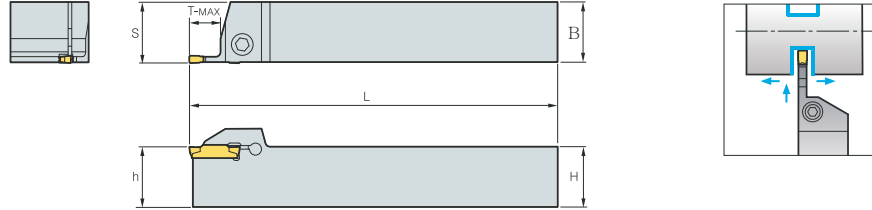


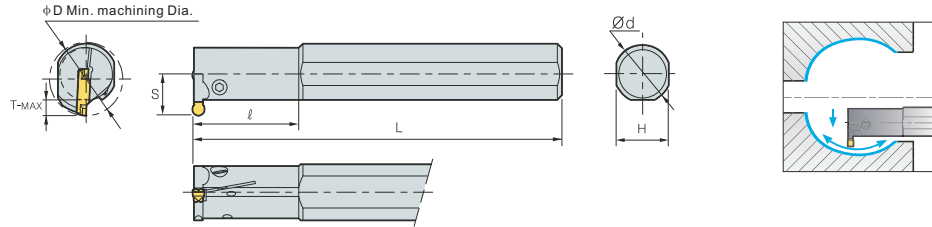
MGEHR/L



(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	TKD30 .MT TKD30 .MR	L3	BHA0410
MGEHR/L2020-2.5	2.5	16	20	20	125	21	20			
MGEHR/L2525-2.5	2.5	16	25	25	150	26	25	TKD40 .MT TKD40 .MR	L5	BHA0410
MGEHR/L1212-3.0	3	16	12	12	100	13	12			
MGEHR/L1616-3.0	3	18	16	16	100	17	16	TKD50 .MT TKD50 .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	TKD60 .MT TKD60 .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	TKD50 .MT TKD50 .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	TKD60 .MT TKD60 .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	TKD60 .MT TKD60 .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



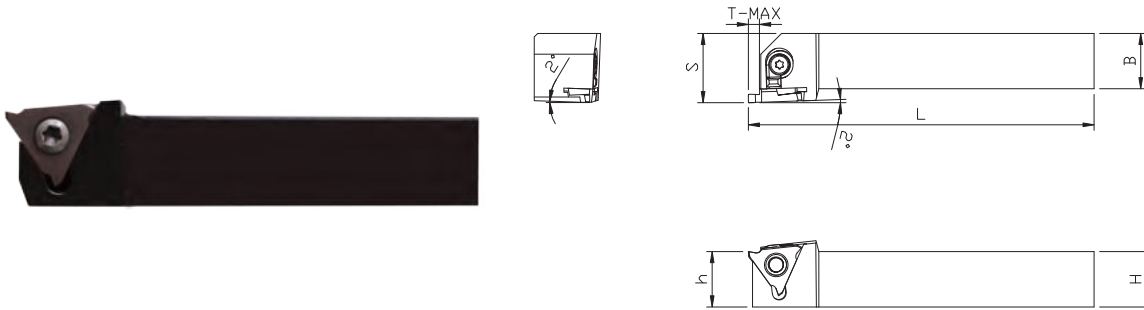
Order No.	Dimension (mm)								Insert	Wrench	Screw
	W	T-MAX	D	d	L	S	H	I			
MGIVR/L2016-2.0	2	4.5	20	16	125	12.4	15	35	TKD20 .MT TKD20 .MR	L3	BH0410
MGIVR/L2520-2.0	2	4.5	25	20	150	14	18	45			BHA0512
MGIVR/L2925-2.0	2	4.5	29	25	200	17.2	23	45	TKD25 .MT TKD25 .MR	L4	BHA0516
MGIVR/L2016-2.5	2.5	4.5	20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

### 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

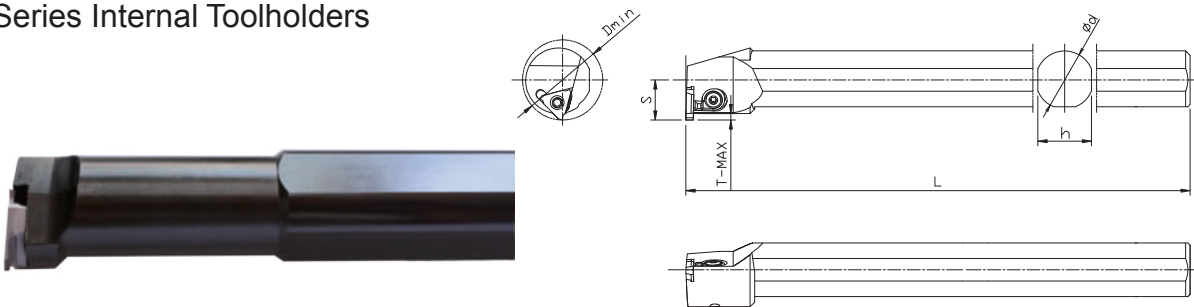
Insert  
External Toolholder  
Internal Toolholder  
Threading  
Parting, Grooving  
Miniature Tool

### GB Series External Toolholders



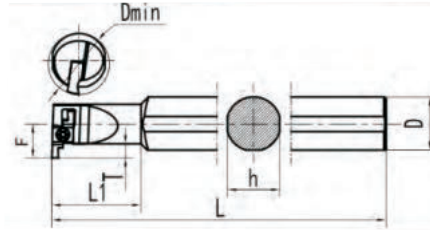
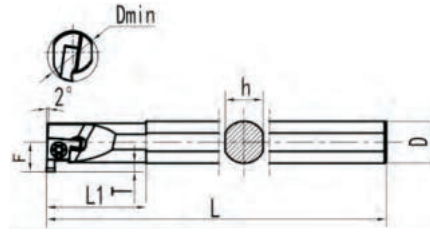
Order No.	Dimension (mm)						Insert	Wrench 	Screw 
	T-MAX	H	B	L	S	h			
GBER2020K3	2.5	20	20	125	25	20	GB3...	TT15P	SI60M 035120
GBER2525M3	2.5	25	25	150	30	25			
GBER2020K4-15	4.0	20	20	125	25	20	GB4/GBR4... (1.0 ≤ W < 2.5)	TT20P	SI60M 050120
GBER2525M4-15	4.0	25	25	150	30	25			
GBER2020K4-25	4.5	20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

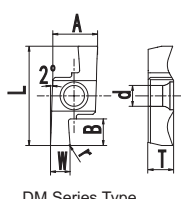
TGE Series Toolholders for Grooving



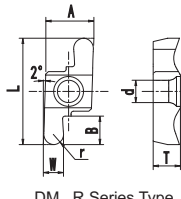
Order No.	Insert	Dimensions (mm)							Insert Screw	Torx Key
		Dmin	T	L1	D	F	h	L		
SIGER0808A-EH	TGER**A	8	1.5	20	8	4.8	7.2	100	L60M225	T6
SIGER0808A-WH	TGER**AR	8		20	8	4.8	7.2	100		
SIGER1010B-EH	TGER**B TGER**BR	10	2.2	25	10	6.2	9.0	125	L60M256	T8
SIGER1010B-WH		10		25	10	6.2	9.0	125		
SIGER1210B-EH		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> ●



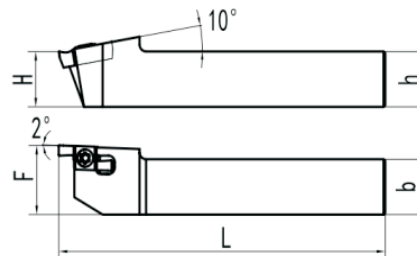
DM Series Type



DM...R Series Type

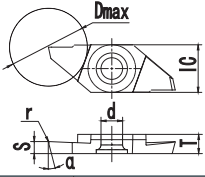
Insert	Order No.	External Dia. of the Groove	Dimensions (mm)			Toolholders
			W	B	r	
	TGER200DM10-D	>10mm	2.0	3.5	0.20	SEGEL1010H-D SEGEL1212H-D SEGEL1616K-D SEGEL2020K-D SEGEL2525M-D
	TGER250DM15-D	>15mm	2.5	4.5	0.20	
	TGER300DM15-D	>15mm	3.0	4.5	0.20	
	TGER400DM15-D	>15mm	4.0	4.5	0.20	
	TGER200DM10R100-D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

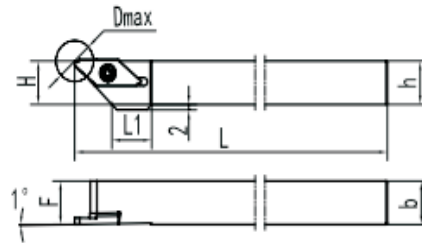
Model	IC (mm)	T (mm)	d (mm)	● Good recommendation			
				Material Recommended	Grade	TG1225	
TTF12**	8.7	3	5		Steel	P ●	
TTF16**	9.5	4	5		Stainless	M ●	
					Cast Iron	K ●	

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

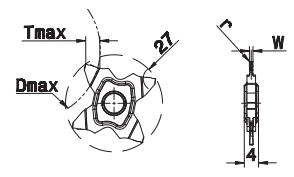


Order No.	Insert	Dimensions (mm)							Insert Screw	Torx Key
		h	b	H	F	L	Dmax	L1		
KTKFR1010K-12	TTF12R**	10	10	10	10	125	12	15	L60M410	T15
KTKFR1212K-12		12	12	12	12					
KTKFR1212M-12		12	12	12	12					
KTKFR1616M-12		16	16	16	16	150		—		
KTKFR2020M-12		20	20	20	20					
KTKFR2525M-12		25	25	25	25					
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	150		—		
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	150		—		
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	150		—		
KTKFL2020M-16		20	20	20	20					
KTKFL2525M-16		25	25	25	25					

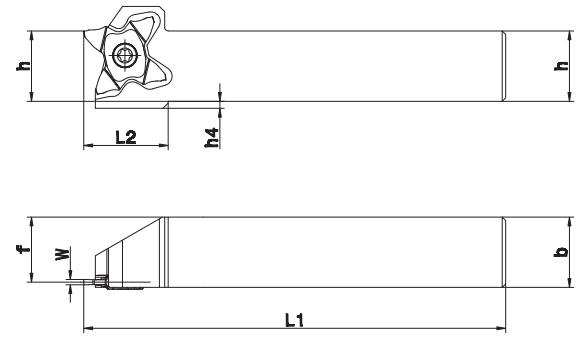
TTS27 Series for Inserts

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		

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



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