VGW4-3T09	●	VGW4125 VGW4156	.375	.441	GTWPL16-IN-H	VGW4125	5.750	1.404	1.090	5.972	1.439	
						GKWPR16-IN-H	VGW4156			1.106	5.987		
						GTWPL20-IN-H	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		
	GBVL-VGW4-4T14	●	VGW4156 VGW4187	.562	.689	GTWPL3232-H	VGW4125	6.443	—	1.350	6.665	1.699	
						GKWPR3232-H	VGW4156			1.365	6.680		
						GTWPL16-IN-H	VGW4156	6.000	1.654	1.094	5.976	1.689	
						GKWPR16-IN-H	VGW4187			1.109	5.991	1.689	
						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		
	GBVL-VGW6-6T14	●	VGW6218 VGW6250	.562	.689	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		
						GTWPL16-IN-H	VGW6218	6.000	1.654	1.109	5.991	1.689	
						GKWPR16-IN-H	VGW6250			1.125	6.007	1.689	
						GTWPL20-IN-H	VGW6218	7.000	—	1.359	6.991	1.939	
						GKWPR20-IN-H	VGW6250			1.375	7.007		
	GBVL-VGW6-6T19	●	VGW6250 VGW6281	.750	.890	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		
						GTWPL16-IN-H	VGW6250	6.200	1.854	1.106	5.987	1.889	
						GKWPR16-IN-H	VGW6281			1.121	6.003	1.889	
	GBVL-VGW6-6T19	●	VGW6250 VGW6281	.750	.890	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		
	GBVL-VGW8-8T28	●	VGW8344 VGW8375	1.125	1.189	GTWPL3232-H	VGW8312	7.093	—	1.398	6.713	2.349	
						GKWPR3232-H	VGW8344			1.414	6.729		
						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	

Blade for Face Grooving

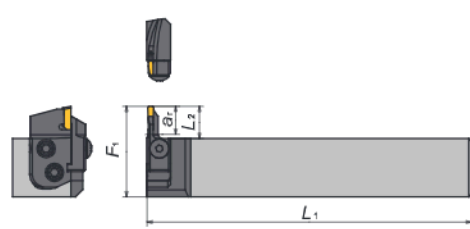
VGW



For GTWP



For GKWP

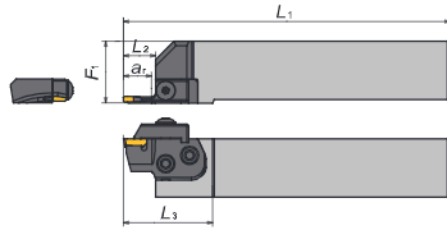


● Right hand

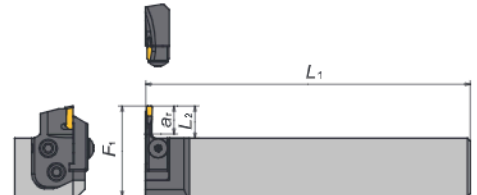
Curve	Blade number	Stock	Insert	O.D. range	Dimensions (inch)		Holder	Insert	Dimensions (inch)										
					a_r	L_2			GTWPR-H			GKWPL-H							
									L_1	L_3	F_1	L_1	F_1						
in	GBI-VGW4R3T15-101177	●	VGW4125 VGW4156	4"-7"	.600	.829	GTWPR16-IN-H	VGW4125	6.000	1.909	1.055	5.937	1.949						
							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							
	GBI-VGW4R3T15-177999	●	VGW4125 VGW4156	7" and over	.600	.829	GTWPR3232-H	VGW4125	6.693	1.909	1.315	6.630	1.949						
							GKWPL3232-H	VGW4156			1.330	6.645							
							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							
	GBI-VGW4R4T15-101177	●	VGW4156 VGW4187	4"-7"	.600	.829	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							
							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							
	GBI-VGW4R4T15-177999	●	VGW4156 VGW4187	7" and over	.600	.829	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	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													
	GBI-VGW6R6T15-177999	●	VGW6218 VGW6250	7" and over	.600	.829	GTWPR3232-H	VGW4156	6.693	1.909	1.318	6.633	1.949						
							GKWPL3232-H	VGW4187			1.334	6.649							
							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							
							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

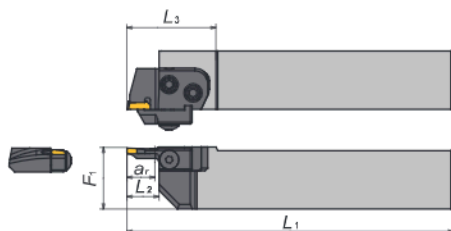
Curve	Blade number	Stock	Insert	O.D. range	Dimensions (inch)		Holder	Insert	Dimensions (inch)				
					a _r	L ₂			GTWPL-H			GKWPR-H	
									L ₁	L ₃	F ₁	L ₁	F ₁
out	GBO-VGW4R3T15-101177	●	VGW4125 VGW4156	4"-7"	.600	.829	GTWPR16-IN-H	VGW4125	6.000	1.909	1.055	5.937	1.949
							GKWPL16-IN-H	VGW4156			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
	GBO-VGW4R3T15-177999	●	VGW4125 VGW4156	7" and over	.600	.829	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	
							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	
	GBO-VGW4R4T15-101177	●	VGW4156 VGW4187	4"-7"	.600	.829	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	
							GTWPR16-IN-H	VGW4156	6.000	1.909	1.058	5.940	1.949
	GBO-VGW4R4T15-177999	●	VGW4156 VGW4187	7" and over	.600	.829	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	
	GBO-VGW6R6T15-101177	●	VGW6218 VGW6250	4"-7"	.600	.829	GTWPR3232-H	VGW4156	6.693	1.909	1.318	6.633	1.949
							GKWPL3232-H	VGW4187			1.334	6.649	
							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
	GBO-VGW6R6T15-177999	●	VGW6218 VGW6250	7" and over	.600	.829	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	
							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		

Blade for Face Grooving

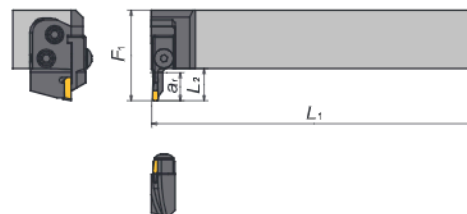
VGW



For GTWP

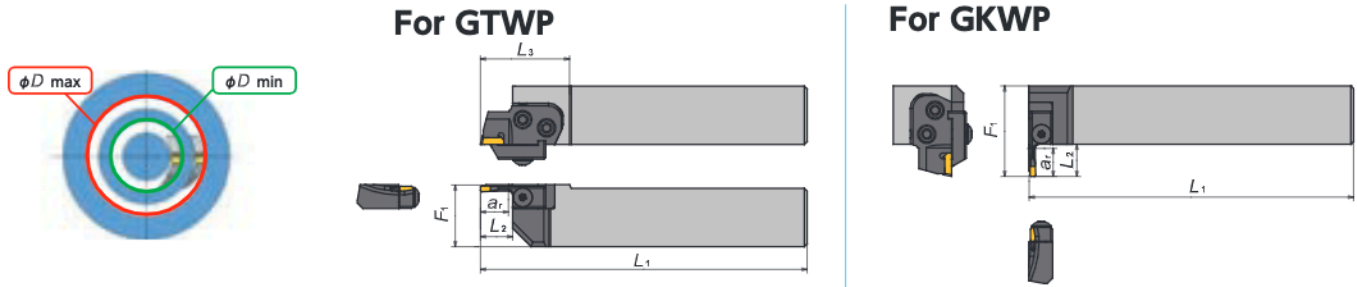


For GKWP



● Left hand

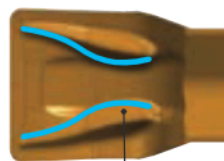
Curve	Blade number	Stock	Insert	O.D. range	Dimensions (inch)		Holder	Insert	Dimensions (inch)				
					a_r	L_2			GTWPR-H			GKWPL-H	
									L_1	L_3	F_1	L_1	F_1
in	GBI-VGW4L3T15-101177	●	VGW4125 VGW4156	4"-7"	.600	.829	GTWPR16-IN-H	VGW4125	6.000	1.909	1.055	5.937	1.949
							GKWPL16-IN-H	VGW4156			1.070	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	
	GBI-VGW4L3T15-177999	●	VGW4125 VGW4156	7" and over	.600	.829	GTWPR3232-H	VGW4125	6.693	1.909	1.315	6.630	1.949
							GKWPL3232-H	VGW4156			1.330	6.645	
							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	
	GBI-VGW4L4T15-101177	●	VGW4156 VGW4187	4"-7"	.600	.829	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	
							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	
	GBI-VGW4L4T15-177999	●	VGW4156 VGW4187	7" and over	.600	.829	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	
							GTWPR16-IN-H	VGW4156	6.000	1.909	1.058	5.940	1.949
							GKWPL16-IN-H	VGW4187			1.074	5.956	
	GBI-VGW6L6T15-101177	●	VGW6218 VGW6250	4"-7"	.600	.829	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-VGW6L6T15-177999	●	VGW6218 VGW6250	7" and over	.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	
							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	



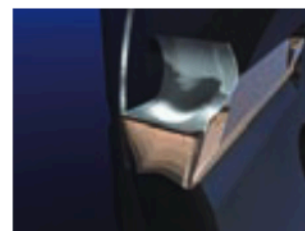
● Left hand

Curve	Blade number	Stock	Insert	O.D. range	Dimensions (inch)		Holder	Insert	Dimensions (inch)				
					a _r	L ₂			GTWPL-H			GKWPR-H	
									L ₁	L ₃	F ₁	L ₁	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	
	GBO-VGW4L3T15-177999	●	VGW4125 VGW4156	7" and over	.600	.829	GTWPR3232-H	VGW4125	6.693	1.909	1.315	6.630	1.949
							GKWPL3232-H	VGW4156			1.330	6.645	
							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	
	GBO-VGW4L4T15-101177	●	VGW4156 VGW4187	4"-7"	.600	.829	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	
							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	
	GBO-VGW4L4T15-177999	●	VGW4156 VGW4187	7" and over	.600	.829	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	
							GTWPR16-IN-H	VGW4156	6.000	1.909	1.094	5.976	1.949
							GKWPL16-IN-H	VGW4187			1.109	5.991	
	GBO-VGW6L6T15-101177	●	VGW6218 VGW6250	4"-7"	.600	.829	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-VGW6L6T15-177999	●	VGW6218 VGW6250	7" and over	.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	
	GBO-VGW6L6T15-177999	●	VGW6218 VGW6250	7" and over	.600	.829	GTWPR3232-H	VGW6218	6.693	1.909	1.338	6.653	1.949
							GKWPL3232-H	VGW6250			1.354	6.669	
							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	
	GBO-VGW6L6T15-177999	●	VGW6218 VGW6250	7" and over	.600	.829	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	

Groove Duo Blade - Carbide Face Grooving Tool -



Unique S-shape design

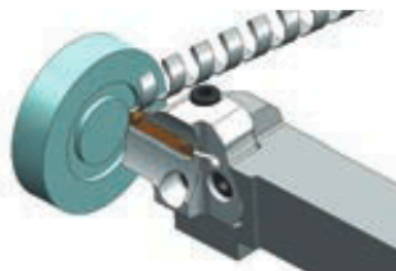


Features

- **New GT Chipbreaker designed for face-grooving**
- **The best rigidity in a Modular system**
- **Excellent chip-control and great finish**

Excellent Chip Control

Grooving

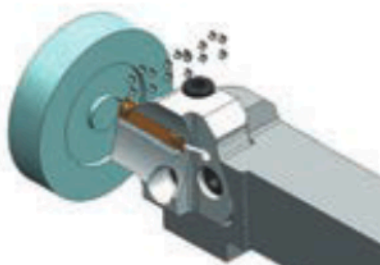


- Excellent chip control and superior surface finish
- Good chip control without a peck cycle

	NTK:GT chipbreaker	Competitor
Chip		 Tangled chips during deep grooving
Surface finish		 Scratches inside bottom

Material : 4130, 450SFM, .004IPR, 2" diameter, .040 depth, No step feed, WET
Insert : GWPFM500N04-GT DM4 Holder : GBWPFR-5T15-050120

Side-turning



- Excellent chip control for side-turning process
- Shiny surface finish

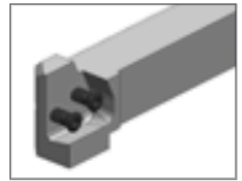
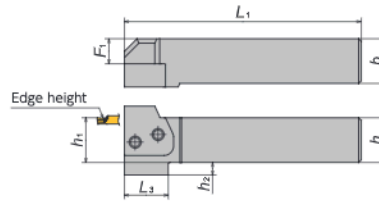
		IPR		
		.002	.004	.008
D.O.C (inch)	.118			
	.039			
	.008			

Material : 4130, 450SFM, WET
Insert : GWPFM500N04-GT DM4 Holder : GBWPFR-5T15-050120

Groove DUO Blade

Straight style toolholder

GTWP-H



Right-Hand style shown

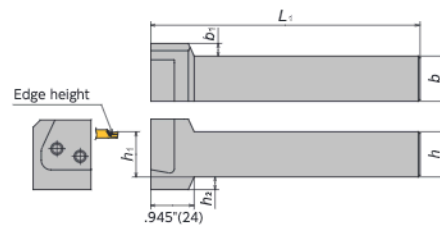
● Toolholder Body

Holder Number	Stock		Dimensions										Blade	Spare Parts					
			<i>h</i>		<i>b</i>		<i>h</i> ₁		<i>L</i> ₁		<i>F</i> ₁			<i>h</i> ₂		<i>L</i> ₃		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	GBWPF/R/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	—	—	—	—	GBWPF/R/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	GBWPF/R/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	GBWPF/R/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	—	—	—	—	GBWPF/R/L	FS128-6.0×18	LW-4

Groove DUO Blade

L-style toolholder

GKWP-H

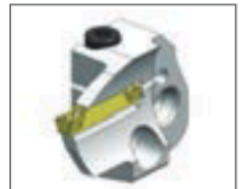
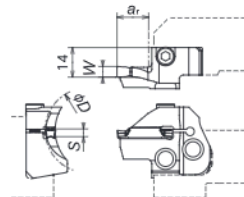


Right-Hand style shown
* Use opposite hand blade

● Toolholder Body

Holder Number	Stock		Dimensions										Blade	Spare Parts			
			<i>h</i>		<i>b</i>		<i>h</i> ₁		<i>L</i> ₁		<i>b</i> ₁			<i>h</i> ₂		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	GBWPF/R/L	FS128-6.0×18	LW-4
GKWP [®] 20-IN-H	●	●	1.250	—	1.250	—	1.250	—	6.961	176.8	—	—	—	—	GBWPF/R/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	GBWPF/R/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	GBWPF/R/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	—	—	—	—	GBWPF/R/L	FS128-6.0×18	LW-4

GBWPF



Right-Hand style shown

● Blade

Blade Number	Stock		Width <i>W</i>		Face grooving OD				Max. grooving depth <i>a_r</i>		Applicable insert	Height <i>S</i>	Tightening screw
					φ <i>D</i> min		φ <i>D</i> max						
	R	L	(Inch)	(mm)	(Inch)	(mm)	(Inch)	(mm)	(Inch)	(mm)			
GBWPF $\frac{3}{8}$ -3T13-029035	●	●	.118	3	1.142	29	1.378	35	.512	13	GWPFM300	C	CS0515
GBWPF $\frac{3}{8}$ -3T13-035045	●	●			1.378	35	1.772	45	.512	13	GWPFM300		
GBWPF $\frac{3}{8}$ -3T15-045060	●	●			1.772	45	2.362	60	.591	15	GWPFM300		
GBWPF $\frac{3}{8}$ -3T15-060100	●	●			2.362	60	3.937	100	.591	15	GWPFM300		
GBWPF $\frac{3}{8}$ -3T15-100250	●	●			3.937	100	9.843	250	.591	15	GWPFM300		
GBWPF $\frac{3}{8}$ -4T15-030040	●	●	.157	4	1.181	30	1.575	40	.591	15	GWPFM400		
GBWPF $\frac{3}{8}$ -4T15-040060	●	●			1.575	40	2.362	60	.591	15	GWPFM400		
GBWPF $\frac{3}{8}$ -4T15-060120	●	●			2.362	60	4.724	120	.591	15	GWPFM400		
GBWPF $\frac{3}{8}$ -4T15-120300	●	●			4.724	120	11.81	300	.591	15	GWPFM400		
GBWPF $\frac{3}{8}$ -5T15-030050	●	●	.197	5	1.181	30	1.969	50	.591	15	GWPFM500		
GBWPF $\frac{3}{8}$ -5T15-050120	●	●			1.969	50	4.724	120	.591	15	GWPFM500		
GBWPF $\frac{3}{8}$ -5T15-120999	●	●			4.724	120	∞	∞	.591	15	GWPFM500		
GBWPF $\frac{3}{8}$ -6T15-035080	●	●	.236	6	1.378	35	3.150	80	.591	15	GWPFM600		
GBWPF $\frac{3}{8}$ -6T15-080999	●	●			3.150	80	∞	∞	.591	15	GWPFM600		

● : Stock

○ : 1-2 week delivery

Grooving / Side Turning Tools

Combination of toolholder and blade for Face Grooving

GTWP-H

Straight style toolholder

Right-hand system



Clockwise rotation (M4 command)



Toolholder



GTWP **R-H**

* Right-hand toolholder takes Right-hand blade.



Blade



GBWPF **R**

Left-hand system



Counter clockwise rotation (M3 command)



Toolholder



GTWP **L-H**

* Left-hand toolholder takes Left-hand blade.



Blade



GBWPF **L**

GKWP-H

L-style toolholder

Right-hand system



Counter clockwise rotation (M3 command)



Toolholder



GKWP **R-H**

* Right-hand toolholder takes Left-hand blade.



Blade



GBWPF **L**

Left-hand system



Clockwise rotation (M4 command)



Toolholder



GKWP **L-H**

* Left-hand toolholder takes Right-hand blade.



Blade



GBWPF **R**

Groove DUO Series - Inserts

Face Grooving Insert

Shape	Item Number	W		r_e	M	L	Seat Size S	Coated Carbide
		Groove Width (Inch) (mm)	Width Tolerance (Inch) (mm)					
	GWPFM300N02-GT	.118 3.0	± .002 ± 0.05	.008 0.2	0.087 2.2	.965 24.5	C	● 5963251
	GWPFM300N04-GT	.118 3.0	± .002 ± 0.05	.016 0.4	0.087 2.2	.965 24.5	C	● 5963269
	GWPFM400N04-GT	.157 4.0	± .002 ± 0.05	.016 0.4	0.126 3.2	1.043 26.5	C	● 5963277
	GWPFM400N08-GT	.157 4.0	± .002 ± 0.05	.031 0.8	0.126 3.2	1.043 26.5	C	● 5963285
	GWPFM500N04-GT	.197 5.0	± .002 ± 0.05	.016 0.4	0.146 3.7	1.043 26.5	C	● 5963293
	GWPFM500N08-GT	.197 5.0	± .002 ± 0.05	.031 0.8	0.146 3.7	1.043 26.5	C	● 5963301
	GWPFM600N04-GT	.236 6.0	± .002 ± 0.05	.016 0.4	0.185 4.7	1.043 26.5	C	● 5963319
	GWPFM600N08-GT	.236 6.0	± .002 ± 0.05	.031 0.8	0.185 4.7	1.043 26.5	C	● 5963327

● : Stock

○ : 1-2 week delivery

● : Stock
● : Stock (Newly added)
■ : While stocks last

R L : Stock (Right / Left-hand only)
R L : Stock (Right / Left-hand only, Newly added)
M : Mirror finish

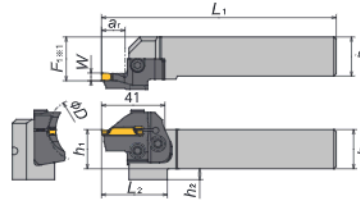
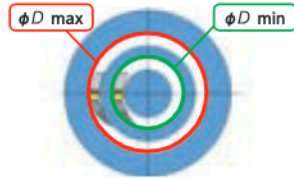
○ : 1-2 week delivery
○ : 1-2 week delivery (Newly added)
● : Coolant through

ⓇⓁ : 1-2 week delivery (Right / Left-hand only)
ⓇⓁ : 1-2 week delivery (Right / Left-hand only, Newly added)

Groove DUO Blade

0° Straight type holder

GTWPR



Clockwise rotation
(M4 command)



Right-hand shown

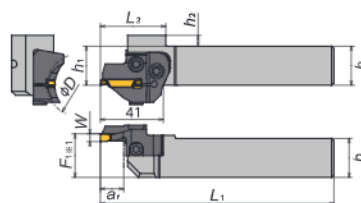
Right-hand toolholder takes Right-hand blade.

Hand (R/L)	Width W (mm) (inch) (mm)	Face grooving OD		Max.grooving depth a _r (inch) (mm)	Holder number	Blade number	Dimensions - inch (mm)							Applicable insert	
		ϕ D min (inch) (mm)	ϕ D max (inch) (mm)				h	b	L ₁	h ₁	F ₁	L ₂	h ₂		
R	.118 3	1.142 29	1.378 35	.512 13	GTWPR16-IN-H	GBWPFR-3T13-029035	1" (25.4)	1" (25.4)	6" (152.4)	1" (25.4)	1.102" (28)	1.654" (42)	—	GWPFM300	
		1.378 35	1.772 45	.591 15		GBWPFR-3T13-035045									
		1.772 45	2.362 60	.591 15		GBWPFR-3T15-045060									
		2.362 60	3.937 100	.591 15		GBWPFR-3T15-060100									
		3.937 100	9.843 250	.591 15		GBWPFR-3T15-100250									
	.157 4	1.181 30	1.575 40	.591 15		GBWPFR-4T15-030040								GWPFM400	
		1.575 40	2.362 60	.591 15		GBWPFR-4T15-040060									
		2.362 60	4.724 120	.591 15		GBWPFR-4T15-060120									
		4.724 120	11.811 300	.591 15		GBWPFR-4T15-120300									
		1.181 30	1.969 50	.591 15		GBWPFR-5T15-030050									
	.197 5	1.969 50	4.724 120	.591 15		GBWPFR-5T15-050120								GWPFM500	
		4.724 120	∞ ∞	.591 15		GBWPFR-5T15-120999									
		.236 6	1.378 35	3.150 80		.591 15								GBWPFR-6T15-035080	GWPFM600
			3.150 80	∞ ∞		.591 15								GBWPFR-6T15-080999	
			1.142 29	1.378 35		.512 13								GBWPFR-3T13-029035	
	.118 3	1.378 35	1.772 45	.512 13	GTWPR20-IN-H	GBWPFR-3T13-029035	1.25" (31.75)	1.25" (31.75)	7" (177.8)	1.25" (31.75)	1.378" (35)	—	—	GWPFM300	
		1.772 45	2.362 60	.591 15		GBWPFR-3T15-045060									
		2.362 60	3.937 100	.591 15		GBWPFR-3T15-060100									
		3.937 100	9.843 250	.591 15		GBWPFR-3T15-100250									
		1.181 30	1.575 40	.591 15		GBWPFR-4T15-030040									
	.157 4	1.575 40	2.362 60	.591 15		GBWPFR-4T15-040060								GWPFM400	
		2.362 60	4.724 120	.591 15		GBWPFR-4T15-060120									
		4.724 120	11.811 300	.591 15		GBWPFR-4T15-120300									
		1.181 30	1.969 50	.591 15		GBWPFR-5T15-030050									
		1.969 50	4.724 120	.591 15		GBWPFR-5T15-050120									
	.197 5	4.724 120	∞ ∞	.591 15		GBWPFR-5T15-120999								GWPFM500	
		.236 6	1.378 35	3.150 80		.591 15								GBWPFR-6T15-035080	GWPFM600
			3.150 80	∞ ∞		.591 15								GBWPFR-6T15-080999	
			1.142 29	1.378 35		.512 13								GBWPFR-3T13-029035	
		.118 3	1.378 35	1.772 45	.512 13	GTWPR2020-H	GBWPFR-3T13-029035	.787" (20)	.787" (20)	4.921" (125)	.787" (20)	.906" (23)	1.81" (46)	.315" (8)	GWPFM300
	1.772 45		2.362 60	.591 15	GBWPFR-3T15-045060										
	2.362 60		3.937 100	.591 15	GBWPFR-3T15-060100										
	3.937 100		9.843 250	.591 15	GBWPFR-3T15-100250										
	1.181 30		1.575 40	.591 15	GBWPFR-4T15-030040										
	.157 4	1.575 40	2.362 60	.591 15	GBWPFR-4T15-040060		GWPFM400								
		2.362 60	4.724 120	.591 15	GBWPFR-4T15-060120										
		4.724 120	11.811 300	.591 15	GBWPFR-4T15-120300										
		1.181 30	1.969 50	.591 15	GBWPFR-5T15-030050										
		1.969 50	4.724 120	.591 15	GBWPFR-5T15-050120										
	.197 5	4.724 120	∞ ∞	.591 15	GBWPFR-5T15-120999		GWPFM500								
		.236 6	1.378 35	3.150 80	.591 15		GBWPFR-6T15-035080								GWPFM600
			3.150 80	∞ ∞	.591 15		GBWPFR-6T15-080999								
			1.142 29	1.378 35	.512 13		GBWPFR-3T13-029035								
		.118 3	1.378 35	1.772 45	.512 13	GTWPR2525-H	GBWPFR-3T13-029035	.984" (25)	.984" (25)	5.906" (150)	.984" (25)	1.102" (28)	1.654" (42)	.276" (7)	GWPFM300
	1.772 45		2.362 60	.591 15	GBWPFR-3T15-045060										
	2.362 60		3.937 100	.591 15	GBWPFR-3T15-060100										
	3.937 100		9.843 250	.591 15	GBWPFR-3T15-100250										
	1.181 30		1.575 40	.591 15	GBWPFR-4T15-030040										
	.157 4	1.575 40	2.362 60	.591 15	GBWPFR-4T15-040060		GWPFM400								
		2.362 60	4.724 120	.591 15	GBWPFR-4T15-060120										
		4.724 120	11.811 300	.591 15	GBWPFR-4T15-120300										
		1.181 30	1.969 50	.591 15	GBWPFR-5T15-030050										
		1.969 50	4.724 120	.591 15	GBWPFR-5T15-050120										
	.197 5	4.724 120	∞ ∞	.591 15	GBWPFR-5T15-120999		GWPFM500								
		.236 6	1.378 35	3.150 80	.591 15		GBWPFR-6T15-035080								GWPFM600
			3.150 80	∞ ∞	.591 15		GBWPFR-6T15-080999								
			1.142 29	1.378 35	.512 13		GBWPFR-3T13-029035								
		.118 3	1.378 35	1.772 45	.512 13	GTWPR3232-H	GBWPFR-3T13-029035	1.260" (32)	1.260" (32)	6.693" (170)	1.260" (32)	1.378" (35)	—	—	GWPFM300
	1.772 45		2.362 60	.591 15	GBWPFR-3T15-045060										
	2.362 60		3.937 100	.591 15	GBWPFR-3T15-060100										
	3.937 100		9.843 250	.591 15	GBWPFR-3T15-100250										
	1.181 30		1.575 40	.591 15	GBWPFR-4T15-030040										
	.157 4	1.575 40	2.362 60	.591 15	GBWPFR-4T15-040060		GWPFM400								
		2.362 60	4.724 120	.591 15	GBWPFR-4T15-060120										
		4.724 120	11.811 300	.591 15	GBWPFR-4T15-120300										
		1.181 30	1.969 50	.591 15	GBWPFR-5T15-030050										
		1.969 50	4.724 120	.591 15	GBWPFR-5T15-050120										
	.197 5	4.724 120	∞ ∞	.591 15	GBWPFR-5T15-120999		GWPFM500								
		.236 6	1.378 35	3.150 80	.591 15		GBWPFR-6T15-035080								GWPFM600
3.150 80			∞ ∞	.591 15	GBWPFR-6T15-080999										
1.142 29			1.378 35	.512 13	GBWPFR-3T13-029035										

Groove DUO Blade

0° Straight type holder

GTWPL



Counter clockwise rotation (M3 command)



Left-hand shown

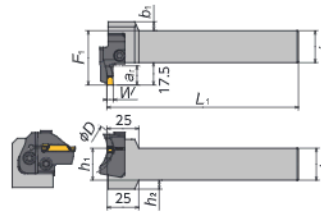
Left-hand toolholder takes Left-hand blade.

Hand (R/L)	Width W (mm) (inch) (mm)	Face grooving OD				Max.grooving depth a _r (inch) (mm)		Holder number	Blade number	Dimensions - inch (mm)							Applicable insert
		φ D min (inch) (mm)	φ D max (inch) (mm)	h	b					L ₁	h ₁	F ₁	L ₂	h ₂			
L	.118 3	1.142 29	1.378 35	.512 13	GTWPL16-IN-H	GBWPFL-3T13-029035	1" (25.4)	1" (25.4)	6" (152.4)	1" (25.4)	1.102" (28)	1.654" (42)	—	GWPFM300			
		1.378 35	1.772 45			GBWPFL-3T13-035045											
		1.772 45	2.362 60			GBWPFL-3T15-045060											
		2.362 60	3.937 100			GBWPFL-3T15-060100											
	.157 4	3.937 100	9.843 250	GBWPFL-3T15-100250		GWPFM400											
		1.181 30	1.575 40	GBWPFL-4T15-030040													
		1.575 40	2.362 60	GBWPFL-4T15-040060													
		2.362 60	4.724 120	GBWPFL-4T15-060120													
	.197 5	4.724 120	11.811 300	GBWPFL-4T15-120300		GWPFM500											
		1.181 30	1.969 50	GBWPFL-5T15-030050													
		1.969 50	4.724 120	GBWPFL-5T15-050120													
		4.724 120	∞ ∞	GBWPFL-5T15-120999													
	.236 6	1.378 35	3.150 80	GBWPFL-6T15-035080		GWPFM600											
		3.150 80	∞ ∞	GBWPFL-6T15-080999													
		.118 3	1.142 29	1.378 35	GTWPL20-IN-H	GBWPFL-3T13-029035	1.25" (31.75)	1.25" (31.75)	7" (177.8)	1.25" (31.75)	1.378" (35)	—	—	GWPFM300			
	1.378 35		1.772 45	GBWPFL-3T13-035045													
	1.772 45		2.362 60	GBWPFL-3T15-045060													
	2.362 60		3.937 100	GBWPFL-3T15-060100													
	.157 4	3.937 100	9.843 250	GBWPFL-3T15-100250		GWPFM400											
		1.181 30	1.575 40	GBWPFL-4T15-030040													
		1.575 40	2.362 60	GBWPFL-4T15-040060													
		2.362 60	4.724 120	GBWPFL-4T15-060120													
	.197 5	4.724 120	11.811 300	GBWPFL-4T15-120300		GWPFM500											
		1.181 30	1.969 50	GBWPFL-5T15-030050													
		1.969 50	4.724 120	GBWPFL-5T15-050120													
		4.724 120	∞ ∞	GBWPFL-5T15-120999													
	.236 6	1.378 35	3.150 80	GBWPFL-6T15-035080		GWPFM600											
		3.150 80	∞ ∞	GBWPFL-6T15-080999													
		.118 3	1.142 29	1.378 35	GTWPL2020-H	GBWPFL-3T13-029035	.787" (20)	.787" (20)	4.921" (125)	.787" (20)	.906" (23)	1.81" (46)	.315" (8)	GWPFM300			
	1.378 35		1.772 45	GBWPFL-3T13-035045													
	1.772 45		2.362 60	GBWPFL-3T15-045060													
	2.362 60		3.937 100	GBWPFL-3T15-060100													
	.157 4	3.937 100	9.843 250	GBWPFL-3T15-100250		GWPFM400											
		1.181 30	1.575 40	GBWPFL-4T15-030040													
		1.575 40	2.362 60	GBWPFL-4T15-040060													
		2.362 60	4.724 120	GBWPFL-4T15-060120													
	.197 5	4.724 120	11.811 300	GBWPFL-4T15-120300		GWPFM500											
		1.181 30	1.969 50	GBWPFL-5T15-030050													
		1.969 50	4.724 120	GBWPFL-5T15-050120													
		4.724 120	∞ ∞	GBWPFL-5T15-120999													
	.236 6	1.378 35	3.150 80	GBWPFL-6T15-035080		GWPFM600											
		3.150 80	∞ ∞	GBWPFL-6T15-080999													
		.118 3	1.142 29	1.378 35	GTWPL2525-H	GBWPFL-3T13-029035	.984" (25)	.984" (25)	5.906" (150)	.984" (25)	1.102" (28)	1.654" (42)	.276" (7)	GWPFM300			
	1.378 35		1.772 45	GBWPFL-3T13-035045													
	1.772 45		2.362 60	GBWPFL-3T15-045060													
	2.362 60		3.937 100	GBWPFL-3T15-060100													
	.157 4	3.937 100	9.843 250	GBWPFL-3T15-100250		GWPFM400											
		1.181 30	1.575 40	GBWPFL-4T15-030040													
		1.575 40	2.362 60	GBWPFL-4T15-040060													
		2.362 60	4.724 120	GBWPFL-4T15-060120													
	.197 5	4.724 120	11.811 300	GBWPFL-4T15-120300		GWPFM500											
		1.181 30	1.969 50	GBWPFL-5T15-030050													
		1.969 50	4.724 120	GBWPFL-5T15-050120													
		4.724 120	∞ ∞	GBWPFL-5T15-120999													
	.236 6	1.378 35	3.150 80	GBWPFL-6T15-035080		GWPFM600											
		3.150 80	∞ ∞	GBWPFL-6T15-080999													
		.118 3	1.142 29	1.378 35	GTWPL3232-H	GBWPFL-3T13-029035	1.260" (32)	1.260" (32)	6.693" (170)	1.260" (32)	1.378" (35)	—	—	GWPFM300			
	1.378 35		1.772 45	GBWPFL-3T13-035045													
	1.772 45		2.362 60	GBWPFL-3T15-045060													
	2.362 60		3.937 100	GBWPFL-3T15-060100													
	.157 4	3.937 100	9.843 250	GBWPFL-3T15-100250		GWPFM400											
		1.181 30	1.575 40	GBWPFL-4T15-030040													
		1.575 40	2.362 60	GBWPFL-4T15-040060													
		2.362 60	4.724 120	GBWPFL-4T15-060120													
	.197 5	4.724 120	11.811 300	GBWPFL-4T15-120300		GWPFM500											
		1.181 30	1.969 50	GBWPFL-5T15-030050													
		1.969 50	4.724 120	GBWPFL-5T15-050120													
		4.724 120	∞ ∞	GBWPFL-5T15-120999													
	.236 6	1.378 35	3.150 80	GBWPFL-6T15-035080		GWPFM600											
3.150 80		∞ ∞	GBWPFL-6T15-080999														

Groove DUO Blade

90° L style holders

GKWPR



Counter clockwise rotation (M3 command)



Right-hand shown

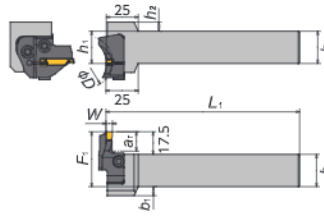
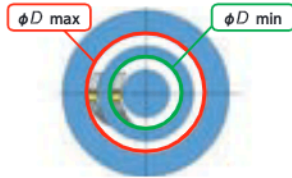
Right-hand toolholder takes Left-hand blade.

Hand (R/L)	Width W (mm) (inch) (mm)	Face grooving OD		Max.grooving depth a _r (inch) (mm)	Holder number	Blade number	Dimensions - inch (mm)							Applicable insert
		φ D min (inch) (mm)	φ D max (inch) (mm)				h	b	L ₁	h ₁	F ₁	b ₁	h ₂	
R	.118 3	1.142 29	1.378 35	.512 13	GKWPR16-IN-H	GBWPFL-3T13-029035	1" (25.4)	1" (25.4)	6" (152.4)	1" (25.4)	1.689" (42.9)	.260" (6.6)	.260" (6.6)	GWPFM300
		1.378 35	1.772 45			GBWPFL-3T13-035045								
		1.772 45	2.362 60			GBWPFL-3T15-045060								
		2.362 60	3.937 100			GBWPFL-3T15-060100								
		3.937 100	9.843 250			GBWPFL-3T15-100250								
	.157 4	1.181 30	1.575 40	.591 15		GBWPFL-4T15-030040								GWPFM400
		1.575 40	2.362 60			GBWPFL-4T15-040060								
		2.362 60	4.724 120			GBWPFL-4T15-060120								
		4.724 120	11.811 300			GBWPFL-4T15-120300								
		11.811 300				GBWPFL-4T15-120300								
	.197 5	1.181 30	1.969 50	.591 15		GBWPFL-5T15-030050								GWPFM500
		1.969 50	4.724 120			GBWPFL-5T15-050120								
		4.724 120	∞ ∞			GBWPFL-5T15-120999								
		∞ ∞				GBWPFL-5T15-120999								
		∞ ∞				GBWPFL-5T15-120999								
	.236 6	1.378 35	3.150 80	.591 15		GBWPFL-6T15-035080								GWPFM600
		3.150 80	∞ ∞			GBWPFL-6T15-080999								
		∞ ∞				GBWPFL-6T15-080999								
		∞ ∞				GBWPFL-6T15-080999								
		∞ ∞				GBWPFL-6T15-080999								
	.118 3	1.142 29	1.378 35	.512 13	GKWPR20-IN-H	GBWPFL-3T13-029035	1.25" (31.75)	1.25" (31.75)	7" (177.8)	1.25" (31.75)	1.939" (49.25)	—	—	GWPFM300
		1.378 35	1.772 45			GBWPFL-3T13-035045								
		1.772 45	2.362 60			GBWPFL-3T15-045060								
		2.362 60	3.937 100			GBWPFL-3T15-060100								
		3.937 100	9.843 250			GBWPFL-3T15-100250								
	.157 4	1.181 30	1.575 40	.591 15		GBWPFL-4T15-030040								GWPFM400
		1.575 40	2.362 60			GBWPFL-4T15-040060								
		2.362 60	4.724 120			GBWPFL-4T15-060120								
		4.724 120	11.811 300			GBWPFL-4T15-120300								
		11.811 300				GBWPFL-4T15-120300								
	.197 5	1.181 30	1.969 50	.591 15		GBWPFL-5T15-030050								GWPFM500
		1.969 50	4.724 120			GBWPFL-5T15-050120								
		4.724 120	∞ ∞			GBWPFL-5T15-120999								
		∞ ∞				GBWPFL-5T15-120999								
		∞ ∞				GBWPFL-5T15-120999								
	.236 6	1.378 35	3.150 80	.591 15		GBWPFL-6T15-035080								GWPFM600
		3.150 80	∞ ∞			GBWPFL-6T15-080999								
		∞ ∞				GBWPFL-6T15-080999								
		∞ ∞				GBWPFL-6T15-080999								
		∞ ∞				GBWPFL-6T15-080999								
	.118 3	1.142 29	1.378 35	.512 13	GKWPR2020-H	GBWPFL-3T13-029035	.787" (20)	.787" (20)	4.921" (125)	.787" (20)	1.476" (37.5)	.472" (12)	.315" (8)	GWPFM300
		1.378 35	1.772 45			GBWPFL-3T13-035045								
		1.772 45	2.362 60			GBWPFL-3T15-045060								
		2.362 60	3.937 100			GBWPFL-3T15-060100								
		3.937 100	9.843 250			GBWPFL-3T15-100250								
	.157 4	1.181 30	1.575 40	.591 15		GBWPFL-4T15-030040								GWPFM400
		1.575 40	2.362 60			GBWPFL-4T15-040060								
		2.362 60	4.724 120			GBWPFL-4T15-060120								
		4.724 120	11.811 300			GBWPFL-4T15-120300								
		11.811 300				GBWPFL-4T15-120300								
	.197 5	1.181 30	1.969 50	.591 15		GBWPFL-5T15-030050								GWPFM500
		1.969 50	4.724 120			GBWPFL-5T15-050120								
		4.724 120	∞ ∞			GBWPFL-5T15-120999								
		∞ ∞				GBWPFL-5T15-120999								
		∞ ∞				GBWPFL-5T15-120999								
	.236 6	1.378 35	3.150 80	.591 15		GBWPFL-6T15-035080								GWPFM600
		3.150 80	∞ ∞			GBWPFL-6T15-080999								
		∞ ∞				GBWPFL-6T15-080999								
		∞ ∞				GBWPFL-6T15-080999								
∞ ∞			GBWPFL-6T15-080999											
.118 3	1.142 29	1.378 35	.512 13	GKWPR2525-H	GBWPFL-3T13-029035	.984" (25)	.984" (25)	5.906" (150)	.984" (25)	1.673" (42.5)	.276" (7)	.276" (7)	GWPFM300	
	1.378 35	1.772 45			GBWPFL-3T13-035045									
	1.772 45	2.362 60			GBWPFL-3T15-045060									
	2.362 60	3.937 100			GBWPFL-3T15-060100									
	3.937 100	9.843 250			GBWPFL-3T15-100250									
.157 4	1.181 30	1.575 40	.591 15		GBWPFL-4T15-030040								GWPFM400	
	1.575 40	2.362 60			GBWPFL-4T15-040060									
	2.362 60	4.724 120			GBWPFL-4T15-060120									
	4.724 120	11.811 300			GBWPFL-4T15-120300									
	11.811 300				GBWPFL-4T15-120300									
.197 5	1.181 30	1.969 50	.591 15		GBWPFL-5T15-030050								GWPFM500	
	1.969 50	4.724 120			GBWPFL-5T15-050120									
	4.724 120	∞ ∞			GBWPFL-5T15-120999									
	∞ ∞				GBWPFL-5T15-120999									
	∞ ∞				GBWPFL-5T15-120999									
.236 6	1.378 35	3.150 80	.591 15		GBWPFL-6T15-035080								GWPFM600	
	3.150 80	∞ ∞			GBWPFL-6T15-080999									
	∞ ∞				GBWPFL-6T15-080999									
	∞ ∞				GBWPFL-6T15-080999									
	∞ ∞				GBWPFL-6T15-080999									
.118 3	1.142 29	1.378 35	.512 13	GKWPR3232-H	GBWPFL-3T13-029035	1.260" (32)	1.260" (32)	6.693" (170)	1.260" (32)	1.949" (49.5)	—	—	GWPFM300	
	1.378 35	1.772 45			GBWPFL-3T13-035045									
	1.772 45	2.362 60			GBWPFL-3T15-045060									
	2.362 60	3.937 100			GBWPFL-3T15-060100									
	3.937 100	9.843 250			GBWPFL-3T15-100250									
.157 4	1.181 30	1.575 40	.591 15		GBWPFL-4T15-030040								GWPFM400	
	1.575 40	2.362 60			GBWPFL-4T15-040060									
	2.362 60	4.724 120			GBWPFL-4T15-060120									
	4.724 120	11.811 300			GBWPFL-4T15-120300									
	11.811 300				GBWPFL-4T15-120300									
.197 5	1.181 30	1.969 50	.591 15		GBWPFL-5T15-030050								GWPFM500	
	1.969 50	4.724 120			GBWPFL-5T15-050120									
	4.724 120	∞ ∞			GBWPFL-5T15-120999									
	∞ ∞				GBWPFL-5T15-120999									
	∞ ∞				GBWPFL-5T15-120999									
.236 6	1.378 35	3.150 80	.591 15		GBWPFL-6T15-035080								GWPFM600	
	3.150 80	∞ ∞			GBWPFL-6T15-080999									
	∞ ∞				GBWPFL-6T15-080999									
	∞ ∞				GBWPFL-6T15-080999									
	∞ ∞				GBWPFL-6T15-080999									

Groove DUO Blade

90° L style holders

GKWPL



Left-hand shown

Left-hand toolholder takes Right-hand blade.

Hand (R/L)	Width W (mm) (inch) (mm)	Face grooving OD		Max.grooving depth a _r (inch) (mm)	Holder number	Blade number	Dimensions - inch (mm)							Applicable insert	
		φ D min (inch) (mm)	φ D max (inch) (mm)				h	b	L ₁	h ₁	F ₁	b ₁	h ₂		
L	.118 3	1.142 29	1.378 35	.512 13	GKWPL16-IN-H	GBWPFR-3T13-029035	1" (25.4)	1" (25.4)	6" (152.4)	1" (25.4)	1.689" (42.9)	.260" (6.6)	.260" (6.6)	GWPFM300	
		1.378 35	1.772 45	.591 15		GBWPFR-3T13-035045									
		1.772 45	2.362 60	.591 15		GBWPFR-3T15-045060									
		2.362 60	3.937 100	.591 15		GBWPFR-3T15-060100									
		3.937 100	9.843 250	.591 15		GBWPFR-3T15-100250									
	.157 4	1.181 30	1.575 40	.591 15		GBWPFR-4T15-030040								GWPFM400	
		1.575 40	2.362 60	.591 15		GBWPFR-4T15-040060									
		2.362 60	4.724 120	.591 15		GBWPFR-4T15-060120									
		4.724 120	11.811 300	.591 15		GBWPFR-4T15-120300									
		1.181 30	1.969 50	.591 15		GBWPFR-5T15-030050									
	.197 5	1.969 50	4.724 120	.591 15		GBWPFR-5T15-050120								GWPFM500	
		4.724 120	∞ ∞	.591 15		GBWPFR-5T15-120999									
		.236 6	1.378 35	3.150 80		.591 15								GBWPFR-6T15-035080	GWPFM600
			3.150 80	∞ ∞		.591 15								GBWPFR-6T15-080999	
			1.142 29	1.378 35		.512 13								GBWPFR-3T13-029035	
	1.378 35		1.772 45	.591 15	GBWPFR-3T13-035045										
	1.772 45		2.362 60	.591 15	GBWPFR-3T15-045060										
	2.362 60	3.937 100	.591 15	GBWPFR-3T15-060100											
	3.937 100	9.843 250	.591 15	GBWPFR-3T15-100250											
	.157 4	1.181 30	1.575 40	.591 15	GBWPFR-4T15-030040	GWPFM400									
		1.575 40	2.362 60	.591 15	GBWPFR-4T15-040060										
		2.362 60	4.724 120	.591 15	GBWPFR-4T15-060120										
		4.724 120	11.811 300	.591 15	GBWPFR-4T15-120300										
		1.181 30	1.969 50	.591 15	GBWPFR-5T15-030050										
	.197 5	1.969 50	4.724 120	.591 15	GBWPFR-5T15-050120	GWPFM500									
		4.724 120	∞ ∞	.591 15	GBWPFR-5T15-120999										
		.236 6	1.378 35	3.150 80	.591 15	GBWPFR-6T15-035080	GWPFM600								
			3.150 80	∞ ∞	.591 15	GBWPFR-6T15-080999									
			1.142 29	1.378 35	.512 13	GBWPFR-3T13-029035		GKWPL2020-H	.787" (20)	.787" (20)	4.921" (125)	.787" (20)	1.476" (37.5)	.472" (12)	.315" (8)
	1.378 35		1.772 45	.591 15	GBWPFR-3T13-035045										
	1.772 45		2.362 60	.591 15	GBWPFR-3T15-045060										
	2.362 60	3.937 100	.591 15	GBWPFR-3T15-060100											
	3.937 100	9.843 250	.591 15	GBWPFR-3T15-100250											
	.157 4	1.181 30	1.575 40	.591 15	GBWPFR-4T15-030040	GWPFM400									
		1.575 40	2.362 60	.591 15	GBWPFR-4T15-040060										
		2.362 60	4.724 120	.591 15	GBWPFR-4T15-060120										
		4.724 120	11.811 300	.591 15	GBWPFR-4T15-120300										
		1.181 30	1.969 50	.591 15	GBWPFR-5T15-030050										
	.197 5	1.969 50	4.724 120	.591 15	GBWPFR-5T15-050120	GWPFM500									
		4.724 120	∞ ∞	.591 15	GBWPFR-5T15-120999										
		.236 6	1.378 35	3.150 80	.591 15	GBWPFR-6T15-035080	GWPFM600								
			3.150 80	∞ ∞	.591 15	GBWPFR-6T15-080999									
			1.142 29	1.378 35	.512 13	GBWPFR-3T13-029035									
	1.378 35		1.772 45	.591 15	GBWPFR-3T13-035045										
	1.772 45		2.362 60	.591 15	GBWPFR-3T15-045060										
	2.362 60	3.937 100	.591 15	GBWPFR-3T15-060100											
	3.937 100	9.843 250	.591 15	GBWPFR-3T15-100250											
	.157 4	1.181 30	1.575 40	.591 15	GBWPFR-4T15-030040	GWPFM400									
		1.575 40	2.362 60	.591 15	GBWPFR-4T15-040060										
		2.362 60	4.724 120	.591 15	GBWPFR-4T15-060120										
		4.724 120	11.811 300	.591 15	GBWPFR-4T15-120300										
		1.181 30	1.969 50	.591 15	GBWPFR-5T15-030050										
	.197 5	1.969 50	4.724 120	.591 15	GBWPFR-5T15-050120	GWPFM500									
		4.724 120	∞ ∞	.591 15	GBWPFR-5T15-120999										
		.236 6	1.378 35	3.150 80	.591 15	GBWPFR-6T15-035080	GWPFM600								
			3.150 80	∞ ∞	.591 15	GBWPFR-6T15-080999									
			1.142 29	1.378 35	.512 13	GBWPFR-3T13-029035		GKWPL3232-H	1.260" (32)	1.260" (32)	6.693" (170)	1.260" (32)	1.949" (49.5)	—	—
	1.378 35		1.772 45	.591 15	GBWPFR-3T13-035045										
	1.772 45		2.362 60	.591 15	GBWPFR-3T15-045060										
	2.362 60	3.937 100	.591 15	GBWPFR-3T15-060100											
3.937 100	9.843 250	.591 15	GBWPFR-3T15-100250												
.157 4	1.181 30	1.575 40	.591 15	GBWPFR-4T15-030040	GWPFM400										
	1.575 40	2.362 60	.591 15	GBWPFR-4T15-040060											
	2.362 60	4.724 120	.591 15	GBWPFR-4T15-060120											
	4.724 120	11.811 300	.591 15	GBWPFR-4T15-120300											
	1.181 30	1.969 50	.591 15	GBWPFR-5T15-030050											
.197 5	1.969 50	4.724 120	.591 15	GBWPFR-5T15-050120	GWPFM500										
	4.724 120	∞ ∞	.591 15	GBWPFR-5T15-120999											
	.236 6	1.378 35	3.150 80	.591 15	GBWPFR-6T15-035080	GWPFM600									
		3.150 80	∞ ∞	.591 15	GBWPFR-6T15-080999										