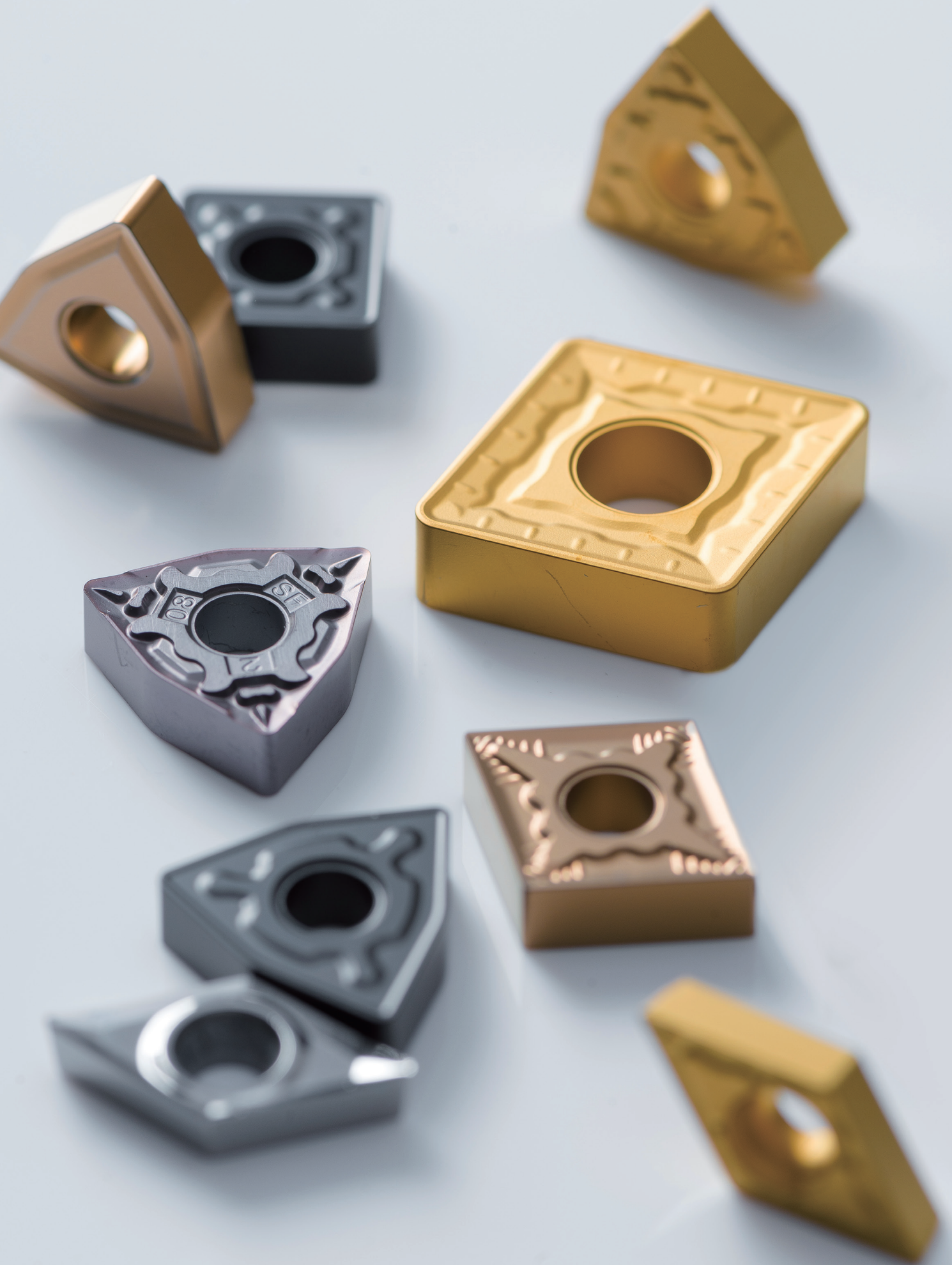


TURNING TOOLS

PARTING AND GROOVING TOOLS





Contents

Parting and Grooving Tools	_____G
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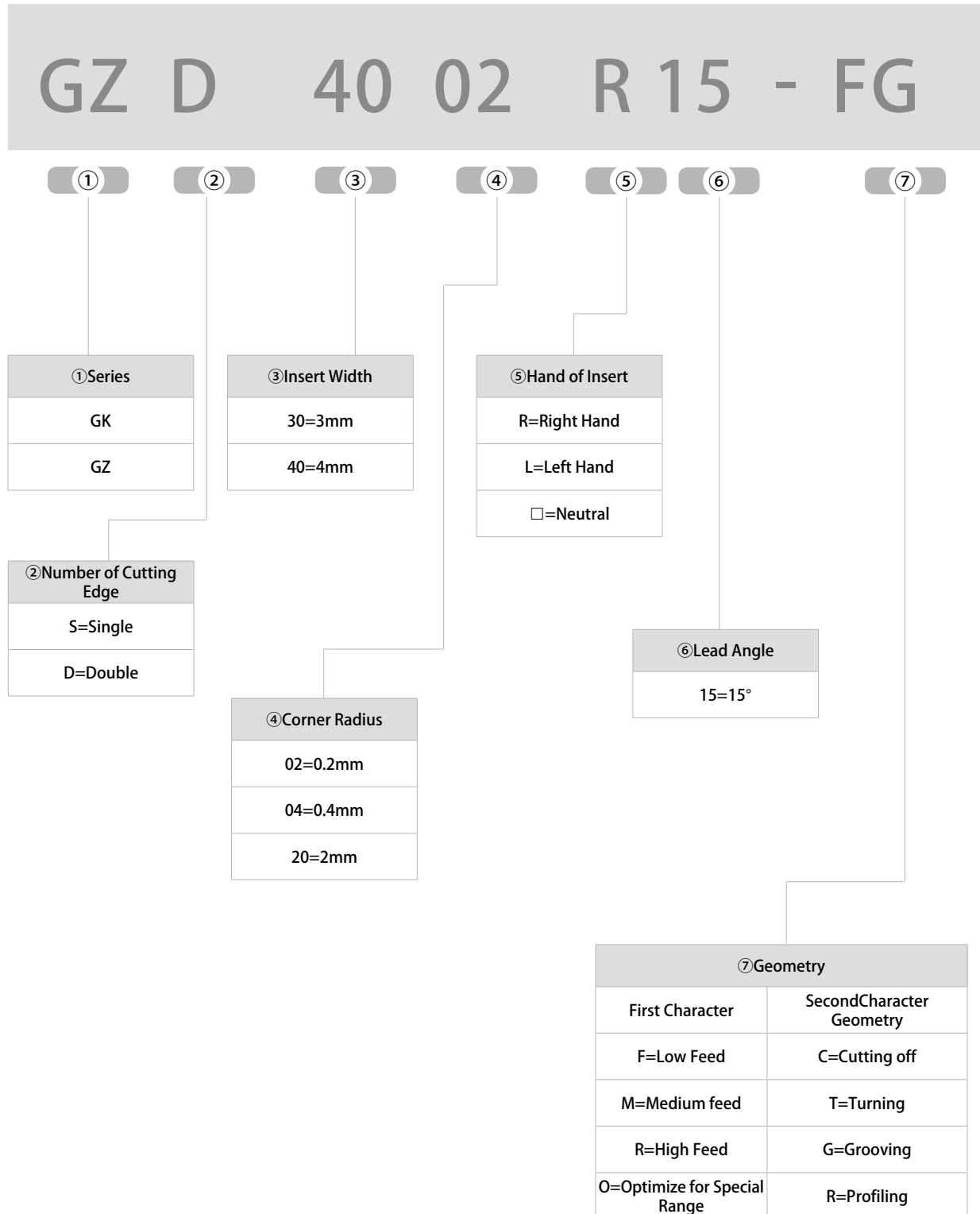
G

PARTING AND GROOVING TOOLS

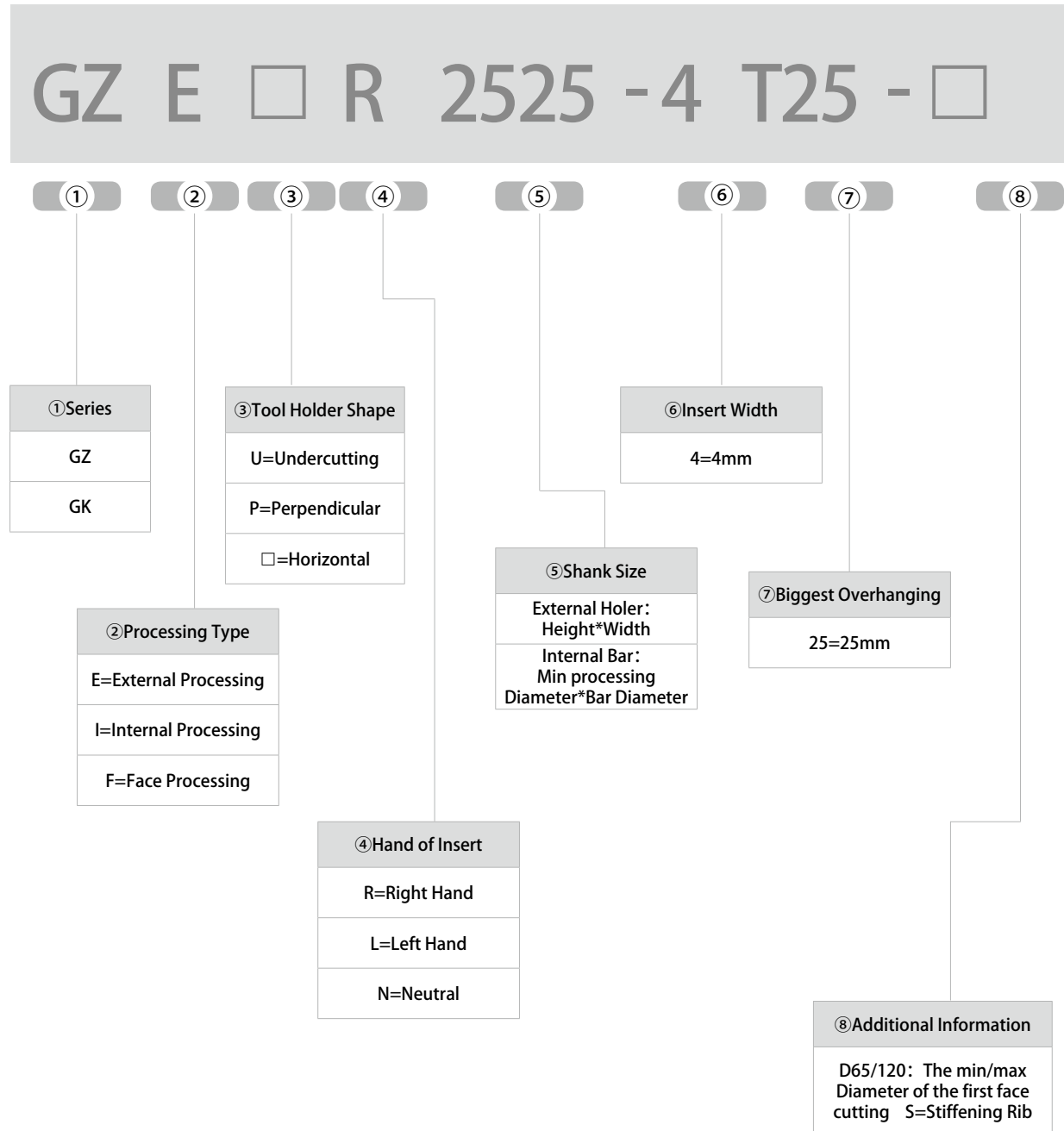




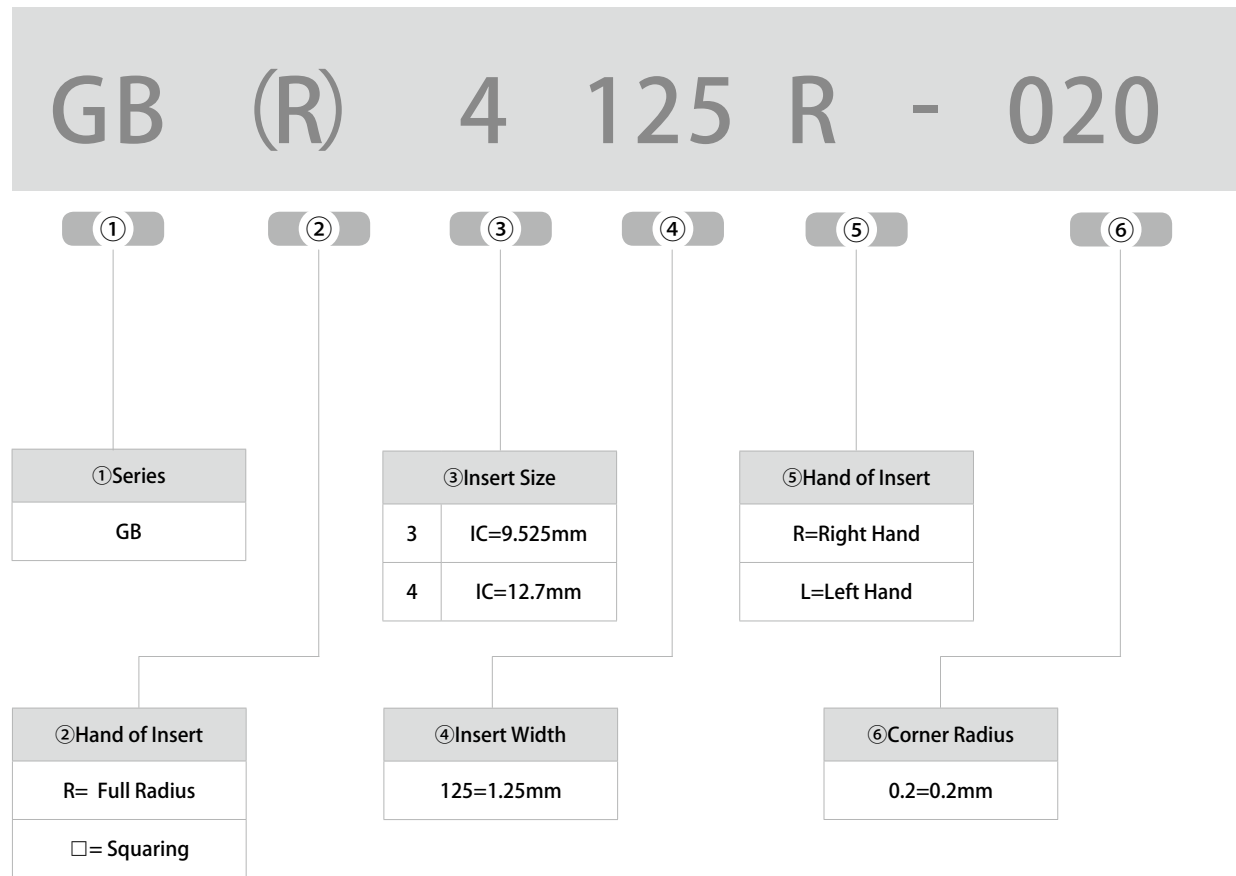
Parting and Grooving Series Insert Identification System



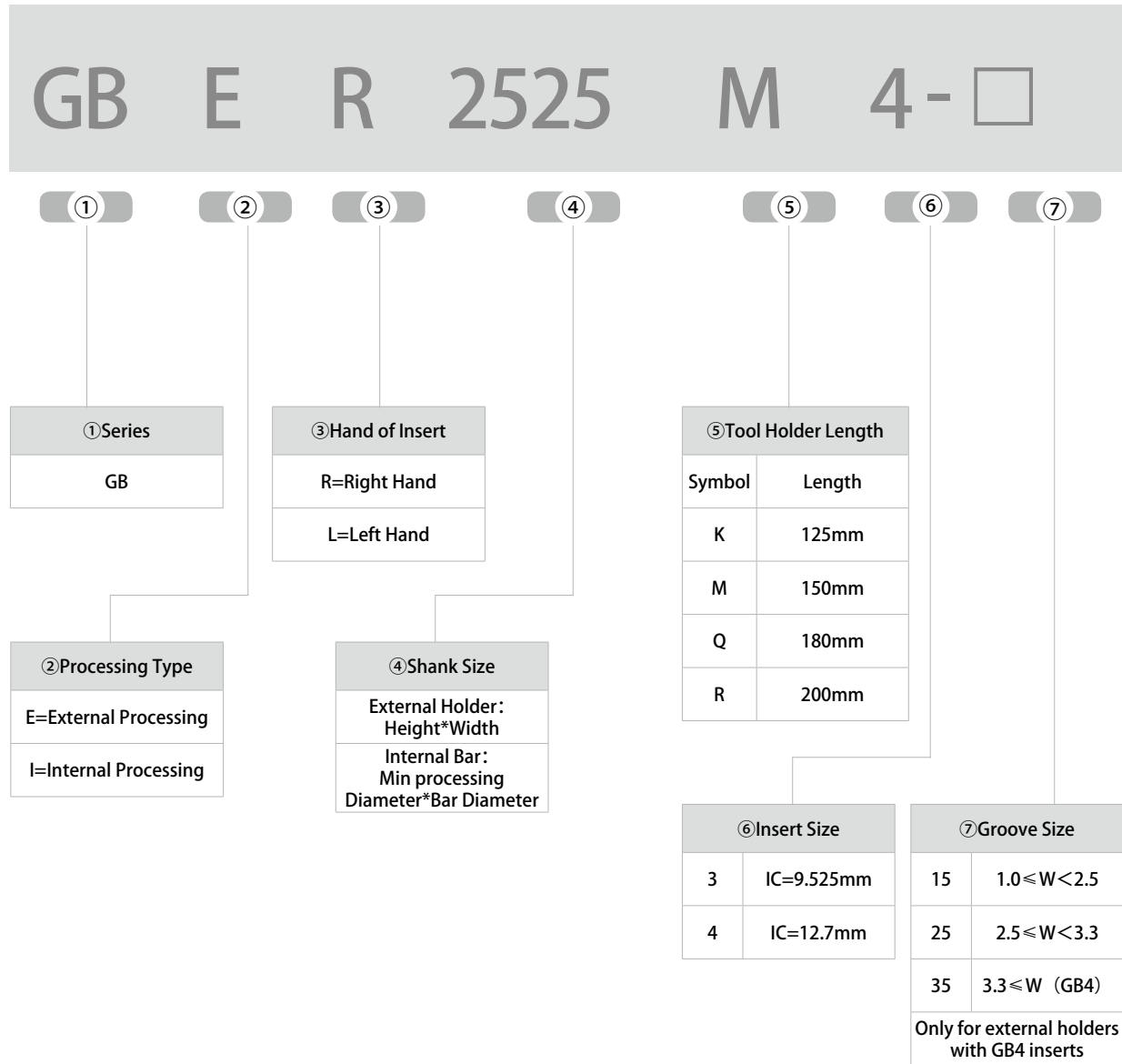
Parting and Grooving Series Tool Holder Identification System





GB Series Insert Identification System



GB Series Tool Holder Identification System



Overview of Parting and Grooving Inserts

Shape	Geometry	Application	Width	Page
	MT	Medium Turning	2.0-8.0 (mm)	P631
	MR	Medium Profiling	2.0-8.0 (mm)	P631
	FG	Precision Grooving	3.0-6.0 (mm)	P632
	OR	Precision Profiling	3.0-6.0 (mm)	P632
	GB	Precision Grooving	0.5-4.3 (mm)	P633

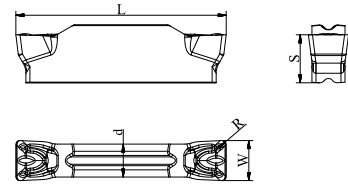
Grades for Parting and Grooving

Workpiece Material	P Steel					M Stainless Steel					K Cast Iron					S HRSA, Titanium Alloy						
	ISO	01	10	20	30	40	50	01	10	20	30	40	01	10	20	30	40	10	20	30	40	
CVD		A1105												C1115								
			A1225																			
Coated								S3115										S3115				
	PVD							A4230					A4230					S3125				
Uncoated								S3125										S9125				

Parting and Grooving Inserts

MT

Medium Turning Inserts



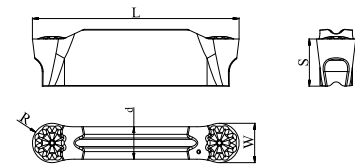
Ordering Code	Dimension					Stock		
	W	R	L	d	S	A1225	A4230	C1115
GKD2002-MT	2.0	0.2	16.0	1.2	3.5	●	●	●
GKD2502-MT	2.5	0.2	18.5	2.0	3.85	●	●	●
GKD3004-MT	3.0	0.4	21.2	2.35	4.8	●	●	●
GKD4004-MT	4.0	0.4	21.0	3.3	4.8	●	●	●
GKD5004-MT	5.0	0.4	26.0	4.1	5.8	●	●	●
GKD5008-MT	5.0	0.8	26.0	4.1	5.8	●	●	●
GKD6004-MT	6.0	0.4	26.0	5.0	5.8	●	●	●
GKD6008-MT	6.0	0.8	26.0	5.0	5.8	●	●	●
GKD8008-MT	8.0	0.8	31.0	6.0	6.5	●	○	●

○ Tools on pages 635-638

● Stock ○ Available upon order

MR

Medium Profiling Inserts



Ordering Code	Dimension					Stock			
	W	R	L	d	S	A1105	A1225	A4230	C1115
GKD2010-MR	2.0	1.0	16.0	1.2	3.5	●	○	●	●
GKD3015-MR	3.0	1.5	21.2	2.35	4.8	●	○	●	●
GKD4020-MR	4.0	2.0	21.0	3.3	4.8	●	○	●	●
GKD5025-MR	5.0	2.5	26.0	4.1	5.8	●	○	●	●
GKD6030-MR	6.0	3.0	26.0	5.0	5.8	●	○	●	●
GKD8040-MR	8.0	4.0	31.0	6.0	6.5	●	○	●	●

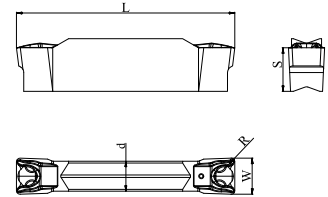
○ Tools on pages 635-638

● Stock ○ Available upon order

Parting and Grooving Inserts

FG

Precision Grooving Inserts



Ordering Code	Dimension					Stock	
	W	R	L	d	S	S3125	S9125
GZD3002-FG	3.0	0.2	20.4	2.3	4.6	●	●
GZD3004-FG	3.0	0.4	20.4	2.3	4.6	●	●
GZD4002-FG	4.0	0.2	24.0	3.3	4.8	●	●
GZD4004-FG	4.0	0.4	24.0	3.3	4.8	●	●
GZD5002-FG	5.0	0.2	24.0	3.3	4.8	●	●
GZD5004-FG	5.0	0.4	24.0	3.3	4.8	●	●
GZD6002-FG	6.0	0.2	26.0	4.2	4.8	●	●
GZD6004-FG	6.0	0.4	26.0	4.2	4.8	●	●

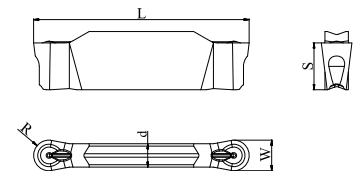


○ Tools on pages 639

● Stock ○ Available upon order

OR

Precision Profiling Inserts



Ordering Code	Dimension					Stock
	W	R	L	d	S	S3115
GZD3015-OR	3.0	1.5	21.0	2.3	4.6	●
GZD4020-OR	4.0	2.0	24.0	3.3	4.8	●
GZD5025-OR	5.0	2.5	24.0	3.3	4.8	●
GZD6030-OR	6.0	3.0	21.0	4.2	4.8	●



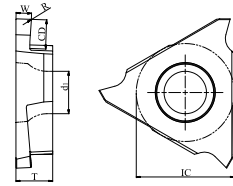
○ Tools on pages 639

● Stock ○ Available upon order

Parting and Grooving Inserts

GB

Precision Profiling Inserts



Ordering Code	Dimension						Stock	
	W	CD	R	IC	T	d1	A4230	
							R	L
GB3050R/L-005	0.50	1.0	0.05	9.525	3.18	4.4	●	○
GB3075R/L-010	0.75	2.0	0.1	9.525	3.18	4.4	●	○
GB3080R/L-005	0.80	2.0	0.05	9.525	3.18	4.4	●	○
GB3095R/L-010	0.95	2.0	0.1	9.525	3.18	4.4	●	○
GB3100R-/L-005	1.00	2.0	0.05	9.525	3.18	4.4	●	○
GB3100R/L-010	1.00	2.0	0.1	9.525	3.18	4.4	●	○
GB3120R/L-010	1.20	2.0	0.1	9.525	3.18	4.4	●	○
GB3120R/L-020	1.20	2.0	0.2	9.525	3.18	4.4	●	○
GB3125R/L-010	1.25	2.0	0.1	9.525	3.18	4.4	●	○
GB3140R/L-010	1.40	2.0	0.1	9.525	3.18	4.4	●	○
GB3140R/L-020	1.40	2.0	0.2	9.525	3.18	4.4	●	●
GB3145R/L-010	1.45	2.0	0.1	9.525	3.18	4.4	●	○
GB3150R/L-010	1.50	2.0	0.1	9.525	3.18	4.4	●	○
GB3150R/L-020	1.50	2.0	0.2	9.525	3.18	4.4	●	●
GB3175R/L-010	1.75	2.0	0.1	9.525	3.18	4.4	●	○
GB3200R/L-010	2.00	2.5	0.1	9.525	3.18	4.4	●	○
GB3200R/L-020	2.00	2.5	0.2	9.525	3.18	4.4	●	●
GB3250R/L-010	2.50	2.5	0.1	9.525	3.18	4.4	●	○
GB3250R/L-020	2.50	2.5	0.2	9.525	3.18	4.4	●	●
GB3300R/L-020	3.00	2.5	0.2	9.525	3.18	4.4	●	●



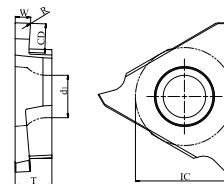
○ Tools on page 640

● Stock ○ Available upon order

Parting and Grooving Inserts

GB

Precision Grooving Inserts



Ordering Code	Dimension						Stock	
	W	CD	R	IC	T	d1	A4230	
							R	L
GB4125R/L -020	1.25	2.0	0.2	12.7	4.76	5.5	●	●
GB4150R/L -010	1.50	3.5	0.1	12.7	4.76	5.5	●	○
GB4150R/L -020	1.50	3.5	0.2	12.7	4.76	5.5	●	●
GB4175R/L -020	1.75	3.5	0.2	12.7	4.76	5.5	●	○
GB4185R/L -020	1.85	3.5	0.2	12.7	4.76	5.5	●	●
GB4200R/L -005	2.00	3.5	0.05	12.7	4.76	5.5	●	○
GB4200R/L -010	2.00	3.5	0.1	12.7	4.76	5.5	●	○
GB4200R/L -020	2.00	3.5	0.2	12.7	4.76	5.5	●	●
GB4200R/L -030	2.00	3.5	0.3	12.7	4.76	5.5	●	○
GB4200R/L -050	2.00	3.5	0.5	12.7	4.76	5.5	●	○
GB4210R/L -050	2.10	4.0	0.5	12.7	4.76	5.5	●	○
GB4220R/L -030	2.20	4.0	0.3	12.7	4.76	5.5	●	○
GB4235R/L -050	2.35	4.0	0.5	12.7	4.76	5.5	●	○
GB4240R/L -050	2.40	4.0	0.5	12.7	4.76	5.5	●	○
GB4250R/L -030	2.50	4.0	0.3	12.7	4.76	5.5	●	●
GB4265R/L -030	2.65	4.0	0.3	12.7	4.76	5.5	●	○
GB4280R/L -030	2.80	5.0	0.3	12.7	4.76	5.5	●	○
GB4300R/L -030	3.00	4.0	0.3	12.7	4.76	5.5	●	●
GB4330R/L -030	3.30	5.0	0.3	12.7	4.76	5.5	●	○
GB4350R/L -030	3.50	5.0	0.3	12.7	4.76	5.5	●	●
GB4400R/L -040	4.00	5.0	0.4	12.7	4.76	5.5	●	●
GB4430R/L -040	4.30	5.0	0.4	12.7	4.76	5.5	●	○
GBR4100R/L -050	1.00	2.0	0.5	12.7	4.76	5.5	●	●
GBR4150R/L -075	1.50	3.5	0.75	12.7	4.76	5.5	●	●
GBR4200R/L -100	2.00	3.5	1.0	12.7	4.76	5.5	●	●
GBR4250R/L -125	2.50	4.0	1.25	12.7	4.76	5.5	●	●
GBR4300R/L -150	3.00	4.0	1.5	12.7	4.76	5.5	●	●
GBR4400R/L -200	4.00	5.0	2.0	12.7	4.76	5.5	●	●

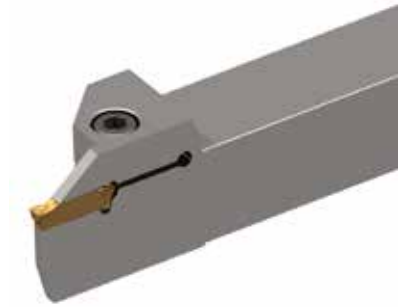


◎ Tools on page 640

● Stock ○ Available upon order

GK Series

External Holders for Parting, Grooving, Turning and Profiling



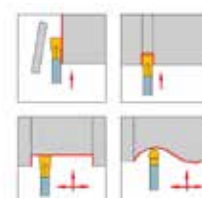
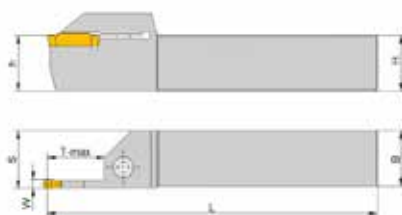
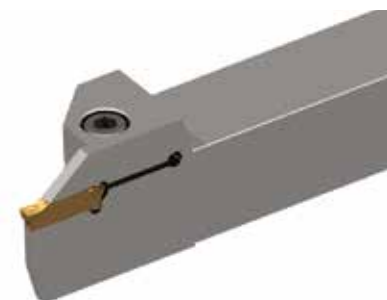
The Picture is Right Hand Holder

Ordering Code	Stock		Inserts	Dimension(mm)						Screw	Wrench
	R	L		W	T-max	H=h	B	L	S		
GKER/L1616-2T14	●	●	GKD20...	2.0	14	16	16	100	17	SCAM050120H	TH40LH
GKER/L2020-2T14	●	●	GKD20...	2.0	14	20	20	125	21	SCAM050200H	TH40LH
GKER/L2525-2T14	●	●	GKD20...	2.0	14	25	25	150	26	SCAM060200H	TH50LH
GKER/L1616-2.5T16	●	●	GKD25...	2.5	16	16	16	100	17	SCAM050120H	TH40LH
GKER/L2020-2.5T16	●	●	GKD25...	2.5	16	20	20	125	21	SCAM050200H	TH40LH
GKER/L2525-2.5T16	●	●	GKD25...	2.5	16	25	25	150	26	SCAM060200H	TH50LH
GKER/L1616-3T18	●	●	GKD30...	3.0	18	16	16	100	17	SCAM050120H	TH40LH
GKER/L2020-3T18	●	●	GKD30...	3.0	18	20	20	125	21	SCAM050200H	TH40LH
GKER/L2020-3T10	○	○	GKD30...	3.0	10	20	20	125	21	SCAM050200H	TH40LH
GKER/L2525-3T18	●	●	GKD30...	3.0	18	25	25	150	26	SCAM060200H	TH50LH
GKER/L2525-3T10	○	○	GKD30...	3.0	10	25	25	150	26	SCAM060200H	TH50LH
GKER/L3225-3T18	●	●	GKD30...	3.0	18	32	25	170	26	SCAM060200H	TH50LH
GKER/L3232-3T18	●	●	GKD30...	3.0	18	32	32	170	33	SCAM060200H	TH50LH
GKER/L3232-3T10	○	○	GKD30...	3.0	10	32	32	170	33	SCAM060200H	TH50LH
GKER/L2020-4T18	●	●	GKD40...	4.0	18	20	20	125	21	SCAM050200H	TH40LH
GKER/L2020-4T10	○	○	GKD40...	4.0	10	20	20	125	21	SCAM050200H	TH40LH
GKER/L2525-4T18	●	●	GKD40...	4.0	18	25	25	150	26	SCAM060200H	TH50LH
GKER/L2525-4T10	○	○	GKD40...	4.0	10	25	25	150	26	SCAM060200H	TH50LH
GKER/L3225-4T18	●	●	GKD40...	4.0	18	32	25	170	26	SCAM060200H	TH50LH
GKER/L3232-4T18	●	●	GKD40...	4.0	18	32	32	170	33	SCAM060200H	TH50LH
GKER/L3232-4T10	○	○	GKD40...	4.0	10	32	32	170	33	SCAM060200H	TH50LH

○ Inserts on page 631

GK Series

External Holders for Parting, Grooving, Turning and Profiling



The Picture is Right Hand Holder

续前

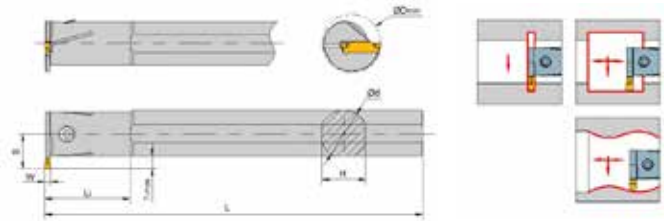
Ordering Code	Stock		Inserts	Dimension(mm)						Screw	Wrench
	R	L		W	T-max	H=h	B	L	S		
GKER/L2020-5T23	●	●	GKD50...	5.0	23	20	20	125	21	SCAM050200H	TH40LH
GKER/L2020-5T15	○	○	GKD50...	5.0	15	20	20	125	21	SCAM050200H	TH40LH
GKER/L2525-5T23	●	●	GKD50...	5.0	23	25	25	150	26	SCAM060200H	TH50LH
GKER/L2525-5T15	○	○	GKD50...	5.0	15	25	25	150	26	SCAM060200H	TH50LH
GKER/L3225-5T23	●	●	GKD50...	5.0	23	32	25	170	26	SCAM060200H	TH50LH
GKER/L3232-5T23	●	●	GKD50...	5.0	23	32	32	170	33	SCAM060200H	TH50LH
GKER/L3232-5T15	○	○	GKD50...	5.0	15	32	32	170	33	SCAM060200H	TH50LH
GKER/L2020-6T23	●	●	GKD60...	6.0	23	20	20	125	21	SCAM050200H	TH40LH
GKER/L2020-6T15	○	○	GKD60...	6.0	15	20	20	125	21	SCAM050200H	TH40LH
GKER/L2525-6T23	●	●	GKD60...	6.0	23	25	25	150	26	SCAM060200H	TH50LH
GKER/L2525-6T15	○	○	GKD60...	6.0	15	25	25	150	26	SCAM060200H	TH50LH
GKER/L3225-6T23	●	●	GKD60...	6.0	23	32	25	170	26	SCAM060200H	TH50LH
GKER/L3232-6T23	●	●	GKD60...	6.0	23	32	32	170	33	SCAM060200H	TH50LH
GKER/L3232-6T15	○	○	GKD60...	6.0	15	32	32	170	33	SCAM060200H	TH50LH
GKER/L2525-8T28	●	●	GKD80...	8.0	28	25	25	150	26.5	SCAM060200H	TH50LH
GKER/L2525-8T15	○	○	GKD80...	8.0	15	25	25	150	26.5	SCAM060200H	TH50LH
GKER/L3232-8T28	●	●	GKD80...	8.0	28	32	32	170	33.5	SCAM060200H	TH50LH
GKER/L3232-8T15	○	○	GKD80...	8.0	15	32	32	170	33.5	SCAM060200H	TH50LH

○ Inserts on page 631

● Stock ○ Available upon order

GK Series

Internal Bars for Grooving, Turning and Profiling



The Picture is Right Hand Holder

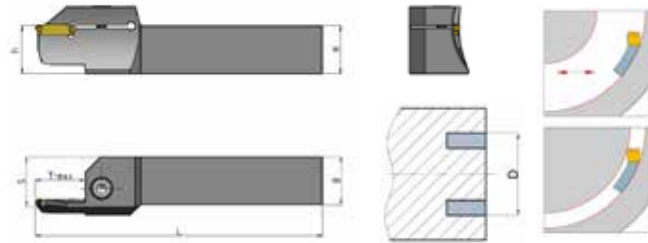
Ordering Code	Stock		Inserts	Dimension(mm)								Screw	Wrench
	R	L		W	T-max	ΦDmin	Φd	S	L	L1	H		
GKIR/L2016-2T04	●	●	GKD20...	2.0	4	20	16	12	125	35	15	SCAM040100H	TH30LH
GKIR/L2520-2T05	●	●	GKD20...	2.0	5	25	20	14.5	150	45	18	SCAM040120H	TH30LH
GKIR/L2925-2T05	●	●	GKD20...	2.0	5	29	25	17	200	45	23	SCAM050120H	TH40LH
GKIR/L2520-2.5T05	●	●	GKD25...	2.5	5	25	20	14.5	150	45	18	SCAM040120H	TH30LH
GKIR/L2925-2.5T05	●	●	GKD25...	2.5	5	29	25	17	200	45	23	SCAM050120H	TH40LH
GKIR/L2520-3T06	●	●	GKD30...	3.0	6	25	20	15.5	150	45	18	SCAM040120H	TH30LH
GKIR/L3125-3T06	●	●	GKD30...	3.0	6	31	25	18.5	200	45	23	SCAM050120H	TH40LH
GKIR/L3732-3T06	●	●	GKD30...	3.0	6	37	32	21.5	250	65	30	SCAM050200H	TH40LH
GKIR/L2520-4T06	●	●	GKD40...	4.0	6	25	20	15.5	150	45	18	SCAM040120H	TH30LH
GKIR/L3125-4T06	●	●	GKD40...	4.0	6	31	25	18.5	200	45	23	SCAM050120H	TH40LH
GKIR/L3732-4T06	●	●	GKD40...	4.0	6	37	32	21.5	250	65	30	SCAM050200H	TH40LH
GKIR/L3125-5T08	●	●	GKD50...	5.0	8	31	25	19.5	200	45	23	SCAM050120H	TH40LH
GKIR/L3732-5T08	●	●	GKD50...	5.0	8	37	32	21.5	250	65	30	SCAM050200H	TH40LH
GKIR/L3125-6T08	●	●	GKD60...	6.0	8	31	25	19.5	200	45	23	SCAM050120H	TH40LH
GKIR/L3732-6T08	●	●	GKD60...	6.0	8	37	32	21.5	250	65	30	SCAM050200H	TH40LH
GKIR/L3732-8T10	●	●	GKD80...	8.0	10	37	32	23.4	250	65	30	SCAM050200H	TH40LH
GKIR/L4540-8T10	●	●	GKD80...	8.0	10	45	40	27.2	300	70	37	SCAM050200H	TH40LH

○ Inserts on page 631

● Stock ○ Available upon order

GK Series

Face Grooving Holders-Horizontal



The Picture is Right Hand Holder

Ordering Code	Stock		Inserts	Dimension(mm)							Screw	Wrench
	R	L		H=h	B	L	S	T-max	Dmin	Dmax		
GKFR/L2525-2T12D75	○	○	GKD20...	25	25	150	26	15	75	100	SCAM060200H	TH50LH
GKFR/L2525-2T12D90	○	○	GKD20...	25	25	150	26	15	90	150	SCAM060200H	TH50LH
GKFR/L2525-3T15D68	○	○	GKD30...	25	25	150	26	15	68	100	SCAM060200H	TH50LH
GKFR/L2525-3T15D90	○	○	GKD30...	25	25	150	26	15	90	160	SCAM060200H	TH50LH
GKFR/L2525-4T15D62	●	●	GKD40...	25	25	150	26	15	62	120	SCAM060200H	TH50LH
GKFR/L2525-4T15D112	●	●	GKD40...	25	25	150	26	15	112	200	SCAM060200H	TH50LH
GKFR/L2525-5T25D68	○	○	GKD50...	25	25	150	26	25	68	95	SCAM060200H	TH50LH
GKFR/L2525-5T25D85	○	○	GKD50...	25	25	150	26	25	85	130	SCAM060200H	TH50LH
GKFR/L2525-6T25D68	○	○	GKD60...	25	25	150	26	25	68	100	SCAM060200H	TH50LH
GKFR/L2525-6T25D88	○	○	GKD60...	25	25	150	26	25	88	180	SCAM060200H	TH50LH
GKFR/L2525-8T25D45	○	○	GKD80...	25	25	150	26	25	45	80	SCAM060200H	TH50LH
GKFR/L2525-8T25D75	○	○	GKD80...	25	25	150	26	25	75	150	SCAM060200H	TH50LH

Face Grooving Holders-Perpendicular



The Picture is Right Hand Holder

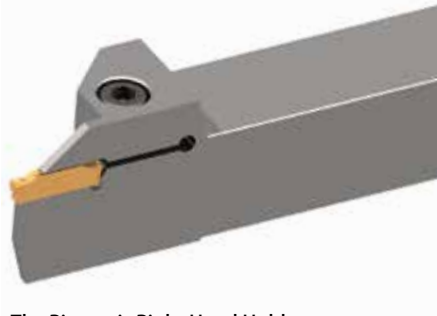
Ordering Code	Stock		Inserts	Dimension(mm)							Screw	Wrench
	R	L		H=h	B	L	S	T-max	Dmin	Dmax		
GKFPR/L2525-4T15D60	●	●	GKD40...	25	25	150	26	15	60	120	SCAM060200H	TH50LH
GKFPR/L2525-4T15D112	●	●	GKD40...	25	25	150	26	15	112	200	SCAM060200H	TH50LH

○ Inserts on page 631

● Stock ○ Available upon order

GZ Series

External Holders for Parting, Grooving, Turning and Profiling



The Picture is Right Hand Holder

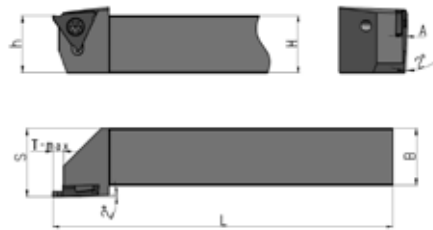
Ordering Code	Stock		适用刀片	Dimension(mm)						Screw	Wrench
	R	L		W	T-max	H=h	B	L	S		
GZER/L2020-3T20	●	●	GZD30...	3.0	20	20	20	125	21	SCAM050200H	TH40LH
GZER/L2525-3T20	●	●	GZD30...	3.0	20	25	25	150	26	SCAM060200H	TH50LH
GZER/L3225-3T20	●	●	GZD30...	3.0	20	32	25	170	26	SCAM060200H	TH50LH
GZER/L2020-4T25	●	●	GZD40...	4.0	25	20	20	125	21	SCAM050200H	TH40LH
			GZD50...	5.0	25	20	20	125	21.5		
GZER/L2525-4T25	●	●	GZD40...	4.0	25	25	25	150	26	SCAM060200H	TH50LH
			GZD50...	5.0	25	25	25	150	26.5		
GZER/L3225-4T25	●	●	GZD40...	4.0	25	32	25	170	26	SCAM060200H	TH50LH
			GZD50...	5.0	25	32	25	170	26.5		
GZER/L2525-6T32	●	●	GZD60...	6.0	32	25	25	150	26	SCAM060300H	TH50LH
GZER/L3225-6T32	●	●	GZD60...	6.0	32	32	25	170	26	SCAM060300H	TH50LH

○ Inserts on page 632

● Stock ○ Available upon order

GB Series

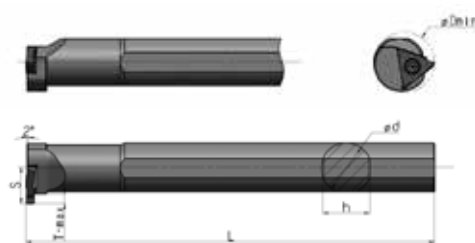
External Holders for Grooving



The Picture is Right Hand Holder

Ordering Code	Stock		Inserts	Dimension(mm)						Screw	Wrench
	R	L		H=h	B	L	S	A	T-max		
GBER/L2020K3	●	○	3...	20	20	125	25	—	2.5	SI60M 035120...	TT15P...
GBER/L2525M3	●	○	3...	25	25	150	30	—	2.5	SI60M 035120...	TT15P...
GBER/L2020K4-15	●	○	4... (1.0 ≤ W < 2.5)	20	20	125	25	1.0	4.0	SI60M 050120...	TT20P...
GBER/L2525M4-15	●	○	4... (1.0 ≤ W < 2.5)	25	25	150	30	1.0	4.0	SI60M 050120...	TT20P...
GBER/L2020K4-25	●	○	4... (2.5 ≤ W < 3.3)	20	20	125	25	2.0	4.5	SI60M 050120...	TT20P...
GBER/L2525M4-25	●	○	4... (2.5 ≤ W < 3.3)	25	25	150	30	2.0	4.5	SI60M 050120...	TT20P...
GBER/L2020K4-35	●	○	4... (3.3 ≤ W < 4.8)	20	20	125	25	3.0	5.5	SI60M 050120...	TT20P...
GBER/L2525M4-35	●	○	4... (3.3 ≤ W < 4.8)	25	25	150	30	3.0	5.5	SI60M 050120...	TT20P...

Internal Bars for Grooving



The Picture is Right Hand Holder

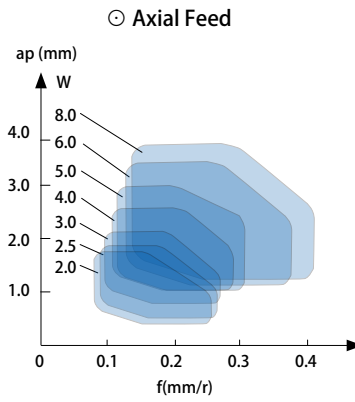
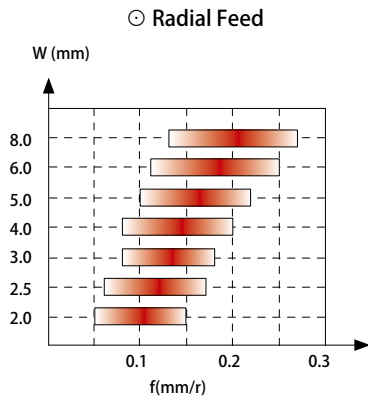
Ordering Code	Stock		Inserts	Dimension(mm)						Screw	Wrench
	R	L		Dmin	φd	h	L	A	T-max		
GBIR/L2620Q3	●	●	3...	26	20	18	180	13	3	SI60M 035120...	TT15P...
GBIR/L3525R4	●	●	4...	35	25	23	200	17.5	4.5	SI60M 050120...	TT20P...

Remark: SI60M 035120... is meaning of M3.5x9
 ○ Inserts on page 633-634

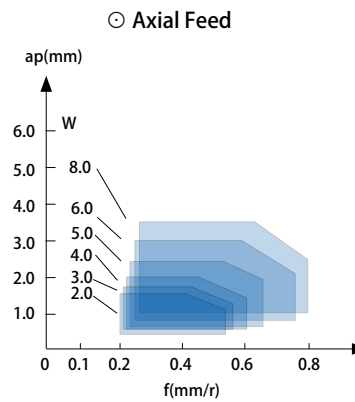
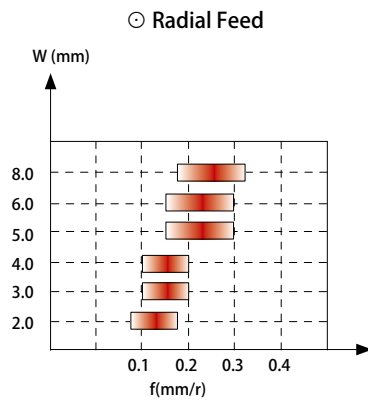
● Stock ○ Available upon order

Recommended Feed

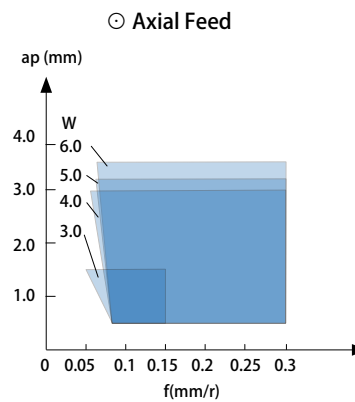
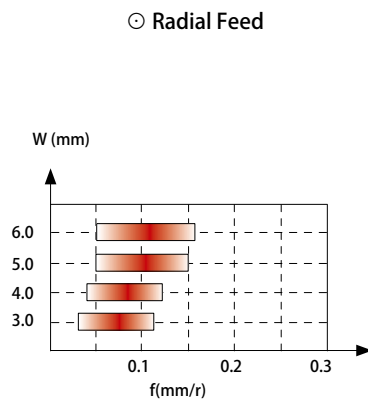
MT



MR

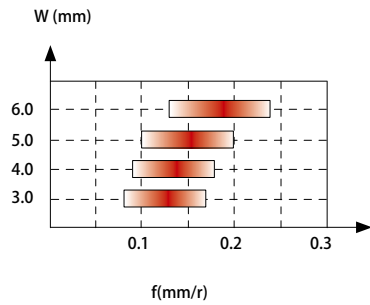


FG

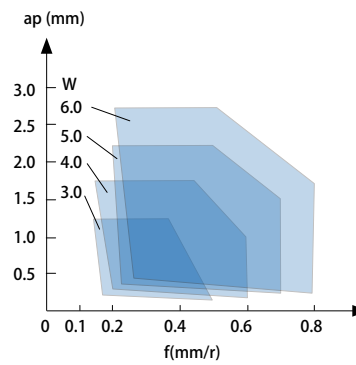


OR

⊙ Radial Feed



⊙ Axial Feed



GB

Workpiece Material	feed (mm/r)				
	width (mm)				
	0.5-1.0	1.0-2.0	2.5-3.0	3.3-4.0	4.0-4.3
P Carbon Steel	①.0.03~0.08	①.0.04~0.09 ②.0.04~0.09	①.0.05~0.1 ②.0.05~0.1	①.0.05~0.12 ②.0.05~0.1	①.0.05~0.12 ②.0.05~0.1
	Alloy Steel	①.0.03~0.07	①.0.04~0.08 ②.0.04~0.08	①.0.05~0.9 ②.0.05~0.9	①.0.05~0.1 ②.0.05~0.1
M Stainless Steel	①.0.03~0.07	①.0.04~0.08 ②.0.04~0.08	①.0.05~0.9 ②.0.05~0.9	①.0.05~0.1 ②.0.05~0.1	①.0.05~0.1 ②.0.05~0.1
K Cast Iron	①.0.03~0.08	①.0.04~0.09 ②.0.04~0.09	①.0.05~0.1 ②.0.05~0.1	①.0.05~0.12 ②.0.05~0.1	①.0.05~0.12 ②.0.05~0.1

① Radial Fe ② Axial Feed

Recommended Cutting Speed

Workpiece Material	Hardness (HB)	Cutting Speed Vc (m/min)							
		A4230	A1225	A1105	C1115	S3115	S3125	S9125	
P	Low Carbon Steel	80 – 170	110 (70-180)	120 (80-220)	120 (80-220)		70 (50-100)	70 (50-100)	
	High Carbon Steel	170 – 250	110 (70-150)	120 (80-220)	120 (80-220)				
	Low-alloy Steel	140 – 260	110 (40-150)	110 (60-180)	110 (60-180)		70 (50-100)	70 (50-100)	
	High-alloy Steel	180 – 300	110 (40-150)	110 (60-180)	110 (60-180)				
	Cast Steel	180 – 300	110 (40-150)	110 (60-180)	110 (60-180)				
M	Ferritic/ Martensitic	150 – 270	110 (40-180)				90 (50-150)	90 (30-180)	
	Austenitic	150 – 270	110 (40-180)				90 (50-150)	90 (30-180)	
K	Malleable Cast Iron	150 – 230	110 (50-180)			130 (50-200)			
	Gray Cast Iron	150 – 230	110 (50-180)			130 (50-200)			
	Nodular Cast Iron	160 – 260	100 (50-150)			100 (50-150)			
S	Heat-resistant Alloy	130 – 400					35 (15-60)	35 (15-70)	
	Titanium Alloys	130 – 400					35 (15-60)	35 (15-70)	35 (15-60)