

## ***PARTING, GROOVING***



Turnline TKD Series ----- P80-P82



Turnline GB Series ----- P83-P85



Turnline TGE Series ----- P86-P91



Turnline TTF Series ----- P92-P94



Turnline TTS Series ----- P95


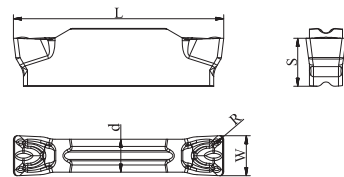
## ***MINIATURE TOOL***



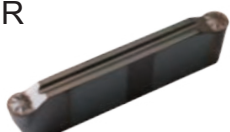
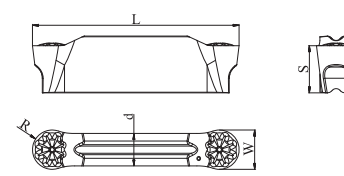
Solid Boring Bar ----- P96-P107



Modular Small Hole Cutter ----- P108-P109

TKD-MT 					
	Dimension (mm)				
Order No .	W	R	L	d	S
TKD 2002 - MT	2	0.2	16	1.2	3.5
TKD 2502 - MT	2.5	0.2	18.5	2	3.85
TKD 3004 - MT	3	0.4	21.2	2.35	4.8
TKD 4004 - MT	4	0.4	21	3.3	4.8
TKD 5004 - MT	5	0.4	26	4.1	5.8
TKD 5008 - MT	5	0.8	26	4.1	5.8
TKD 6004 - MT	6	0.4	26	5	5.8
TKD 6008 - MT	6	0.8	26	5	5.8

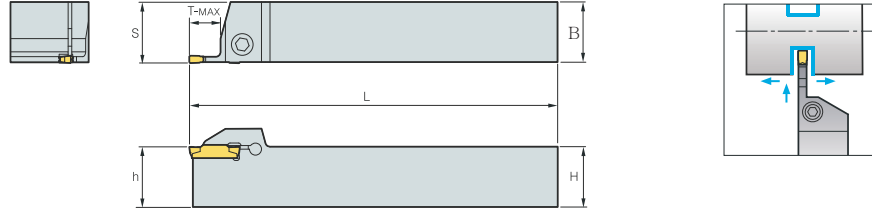
Grade: TG4230  
Working Materials: Steel  
Stainless Steel  
Cast Iron

TKD-MR 					
	Dimension (mm)				
Order No .	W	R	L	d	S
TKD 2010 - MR	2	1	16	1.5	3.5
TKD 3015 - MR	3	1.5	21	2.35	4.8
TKD 4020 - MR	4	2	21	3.3	4.8
TKD 5025 - MR	5	2.5	26	4.1	5.8
TKD 6030 - MR	6	3	26	5	5.8

Grade: TG4230  
Working Materials: Steel  
Stainless Steel  
Cast Iron

Insert  
External Toolholder  
Internal Toolholder  
Turning  
Parting, Grooving  
Miniature Tool

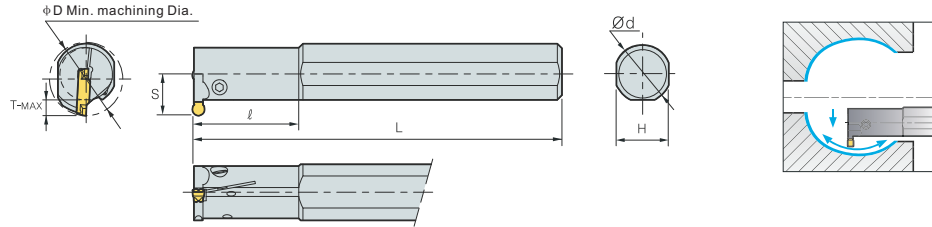
MGEHR/L



(mm)

Order No.	Dimension (mm)							Insert	Wrench	Screw
	W	T-MAX	H	B	L	S	h			
MGEHR/L1212-2.0	2	12	12	12	100	13	12	TKD20 .MT TKD20 .MR	L3	BHA0410
MGEHR/L1616-2.0	2	14	16	16	100	17	16			
MGEHR/L2020-2.0	2	14	20	20	125	21	20	TKD25 .MT TKD25 .MR	L5	BHA0616
MGEHR/L2525-2.0	2	14	25	25	150	26	25			
MGEHR/L1616-2.5	2.5	16	16	16	100	17	16	TKD25 .MT TKD25 .MR	L5	BHA0616
MGEHR/L2020-2.5	2.5	16	20	20	125	21	20			
MGEHR/L2525-2.5	2.5	16	25	25	150	26	25	TKD30 .MT TKD30 .MR	L3	BHA0410
MGEHR/L1212-3.0	3	16	12	12	100	13	12			
MGEHR/L1616-3.0	3	18	16	16	100	17	16	TKD30 .MT TKD30 .MR	L5	BHA0410
MGEHR/L2020-3.0	3	18	20	20	125	21	20			
MGEHR/L2525-3.0	3	18	25	25	150	26	25	TKD40 .MT TKD40 .MR	L5	BHA0410
MGEHR/L3232-3.0	3	18	32	32	170	33	32			
MGEHR/L1616-4.0	4	18	16	16	100	17	16	TKD40 .MT TKD40 .MR	L5	BHA0410
MGEHR/L2020-4.0	4	18	20	20	125	21	20			
MGEHR/L2525-4.0	4	18	25	25	150	26	25	TKD50 .MT TKD50 .MR	L5	BHA0410
MGEHR/L3232-4.0	4	18	32	32	170	33	32			
MGEHR/L2020-5.0	5	23	20	20	125	21	20	TKD50 .MT TKD50 .MR	L5	BHA0410
MGEHR/L2525-5.0	5	23	25	25	150	26	25			
MGEHR/L3232-5.0	5	23	32	32	170	33	32	TKD60 .MT TKD60 .MR	L5	BHA0410
MGEHR/L2525-6.0	6	25	25	25	150	26	25			
MGEHR/L3232-6.0	6	25	32	32	170	33	32	TKD60 .MT TKD60 .MR	L5	BHA0410

MGIVR/L



Order No.	Dimension (mm)								Insert	Wrench	Screw
	W	T-MAX	D	d	L	S	H	I			
MGIVR/L2016-2.0	2	4.5	20	16	125	12.4	15	35	TKD20 .MT TKD20 .MR	L3	BH0410
MGIVR/L2520-2.0	2	4.5	25	20	150	14	18	45			BHA0512
MGIVR/L2925-2.0	2	4.5	29	25	200	17.2	23	45	TKD25 .MT TKD25 .MR	L4	BHA0516
MGIVR/L2016-2.5	2.5	4.5	20	16	125	12.5	15	35			BH0410
MGIVR/L2520-2.5	2.5	4.5	25	20	150	15.1	18	45	TKD25 .MT TKD25 .MR	L4	BHA0512
MGIVR/L2925-2.5	2.5	4.5	29	25	200	18.2	23	45			BHA0516
MGIVR/L2520-3.0	3	5	25	20	150	15.6	18	45	TKD30 .MT TKD30 .MR	L4	BHA0512
MGIVR/L3125-3.0	3	6	31	25	200	18.9	23	45			BHA0516
MGIVR/L3732-3.0	3	6	37	32	250	21.5	30	60	TKD40 .MT TKD40 .MR	L4	BHA0512
MGIVR/L2520-4.0	4	6	25	20	150	15.6	18	45			BHA0516
MGIVR/L3125-4.0	4	6	31	25	200	18.9	23	45	TKD40 .MT TKD40 .MR	L4	BHA0512
MGIVR/L3732-4.0	4	6	37	32	250	21.5	30	60			BHA0516
MGIVR/L3125-5.0	5	8	31	25	200	19.4	23	45	TKD50 .MT TKD50 .MR	L4	BHA0516
MGIVR/L3732-5.0	5	8	37	32	250	21.4	30	60			BHA0516
MGIVR/L3125-6.0	6	8	31	25	200	19.4	23	45	TKD60 .MT TKD60 .MR	L4	BHA0516
MGIVR/L3732-6.0	6	8	37	32	250	21.4	30	60			BHA0516

**TKD Series Standard Cutting Conditions**

ISO	Workpiece Material	Vc(m/min)	Grooving				Turning			
			Edge Width (mm)				Edge Width (mm)			
			2-3	4	5	6	2-3	4	5	6
			f(mm/min)				f(mm/min)			
P	Carbon Steel	80-200	0.05-0.15	0.10-0.20	0.15-0.25	0.15-0.30	0.10-0.25	0.10-0.30	0.15-0.30	0.20-0.35
	Alloy Steel	70-180	0.05-0.15	0.10-0.20	0.15-0.25	0.15-0.30	0.10-0.25	0.10-0.30	0.15-0.30	0.20-0.35
M	Stainless Steel	60-150	0.05-0.15	0.10-0.20	0.15-0.25	0.15-0.30	0.10-0.25	0.10-0.30	0.15-0.30	0.20-0.35
K	Cast Iron	100-200	0.05-0.20	0.10-0.25	0.15-0.30	0.15-0.35	0.10-0.30	0.10-0.35	0.15-0.35	0.20-0.40

Insert  
 External Toolholder  
 Internal Toolholder  
 Threading  
 Parting, Grooving  
 Miniature Tool

Insert  
 External Toolholder  
 Internal Toolholder  
 Threading  
 Parting, Grooving  
 Miniature Tool

Order No.	Dimension (mm)							
	W	CD	r	IC	T	d1	R	L
GB3075R/L -010	0.75	2.0	0.1	9.525	3.18	4.4	●	○
GB3080R/L -005	0.80		0.05	9.525	3.18	4.4	●	○
GB3095R/L -010	0.95		0.1	9.525	3.18	4.4	●	○
GB3100R/L -005	1.00		0.05	9.525	3.18	4.4	●	○
GB3100R/L -010	1.00		0.1	9.525	3.18	4.4	●	○
GB3120R/L -010	1.20		0.1	9.525	3.18	4.4	●	○
GB3120R/L -020	1.20		0.2	9.525	3.18	4.4	●	○
GB3125R/L -010	1.25		0.1	9.525	3.18	4.4	●	○
GB3140R/L -010	1.40		0.1	9.525	3.18	4.4	●	○
GB3140R/L -020	1.40		0.2	9.525	3.18	4.4	●	●
GB3150R/L -010	1.50		0.1	9.525	3.18	4.4	●	○
GB3150R/L -020	1.50		0.2	9.525	3.18	4.4	●	●
GB3175R/L -010	1.75		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	0.2		9.525	3.18	4.4	●	●
GB3250R/L -010	2.50	0.1		9.525	3.18	4.4	●	○
GB3250R/L -020	2.50	0.2		9.525	3.18	4.4	●	●
GB3300R/L -020	3.00	0.2		9.525	3.18	4.4	●	●
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		0.2	12.7	4.76	5.5	●	●
GB4175R/L -020	1.75		0.2	12.7	4.76	5.5	●	○
GB4185R/L -020	1.85		0.2	12.7	4.76	5.5	●	●
GB4200R/L -005	2.00		0.05	12.7	4.76	5.5	●	○
GB4200R/L -010	2.00		0.1	12.7	4.76	5.5	●	○
GB4200R/L -020	2.00		0.2	12.7	4.76	5.5	●	●
GB4200R/L -030	2.00		0.3	12.7	4.76	5.5	●	○
GB4200R/L -050	2.00		0.5	12.7	4.76	5.5	●	○
GB4250R/L -030	2.50		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		0.3	12.7	4.76	5.5	●	○
GB4300R/L -030	3.00		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		0.3	12.7	4.76	5.5	●	●
GB4400R/L -040	4.00		0.4	12.7	4.76	5.5	●	●
GB4430R/L -040	4.30		0.4	12.7	4.76	5.5	●	○

● : Stock    ○ : Non- Stock

Grade: TG4230  
Working Materials: Steel  
Stainless Steel  
Cast Iron

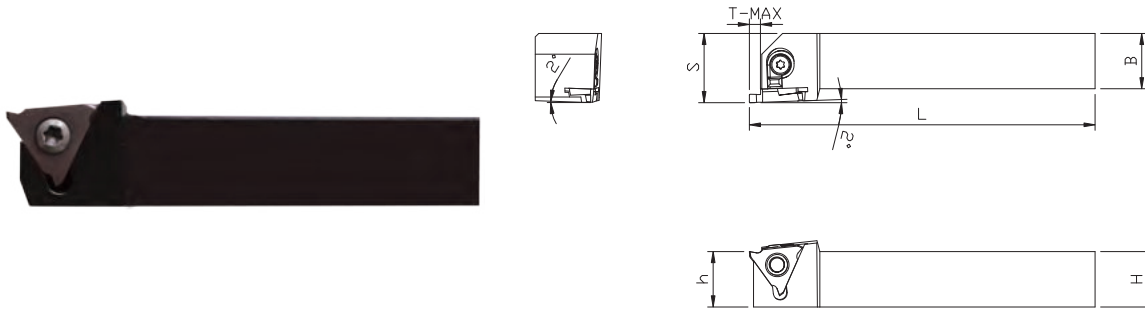
GBR								
Order No.	Dimension (mm)							
	W	CD	r	IC	T	d1	R	L
GBR4100R/L -050	1.00	2.0	0.50	12.70	4.76	5.50	●	●
GBR4150R/L -075	1.50	3.5	0.75	12.70	4.76	5.50	●	●
GBR4200R/L -100	2.00	3.5	1.00	12.70	4.76	5.50	●	●
GBR4250R/L -125	2.50	4.0	1.25	12.70	4.76	5.50	●	●
GBR4300R/L -150	3.00	4.0	1.50	12.70	4.76	5.50	●	●
GBR4400R/L -200	4.00	5.0	2.00	12.70	4.76	5.50	●	●

Grade: TG4230  
Working Materials: Steel  
Stainless Steel  
Cast Iron

### GB/GBR Series Standard Cutting Conditions

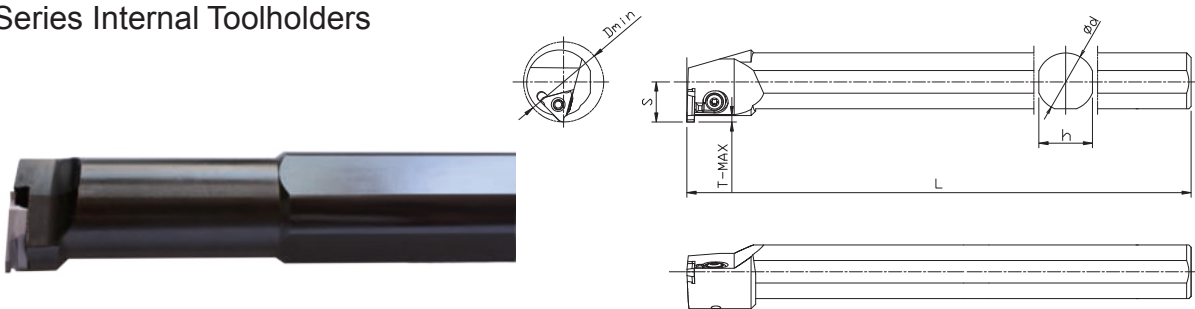
ISO	Workpiece Material	Vc(m/min)	Grooving					Turning				
			Edge Width (mm)					Edge Width (mm)				
			0.75-1.00	1.20-2.00	2.50-3.00	3.30-4.00	4.30	0.75-1.00	1.20-2.00	2.50-3.00	3.30-4.00	4.30
			f(mm/min)					f(mm/min)				
P	Carbon Steel	80-200	0.03-0.08	0.04-0.09	0.05-0.10	0.05-0.12	0.05-0.12	—	0.04-0.09	0.05-0.10	0.05-0.10	0.05-0.10
	Alloy Steel	80-180	0.03-0.07	0.04-0.08	0.05-0.09	0.05-0.10	0.05-0.10	—	0.04-0.08	0.05-0.09	0.05-0.10	0.05-0.10
M	Stainless Steel	60-150	0.03-0.07	0.04-0.08	0.05-0.09	0.05-0.10	0.05-0.10	—	0.04-0.08	0.05-0.09	0.05-0.10	0.05-0.10
K	Cast Iron	80-180	0.03-0.08	0.04-0.09	0.05-0.10	0.05-0.12	0.05-0.12	—	0.04-0.09	0.05-0.10	0.05-0.10	0.05-0.10

GB Series External Toolholders



Order No.	Dimension (mm)						Insert	Wrench	Screw
	T-MAX	H	B	L	S	h			
GBER2020K3	2.5	20	20	125	25	20	GB3...	TT15P	SI60M 035120
GBER2525M3	2.5	25	25	150	30	25			
GBER2020K4-15	4.0	20	20	125	25	20	GB4/GBR4... (1.0 ≤ W < 2.5)	TT20P	SI60M 050120
GBER2525M4-15	4.0	25	25	150	30	25			
GBER2020K4-25	4.5	20	20	125	25	20	GB4/GBR4... (2.5 ≤ W < 3.3)		
GBER2525M4-25	4.5	25	25	150	30	25			
GBER2020K4-35	5.5	20	20	125	25	20	GB4/GBR4... (3.3 ≤ W < 4.8)		
GBER2525M4-35	5.5	25	25	150	30	25			

GB Series Internal Toolholders



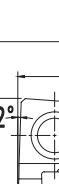


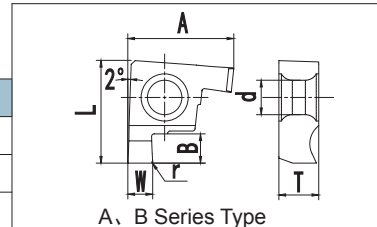
Order No.	Dimension (mm)						Insert	Wrench	Screw
	T-MAX	Dmin	Ød	L	S	h			
GBIR/L2620Q3	3.0	26	20	180	13	18	GB3...	TT15P	SI60M
GBIR/L3525R4	4.5	35	25	200	17.5	23	GB4/GBR4...	TT20P	SI60M

TGE Series Inserts for Grooving

Model	A(mm)	L(mm)	T(mm)	d(mm)		
TGER**-A	6.69	6.50	2.58	2.5	● Good recommendation Material Recommended	Grade TG1225
TGER**-B	8.46	8.20	3.18	2.7		Steel <b>P</b> ●
TGER**-C	5.80	11.48	4.05	2.8		Stainless <b>M</b> ●
TGER**-D	6.80	16.44	5.05	3.4		Cast Iron <b>K</b> ●
TGER**-E	9.54	21.66	5.55	4.4		

Insert	Order No.		Dimensions(mm)			Toolholders
	Right hand	Left hand	W	B	r	
	TGER050-A	TGEL050-A	0.50	1.2	0.05	SIGER/L0808A-EH SIGER/L0808A-WH
	TGER060-A	TGEL060-A	0.60	1.2	0.05	
	TGER070-A	TGEL070-A	0.70	1.2	0.05	
	TGER080-A	TGEL080-A	0.80	1.2	0.05	
	TGER100-A	TGEL100-A	1.00	1.5	0.05	
	TGER120-A	TGEL120-A	1.20	1.5	0.05	
	TGER125-A	TGEL125-A	1.25	1.5	0.05	
	TGER140-A	TGEL140-A	1.40	1.5	0.10	
	TGER150-A	TGEL150-A	1.50	1.5	0.10	
	TGER180-A	TGEL180-A	1.80	1.5	0.10	
	TGER200-A	TGEL200-A	2.00	1.5	0.10	
	TGER080-B	TGEL080-B	0.80	1.8	0.05	SIGER/L1010B-EH SIGER/L1010B-WH SIGER/L1210B-EH
	TGER100-B	TGEL100-B	1.00	2.2	0.05	
	TGER120-B	TGEL120-B	1.20	2.2	0.05	
	TGER125-B	TGEL125-B	1.25	2.2	0.05	
	TGER130-B	TGEL130-B	1.30	2.2	0.10	
	TGER145-B	TGEL145-B	1.45	2.2	0.10	
	TGER150-B	TGEL150-B	1.50	2.2	0.10	
	TGER180-B	TGEL180-B	1.80	2.2	0.10	
	TGER200-B	TGEL200-B	2.00	2.2	0.10	
	TGER225-B	TGEL225-B	2.25	2.2	0.10	
	TGER250-B	TGEL250-B	2.50	2.2	0.10	
	TGER280-B	TGEL280-B	2.80	2.2	0.20	
	TGER300-B	TGEL300-B	3.00	2.2	0.20	
	TGER100-C	TGEL100-C	1.00	2.5	0.05	SIGER/L1412C-EH SIGER/L1612C-EH SIGER/L1616C-EH
	TGER120-C	TGEL120-C	1.20	2.5	0.05	
	TGER125-C	TGEL125-C	1.25	2.5	0.05	
	TGER140-C	TGEL140-C	1.40	2.5	0.10	
	TGER145-C	TGEL145-C	1.45	2.5	0.10	
	TGER150-C	TGEL150-C	1.50	2.5	0.10	
	TGER160-C	TGEL160-C	1.60	2.5	0.10	
	TGER170-C	TGEL170-C	1.70	2.5	0.10	
	TGER185-C	TGEL185-C	1.85	2.5	0.10	
	TGER195-C	TGEL195-C	1.95	2.5	0.10	
	TGER200-C	TGEL200-C	2.00	2.5	0.10	
	TGER225-C	TGEL225-C	2.25	2.5	0.10	
	TGER250-C	TGEL250-C	2.50	2.5	0.20	
	TGER275-C	TGEL275-C	2.75	2.5	0.20	
	TGER280-C	TGEL280-C	2.80	2.5	0.20	
	TGER300-C	TGEL300-C	3.00	2.5	0.20	
	TGER320-C	TGEL320-C	3.20	2.5	0.20	
TGER350-C	TGEL350-C	3.50	2.5	0.20		



Insert  
External Toolholder  
Internal Toolholder  
Threading  
Parting, Grooving  
Miniature Tool



Right-hand Insert for Right-hand Toolholder  
Left-hand Insert for Left-hand Toolholder

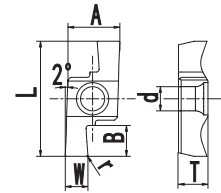


TGE Series Inserts for Grooving

Model	A(mm)	L(mm)	T (mm)	d(mm)	Material Recommended	Grade	TG1225	
							Steel	●
TGER**-A	6.69	6.50	2.58	2.5	● Good recommendation	Steel	<b>P</b>	●
TGER**-B	8.46	8.20	3.18	2.7		Stainless	<b>M</b>	●
TGER**-C	5.80	11.48	4.05	2.8		Cast Iron	<b>K</b>	●
TGER**-D	6.80	16.44	5.05	3.4				
TGER**-E	9.54	21.66	5.55	4.4				

Insert	Order No.		Dimensions(mm)			Toolholders
	Right hand	Left hand	W	B	r	
	TGER100-D	TGEL100-D	1.00	2.5	0.05	SIGER/L2020D-EH SIGER/L2525D-EH
	TGER120-D	TGEL120-D	1.20	2.5	0.05	
	TGER125-D	TGEL125-D	1.25	2.5	0.05	
	TGER140-D	TGEL140-D	1.40	2.5	0.05	
	TGER145-D	TGEL145-D	1.45	2.5	0.10	
	TGER150-D	TGEL150-D	1.50	3.0	0.10	
	TGER170-D	TGEL170-D	1.70	3.0	0.10	
	TGER185-D	TGEL185-D	1.85	3.0	0.10	
	TGER195-D	TGEL195-D	1.95	3.0	0.10	
	TGER200-D	TGEL200-D	2.00	3.6	0.10	
	TGER225-D	TGEL225-D	2.25	3.6	0.10	
	TGER230-D	TGEL230-D	2.30	3.6	0.20	
	TGER250-D	TGEL250-D	2.50	3.6	0.20	
	TGER275-D	TGEL275-D	2.75	3.6	0.20	
	TGER280-D	TGEL280-D	2.80	4.5	0.20	
	TGER300-D	TGEL300-D	3.00	4.5	0.20	
	TGER320-D	TGEL320-D	3.20	4.5	0.20	
	TGER350-D	TGEL350-D	3.50	4.5	0.20	
TGER400-D	TGEL400-D	4.00	4.5	0.20		
	TGER100-E	TGEL100-E	1.00	2.5	0.05	SIGER/L2525E-EH SIGER/L3232E-EH SIGER/L4032E-EH
	TGER150-E	TGEL150-E	1.50	3.0	0.10	
	TGER170-E	TGEL170-E	1.70	3.0	0.10	
	TGER185-E	TGEL185-E	1.85	3.0	0.10	
	TGER195-E	TGEL195-E	1.95	3.0	0.10	
	TGER200-E	TGEL200-E	2.00	3.2	0.10	
	TGER225-E	TGEL225-E	2.25	3.2	0.10	
	TGER230-E	TGEL230-E	2.30	3.2	0.20	
	TGER250-E	TGEL250-E	2.50	4.5	0.20	
	TGER275-E	TGEL275-E	2.75	4.5	0.20	
	TGER280-E	TGEL280-E	2.80	4.5	0.20	
	TGER300-E	TGEL300-E	3.00	4.5	0.20	
	TGER330-E	TGEL330-E	3.30	4.5	0.20	
	TGER350-E	TGEL350-E	3.50	5.5	0.20	
	TGER400-E	TGEL400-E	4.00	5.5	0.20	
	TGER430-E	TGEL430-E	4.30	5.5	0.20	
	TGER450-E	TGEL450-E	4.50	6.5	0.20	
	TGER460-E	TGEL460-E	4.60	6.5	0.20	
TGER500-E	TGEL500-E	5.00	6.5	0.20		



C, D, E Series Type

Right-hand Insert for Right-hand Toolholder  
Left-hand Insert for Left-hand Toolholder

TGE Series Inserts for Grooving

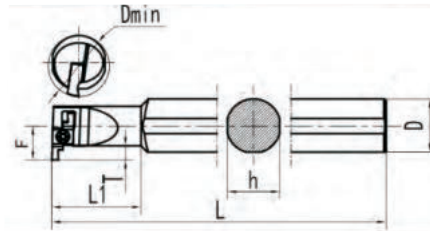
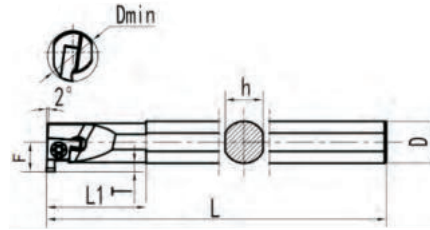
Model	A(mm)	L(mm)	T(mm)	d(mm)				
TGER**-A	6.69	6.5	2.58	2.5	● Good recommendation Material Recommended	Grade	TG1225	
TGER**-B	8.46	8.2	3.18	2.7		Steel	P ●	
TGER**-C	5.8	11.48	4.05	2.8		Stainless	M ●	
TGER**-D	6.8	16.44	5.05	3.4		Cast Iron	K ●	
TGER**-E	9.54	21.66	5.55	4.4				
Insert	Order No.		Dimensions(mm)			Toolholders		
	Right hand	Left hand	W	B	r			
	TGER100-050AR	TGEL100-050AR	1.0	1.5	0.50	SIGER/L0808A-EH SIGER/L0808A-WH		
	TGER150-075AR	TGEL150-075AR	1.5	1.5	0.75			
	TGER200-100AR	TGEL200-100AR	2.0	1.5	1.00			
	TGER100-050BR	TGEL100-050BR	1.0	2.2	0.50	SIGER/L1010B-EH SIGER/L1010B-WH SIGER/L1210B-EH		
	TGER150-075BR	TGEL150-075BR	1.5	2.2	0.75			
	TGER200-100BR	TGEL200-100BR	2.0	2.2	1.00			
	TGER250-125BR	TGEL250-125BR	2.5	2.2	1.25			
	TGER300-150BR	TGEL300-150BR	3.0	2.2	1.50			
	TGER100-050CR	TGEL100-050CR	1.0	2.5	0.50	SIGER/L1412C-EH SIGER/L1612C-EH SIGER/L1616C-EH		
	TGER150-075CR	TGEL150-075CR	1.5	2.5	0.75			
	TGER200-100CR	TGEL200-100CR	2.0	2.5	1.00			
	TGER250-125CR	TGEL250-125CR	2.5	2.5	1.25			
	TGER300-150CR	TGEL300-150CR	3.0	2.5	1.50			
	TGER150-075DR	TGEL150-075DR	1.5	3.2	0.75	SIGER/L2020D-EH SIGER/L2525D-EH		
	TGER200-100DR	TGEL200-100DR	2.0	3.2	1.00			
	TGER250-125DR	TGEL250-125DR	2.5	4.5	1.25			
	TGER300-150DR	TGEL300-150DR	3.0	4.5	1.50	SIGER/L2525E-EH SIGER/L3232E-EH SIGER/L4032E-EH		
	TGER250-125ER	TGEL250-125ER	2.5	5.5	1.25			
	TGER300-150ER	TGEL300-150ER	3.0	5.5	1.50			
	TGER350-175ER	TGEL350-175ER	3.5	5.5	1.75			
	TGER400-200ER	TGEL400-200ER	4.0	6.5	2.00			
	TGER450-225ER	TGEL450-225ER	4.5	6.5	2.25			
	TGER500-250ER	TGEL500-250ER	5.0	6.5	2.50			

Right-hand Insert for Right-hand Toolholder  
Left-hand Insert for Left-hand Toolholder

Insert  
External Toolholder  
Internal Toolholder  
Threading  
Parting, Grooving  
Miniature Tool

TGE Series Toolholders for Grooving

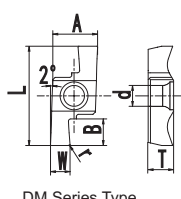
Insert  
 External Toolholder  
 Internal Toolholder  
 Threading  
 Parting, Grooving  
 Miniature Tool



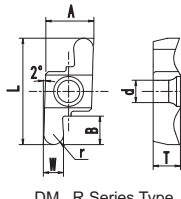
Order No.	Insert	Dimensions (mm)							Insert Screw	Torx Key
		Dmin	T	L1	D	F	h	L		
SIGER0808A-EH	TGER**A	8	1.5	20	8	4.8	7.2	100	L60M225	T6
SIGER0808A-WH	TGER**AR	8		20	8	4.8	7.2	100		
SIGER1010B-EH	TGER**B TGER**BR	10	2.2	25	10	6.2	9.0	125	L60M256	T8
SIGER1010B-WH		10		25	10	6.2	9.0	125		
SIGER1210B-EH		12		30	10	7.0	9.0	125		
SIGER1412C-EH	TGER**C TGER**CR	14	2.5	33	12	8.0	11.4	150	L60M256	T8
SIGER1612C-EH		16		20	12	8.5	11.4	150		
SIGER1616C-EH		16		36	16	9.0	15.0	160		
SIGER2020D-EH	TGER**D	20	4.5	40	20	12.1	19.0	180	L60M38	T10
SIGER2525D-EH	TGER**DR	25	4.2	45	25	12.3	24.0	200		
SIGER2525E-EH	TGER**E TGER**ER	25	6.5	45	25	15.6	24.0	200	L60M485	T15
SIGER3232E-EH		32		55	32	19.0	30.4	220		
SIGER4032E-EH		40		45	32	23.0	30.4	250		
SIGEL0808A-EH	TGEL**A	8	1.5	20	8	4.8	7.2	100	L60M225	T6
SIGEL0808A-WH	TGEL**AR	8		20	8	4.8	7.2	100		
SIGEL1010B-EH	TGEL**B TGEL**BR	10	2.2	25	10	6.2	9.0	125	L60M256	T8
SIGEL1010B-WH		10		25	10	6.2	9.0	125		
SIGEL1210B-EH		12		30	10	7.0	9.0	125		
SIGEL1412C-EH	TGEL**C TGEL**CR	14	2.5	33	12	8.0	11.4	150	L60M256	T8
SIGEL1612C-EH		16		20	12	8.5	11.4	150		
SIGEL1616C-EH		16		36	16	9.0	15.0	160		
SIGEL2020D-EH	TGEL**D	20	4.5	40	20	12.1	19.0	180	L60M38	T10
SIGEL2525D-EH	TGEL**DR	25	4.2	45	25	12.3	24.0	200		
SIGEL2525E-EH	TGEL**E TGEL**ER	25	6.5	45	25	15.6	24.0	200	L60M485	T15
SIGEL3232E-EH		32		55	32	19.0	30.4	220		
SIGEL4032E-EH		40		45	32	23.0	30.4	250		

### TGE Series Inserts for Face Grooving



Model	A(mm)	L(mm)	T (mm)	d(mm)		
TGER**-D	6.8	16.44	5.05	3.4	● Good recommendation	
					Material Recommended	Grade TG1225
						Steel <b>P</b> ●
						Stainless <b>M</b> ●
						Cast Iron <b>K</b> ●



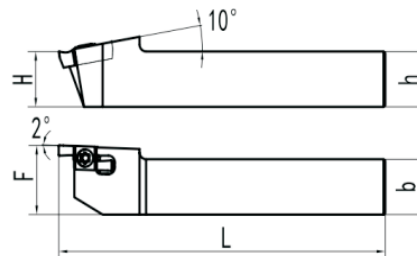
DM Series Type



DM...R Series Type

Insert	Order No.	External Dia. of the Groove	Dimensions (mm)			Toolholders
			W	B	r	
	TGER200DM10-D	>10mm	2.0	3.5	0.20	SEGEL1010H-D SEGEL1212H-D SEGEL1616K-D SEGEL2020K-D SEGEL2525M-D
	TGER250DM15-D	>15mm	2.5	4.5	0.20	
	TGER300DM15-D	>15mm	3.0	4.5	0.20	
	TGER400DM15-D	>15mm	4.0	4.5	0.20	
	TGER200DM10R100-D	>10mm	2.0	3.5	1.00	
	TGER250DM15R125-D	>15mm	2.5	4.5	1.25	
	TGER300DM15R150-D	>15mm	3.0	4.5	1.50	
	TGER400DM15R200-D	>15mm	4.0	4.5	2.00	

### TGE Series Toolholders for Face Grooving



Order No.	Insert Type	Dimensions(mm)					Insert Screw	Torx Key
		h	b	L	F	H		
SEGEL1010K-D	TGER**-D	10	10	125	10	10	L60M310	T10
SEGEL1212K-D		12	12	125	12	12		
SEGEL1616H-D		16	16	100	20	16		
SEGEL2020K-D		20	20	125	25	20		
SEGEL2525M-D		25	25	150	32	25		

Insert  
 External Toolholder  
 Internal Toolholder  
 Threading  
 Parting, Grooving  
 Miniature Tool

TGER/L...A(R),TGER/L...B(R) Series

ISO	Workpiece material	Vc(m/min)	Grooving			Turning		
			TGER/L050-200A	TGER/L080-200B	TGER/L225-200B	TGER/L050-200A	TGER/L080-200B	TGER/L225-200B
			TGER/L100-200AR	TGER/L100-200BR	TGER/L250-300BR	TGER/L100-200AR	TGER/L100-200BR	TGER/L250-300BR
			f(mm/min)			f(mm/min)		
P	Carbon Steel	50-80	0.01-0.03	0.02-0.04	0.02-0.04	0.01-0.03	0.02-0.04	0.02-0.04
	Alloy Steel	50-80	0.01-0.03	0.02-0.04	0.02-0.04	0.01-0.03	0.02-0.04	0.02-0.04
M	Stainless Steel	50-80	0.01-0.03	0.01-0.03	0.01-0.03	0.01-0.03	0.01-0.03	0.01-0.03
K	Cast Iron	50-80	0.01-0.03	0.02-0.04	0.02-0.04	0.01-0.03	0.02-0.04	0.02-0.04

TGER/L...C(R),TGER/L...D(R) ,TGER/L...E(R) Series

ISO	Workpiece material	Vc(m/min)	Grooving						
			TGER/L100-200C	TGER/L225-350C	TGER/L200-280D	TGER/L250-330E(R)	TGER/L300-400D	TGER/L350-430E(R)	TGER/L450-500E(R)
			TGER/L100-200CR	TGER/L250-300CR	TGER/L150-200DR	—	TGER/L300DR	—	—
			TGER/L100-145D	TGER/L150-195D	TGER/L200-230E(R)	—	—	—	—
			TGER/L100E(R)	TGER/L150-195E(R)	—	—	—	—	—
f(mm/min)									
P	Carbon Steel	60-140	0.03-0.08	0.03-0.08	0.04-0.09	0.04-0.09	0.05-0.12	0.05-0.12	0.05-0.12
	Alloy Steel	60-120	0.03-0.07	0.03-0.07	0.04-0.08	0.04-0.08	0.05-0.10	0.05-0.10	0.05-0.10
M	Stainless Steel	60-110	0.03-0.07	0.03-0.07	0.04-0.08	0.04-0.08	0.05-0.10	0.05-0.10	0.05-0.10
K	Cast Iron	60-100	0.03-0.08	0.03-0.08	0.04-0.09	0.04-0.09	0.05-0.12	0.05-0.12	0.05-0.12

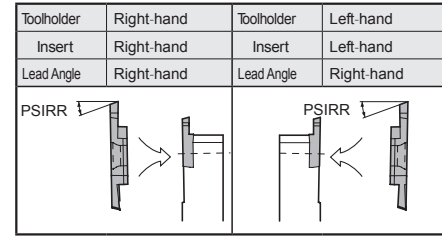
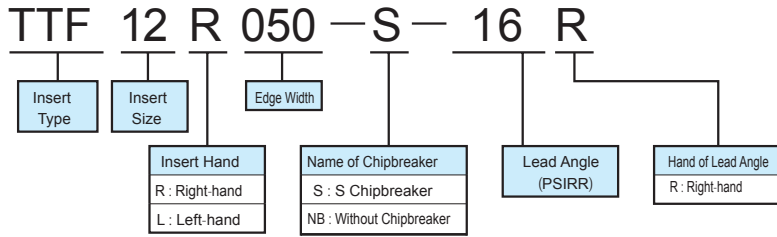
  

ISO	Workpiece material	Vc(m/min)	Turning						
			TGER/L100-200C	TGER/L225-350C	TGER/L200-280D	TGER/L250-330E(R)	TGER/L300-400D	TGER/L350-430E(R)	TGER/L450-500E(R)
			TGER/L100-200CR	TGER/L250-300CR	TGER/L150-200DR	—	TGER/L300DR	—	—
			TGER/L100-145D	TGER/L150-195D	TGER/L200-230E(R)	—	—	—	—
			TGER/L100E(R)	TGER/L150-195E(R)	—	—	—	—	—
f(mm/min)									
P	Carbon Steel	60-140	0.03-0.08	0.03-0.08	0.04-0.09	0.04-0.09	0.05-0.10	0.05-0.10	0.05-0.10
	Alloy Steel	60-120	0.03-0.10	0.03-0.10	0.04-0.08	0.04-0.08	0.05-0.10	0.05-0.10	0.05-0.10
M	Stainless Steel	60-110	0.03-0.10	0.03-0.10	0.04-0.08	0.04-0.08	0.05-0.10	0.05-0.10	0.05-0.10
K	Cast Iron	60-100	0.03-0.08	0.03-0.08	0.04-0.09	0.04-0.09	0.05-0.10	0.05-0.10	0.05-0.10

TGER...DM Series

ISO	Workpiece Material	Vc(m/min)	Grooving			Turning		
			TGER200DM	TGER250DM	TGER300-400DM	TGER200DM	TGER250DM	TGER300-400DM
			f(mm/min)			f(mm/min)		
P	Carbon Steel	60-160	0.03-0.10	0.04-0.12	0.05-0.12	0.03-0.10	0.04-0.10	0.05-0.10
	Alloy Steel	60-140	0.03-0.10	0.04-0.12	0.05-0.12	0.03-0.10	0.04-0.10	0.05-0.10
M	Stainless Steel	60-110	0.03-0.08	0.04-0.08	0.05-0.10	0.03-0.10	0.04-0.10	0.05-0.10
K	Cast Iron	60-100	0.03-0.10	0.04-0.12	0.05-0.12	0.03-0.10	0.04-0.10	0.05-0.10

◆ Inserts Identification System



**TTF Series Inserts for Parting-off**

Model	IC(mm)	T (mm)	d (mm)	Material Recommended	Grade	TG1225	
						P	M
TTF12**	8.7	3	5		Steel	P	●
TTF16**	9.5	4	5		Stainless	M	●
					Cast Iron	K	●

● Good recommendation

Insert	Order No.		Dimensions (mm)				Toolholders
	Right hand	Left hand	W	$\alpha$	Dmax	r	
	TTF12R050-S	TTF12L050-S	0.5	0	5	0.05	KTKFR/L1010K-12 KTKFR/L1212K-12 KTKFR/L1212M-12 KTKFR/L1616M-12 KTKFR/L2020M-12 KTKFR/L2525M-12
	TTF12R070-S	TTF12L070-S	0.7	0	8	0.05	
	TTF12R100-S	TTF12L100-S	1.0	0	12	0.08	
	TTF12R150-S	TTF12L150-S	1.5	0	12	0.08	
	TTF12R200-S	TTF12L200-S	2.0	0	12	0.08	
	TTF12R050-S-16R	TTF12L050-S-16R	0.5	16	5	0.05	
	TTF12R070-S-16R	TTF12L070-S-16R	0.7	16	8	0.05	
	TTF12R100-S-16R	TTF12L100-S-16R	1.0	16	12	0.08	
	TTF12R150-S-16R	TTF12L150-S-16R	1.5	16	12	0.08	
TTF12R200-S-16R	TTF12L200-S-16R	2.0	16	12	0.08		
	TTF12R050-NB	TTF12L050-NB	0.5	0	5	0.05	KTKFR/L1010K-16 KTKFR/L1212K-16 KTKFR/L1212M-16 KTKFR/L1616M-16 KTKFR/L2020M-16 KTKFR/L2525M-16
	TTF12R070-NB	TTF12L070-NB	0.7	0	8	0.05	
	TTF12R100-NB	TTF12L100-NB	1.0	0	12	0.08	
	TTF12R150-NB	TTF12L150-NB	1.5	0	12	0.08	
	TTF12R200-NB	TTF12L200-NB	2.0	0	12	0.08	
	TTF12R050-NB-20R	TTF12L050-NB-20R	0.5	20	5	0.05	
	TTF12R070-NB-20R	TTF12L070-NB-20R	0.7	20	8	0.05	
	TTF12R100-NB-20R	TFK12L100-NB-20R	1.0	20	12	0.08	
	TTF12R150-NB-20R	TTF12L150-NB-20R	1.5	20	12	0.08	
TTF12R200-NB-20R	TTF12L200-NB-20R	2.0	20	12	0.08		
	TTF16R100-S	TTF16L100-S	1.0	0	16	0.08	KTKFR/L1010K-16 KTKFR/L1212K-16 KTKFR/L1212M-16 KTKFR/L1616M-16 KTKFR/L2020M-16 KTKFR/L2525M-16
	TTF16R150-S	TTF16L150-S	1.5	0	16	0.10	
	TTF16R200-S	TTF16L200-S	2.0	0	16	0.10	
	TTF16R250-S	TTF16L250-S	2.5	0	16	0.10	
	TTF16R300-S	TTF16L300-S	3.0	0	16	0.15	
	TTF16R100-S-16R	TTF16L100-S-16R	1.0	16	16	0.08	
	TTF16R150-S-16R	TTF16L150-S-16R	1.5	16	16	0.10	
	TTF16R200-S-16R	TTF16L200-S-16R	2.0	16	16	0.10	
	TTF16R250-S-16R	TTF16L250-S-16R	2.5	16	16	0.10	
TTF16R300-S-16R	TTF16L300-S-16R	3.0	16	16	0.15		

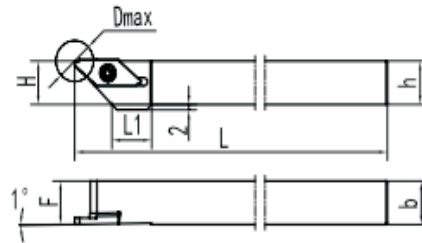
Right-hand Insert for Right-hand Toolholder  
Left-hand Insert for Left-hand Toolholder

Insert  
External Toolholder  
Internal Toolholder  
Threading  
Parting, Grooving  
Miniature Tool

Model	IC (mm)	T (mm)	d (mm)	● Good recommendation			
				Material Recommended	Grade	TG1225	
TTF12**	8.7	3	5	Material Recommended	Steel	P ●	
TTF16**	9.5	4	5		Stainless	M ●	
					Cast Iron	K ●	
Insert	Order No.		Dimensions (mm)				Toolholders
	Right hand	Left hand	W	$\alpha$	Dmax	r	
	TTF16R100-NB	TTF16L100-NB	1.0	0	16	0.08	KTKFR/L1010K-16 KTKFR/L1212K-16 KTKFR/L1212M-16 KTKFR/L1616M-16 KTKFR/L2020M-16 KTKFR/L2525M-16
	TTF16R150-NB	TTF16L150-NB	1.5	0	16	0.10	
	TTF16R200-NB	TTF16L200-NB	2.0	0	16	0.10	
	TTF16R250-NB	TTF16L250-NB	2.5	0	16	0.10	
	TTF16R300-NB	TTF16L300-NB	3.0	0	16	0.15	
	TTF16R100-NB-20R	TTF16L100-NB-20R	1.0	20	16	0.08	
	TTF16R150-NB-20R	TTF16L150-NB-20R	1.5	20	16	0.10	
	TTF16R200-NB-20R	TTF16L200-NB-20R	2.0	20	16	0.10	
	TTF16R250-NB-20R	TTF16L250-NB-20R	2.5	20	16	0.10	
	TTF16R300-NB-20R	TTF16L300-NB-20R	3.0	20	16	0.15	

Right-hand Insert for Right-hand Toolholder  
Left-hand Insert for Left-hand Toolholder

### TTF Series Toolholders for Parting-off



Order No.	Insert	Dimensions (mm)							Insert Screw	Torx Key
		h	b	H	F	L	Dmax	L1		
KTKFR1010K-12	TTF12R**	10	10	10	10	125	12	15	L60M410	T15
KTKFR1212K-12		12	12	12	12					
KTKFR1212M-12		12	12	12	12					
KTKFR1616M-12		16	16	16	16					
KTKFR2020M-12		20	20	20	20					
KTKFR2525M-12		25	25	25	25					
KTKFR1010K-16	TTF16R**	10	10	10	10	125	16	20	L60M410	T15
KTKFR1212K-16		12	12	12	12					
KTKFR1212M-16		12	12	12	12					
KTKFR1616M-16		16	16	16	16					
KTKFR2020M-16		20	20	20	20					
KTKFR2525M-16		25	25	25	25					
KTKFL1010K-12	TTF12L**	10	10	10	10	125	12	15	L60M410	T15
KTKFL1212K-12		12	12	12	12					
KTKFL1212M-12		12	12	12	12					
KTKFL1616M-12		16	16	16	16					
KTKFL2020M-12		20	20	20	20					
KTKFL2525M-12		25	25	25	25					
KTKFL1010K-16	TTF16L**	10	10	10	10	125	16	20	L60M410	T15
KTKFL1212K-16		12	12	12	12					
KTKFL1212M-16		12	12	12	12					
KTKFL1616M-16		16	16	16	16					
KTKFL2020M-16		20	20	20	20					
KTKFL2525M-16		25	25	25	25					

TTF Series Standard Cutting Conditions

ISO	Workpiece Material	Vc(m/min)	TTF12					TTF16				
			Edge Width (mm)					Edge Width (mm)				
			0.5	0.7	1.0	1.5	2.0	1.0	1.5	2.0	2.5	3.0
			f(mm/min)					f(mm/min)				
P	Carbon Steel	70-150	0.01-0.02	0.01-0.03	0.01-0.04	0.01-0.04	0.01-0.04	0.01-0.06	0.02-0.07	0.02-0.07	0.02-0.07	0.02-0.08
	Alloy Steel	70-150	0.01-0.02	0.01-0.03	0.01-0.04	0.01-0.04	0.01-0.04	0.01-0.06	0.02-0.07	0.02-0.07	0.02-0.07	0.02-0.08
M	Stainless Steel	60-120	0.01-0.02	0.01-0.02	0.01-0.02	0.01-0.02	0.01-0.02	0.01-0.03	0.01-0.04	0.01-0.04	0.01-0.04	0.01-0.05
K	Cast Iron	50-100	0.01-0.03	0.01-0.04	0.01-0.05	0.01-0.05	0.01-0.05	0.01-0.07	0.02-0.08	0.02-0.08	0.02-0.08	0.02-0.08

Insert
External Toolholder
Internal Toolholder
Threading
Parting, Grooving
Miniature Tool

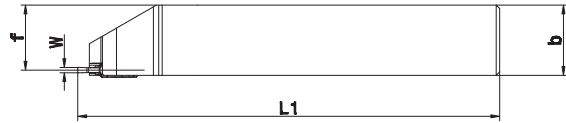
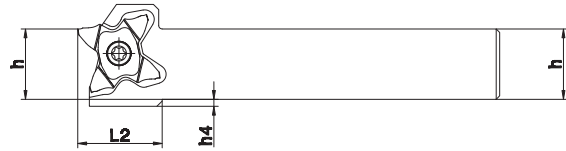


TTS27 Series for Inserts

● Good recommendation			
Material Recommended	Grade		TG1230
	Steel		<b>P</b> ●
	Stainless		<b>M</b> ●
Cast Iron	<b>K</b> ●		

Insert	Order No.	Dimensions (mm)														Toolholder
		W	r	Tmax	Dmax											
					T≤3.0	T≤3.5	T≤4.0	T≤4.5	T≤5.0	T≤5.5	T≤5.7	T≤6.0	T≤6.2	T≤6.4		
	TTS27-1.00-0.10	1.0	0.1	3.5	∞	600	-	-	-	-	-	-	-	-	-	TQHR...-27
	TTS27-1.50-0.20	1.5	0.2	5.7	∞	600	280	180	130	50	35	-	-	-		
	TTS27-2.00-0.20	2.0	0.2	6.4	∞	600	280	180	130	105	85	60	50	30		
	TTS27-2.50-0.20	2.5	0.2	5.7	∞	600	280	180	130	50	35	-	-	-		
	TTS27-3.00-0.20	3.0	0.2	6.4	∞	600	280	180	135	105	95	85	78	55		

TTS27 Series for Toolholders



Order No.	Insert	Dimensions (mm)							Insert Screw	Torx Key
		h	b	W	f	l1	l2	h4		
TQHR10-27	TTS27-**	10	10	0.5≤W≤5.3	8.5	120	24	9	BFTX5012	TRX20
TQHR12-27		12	12	0.5≤W≤5.3	10.5	120	24	8		
TQHR16-27		16	16	0.5≤W≤5.3	14.5	120	24	6		
TQHR20-27		20	20	0.5≤W≤5.3	18.5	120	24	2		
TQHR25-27		25	25	0.5≤W≤5.3	23.5	135	-	-		

TTS27 Series Standard Cutting Conditions

ISO	Workpiece Material	Vc(m/min)	
P	Non-Alloy steel	<0.25%C	110-200
		0.25%C- 0.55%C	70-180
		≥ 0.55%C	60-180
	Low Alloy Steel	80-180	
	High Alloy Steel	60-140	
M	Martensitic Stainless Steel	120-180	
	Austenitic Stainless Steel	70-140	
K	Grey Cast Iron	70-180	
	Ductile Cast Iron	60-130	
N	Cast Aluminum Alloy	200-400	
	Aluminum Alloy	300-700	
	Copper Alloy	80-300	
S	Heat-resistance Alloy	10-50	
	Titanium Alloy	25-60	
H	Hardened Alloy	45-50 HRC	40-50
		51-55 HRC	30-50