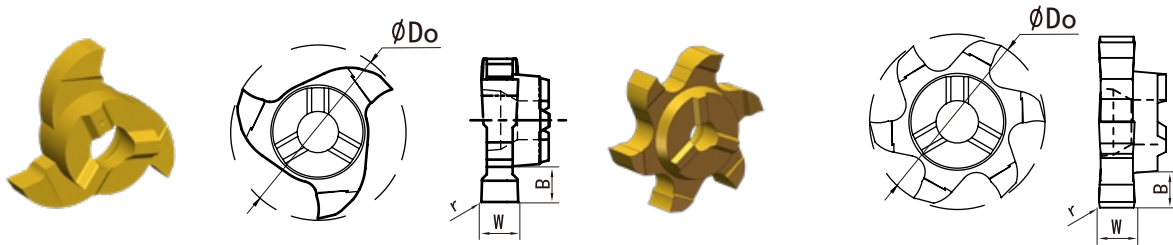


**GROOVING**

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**INSERTS**

### Milling Groove Inserts

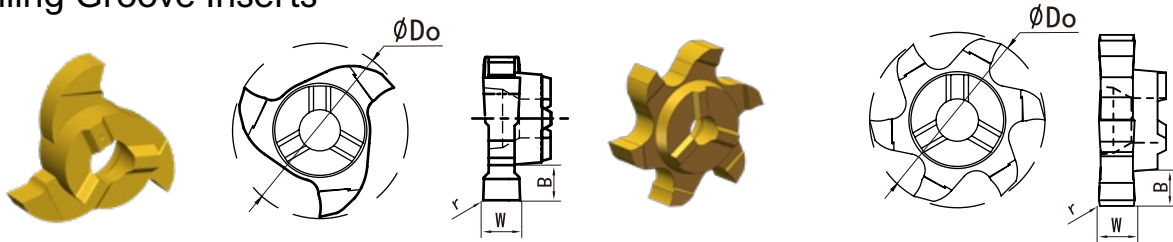


INSERTS

Model	Flutes	Dia.	Width	Depth	Radius	Material		Suitable to Toolholder
						P M K		
						BP1825	BM1525	
FS3-09D18-100	3	17.7	1.0	4.2	0.1	●	○	FS18-**
FS3-09D18-120			1.2			●	○	
FS3-09D18-150			1.5			●	○	
FS3-09D18-175			1.75			●	○	
FS3-09D18-180			1.8			●	○	
FS3-09D18-200			2.0			●	○	
FS3-09D18-230			2.3		0.2	●	○	
FS3-09D18-250			2.5			●	○	
FS3-09D18-280			2.8			●	○	
FS3-09D18-300			3.0			●	○	
FS3-09D18-330			3.3			●	○	
FS3-09D18-350			3.5			●	○	
FS3-09D18-400			4.0			●	○	
FS3-11D22-150	3	21.7	1.5	4.6	0.2	●	○	FS22-**
FS3-11D22-175			1.75			●	○	
FS3-11D22-180			1.8			●	○	
FS3-11D22-200			2.0			●	○	
FS3-11D22-230			2.3			●	○	
FS3-11D22-250			2.5			●	○	
FS3-11D22-280			2.8			●	○	
FS3-11D22-300			3.0			●	○	
FS3-11D22-330			3.3			●	○	
FS3-11D22-350			3.5			●	○	
FS3-11D22-400			4.0			●	○	
FS3-11D22-450			4.5			●	○	
FS3-11D22-500			2.0			●	○	
FS6-11D22-150	6	21.7	1.5	4.6	0.2	●	○	FS22-**
FS6-11D22-175			1.75			●	○	
FS6-11D22-180			1.8			●	○	
FS6-11D22-200			2.0			●	○	
FS6-11D22-230			2.3			●	○	
FS6-11D22-250			2.5			●	○	
FS6-11D22-280			2.8			●	○	
FS6-11D22-300			3.0			●	○	
FS6-11D22-330			3.3			●	○	
FS6-11D22-350			3.5			●	○	
FS6-11D22-400			4.0			●	○	
FS6-11D22-450			4.5			●	○	
FS6-11D22-500			2.0			●	○	

● Stock ○ Extraordinary stock

### Milling Groove Inserts

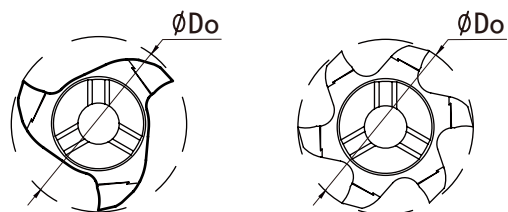
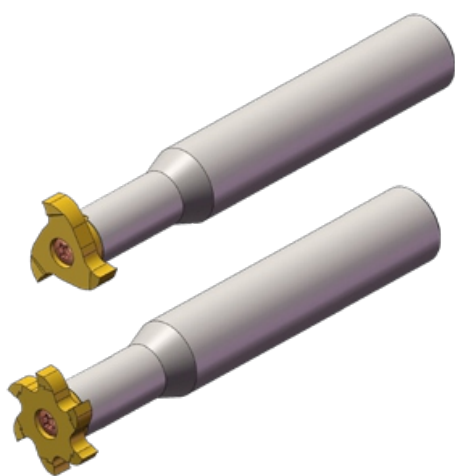


Model	Flutes	Dia.	Width	Depth	Radius	Material		Suitable to Toolholder
						P M K		
						D0	W	
FS3-14D28-200	3	27.7	2.0	6.3	0.2	●	○	FS28-**
FS3-14D28-230			2.3			●	○	
FS3-14D28-250			2.5			●	○	
FS3-14D28-280			2.8			●	○	
FS3-14D28-300			3.0			●	○	
FS3-14D28-330			3.3			●	○	
FS3-14D28-350			3.5			●	○	
FS3-14D28-400			4.0			●	○	
FS3-14D28-450			4.5			●	○	
FS3-14D28-500			5.0			●	○	
FS3-14D28-600			6.0			●	○	
FS6-14D28-200	6	27.7	2.0	6.3	0.2	●	○	FS28-**
FS6-14D28-230			2.3			●	○	
FS6-14D28-250			2.5			●	○	
FS6-14D28-280			2.8			●	○	
FS6-14D28-300			3.0			●	○	
FS6-14D28-330			3.3			●	○	
FS6-14D28-350			3.5			●	○	
FS6-14D28-400			4.0			●	○	
FS6-14D28-450			4.5			●	○	
FS6-14D28-500			5.0			●	○	
FS6-14D28-600			6.0			●	○	
FS3-14D32-200	3	31.7	2.0	8.2	0.2	○	○	FS32-**
FS3-14D32-230			2.3			○	○	
FS3-14D32-250			2.5			○	○	
FS3-14D32-280			2.8			○	○	
FS3-14D32-300			3.0			○	○	
FS3-14D32-330			3.3			○	○	
FS3-14D32-350			3.5			○	○	
FS3-14D32-400			4.0			○	○	
FS3-14D32-450			4.5			○	○	
FS3-14D32-500			5.0			○	○	
FS3-14D32-600			6.0			○	○	
FS6-14D32-200	6	31.7	2.0	8.2	0.2	○	○	FS32-**
FS6-14D32-230			2.3			○	○	
FS6-14D32-250			2.5			○	○	
FS6-14D32-280			2.8			○	○	
FS6-14D32-300			3.0			○	○	
FS6-14D32-330			3.3			○	○	
FS6-14D32-350			3.5			○	○	
FS6-14D32-400			4.0			○	○	
FS6-14D32-450			4.5			○	○	
FS6-14D32-500			5.0			○	○	
FS6-14D32-600			6.0			○	○	

● Stock ○ Extraordinary stock

INSERTS

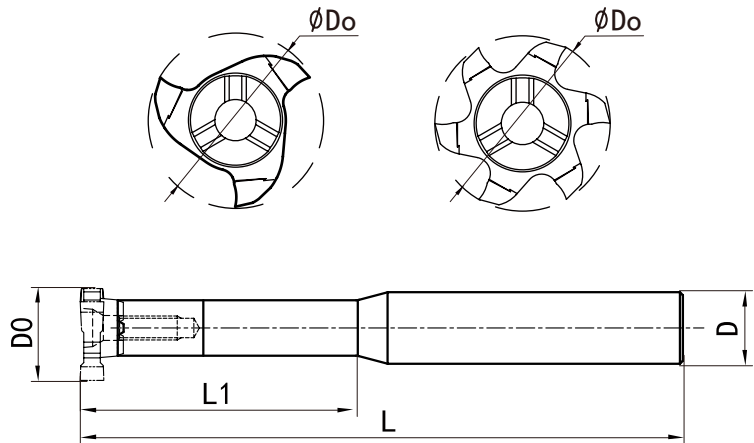
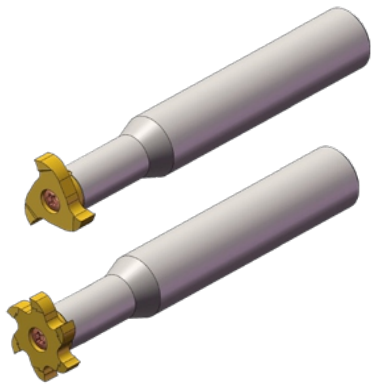
# Milling Groove Toolholder



INSERTS

Model	Insert	Dimensions (mm)				Screw	Torx key
		Do	D	L1	L		
FS18-12H09	FS3-09D18-***	17.7	12	25	100	L60M4*12*D5.7	T-15
FS18-16K09			16	25	125		
FS18-20M09			20	25	150		
FS22-12J11	FS3-11D22-*** FS6-11D22-***	21.7	12	30	110	L60M5*14*D6.6	T-20
FS22-16K11			16	30	125		
FS22-20M11			20	30	150		
FS28-16K14	FS3-14D28-*** FS6-14D28-***	27.7	16	38	125	L60M5*14*D6.6	T-20
FS28-20M14			20	38	150		
FS28-25P14			25	38	170		
FS32-16K14	FS3-14D32-*** FS6-14D32-***	31.7	16	38	125	L60M5*14*D6.6	T-20
FS32-20M14			20	38	150		
FS32-25P14			25	38	170		

# Milling Groove Toolholder



Model	Insert	Dimensions (mm)				Screw	Torx key
		Do	D	L1	L		
FS18-12F09-WHC	FS3-09D18-***	17.7	12	32	85	L60M4*12*D5.7	T-15
FS18-12H09-WHC			12	45	100		
FS18-12K09-WHC			12	64	120		
FS18-16G09-WHC			16	32	94		
FS18-16J09-WHC			16	45	110		
FS18-16K09-WHC			16	64	125		
FS22-12H11-WHC	FS3-11D22-*** FS6-11D22-***	21.7	12	42	100	L60M5*14*D6.6	T-20
FS22-12K11-WHC			12	60	120		
FS22-16H11-WHC			16	42	100		
FS22-16K11-WHC			16	60	125		
FS22-16M11-WHC			16	85	150		
FS28-16H14-WHC	FS3-14D28-*** FS6-14D28-***	27.7	16	42	100	L60M5*14*D6.6	T-20
FS28-16K14-WHC			16	60	130		
FS28-16M14-WHC			16	85	160		
FS28-20H14-WHC			20	42	100		
FS28-20K14-WHC			20	60	130		
FS28-20M14-WHC			20	85	160		
FS32-16H14-WHC	FS3-14D32-*** FS6-14D32-***	31.7	16	42	100	L60M5*14*D6.6	T-20
FS32-16K14-WHC			16	60	130		
FS32-16M14-WHC			16	85	160		
FS32-20H14-WHC			20	42	100		
FS32-20K14-WHC			20	60	130		
FS32-20M14-WHC			20	85	160		

INSERTS

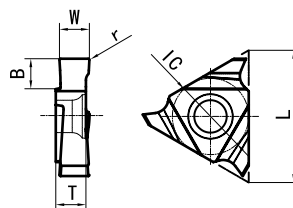
## Milling Groove Inserts



TGF32



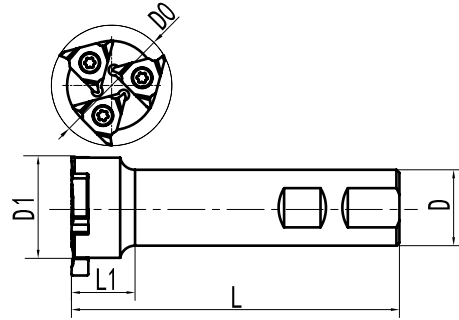
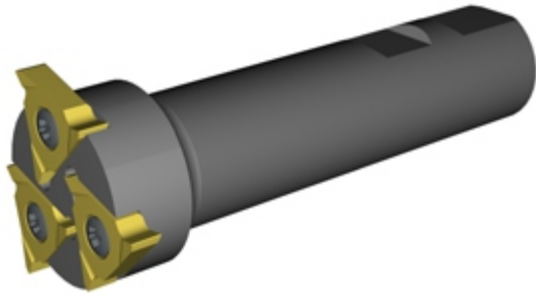
TT43



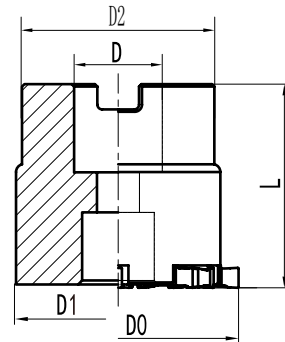
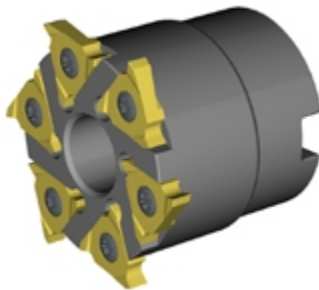
Model	Width	Depth	Radius	Material			Dimensions (mm)			
				PMK	PMK	N	L	IC	d	T
	W	B	r	BM1820	BM1525	BN1020				
TT43L200	2.0	4.8	0.2	●	●	○	22	12.7	5.45	5
TT43L250	2.5	4.8		●	●	○				
TT43L300	3.0	4.8		●	●	○				
TT43L350	3.5	4.8		●	●	○				
TT43L400	4.0	4.8		●	●	○				
TT43L500	5.0	4.8		●	●	○				
TT43L200-R1.0	2.0	4.8	1.0	●	●	○	22	12.7	5.45	5
TT43L250-R1.25	2.5	4.8	1.25	●	●	○				
TT43L300-R1.5	3.0	4.8	1.5	●	●	○				
TT43L350-R1.75	3.5	4.8	1.75	●	●	○				
TT43L400-R2.0	4.0	4.8	2.0	●	●	○				

● Stock ○ Extraordinary stock

## Milling Groove Toolholder



Model	Insert	No. of Insert	Dimensions (mm)					Screw	Torx key
			D0	L1	L	D	D1		
SMT44-25JT43-3	TT43L**	3	44	-	110	25	33	L60M5*11*D6.6	T20



Model	Insert	No. of Insert	Dimensions (mm)					Screw	Torx key
			D0	L	D	D1	D2		
SMT63-22CT43-6	TT43L**	6	63	50	22	51	48	L60M5*11*D6.6	T20
SMT80-27CT43-8	TT43L**	8	80	50	27	68	60	L60M5*11*D6.6	T20

INSERTS

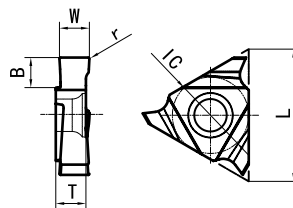
## Milling Groove Inserts



TGF32



TT43

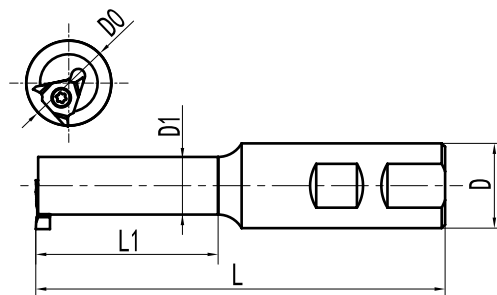
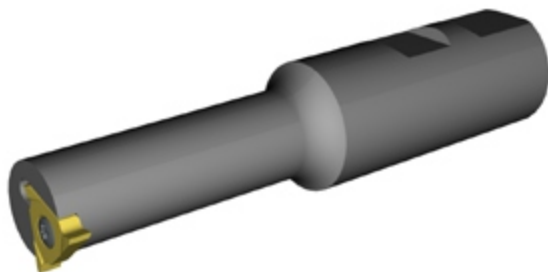


Model	Width W	Depth B	Radius r	Material			Dimensions (mm)			
				P M K		N	L	IC	d	T
				BM1820	BM1525	BN1020				
TGF32L100	Reference TGF32 series			●	●	○	16	9.525	4.4	3.18
TGF32L150				●	●	○				
TGF32L200				●	●	○				
TGF32L250				●	●	○				
TGF32L300				●	●	○				
TGF32L320				●	●	○				

● Stock ○ Extraordinary stock

INSERTS

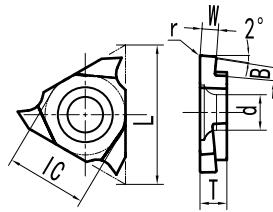
## Milling Groove Toolholder



Model	Insert	No. of Insert	Dimensions (mm)					Screw	Torx key
			D0	L1	L	D	D1		
SMT25-25KT32-1	TGF32L**	1	25	56	120	25	19	L60M4*10*D5.7	T15
SMT32-32MT32-1		1	32	77	150	32	25	L60M4*10*D5.7	T15



Grooving Inserts

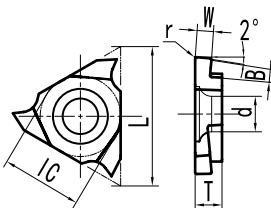


Right	Left	Width	Depth	Radius	Material				Dimensions (mm)			
					P M K		N					
					W	B	r	BM1525		BN1020		L
TGF32R030	TGF32L030	0.30	0.8	0.03	●	●	○	○	16	9.525	3.18	4.4
TGF32R033	TGF32L033	0.33	0.8	0.03	●	●	○	○				
TGF32R045	TGF32L045	0.45	0.8	0.03	●	●	○	○				
TGF32R050	TGF32L050	0.50	1.0	0.05	●	●	○	○				
TGF32R060	TGF32L060	0.60	1.0	0.05	●	●	○	○				
TGF32R065	TGF32L065	0.65	1.4	0.05	●	●	○	○				
TGF32R070	TGF32L070	0.70	1.4	0.05	●	●	○	○				
TGF32R075	TGF32L075	0.75	2.2	0.10	●	●	○	○				
TGF32R080	TGF32L080	0.80	2.2	0.10	●	●	○	○				
TGF32R085	TGF32L085	0.85	2.2	0.10	●	●	○	○				
TGF32R090	TGF32L090	0.90	2.2	0.10	●	●	○	○				
TGF32R095	TGF32L095	0.95	2.2	0.10	●	●	○	○				
TGF32R100	TGF32L100	1.00	2.2	0.10	●	●	○	○				
TGF32R110	TGF32L110	1.10	2.2	0.10	●	●	○	○				
TGF32R115	TGF32L115	1.15	2.2	0.10	●	●	○	○				
TGF32R120	TGF32L120	1.20	2.2	0.10	●	●	○	○				
TGF32R125	TGF32L125	1.25	2.2	0.10	●	●	○	○				
TGF32R130	TGF32L130	1.30	2.2	0.10	●	●	○	○				
TGF32R135	TGF32L135	1.35	2.2	0.10	●	●	○	○				
TGF32R140	TGF32L140	1.40	2.2	0.10	●	●	○	○				
TGF32R145	TGF32L145	1.45	2.2	0.10	●	●	○	○				
TGF32R150	TGF32L150	1.50	2.4	0.10	●	●	○	○				
TGF32R155	TGF32L155	1.55	2.4	0.10	●	●	○	○				
TGF32R160	TGF32L160	1.60	2.4	0.10	●	●	○	○				
TGF32R165	TGF32L165	1.65	2.4	0.10	●	●	○	○				
TGF32R170	TGF32L170	1.70	2.4	0.10	●	●	○	○				
TGF32R175	TGF32L175	1.75	2.4	0.10	●	●	○	○				
TGF32R180	TGF32L180	1.80	2.4	0.10	●	●	○	○				
TGF32R185	TGF32L185	1.85	2.4	0.10	●	●	○	○				
TGF32R190	TGF32L190	1.90	2.4	0.10	●	●	○	○				
TGF32R200	TGF32L200	2.00	3.0	0.15	●	●	○	○				
TGF32R210	TGF32L210	2.10	3.0	0.15	●	●	○	○				
TGF32R215	TGF32L215	2.15	3.0	0.15	●	●	○	○				
TGF32R220	TGF32L220	2.20	3.0	0.15	●	●	○	○				
TGF32R225	TGF32L225	2.25	3.0	0.15	●	●	○	○				
TGF32R230	TGF32L230	2.30	3.0	0.15	●	●	○	○				
TGF32R240	TGF32L240	2.40	3.0	0.15	●	●	○	○				
TGF32R250	TGF32L250	2.50	3.0	0.15	●	●	○	○				
TGF32R260	TGF32L260	2.60	3.0	0.15	●	●	○	○				

● Stock ○ Extraordinary stock

INSERTS

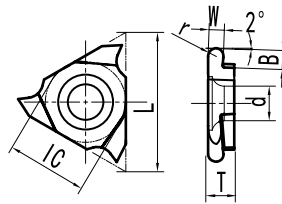
## Grooving Inserts



Right	Left	Width	Depth	Radius	Material				Dimensions (mm)			
					P M K		N					
					BM1525		BN1020		L	IC	T	d
TGF32R265	TGF32L265	2.65	3.0	0.15	●	●	○	○	16	9.525	3.18	4.4
TGF32R270	TGF32L270	2.70	3.0	0.15	●	●	○	○				
TGF32R275	TGF32L275	2.75	3.0	0.15	●	●	○	○				
TGF32R280	TGF32L280	2.80	3.0	0.15	●	●	○	○				
TGF32R300	TGF32L300	3.00	3.0	0.20	●	●	○	○				
TGF32R320	TGF32L320	3.20	3.0	0.20	●	●	○	○			3.2	

● Stock ○ Extraordinary stock

# Grooving Inserts

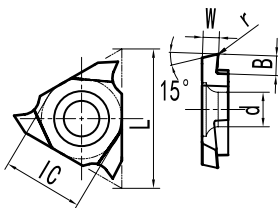


Right	Left	Width	Depth	Radius	Material				Dimensions (mm)			
					P M K		N					
					BM1525		BN1020		L	IC	T	d
TGF32R060-R0.25	TGF32L050-R0.25	0.5	1.0	0.25	●	●	○	○	16	9.525	3.18	4.4
TGF32R060-R0.30	TGF32L060-R0.30	0.6	2.3	0.30	●	●	○	○				
TGF32R070-R0.35	TGF32L070-R0.35	0.7	2.3	0.35	●	●	○	○				
TGF32R080-R0.40	TGF32L080-R0.40	0.8	2.3	0.40	●	●	○	○				
TGF32R090-R0.45	TGF32L090-R0.45	0.9	2.3	0.45	●	●	○	○				
TGF32R100-R0.50	TGF32L100-R0.50	1.0	3.0	0.50	●	●	○	○				
TGF32R110-R0.55	TGF32L110-R0.55	1.1	3.0	0.55	●	●	○	○				
TGF32R120-R0.60	TGF32L120-R0.60	1.2	3.0	0.60	●	●	○	○				
TGF32R130-R0.65	TGF32L130-R0.65	1.3	3.0	0.65	●	●	○	○				
TGF32R140-R0.70	TGF32L140-R0.70	1.4	3.0	0.70	●	●	○	○				
TGF32R150-R0.75	TGF32L150-R0.75	1.5	3.6	0.75	●	●	○	○				
TGF32R160-R0.80	TGF32L160-R0.80	1.6	3.6	0.80	●	●	○	○				
TGF32R170-R0.85	TGF32L170-R0.85	1.7	3.6	0.85	●	●	○	○				
TGF32R180-R0.90	TGF32L180-R0.90	1.8	3.6	0.90	●	●	○	○				
TGF32R190-R0.95	TGF32L190-R0.95	1.9	3.6	0.95	●	●	○	○				
TGF32R200-R1.00	TGF32L200-R1.00	2.0	3.6	1.00	●	●	○	○				
TGF32R210-R1.05	TGF32L210-R1.05	2.1	3.6	1.05	●	●	○	○				
TGF32R220-R1.10	TGF32L220-R1.10	2.2	3.6	1.10	●	●	○	○				
TGF32R230-R1.15	TGF32L230-R1.15	2.3	3.6	1.15	●	●	○	○				
TGF32R240-R1.20	TGF32L240-R1.20	2.4	3.6	1.2	●	●	○	○				
TGF32R250-R1.25	TGF32L250-R1.25	2.5	3.6	1.25	●	●	○	○				
TGF32R260-R1.30	TGF32L260-R1.30	2.6	3.6	1.3	●	●	○	○				
TGF32R270-R1.35	TGF32L270-R1.35	2.7	3.6	1.35	●	●	○	○				
TGF32R280-R1.40	TGF32L280-R1.40	2.8	3.6	1.4	●	●	○	○				
TGF32R290-R1.45	TGF32L280-R1.45	2.9	3.6	1.45	●	●	○	○				
TGF32R300-R1.50	TGF32L300-R1.50	3.0	3.6	1.5	●	●	○	○				
TGF32R310-R1.55	TGF32L310-R1.55	3.1	3.6	1.55	●	●	○	○				
TGF32R320-R1.60	TGF32L320-R1.60	3.2	3.6	1.6	●	●	○	○				
											3.5	

● Stock ○ Extraordinary stock

INSERTS

## Grooving Inserts

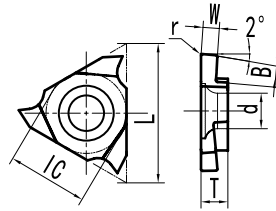


INSERTS

Right	Left	Width	Depth	Radius	Material				Dimensions (mm)			
					P M K		N					
					W	B	r	BM1525	BN1020	L	IC	T
TGF32R050-S15R	TGF32L050-S15R	0.50	1.2	0.05	●	●	○	○	16	9.525	3.18	4.4
TGF32R075-S15R	TGF32L075-S15R	0.75	2.3	0.1	●	●	○	○				
TGF32R080-S15R	TGF32L080-S15R	0.80	2.3	0.1	●	●	○	○				
TGF32R100-S15R	TGF32L100-S15R	1.00	3.0	0.1	●	●	○	○				
TGF32R110-S15R	TGF32L110-S15R	1.10	3.0	0.1	●	●	○	○				
TGF32R125-S15R	TGF32L125-S15R	1.25	3.0	0.1	●	●	○	○				
TGF32R135-S15R	TGF32L135-S15R	1.35	3.0	0.1	●	●	○	○				
TGF32R150-S15R	TGF32L150-S15R	1.50	3.7	0.1	●	●	○	○				
TGF32R160-S15R	TGF32L160-S15R	1.60	3.7	0.1	●	●	○	○				
TGF32R180-S15R	TGF32L180-S15R	1.80	3.7	0.1	●	●	○	○				
TGF32R200-S15R	TGF32L200-S15R	2.00	3.7	0.1	●	●	○	○				
TGF32R220-S15R	TGF32L220-S15R	2.20	3.7	0.1	●	●	○	○				
TGF32R230-S15R	TGF32L230-S15R	2.30	3.7	0.1	●	●	○	○				
TGF32R240-S15R	TGF32L240-S15R	2.40	3.7	0.1	●	●	○	○				
TGF32R250-S15R	TGF32L250-S15R	2.50	3.7	0.1	●	●	○	○				
TGF32R260-S15R	TGF32L260-S15R	2.60	3.7	0.1	●	●	○	○				
TGF32R270-S15R	TGF32L270-S15R	2.70	3.7	0.1	●	●	○	○				
TGF32R280-S15R	TGF32L280-S15R	2.80	3.7	0.1	●	●	○	○				
TGF32R290-S15R	TGF32L290-S15R	2.90	3.7	0.1	●	●	○	○				
TGF32R300-S15R	TGF32L300-S15R	3.00	3.7	0.1	●	●	○	○				

● Stock ○ Extraordinary stock

# Grooving Inserts

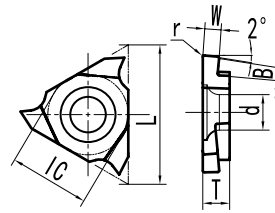


Right	Left	Width	Depth	Radius	Material				Dimensions (mm)			
					P M K		N					
					BM1525		BN1020		L	IC	T	d
TGF32R050-L1. 20	TGF32L050-L1. 20	0.5	1.2	0.05	●	●	○	○	16	9.525	3.18	4.4
TGF32R060-L1. 60	TGF32L060-L1. 60	0.6	1.6	0.05	●	●	○	○				
TGF32R070-L2. 20	TGF32L070-L2. 20	0.7	2.2	0.05	●	●	○	○				
TGF32R080-L2. 20	TGF32L080-L2. 20	0.8	2.2	0.05	●	●	○	○				
TGF32R090-L2. 20	TGF32L090-L2. 20	0.9	2.2	0.05	●	●	○	○				
TGF32R100-L3. 00	TGF32L100-L3. 00	1.0	3.0	0.1	●	●	○	○				
TGF32R110-L3. 00	TGF32L110-L3. 00	1.1	3.0	0.1	●	●	○	○				
TGF32R120-L3. 00	TGF32L120-L3. 00	1.2	3.0	0.1	●	●	○	○				
TGF32R130-L3. 00	TGF32L130-L3. 00	1.3	3.0	0.1	●	●	○	○				
TGF32R140-L3. 00	TGF32L140-L3. 00	1.4	3.0	0.1	●	●	○	○				
TGF32R150-L3. 70	TGF32L150-L3. 70	1.5	3.7	0.1	●	●	○	○				
TGF32R160-L3. 70	TGF32L160-L3. 70	1.6	3.7	0.1	●	●	○	○				
TGF32R170-L3. 70	TGF32L170-L3. 70	1.7	3.7	0.1	●	●	○	○				
TGF32R180-L3. 70	TGF32L180-L3. 70	1.8	3.7	0.1	●	●	○	○				
TGF32R190-L3. 70	TGF32L190-L3. 70	1.9	3.7	0.1	●	●	○	○				
TGF32R200-L3. 70	TGF32L200-L3. 70	2.0	3.7	0.1	●	●	○	○				
TGF32R210-L3. 70	TGF32L210-L3. 70	2.1	3.7	0.1	●	●	○	○				
TGF32R220-L3. 70	TGF32L220-L3. 70	2.2	3.7	0.1	●	●	○	○				
TGF32R230-L3. 70	TGF32L230-L3. 70	2.3	3.7	0.1	●	●	○	○				
TGF32R240-L3. 70	TGF32L240-L3. 70	2.4	3.7	0.1	●	●	○	○				
TGF32R250-L3. 70	TGF32L250-L3. 70	2.5	3.7	0.1	●	●	○	○				

● Stock ○ Extraordinary stock

INSERTS

Grooving Inserts

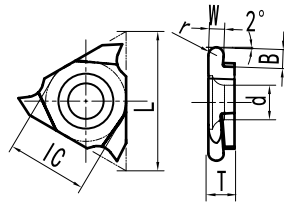


INSERTS

Right	Left	Width	Depth	Radius	Material				Dimensions (mm)			
					P M K		N					
					BM1525		BN1020		L	IC	T	d
DBA43R075	DBA43L075	0.75	2.5	0.1	●	●	○	○	22	12.7	4.76	5.4
DBA43R100	DBA43L100	1.0	2.5	0.1	●	●	○	○				
DBA43R120	DBA43L120	1.2	2.5	0.1	●	●	○	○				
DBA43R130	DBA43L130	1.3	2.7	0.1	●	●	○	○				
DBA43R140	DBA43L140	1.4	2.7	0.1	●	●	○	○				
DBA43R145	DBA43L145	1.45	3.0	0.1	●	●	○	○				
DBA43R150	DBA43L150	1.5	3.0	0.1	●	●	○	○				
DBA43R160	DBA43L160	1.6	3.0	0.1	●	●	○	○				
DBA43R170	DBA43L170	1.7	3.3	0.2	●	●	○	○				
DBA43R175	DBA43L175	1.75	3.3	0.2	●	●	○	○				
DBA43R180	DBA43L180	1.8	3.3	0.2	●	●	○	○				
DBA43R185	DBA43L185	1.85	3.3	0.2	●	●	○	○				
DBA43R200	DBA43L200	2.0	3.5	0.2	●	●	○	○				
DBA43R210	DBA43L210	2.1	3.5	0.2	●	●	○	○				
DBA43R220	DBA43L220	2.2	3.5	0.2	●	●	○	○				
DBA43R225	DBA43L225	2.25	3.5	0.2	●	●	○	○				
DBA43R230	DBA43L230	2.3	3.5	0.2	●	●	○	○				
DBA43R240	DBA43L240	2.4	3.5	0.2	●	●	○	○				
DBA43R250	DBA43L250	2.5	4.2	0.2	●	●	○	○				
DBA43R270	DBA43L270	2.7	4.2	0.2	●	●	○	○				
DBA43R280	DBA43L280	2.8	4.6	0.3	●	●	○	○				
DBA43R300	DBA43L300	3.0	4.6	0.3	●	●	○	○				
DBA43R320	DBA43L320	3.2	4.6	0.3	●	●	○	○				
DBA43R325	DBA43L325	3.25	4.6	0.3	●	●	○	○				
DBA43R330	DBA43L330	3.3	4.8	0.3	●	●	○	○				
DBA43R350	DBA43L350	3.5	4.8	0.3	●	●	○	○				
DBA43R360	DBA43L360	3.6	4.8	0.3	●	●	○	○				
DBA43R380	DBA43L380	3.8	4.8	0.3	●	●	○	○				
DBA43R400	DBA43L400	4.0	4.8	0.3	●	●	○	○				
DBA43R420	DBA43L420	4.2	5.0	0.3	●	●	○	○				
DBA43R450	DBA43L450	4.5	5.0	0.3	●	●	○	○				
DBA43R460	DBA43L460	4.6	5.0	0.3	●	●	○	○				
DBA43R470	DBA43L470	4.7	5.0	0.3	●	●	○	○				
DBA43R480	DBA43L480	4.8	5.0	0.3	●	●	○	○				
DBA43R500	DBA43L500	5.0	5.0	0.3	●	●	○	○				
DBA43R510	DBA43L510	5.1	5.0	0.3	●	●	○	○				
DBA43R520	DBA43L520	5.2	5.0	0.3	●	●	○	○				
DBA43R200-R0.5	DBA43L200-R0.5	2.0	5.0	0.5	●	●	○	○				
DBA43R250-R0.5	DBA43L250-R0.5	2.5	5.0	0.5	●	●	○	○				
DBA43R300-R0.5	DBA43L300-R0.5	3.0	5.0	0.5	●	●	○	○				
DBA43R350-R0.5	DBA43L350-R0.5	3.5	5.0	0.5	●	●	○	○				
DBA43R400-R0.5	DBA43L400-R0.5	4.0	5.0	0.5	●	●	○	○				

● Stock ○ Extraordinary stock

# Grooving Inserts

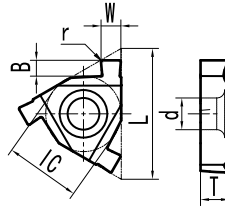


Right	Left	Width	Depth	Radius	Material				Dimensions (mm)			
					P MK		N					
					BM1525		BN1020		L	IC	T	d
DBA43R100-R0.50	DBA43L100-R0.50	1.0	3.5	0.50	●	●	○	○	22	12.7	4.76	5.4
DBA43R110-R0.55	DBA43L110-R0.56	1.1	3.5	0.55	●	●	○	○				
DBA43R120-R0.60	DBA43L120-R0.60	1.2	3.5	0.60	●	●	○	○				
DBA43R140-R0.70	DBA43L140-R0.70	1.4	3.5	0.70	●	●	○	○				
DBA43R150-R0.75	DBA43L150-R0.75	1.5	3.5	0.75	●	●	○	○				
DBA43R160-R0.80	DBA43L160-R0.80	1.6	3.5	0.80	●	●	○	○				
DBA43R170-R0.85	DBA43L170-R0.85	1.7	3.5	0.85	●	●	○	○				
DBA43R180-R0.90	DBA43L180-R0.90	1.8	3.5	0.90	●	●	○	○				
DBA43R200-R1.00	DBA43L200-R1.00	2.0	5.0	1.00	●	●	○	○				
DBA43R220-R1.10	DBA43L220-R1.10	2.2	5.0	1.10	●	●	○	○				
DBA43R230-R1.15	DBA43L230-R1.15	2.3	5.0	1.15	●	●	○	○				
DBA43R240-R1.20	DBA43L240-R1.20	2.4	5.0	1.20	●	●	○	○				
DBA43R250-R1.25	DBA43L250-R1.25	2.5	5.0	1.25	●	●	○	○				
DBA43R260-R1.30	DBA43L260-R1.30	2.6	5.0	1.30	●	●	○	○				
DBA43R270-R1.35	DBA43L270-R1.35	2.7	5.0	1.35	●	●	○	○				
DBA43R280-R1.40	DBA43L280-R1.40	2.8	5.0	1.40	●	●	○	○				
DBA43R300-R1.50	DBA43L300-R1.50	3.0	5.0	1.50	●	●	○	○				
DBA43R320-R1.60	DBA43L320-R1.60	3.2	5.0	1.60	●	●	○	○				
DBA43R340-R1.70	DBA43L340-R1.70	3.4	5.0	1.70	●	●	○	○				
DBA43R350-R1.75	DBA43L350-R1.75	3.5	5.0	1.75	●	●	○	○				
DBA43R360-R1.80	DBA43L360-R1.80	3.6	5.0	1.80	●	●	○	○				
DBA43R400-R2.00	DBA43L400-R2.00	4.0	5.0	2.00	●	●	○	○				
DBA43R420-R2.10	DBA43L420-R2.10	4.2	5.0	2.10	●	●	○	○				
DBA43R450-R2.25	DBA43L450-R2.25	4.5	5.0	2.25	●	●	○	○				
DBA43R500-R2.50	DBA43L500-R2.50	5.0	5.0	2.50	●	●	○	○	5.2			

● Stock ○ Extraordinary stock

INSERTS

Grooving Inserts



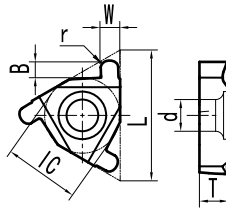
INSERTS

Internal	External	Width	Depth	Radius	Material				Dimensions (mm)			
					P M K		N					
					BM1525		BN1020		L	IC	T	d
		W	B	r	N	E	N	E				
T11N040	T11E040	0.4	1.0	0.05	●	●	○	○	11	6.35	3.18	3
T11N050	T11E050	0.5	1.0	0.05	●	●	○	○				
T11N060	T11E060	0.6	1.0	0.05	●	●	○	○				
T11N070	T11E070	0.7	1.2	0.05	●	●	○	○				
T11N080	T11E080	0.8	1.2	0.05	●	●	○	○				
T11N090	T11E090	0.9	1.2	0.05	●	●	○	○				
T11N100	T11E100	1.0	1.5	0.05	●	●	○	○				
T11N110	T11E110	1.1	1.5	0.1	●	●	○	○				
T11N120	T11E120	1.2	1.5	0.1	●	●	○	○				
T11N130	T11E130	1.3	1.5	0.1	●	●	○	○				
T11N140	T11E140	1.4	1.5	0.1	●	●	○	○				
T11N150	T11E150	1.5	1.5	0.1	●	●	○	○				
T11N160	T11E160	1.6	1.4	0.1	●	●	○	○				
T11N170	T11E170	1.7	1.4	0.1	●	●	○	○				
T11N180	T11E180	1.8	1.3	0.1	●	●	○	○				
T11N200	T11E200	2.0	1.2	0.1	●	●	○	○				
T16N033	T16E033	0.33	1.6	0.05	●	●	○	○	16	9.525	3.65	4
T16N040	T16E040	0.4	1.6	0.05	●	●	○	○				
T16N050	T16E050	0.5	1.6	0.05	●	●	○	○				
T16N060	T16E060	0.6	1.6	0.05	●	●	○	○				
T16N070	T16E070	0.7	1.6	0.05	●	●	○	○				
T16N075	T16E075	0.75	1.6	0.05	●	●	○	○				
T16N080	T16E080	0.8	1.6	0.05	●	●	○	○				
T16N095	T16E095	0.95	1.6	0.05	●	●	○	○				
T16N100	T16E100	1.0	1.8	0.1	●	●	○	○				
T16N110	T16E110	1.1	1.8	0.1	●	●	○	○				
T16N115	T16E115	1.15	1.8	0.1	●	●	○	○				
T16N120	T16E120	1.2	1.8	0.1	●	●	○	○				
T16N130	T16E130	1.3	1.8	0.1	●	●	○	○				
T16N140	T16E140	1.4	1.8	0.1	●	●	○	○				
T16N145	T16E145	1.45	1.8	0.1	●	●	○	○				
T16N150	T16E150	1.5	1.8	0.1	●	●	○	○				
T16N160	T16E160	1.6	1.8	0.1	●	●	○	○				
T16N175	T16E175	1.75	1.8	0.1	●	●	○	○				
T16N180	T16E180	1.8	1.8	0.1	●	●	○	○				
T16N200	T16E200	2.0	1.8	0.1	●	●	○	○				
T16N215	T16E215	2.15	2.0	0.2	●	●	○	○				
T16N225	T16E225	2.25	2.0	0.2	●	●	○	○				
T16N230	T16E230	2.3	2.0	0.2	●	●	○	○				
T16N250	T16E250	2.5	2.0	0.2	●	●	○	○				
T16N265	T16E265	2.65	2.2	0.2	●	●	○	○				
T16N300	T16E300	3.0	2.0	0.2	●	●	○	○				

● Stock ○ Extraordinary stock



# Grooving Inserts

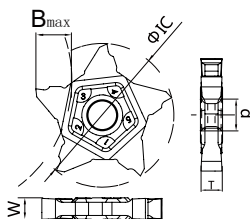


Internal	External	Width	Depth	Radius	Material				Dimensions (mm)			
					P M K		N					
					BM1525		BN1020		L	IC	T	d
					N	E	N	E				
T11N050-R0.25	T11E050-R0.25	0.5	1.0	0.25	●	●	○	○	11	6.35	3.18	3
T11N060-R0.30	T11E060-R0.30	0.6	1.0	0.30	●	●	○	○				
T11N080-R0.40	T11E080-R0.40	0.8	1.2	0.40	●	●	○	○				
T11N100-R0.50	T11E100-R0.50	1.0	1.5	0.50	●	●	○	○				
T11N120-R0.60	T11E120-R0.60	1.2	1.5	0.60	●	●	○	○				
T11N140-R0.70	T11E140-R0.70	1.4	1.5	0.70	●	●	○	○				
T11N150-R0.75	T11E150-R0.75	1.5	1.5	0.75	●	●	○	○				
T11N160-R0.80	T11E160-R0.80	1.6	1.4	0.80	●	●	○	○				
T11N180-R0.90	T11E180-R0.90	1.8	1.3	0.90	●	●	○	○				
T11N200-R1.00	T11E200-R1.00	2.0	1.2	1.00	●	●	○	○				
T16N050-R0.25	T16E050-R0.25	0.5	1.6	0.25	●	●	○	○	16	9.525	3.65	4
T16N060-R0.30	T16E060-R0.30	0.6	1.6	0.30	●	●	○	○				
T16N080-R0.40	T16E080-R0.40	0.8	1.6	0.40	●	●	○	○				
T16N100-R0.50	T16E100-R0.50	1.0	2.0	0.50	●	●	○	○				
T16N120-R0.60	T16E120-R0.60	1.2	2.0	0.60	●	●	○	○				
T16N140-R0.70	T16E140-R0.70	1.4	2.0	0.70	●	●	○	○				
T16N150-R0.75	T16E150-R0.75	1.5	2.0	0.75	●	●	○	○				
T16N160-R0.80	T16E160-R0.80	1.6	2.0	0.80	●	●	○	○				
T16N180-R0.90	T16E180-R0.90	1.8	2.0	0.90	●	●	○	○				
T16N200-R1.00	T16E200-R1.00	2.0	2.0	1.00	●	●	○	○				
T16N250-R1.25	T16E250-R1.25	2.5	2.0	1.25	●	●	○	○				
T16N300-R1.50	T16E300-R1.50	3.0	2.0	1.50	●	●	○	○				

● Stock ○ Extraordinary stock

INSERTS

## Grooving Inserts



Model	Width	Depth	Radius	Material		Dimensions (mm)		
				PMK	N	IC	T	d
	W	Bmax	r	BM1820	BN1020			
PEN24-050S	0.5	2.9	0.1	●	○	24	4	5.6
PEN24-080S	0.8	2.9	0.1	●	○			
PEN24-100S	1.0	4.9	0.1	●	○			
PEN24-120S	1.2	4.9	0.1	●	○			
PEN24-125S	1.25	4.9	0.1	●	○			
PEN24-140S	1.4	4.9	0.1	●	○			
PEN24-150S	1.5	4.9	0.1	●	○			
PEN24-175S	1.75	4.9	0.1	●	○			
PEN24-180S	1.8	4.9	0.1	●	○			
PEN24-200S	2.0	4.9	0.2	●	○			
PEN24-230S	2.3	4.9	0.2	●	○			
PEN24-250S	2.5	4.9	0.2	●	○			
PEN24-280S	2.8	4.9	0.2	●	○			
PEN24-300S	3.0	4.9	0.2	●	○			
PEN24-320S	3.2	6.4	0.2	●	○			
PEN24-330S	3.3	6.4	0.2	●	○			
PEN24-350S	3.5	6.4	0.2	●	○			
PEN24-400S	4.0	6.4	0.2	●	○			

● Stock ○ Extraordinary stock

# Grooving Inserts

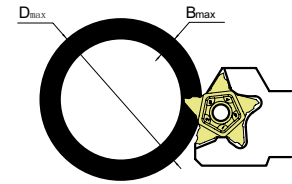
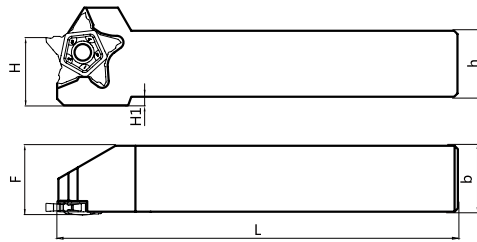
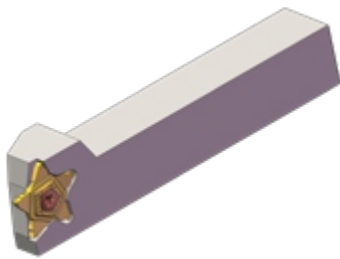


Model	Fig.	Angle	Width	Depth	Radius	Material		Dimensions (mm)						
						PMK	N	IC	T	d				
						BM1820	BN1020							
PEN24-050S10R		10	0.5	2.9	0.1	○	○	24	4	5.6				
PEN24-080S10R		10	0.8	2.9	0.1	○	○							
PEN24-100S10R		10	1.0	4.9	0.1	○	○							
PEN24-120S10R		10	1.2	4.9	0.1	○	○							
PEN24-125S10R		10	1.25	4.9	0.1	○	○							
PEN24-150S10R		10	1.5	4.9	0.1	○	○							
PEN24-140S10R		10	1.4	4.9	0.1	○	○							
PEN24-175S10R		10	1.75	4.9	0.1	○	○							
PEN24-180S10R		10	1.8	4.9	0.1	○	○							
PEN24-200S10R		10	2.0	4.9	0.2	○	○							
PEN24-230S10R		10	2.3	4.9	0.2	○	○							
PEN24-250S10R		10	2.5	4.9	0.2	○	○							
PEN24-280S10R		10	2.8	4.9	0.2	○	○							
PEN24-300S10R		10	3.0	4.9	0.2	○	○							
PEN24-320S10R		10	3.2	6.4	0.2	○	○							
PEN24-330S10R		10	3.3	6.4	0.2	○	○							
PEN24-350S10R		10	3.5	6.4	0.2	○	○							
PEN24-400S10R		10	4.0	6.4	0.2	○	○							
PEN24-050S10L			10	0.5	2.9	0.1	○				○	24	4	5.6
PEN24-080S10L			10	0.8	2.9	0.1	○				○			
PEN24-100S10L	10		1.0	4.9	0.1	○	○							
PEN24-120S10L	10		1.2	4.9	0.1	○	○							
PEN24-125S10L	10		1.25	4.9	0.1	○	○							
PEN24-140S10L	10		1.4	4.9	0.1	○	○							
PEN24-150S10L	10		1.5	4.9	0.1	○	○							
PEN24-175S10L	10		1.75	4.9	0.1	○	○							
PEN24-180S10L	10		1.8	4.9	0.1	○	○							
PEN24-200S10L	10		2.0	4.9	0.2	○	○							
PEN24-230S10L	10		2.3	4.9	0.2	○	○							
PEN24-250S10L	10		2.5	4.9	0.2	○	○							
PEN24-280S10L	10		2.8	4.9	0.2	○	○							
PEN24-300S10L	10		3.0	4.9	0.2	○	○							
PEN24-320S10L	10		3.2	6.4	0.2	○	○							
PEN24-330S10L	10		3.3	6.4	0.2	○	○							
PEN24-350S10L	10		3.5	6.4	0.2	○	○							
PEN24-400S10L	10		4.0	6.4	0.2	○	○							

● Stock ○ Extraordinary stock

INSERTS

Grooving Toolholder



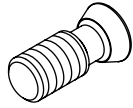
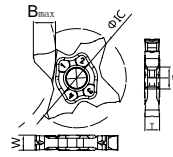
Model		Insert	Depth	Dimensions (mm)						Screw	Torx key
Right	Left			h	b	H	F	L	H1		
PCHR1010H24	PCHL1010H24	PEN24**	Fig-1	10	10	10	10	100	6	L44M5X13A 	T-20
PCHR1212H24	PCHL1212H24			12	12	12	12	100	4		
PCHR1616H24	PCHL1616H24			16	16	16	16	110	-		
PCHR2020K24	PCHL2020K24			20	20	20	20	125	-		
PCHR2525M24	PCHL2525M24			25	25	25	25	150	-		

Fig-1

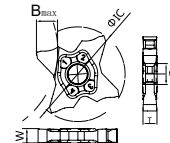
Inserts	Bmax	Dmax									
		B≤3.0	B≤3.5	B≤4.0	B≤4.5	B≤5.0	B≤5.5	B≤5.7	B≤6.0	B≤6.2	B≤6.4
PEN24-050S	2.9	20	-	-	-	-	-	-	-	-	-
PEN24-080S	2.9	20	-	-	-	-	-	-	-	-	-
PEN24-100S	4.9	YES	800	280	-	-	-	-	-	-	-
PEN24-120S	4.9	YES	800	280	-	-	-	-	-	-	-
PEN24-125S	4.9	YES	800	280	-	-	-	-	-	-	-
PEN24-150S	4.9	YES	800	280	-	-	-	-	-	-	-
PEN24-175S	4.9	YES	800	280	-	-	-	-	-	-	-
PEN24-200S	4.9	YES	800	280	-	-	-	-	-	-	-
PEN24-250S	4.9	YES	800	280	-	-	-	-	-	-	-
PEN24-300S	4.9	YES	800	280	-	-	-	-	-	-	-
PEN24-320S	6.4	YES	800	280	180	120	80	70	60	-	-
PEN24-350S	6.4	YES	800	280	180	120	80	70	60	-	-
PEN24-400S	6.4	YES	800	280	180	120	80	70	60	-	-

## Grooving Inserts



Model	Width	Depth	Radius	Material		Dimensions (mm)		
				PMK	N	IC	T	d
				BM1820	BN1020			
TDG27-100-0.1	1.0	4.0	0.1	○	○	27	4	5.6
TDG27-120-0.1	1.2	4.0	0.1	○	○			
TDG27-125-0.1	1.25	4.0	0.1	○	○			
TDG27-150-0.2	1.5	5.7	0.2	●	○			
TDG27-175-0.2	1.75	5.7	0.2	●	○			
TDG27-180-0.2	1.8	5.7	0.2	○	○			
TDG27-200-0.2	2.0	6.4	0.2	●	○			
TDG27-230-0.2	2.3	6.4	0.2	○	○			
TDG27-250-0.2	2.5	6.4	0.2	○	○			
TDG27-250-0.3	2.5	6.4	0.3	●	○			
TDG27-280-0.2	2.8	6.4	0.2	○	○			
TDG27-300-0.2	3.0	6.4	0.2	●	○			
TDG27-300-0.4	3.0	6.4	0.4	●	○			
TDG27-330-0.2	3.3	6.4	0.2	○	○			
TDG27-350-0.2	3.5	6.4	0.2	●	○			
TDG27-400-0.2	4.0	6.4	0.2	●	○			

● Stock ○ Extraordinary stock

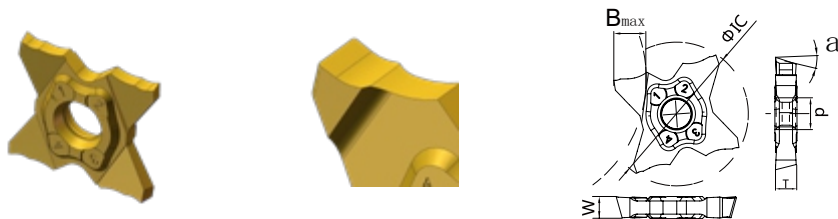


Model	Width	Depth	Radius	Material		Dimensions (mm)		
				PMK	N	IC	T	d
				BM1820	BN1020			
TDG27-100S	1.0	3.5	0.1	○	○	27	4	5.6
TDG27-120S	1.2	3.5	0.1	○	○			
TDG27-125S	1.25	3.5	0.1	○	○			
TDG27-140S	1.4	3.5	0.1	○	○			
TDG27-150S	1.5	5.7	0.2	●	○			
TDG27-175S	1.75	5.7	0.2	●	○			
TDG27-180S	1.8	5.7	0.2	○	○			
TDG27-200S	2.0	6.4	0.2	●	○			
TDG27-230S	2.3	6.4	0.2	○	○			
TDG27-250S	2.5	6.4	0.2	●	○			
TDG27-280S	2.8	6.4	0.2	○	○			
TDG27-300S	3.0	6.4	0.2	●	○			
TDG27-330S	3.3	6.4	0.2	●	○			
TDG27-350S	3.5	6.4	0.2	●	○			
TDG27-400S	4.0	6.4	0.2	●	○			

● Stock ○ Extraordinary stock

INSERTS

## Grooving Inserts

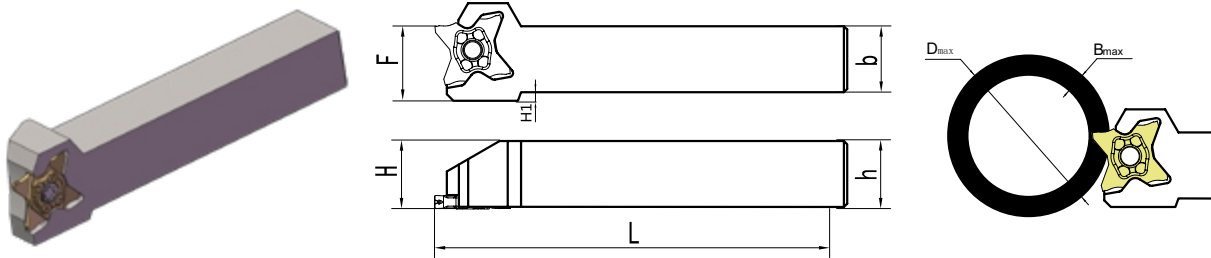


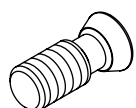
INSERTS

Model	Fig.	Angle	Width	Depth	Radius	Material		Dimensions (mm)		
						PMK	N	IC	T	d
						BM1820	BN1020			
TDG27-100S10R		10	1.0	3.5	0.1	○	○	27	4	5.6
TDG27-120S10R		10	1.2	3.5	0.1	○	○			
TDG27-125S10R		10	1.25	3.5	0.1	○	○			
TDG27-140S10R		10	1.4	3.5	0.1	○	○			
TDG27-150S10R		10	1.5	5.7	0.2	○	○			
TDG27-175S10R		10	1.75	5.7	0.2	○	○			
TDG27-180S10R		10	1.8	5.7	0.2	○	○			
TDG27-200S10R		10	2.0	6.4	0.2	○	○			
TDG27-230S10R		10	2.3	6.4	0.2	○	○			
TDG27-250S10R		10	2.5	6.4	0.2	○	○			
TDG27-280S10R		10	2.8	6.4	0.2	○	○			
TDG27-300S10R		10	3.0	6.4	0.2	○	○			
TDG27-330S10R		10	3.3	6.4	0.2	○	○			
TDG27-350S10R		10	3.5	6.4	0.2	○	○			
TDG27-400S10R		10	4.0	6.4	0.2	○	○			
TDG27-100S10L		10	1.0	3.5	0.1	○	○	27	4	5.6
TDG27-120S10L		10	1.2	3.5	0.1	○	○			
TDG27-125S10L		10	1.25	3.5	0.1	○	○			
TDG27-140S10L		10	1.4	3.5	0.1	○	○			
TDG27-150S10L		10	1.5	5.7	0.2	○	○			
TDG27-175S10L		10	1.75	5.7	0.2	○	○			
TDG27-180S10L		10	1.8	5.7	0.2	○	○			
TDG27-200S10L		10	2.0	6.4	0.2	○	○			
TDG27-230S10L		10	2.3	6.4	0.2	○	○			
TDG27-250S10L		10	2.5	6.4	0.2	○	○			
TDG27-280S10L		10	2.8	6.4	0.2	○	○			
TDG27-300S10L		10	3.0	6.4	0.2	○	○			
TDG27-330S10L		10	3.3	6.4	0.2	○	○			
TDG27-350S10L		10	3.5	6.4	0.2	○	○			
TDG27-400S10L		10	4.0	6.4	0.2	○	○			

● Stock ○ Extraordinary stock

# Grooving Toolholder



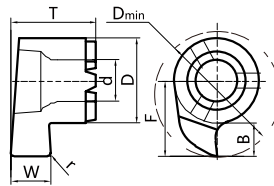
Model		Insert	Depth	Dimensions (mm)						Screw	Torx key
Right	Left			h	b	H	F	L	H1		
TDHR1010H27	TDHL1010H27	TDG27**	Fig-1	10	10	10	10	100	9	L44M5X13A 	T-20
TDHR1212H27	TDHL1212H27			12	12	12	12	100	8		
TDHR1616H27	TDHL1616H27			16	16	16	16	110	6		
TDHR2020K27	TDHL2020K27			20	20	20	20	125	2		
TDHR2525M27	TDHL2525M27			25	25	25	25	150	-		

INSERTS

Fig-1

Inserts	Bmax	Dmax									
		B ≤ 3.0	B ≤ 3.5	B ≤ 4.0	B ≤ 4.5	B ≤ 5.0	B ≤ 5.5	B ≤ 5.7	B ≤ 6.0	B ≤ 6.2	B ≤ 6.4
TDG27-150	5.8	YES	600	280	180	130	50	35	-	-	-
TDG27-200	6.5	YES	600	280	180	130	105	85	60	50	30
TDG27-250	6.5	YES	600	280	180	130	50	35	-	-	-
TDG27-300	6.5	YES	600	280	180	135	105	95	85	78	55
TDG27-350	6.5	YES	600	280	180	120	105	95	85	78	68
TDG27-400	6.5	YES	600	280	180	120	105	95	85	78	

# Grooving Inserts



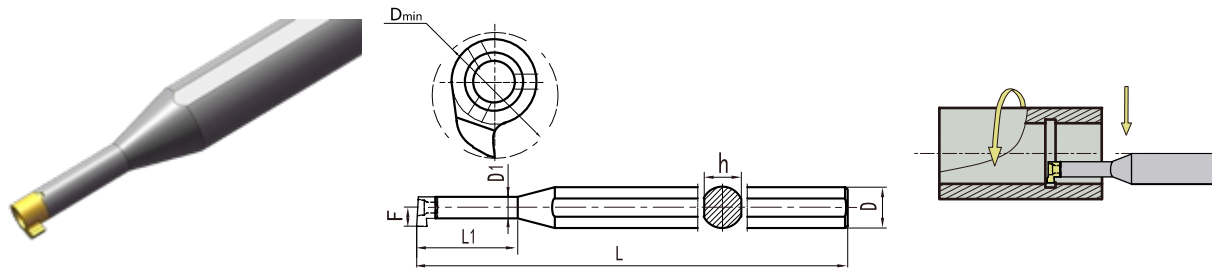
INSERTS



Model	Dmin ☼	Width W	Depth B	Radius r	Material		Suitable to Toolholder  Toolholders	Dimensions (mm)			
					PMK	N		F <sub>o</sub>	D	T	d
					BM1820	BN1020					
GK7R100-L1.5	7	1.0	1.5	0.1	○	○	KGK7R0012H075 KGK7R0016K075 KGK7R0020M075	4.1	5.2	5.2	2.7
GK7R120-L1.5		1.2		0.1	○	○					
GK7R125-L1.5		1.25		0.1	○	○					
GK7R150-L1.5		1.5		0.1	○	○					
GK7R175-L1.5		1.75		0.1	○	○					
GK7R200-L1.5		2.0		0.1	○	○					
GK7R100	7.5	1.0	2	0.1	●	○	KGK7R0012H075 KGK7R0016K075 KGK7R0020M075	4.6	5.2	5.2	2.7
GK7R120		1.2		0.1	●	○					
GK7R125		1.25		0.1	●	○					
GK7R150		1.5		0.1	●	○					
GK7R175		1.75		0.1	●	○					
GK7R200		2.0		0.1	●	○					
GK7R225		2.25		0.1	●	○					
GK7R250		2.5		0.1	●	○					
GK7R300		3.0		0.1	●	○					
GK12R150		12		1.5	4.3	0.1					
GK12R160	1.6		0.1	●		○					
GK12R200	2.0		0.1	●		○					
GK12R225	2.25		0.2	●		○					
GK12R240	2.4		0.2	●		○					
GK12R250	2.5		0.2	●		○					
GK12R280	2.8		0.2	●		○					
GK12R300	3.0		0.2	●		○					
GK12R350	3.5		0.2	●		○					
GK12R400	4.0		0.2	○		○					
GK12R480	4.8	0.2	○	○							
GK18R200	18.5	2.0	7	0.2	●	○	KGK18R0016L18.5 KGK18R0020M18.5 KGK18R0025N18.5	12.7	11.2	7.9	5.1
GK18R225		2.25		0.2	●	○					
GK18R240		2.4		0.2	●	○					
GK18R250		2.5		0.2	●	○					
GK18R280		2.8		0.2	●	○					
GK18R300		3.0		0.2	●	○					
GK18R350		3.5		0.2	●	○					
GK18R400		4.0		0.2	●	○					
GK18R480		4.8		0.2	○	○					
GK18R500		5.0		0.2	○	○					

● Stock ○ Extraordinary stock



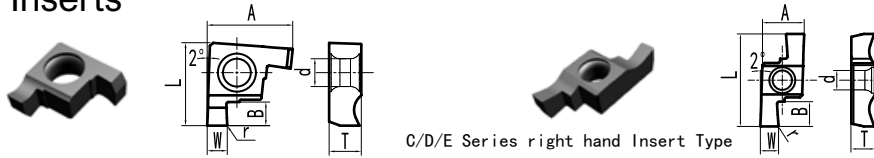
# Grooving Toolholder



Model	Insert	Dmin	Dimensions (mm)						Screw	Torx key
			L1	L	D1	D	h	F		
KGK7R0012H075	GK7R		18	100	5.2	12	11		L60M2. 2*7. 5*D3	T-7
KGK7R0016K075			18	125	5.2	16	15		L60M2. 2*7. 5*D3	T-7
KGK7R0020M075			18	150	5.2	20	19		L60M2. 2*7. 5*D3	T-7
KGK12R0012H12	GK12R		25	100	7.3	12	11		L60M3*12*D4	T-10
KGK12R0016K12			25	125	7.3	16	15		L60M3*12*D4	T-10
KGK12R0020M12			25	150	7.3	20	19		L60M3*12*D4	T-10
KGK18R0016L18. 5	GK18R		38	135	11.2	16	15		L60M4. 5*16*D6. 6	T-20
KGK18R0020M18. 5			38	150	11.2	20	19		L60M4. 5*16*D6. 6	T-20
KGK18R0025N18. 5			38	160	11.2	25	24		L60M4. 5*16*D6. 6	T-20

INSERTS

Grooving Inserts



C/D/E Series right hand Insert Type

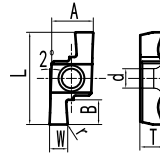
Right	Left	Width	Depth	Radius	Material				Dimensions (mm)			
					P MK		N					
					BM1525		BN1020		L	A	d	T
GER050-A	GEL050-A	0.5	1.2	0.05	●	○	○	○	6.5	6.69	2.5	2.58
GER060-A	GEL060-A	0.6	1.2	0.05	●	○	○	○				
GER070-A	GEL070-A	0.7	1.2	0.05	●	○	○	○				
GER080-A	GEL080-A	0.8	1.2	0.05	●	○	○	○				
GER100-A	GEL100-A	1.0	1.7	0.05	●	○	○	○				
GER120-A	GEL120-A	1.2	1.7	0.05	●	○	○	○				
GER125-A	GEL125-A	1.25	1.7	0.05	●	○	○	○				
GER140-A	GEL140-A	1.4	1.7	0.1	●	○	○	○				
GER150-A	GEL150-A	1.5	1.7	0.1	●	○	○	○				
GER180-A	GEL180-A	1.8	1.7	0.1	●	○	○	○				
GER200-A	GEL200-A	2.0	1.7	0.1	●	○	○	○	8.2	8.46	2.7	3.18
GER080-B	GEL080-B	0.8	1.8	0.05	●	○	○	○				
GER100-B	GEL100-B	1.0	2.4	0.05	●	○	○	○				
GER120-B	GEL120-B	1.2	2.4	0.05	●	○	○	○				
GER125-B	GEL125-B	1.25	2.4	0.05	●	○	○	○				
GER130-B	GEL130-B	1.3	2.4	0.1	●	○	○	○				
GER145-B	GEL145-B	1.45	2.4	0.1	●	○	○	○				
GER150-B	GEL150-B	1.5	2.4	0.1	●	○	○	○				
GER180-B	GEL180-B	1.8	2.4	0.1	●	○	○	○				
GER200-B	GEL200-B	2.0	2.4	0.2	●	○	○	○				
GER225-B	GEL225-B	2.25	2.4	0.2	●	○	○	○				
GER250-B	GEL250-B	2.5	2.4	0.2	●	○	○	○				
GER280-B	GEL280-B	2.8	2.4	0.2	●	○	○	○				
GER300-B	GEL300-B	3.0	2.4	0.2	●	○	○	○	11.5	5.8	3.0	4.0
GER100-C	GEL100-C	1.0	2.5	0.05	●	○	○	○				
GER120-C	GEL120-C	1.2	2.5	0.05	●	○	○	○				
GER125-C	GEL125-C	1.25	2.5	0.05	●	○	○	○				
GER140-C	GEL140-C	1.4	2.5	0.1	●	○	○	○				
GER145-C	GEL145-C	1.45	2.5	0.1	●	○	○	○				
GER150-C	GEL150-C	1.5	2.5	0.1	●	○	○	○				
GER160-C	GEL160-C	1.6	2.5	0.1	●	○	○	○				
GER170-C	GEL170-C	1.7	2.5	0.1	●	○	○	○				
GER185-C	GEL185-C	1.85	2.5	0.1	●	○	○	○				
GER195-C	GEL195-C	1.95	2.5	0.1	●	○	○	○				
GER200-C	GEL200-C	2.0	2.5	0.1	●	○	○	○				
GER225-C	GEL225-C	2.25	2.5	0.1	●	○	○	○				
GER250-C	GEL250-C	2.5	2.5	0.2	●	○	○	○				
GER275-C	GEL275-C	2.75	2.5	0.2	●	○	○	○				
GER280-C	GEL280-C	2.8	2.5	0.2	●	○	○	○				
GER300-C	GEL300-C	3.0	2.5	0.2	●	○	○	○				
GER320-C	GEL320-C	3.2	2.5	0.2	●	○	○	○				
GER350-C	GEL350-C	3.5	2.5	0.2	●	○	○	○				

● Stock ○ Extraordinary stock

# Grooving Inserts



C/D/E Series right hand Insert Type

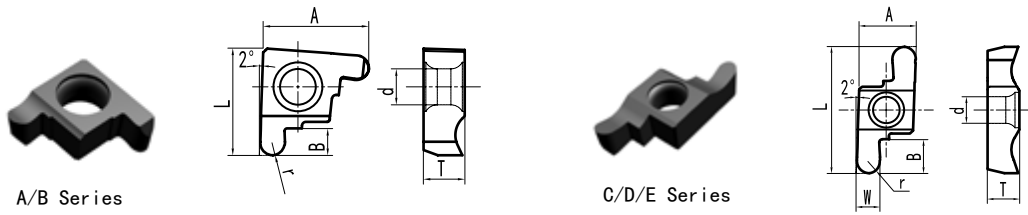


Right	Left	Width	Depth	Radius	Material				Dimensions (mm)			
					P M K		N					
					W	B	r	BM1525		BN1020		L
GER100-D	GEL100-D	1.0	2.5	0.05	●	○	○	○	16.5	6.8	3.4	5.0
GER120-D	GEL120-D	1.2	2.5	0.05	●	○	○	○				
GER125-D	GEL125-D	1.25	2.5	0.05	●	○	○	○				
GER140-D	GEL140-D	1.4	2.5	0.05	●	○	○	○				
GER145-D	GEL145-D	1.45	2.5	0.1	●	○	○	○				
GER150-D	GEL150-D	1.5	4.5	0.1	●	○	○	○				
GER170-D	GEL170-D	1.7	4.5	0.1	●	○	○	○				
GER185-D	GEL185-D	1.85	4.5	0.1	●	○	○	○				
GER195-D	GEL195-D	1.95	4.5	0.1	●	○	○	○				
GER200-D	GEL200-D	2.0	4.5	0.1	●	○	○	○				
GER225-D	GEL225-D	2.25	4.5	0.1	●	○	○	○				
GER230-D	GEL230-D	2.3	4.5	0.2	●	○	○	○				
GER250-D	GEL250-D	2.5	4.5	0.2	●	○	○	○				
GER275-D	GEL275-D	2.75	4.5	0.2	●	○	○	○				
GER280-D	GEL280-D	2.8	4.5	0.2	●	○	○	○				
GER300-D	GEL300-D	3.0	4.5	0.2	●	○	○	○				
GER320-D	GEL320-D	3.2	4.5	0.2	●	○	○	○				
GER350-D	GEL350-D	3.5	4.5	0.2	●	○	○	○				
GER400-D	GEL400-D	4.0	4.5	0.2	●	○	○	○				
GER100-E	GEL100-E	1.0	3.5	0.05	●	○	○	○	21.6	9.54	4.4	5.5
GER150-E	GEL150-E	1.5	3.5	0.1	●	○	○	○				
GER170-E	GEL170-E	1.7	3.5	0.1	●	○	○	○				
GER185-E	GEL185-E	1.85	3.5	0.1	●	○	○	○				
GER195-E	GEL195-E	1.95	3.5	0.1	●	○	○	○				
GER200-E	GEL200-E	2.0	5.0	0.1	●	○	○	○				
GER225-E	GEL225-E	2.25	5.0	0.2	●	○	○	○				
GER245-E	GEL245-E	2.45	5.0	0.2	●	○	○	○				
GER250-E	GEL250-E	2.5	6.5	0.2	●	○	○	○				
GER275-E	GEL275-E	2.75	6.5	0.2	●	○	○	○				
GER280-E	GEL280-E	2.8	6.5	0.2	●	○	○	○				
GER300-E	GEL300-E	3.0	6.5	0.2	●	○	○	○				
GER330-E	GEL330-E	3.3	6.5	0.2	●	○	○	○				
GER350-E	GEL350-E	3.5	6.5	0.2	●	○	○	○				
GER400-E	GEL400-E	4.0	6.5	0.2	●	○	○	○				
GER430-E	GEL430-E	4.3	6.5	0.2	●	○	○	○				
GER450-E	GEL450-E	4.5	6.5	0.2	●	○	○	○				
GER460-E	GEL460-E	4.6	6.5	0.2	●	○	○	○				
GER500-E	GEL500-E	5.0	6.5	0.2	●	○	○	○				

● Stock ○ Extraordinary stock

INSERTS

# Grooving Inserts



A/B Series

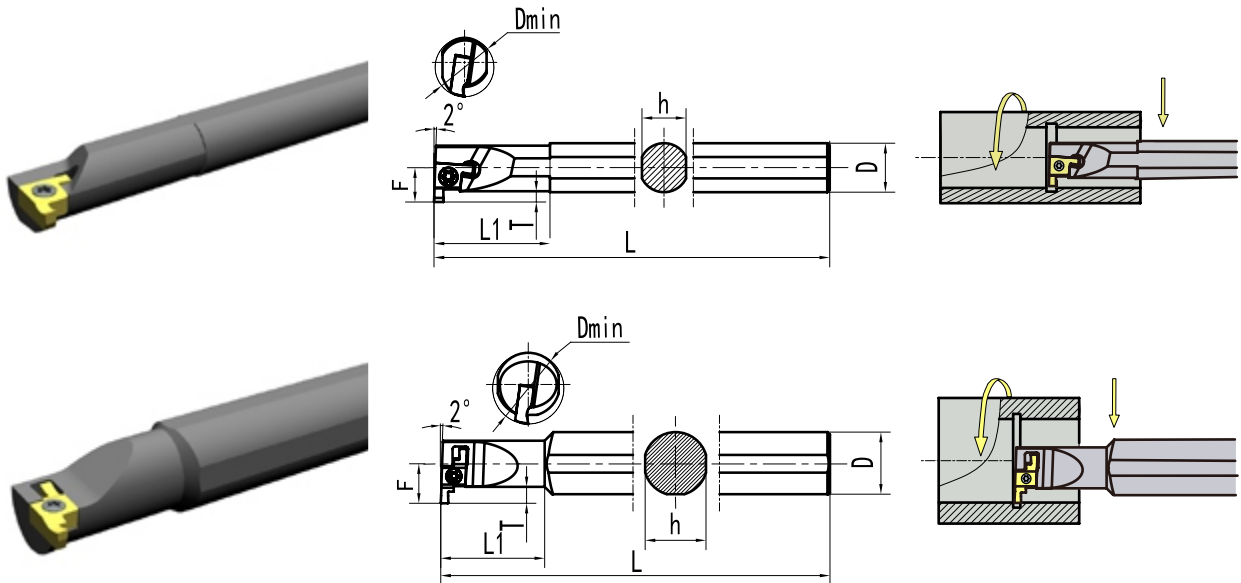
C/D/E Series

Right	Left	Width	Depth	Radius	Material				Dimensions (mm)			
					P M K		N					
					BM1525	BN1020	R	L	R	L	L	A
GER100-050AR	GEL100-050AR	1.0	1.7	0.5	●	○	○	○	6.5	6.69	2.5	2.58
GER150-075AR	GEL150-075AR	1.5	1.7	0.75	●	○	○	○				
GER200-100AR	GEL200-100AR	2.0	1.7	1	●	○	○	○				
GER100-050BR	GEL100-050BR	1.0	2.4	0.5	●	○	○	○	8.2	8.46	2.7	3.18
GER150-075BR	GEL150-075BR	1.5	2.4	0.75	●	○	○	○				
GER200-100BR	GEL200-100BR	2.0	2.4	1	●	○	○	○				
GER250-125BR	GEL250-125BR	2.5	2.4	1.25	●	○	○	○	11.5	5.8	2.8	4.0
GER300-150BR	GEL300-150BR	3.0	2.4	1.5	●	○	○	○				
GER100-050CR	GEL100-050CR	1.0	2.5	0.5	●	○	○	○				
GER150-075CR	GEL150-075CR	1.5	2.5	0.75	●	○	○	○	16.5	6.8	3.4	5.0
GER200-100CR	GEL200-100CR	2.0	2.5	1	●	○	○	○				
GER250-125CR	GEL250-125CR	2.5	2.5	1.25	●	○	○	○				
GER300-150CR	GEL300-150CR	3.0	2.5	1.5	●	○	○	○	21.6	9.5	4.4	5.5
GER150-075DR	GEL150-075DR	1.5	4.5	0.75	●	○	○	○				
GER200-100DR	GEL200-100DR	2.0	4.5	1	●	○	○	○				
GER250-125DR	GEL250-125DR	2.5	4.5	1.25	●	○	○	○	21.6	9.5	4.4	5.5
GER300-150DR	GEL300-150DR	3.0	4.5	1.5	●	○	○	○				
GER250-125ER	GEL250-125ER	2.5	6.5	1.25	●	○	○	○				
GER300-150ER	GEL300-150ER	3.0	6.5	1.5	●	○	○	○	21.6	9.5	4.4	5.5
GER350-175ER	GEL350-175ER	3.5	6.5	1.75	●	○	○	○				
GER400-200ER	GEL400-200ER	4.0	6.5	2	●	○	○	○				
GER450-225ER	GEL450-225ER	4.5	6.5	2.25	●	○	○	○	21.6	9.5	4.4	5.5
GER500-250ER	GEL500-250ER	5.0	6.5	2.5	●	○	○	○				

● Stock ○ Extraordinary stock

INSERTS

# Grooving Toolholder



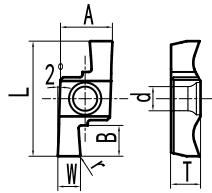
Model		Insert	Dmin	Drawing	Dimensions (mm)						Screw	Torx key
Right	Left				T	L1	D	F	h	L		
SIGER0808A	SIGEL0808A	GE**-A	8		1.5	20	8	4.8	7.2	100	L60M2. 2*5*D3	T-6
SIGER0808A-WH	SIGEL0808A-WH					28	8	4.8	7.2	125		
SIGER1010B	SIGEL1010B	GE**-B	10		2.2	25	10	6.2	9	125	L60M2. 5*6*D3.5	T-8
SIGER1010B-WH	SIGEL1010B-WH					35	10	6.2	9	125		
SIGER1210B	SIGEL1210B					30	10	7	9	125		
SIGER1412C	SIGEL1412C	GE**-C	14		2.5	33	12	8	11.4	150	L60M2. 5*6*D3.5	T-8
SIGER1612C	SIGEL1612C					20	12	8.5	11.4	150		
SIGER1616C	SIGEL1616C					36	16	9	15	160		
SIGER2020D	SIGEL2020D	GE**-D	20		4.5	40	20	12.1	19	180	L60M3*8*D4	T-10
SIGER2525D	SIGEL2525D		25			4.2	45	25	12.3	24		
SIGER2525E	SIGEL2525E	GE**-E GE**-ER	25		6.5	45	25	15.6	24	200	L60M4*8. 5*D5.7	T-15
SIGER3232E	SIGEL3232E		32			55	32	19	30.4	220		
SIGER4032E	SIGEL4032E		40			-	32	23	30.4	250		

INSERTS

# Grooving Inserts



D/E Series

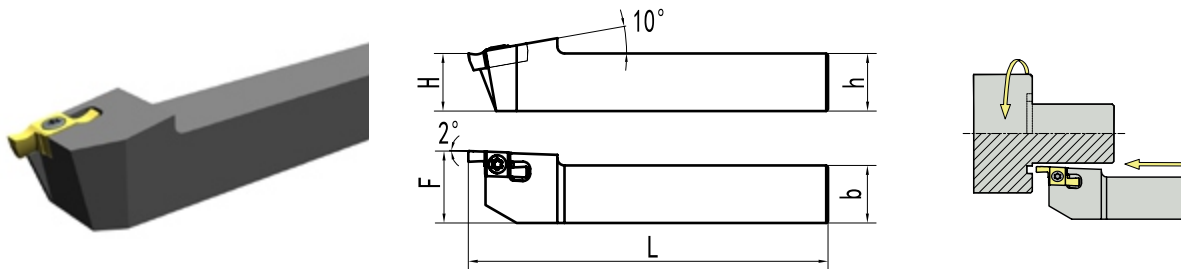


INSERTS

Model	Dmin	Width	Depth	Radius	Material		Dimensions (mm)			
					P M K	N				
					W	B	r	BM1525	BN1020	L
GER100DM06-D	>6mm	1.0	2.5	0.05	●	○	16.5	6.8	3.4	5.0
GER150DM10-D	>10mm	1.5	2.8	0.2	●	○				
GER200DM10-D	>10mm	2.0	3.5	0.2	●	○				
GER250DM15-D	>15mm	2.5	4.5	0.2	●	○				
GER300DM15-D	>15mm	3.0	4.5	0.2	●	○				
GER400DM15-D	>15mm	4.0	4.5	0.2	●	○	21.6	9.5	4.4	5.5
GER150DM10-E	>10mm	1.5	3.6	0.1	●	○				
GER200DM10-E	>10mm	2.0	4.8	0.2	●	○				
GER250DM15-E	>15mm	2.5	6.0	0.2	●	○				
GER300DM15-E	>15mm	3.0	6.5	0.2	●	○				
GER350DM15-E	>15mm	3.5	6.5	0.2	●	○	16.5	6.8	3.4	5.0
GER400DM15-E	>15mm	4.0	6.5	0.2	●	○				
GER450DM15-E	>15mm	4.5	6.5	0.2	●	○				
GER500DM15-E	>15mm	5.0	6.5	0.2	●	○	21.6	9.5	4.4	5.5
GER150DM10R075-D	>10mm	1.5	2.5	0.75	○	○				
GER200DM10R100-D	>10mm	2.0	3.5	1.0	○	○				
GER250DM15R125-D	>15mm	2.5	4.5	1.25	○	○				
GER300DM15R150-D	>15mm	3.0	4.5	1.5	○	○				
GER400DM15R200-D	>15mm	4.0	4.5	2.0	○	○	16.5	6.8	3.4	5.0
GER150DM10R075-E	>10mm	1.5	3.6	0.75	○	○				
GER200DM10R100-E	>10mm	2.0	4.8	1.0	○	○				
GER250DM15R125-E	>15mm	2.5	6.0	1.25	○	○				
GER300DM15R150-E	>15mm	3.0	6.5	1.5	○	○				
GER400DM15R200-E	>15mm	4.0	6.5	2.0	○	○	21.6	9.5	4.4	5.5
GER500DM15R250-E	>15mm	5.0	6.5	2.5	○	○				

● Stock ○ Extraordinary stock

## Grooving Toolholder

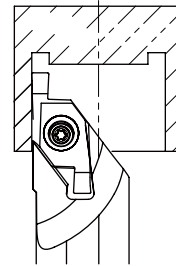
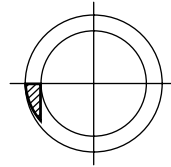
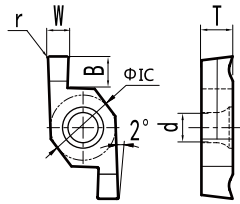


Model	Insert	Dimensions (mm)					Screw	Torx key
		h	b	L	F	H		
SEGEL1010H-D	GER**-D	10	10	100	10	10	L60M3*8*D4	T-10
SEGEL1212H-D		12	12	100	12	12		
SEGEL1616H-D		16	16	100	20	16		
SEGEL2020K-D		20	20	125	25	20		
SEGEL2525M-D		25	25	150	32	25		
SEGEL1616K-E	GER**-E	16	16	125	20	16	L60M4*8.5*D5.7	T-15
SEGEL2020K-E		20	20	125	25	20		
SEGEL2525M-E		25	25	150	32	25		
SEGEL3232M-E		32	32	150	37	32		

## Grooving Inserts



Right hand

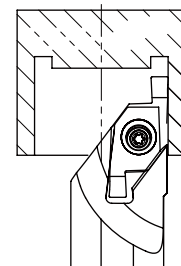
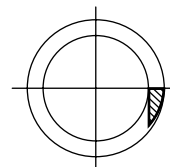
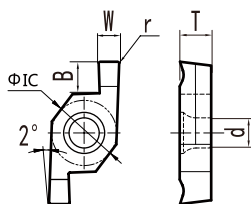


Model	Dmin	Width	Depth	Radius	Material		Dimensions (mm)				
					P	M	K	N	IC	d	T
					W	B	r	BM1525			
VC16R100-DM20L	>20mm	1.00	2.5	0.1	●	○	9.525	4.4	4.6		
VC16R125-DM20L	>20mm	1.25	2.5	0.1	●	○					
VC16R150-DM20L	>20mm	1.50	4.8	0.2	●	○					
VC16R175-DM20L	>20mm	1.75	4.8	0.2	●	○					
VC16R200-DM20L	>20mm	2.00	4.8	0.2	●	○					
VC16R225-DM20L	>20mm	2.25	4.8	0.2	●	○					
VC16R250-DM20L	>20mm	2.50	4.8	0.2	●	○					
VC16R275-DM20L	>20mm	2.75	4.8	0.2	●	○					
VC16R300-DM20L	>20mm	3.00	4.8	0.2	●	○					

● Stock ○ Extraordinary stock



Left hand

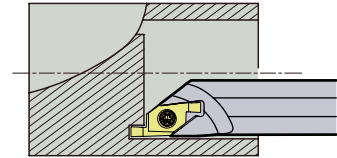
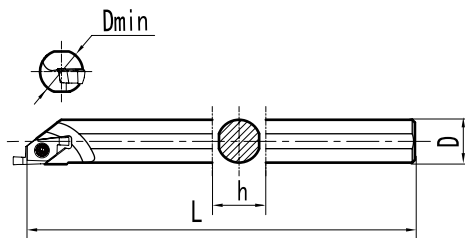
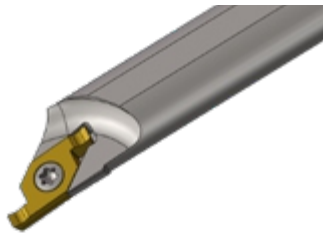


Model	Dmin	Width	Depth	Radius	Material		Dimensions (mm)				
					P	M	K	N	IC	d	T
					W	B	r	BM1525			
VC16L100-DM20R	>20mm	1.00	2.5	0.1	○	○	9.525	4.4	4.6		
VC16L125-DM20R	>20mm	1.25	2.5	0.1	○	○					
VC16L150-DM20R	>20mm	1.50	4.8	0.2	○	○					
VC16L175-DM20R	>20mm	1.75	4.8	0.2	○	○					
VC16L200-DM20R	>20mm	2.00	4.8	0.2	○	○					
VC16L225-DM20R	>20mm	2.25	4.8	0.2	○	○					
VC16L250-DM20R	>20mm	2.50	4.8	0.2	○	○					
VC16L275-DM20R	>20mm	2.75	4.8	0.2	○	○					
VC16L300-DM20R	>20mm	3.00	4.8	0.2	○	○					

● Stock ○ Extraordinary stock



# Grooving Toolholder



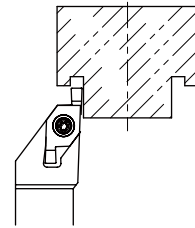
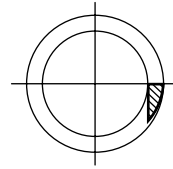
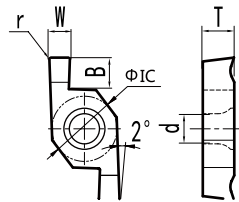
Model		Insert	Dimensions (mm)				Screw	Torx key
			Dmin	D	L	h		
Right hand	S16M-SVFPR16-18	VC16R**-DM20L	18	16	150	15	L60M4*8.5*D5.7	T-15
	S20Q-SVFPR16-22		22	20	180	19	L60M4*8.5*D5.7	T-15
	S25R-SVFPR16-27		27	25	200	24	L60M4*8.5*D5.7	T-15
	S32S-SVFPR16-34		34	32	250	30	L60M4*8.5*D5.7	T-15
Left hand	S16M-SVFPL16-18	VC16L**-DM20R	18	16	150	15	L60M4*8.5*D5.7	T-15
	S20Q-SVFPL16-22		22	20	180	19	L60M4*8.5*D5.7	T-15
	S25R-SVFPL16-27		27	25	200	24	L60M4*8.5*D5.7	T-15
	S32S-SVFPL16-34		34	32	250	30	L60M4*8.5*D5.7	T-15

INSERTS

## Grooving Inserts



Right hand

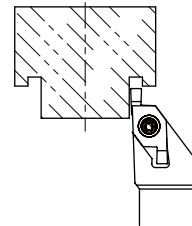
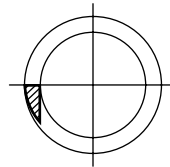
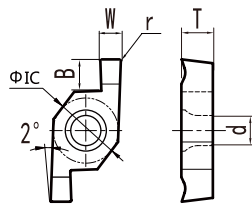


Model	Dmin	Width	Depth	Radius	Material		Dimensions (mm)		
					PMK	N	IC	d	T
					BM1525	BN1020			
VC16R100-DM20R	>20mm	1.00	2.5	0.1	○	○	9.525	4.4	4.6
VC16R125-DM20R	>20mm	1.25	2.5	0.1	○	○			
VC16R150-DM20R	>20mm	1.50	4.8	0.2	○	○			
VC16R175-DM20R	>20mm	1.75	4.8	0.2	○	○			
VC16R200-DM20R	>20mm	2.00	4.8	0.2	○	○			
VC16R225-DM20R	>20mm	2.25	4.8	0.2	○	○			
VC16R250-DM20R	>20mm	2.50	4.8	0.2	○	○			
VC16R275-DM20R	>20mm	2.75	4.8	0.2	○	○			
VC16R300-DM20R	>20mm	3.00	4.8	0.2	○	○			

● Stock ○ Extraordinary stock

INSERTS

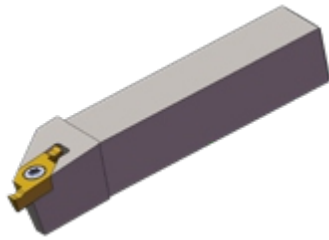
## Left hand



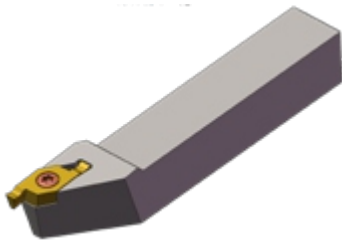
Model	Dmin	Width	Depth	Radius	Material		Dimensions (mm)		
					PMK	N	IC	d	T
					BM1525	BN1020			
VC16L100-DM20L	>20mm	1.00	2.5	0.1	○	○	9.525	4.4	4.6
VC16L125-DM20L	>20mm	1.25	2.5	0.1	○	○			
VC16L150-DM20L	>20mm	1.50	4.8	0.2	○	○			
VC16L175-DM20L	>20mm	1.75	4.8	0.2	○	○			
VC16L200-DM20L	>20mm	2.00	4.8	0.2	○	○			
VC16L225-DM20L	>20mm	2.25	4.8	0.2	○	○			
VC16L250-DM20L	>20mm	2.50	4.8	0.2	○	○			
VC16L275-DM20L	>20mm	2.75	4.8	0.2	○	○			
VC16L300-DM20L	>20mm	3.00	4.8	0.2	○	○			

● Stock ○ Extraordinary stock

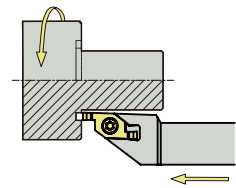
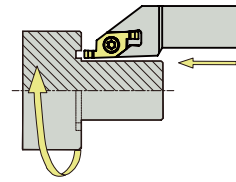
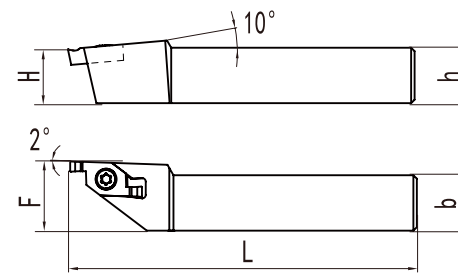
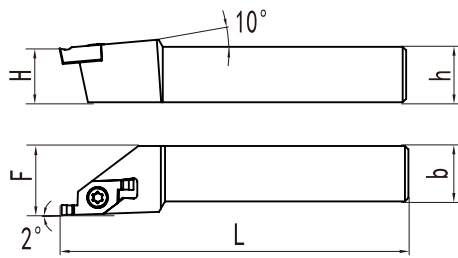
# Grooving Toolholder



Right hand



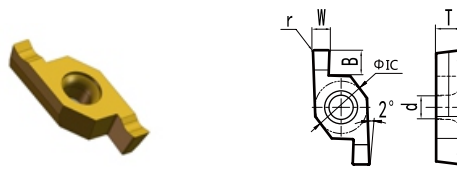
Left hand



Model		Insert	Dimensions (mm)					Screw	Torx key
			h	b	L	F	H		
Right hand	SVFCR1616H-16	VC16R**-DM20R	16	16	100	20	16	L60M4*8.5*D5.7	T-15
	SVFCR2020K-16		20	20	125	25	20		
	SVFCR2525M-16		25	25	150	32	25		
Left hand	SVFCL1616H-16	VC16L**-DM20L	16	16	100	20	16	L60M4*8.5*D5.7	T-15
	SVFCL2020K-16		20	20	125	25	20		
	SVFCL2525M-16		25	25	150	32	25		

INSERTS

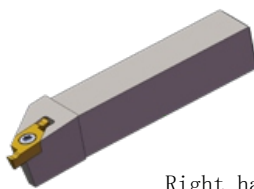
## Grooving Inserts



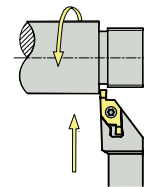
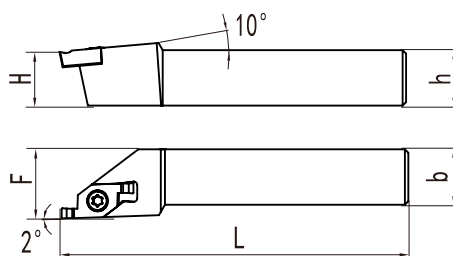
Model	Width	Depth	Radius	Material		Dimensions (mm)		
				PMK	N	IC	d	T
				BM1525	BN1020			
VC16R100	1.00	2.5	0.1	○	○	9.525	4.4	4.6
VC16R125	1.25	2.5	0.1	○	○			
VC16R150	1.50	4.8	0.2	○	○			
VC16R175	1.75	4.8	0.2	○	○			
VC16R200	2.00	4.8	0.2	○	○			
VC16R225	2.25	4.8	0.2	○	○			
VC16R250	2.50	4.8	0.2	○	○			
VC16R275	2.75	4.8	0.2	○	○			
VC16R300	3.00	4.8	0.2	○	○			
VC16L100	1.00	2.5	0.1	○	○			
VC16L125	1.25	2.5	0.1	○	○			
VC16L150	1.50	4.8	0.2	○	○			
VC16L175	1.75	4.8	0.2	○	○			
VC16L200	2.00	4.8	0.2	○	○			
VC16L225	2.25	4.8	0.2	○	○			
VC16L250	2.50	4.8	0.2	○	○			
VC16L275	2.75	4.8	0.2	○	○			
VC16L300	3.00	4.8	0.2	○	○			

● Stock ○ Extraordinary stock

## Grooving Toolholder

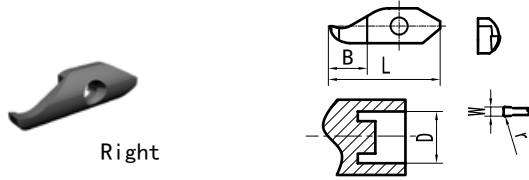


Right hand



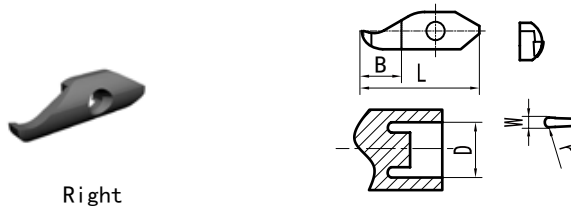
Model	Insert	Dimensions (mm)					Screw	Torx key	
		h	b	L	F	H			
Right hand	SVFCR1616H-16	VC16R**	16	16	100	20	16	L60M4*8.5*D5.7	T-15
	SVFCR2020K-16		20	20	125	25	20	L60M4*8.5*D5.7	T-15
	SVFCR2525M-16		25	25	150	32	25	L60M4*8.5*D5.7	T-15
Left hand	SVFCL1616H-16	VC16L**	16	16	100	20	16	L60M4*8.5*D5.7	T-15
	SVFCL2020K-16		20	20	125	25	20	L60M4*8.5*D5.7	T-15
	SVFCL2525M-16		25	25	150	32	25	L60M4*8.5*D5.7	T-15

# Grooving Inserts



Model	Range		Width	Depth	Radius	Length	Material		Suitable to Toolholder
							PMK	N	
	min	max	W	B	r	L	BM1525	BN1020	
SPDR080DM06A	6	∞	0.8	4.5	0.1	13.6	●	○	KSPDR0010F06A KSPDR0012F06A
SPDR100DM06A	6	∞	1.0	6	0.15		●	○	
SPDR120DM06A	6	∞	1.2	6	0.15		●	○	
SPDR150DM06A	6	∞	1.5	6	0.15		●	○	
SPDR175DM06A	6	∞	1.75	6	0.15		●	○	
SPDR200DM06A	6	∞	2.0	6	0.15		●	○	
SPDR100DM10	10	32	1.0	5.4	0.2	25.1	●	○	KSPDR0012F10 KSPDR0016F10 KSPDR0020F10
SPDR150DM10	10	32	1.5	6.4	0.2		●	○	
SPDR200DM10	10	∞	2.0	7.8	0.2		●	○	
SPDR250DM10	10	∞	2.5	9.9	0.2		●	○	
SPDR300DM10	10	∞	3.0	9.9	0.2		●	○	

● Stock ○ Extraordinary stock

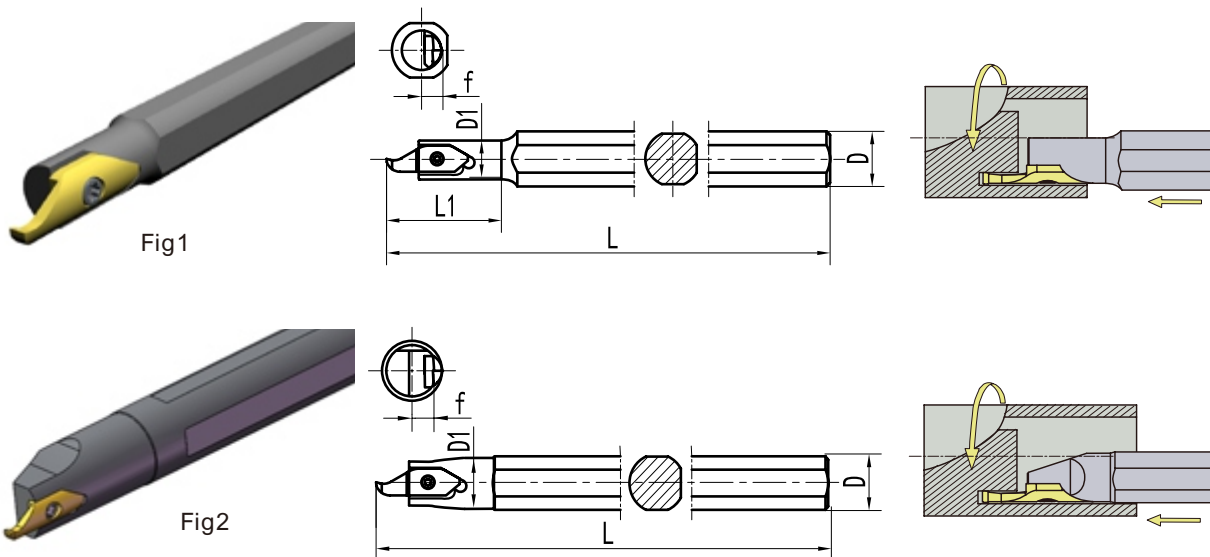


Model	Range		Width	Depth	Radius	Length	Material		Suitable to Toolholder
							PMK	N	
	min	max	W	B	r	L	BM1525	BN1020	
SPDR080DM06A-R0.40	6	∞	0.80	4.5	0.40	13.6	●	○	KSPDR0010F06A KSPDR0012F06A
SPDR100DM06A-R0.50	6	∞	1.00	6.0	0.50		●	○	
SPDR120DM06A-R0.60	6	∞	1.20	6.0	0.60		●	○	
SPDR150DM06A-R0.75	6	∞	1.50	6.0	0.75		●	○	
SPDR180DM06A-R0.90	6	∞	1.80	6.0	0.90		●	○	
SPDR200DM06A-R1.00	6	∞	2.00	6.0	1.00		●	○	
SPDR100DM10-R0.50	10	32	1.00	5.4	0.50	25.1	●	○	KSPDR0012F10 KSPDR0016F10 KSPDR0020F10
SPDR150DM10-R0.75	10	32	1.50	6.4	0.75		●	○	
SPDR200DM10-R1.00	10	∞	2.00	7.8	1.00		●	○	

● Stock ○ Extraordinary stock

INSERTS

Grooving Toolholder



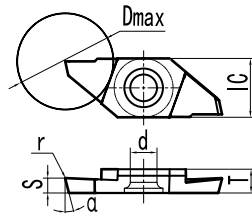
INSERTS

Model	Insert	Type	Dimensions (mm)					Screw	Torx key
			D	D1	L	L1	f		
KSPDR0010F06A	SPDR**DM06A	Fig1	10	6	90	18	3	L60M2*6*D2.8	T-6
KSPDR0012H06A			12	6	100	18	3	L60M2*6*D2.8	T-6
KSPDR0016K06A			16	6	125	18	3	L60M2*6*D2.8	T-6
KSPDR0012H10	SPDR**DM10	Fig1	12	10	100	32	5.2	L60M3*8*D4	T-10
KSPDR0016K10			16	10	125	36	5.2	L60M3*8*D4	T-10
KSPDR0020M10			20	10	150	42	5.2	L60M3*8*D4	T-10
KSPDR0012K10F		Fig2	12	11.5	125	-	6.8	L60M3*8*D4	T-10
KSPDR0016M10F			16	15.5	150	-	8.8	L60M3*8*D4	T-10
KSPDR0020P10F			20	19.5	170	-	10.8	L60M3*8*D4	T-10

# Grooving Inserts



Right hand

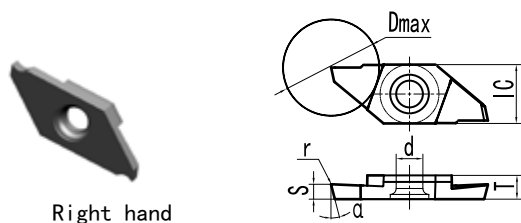


Type	Insert		Width W	Angle $\alpha$	Depth $D_{max}$	Radius r	Material		Dimensions (mm)		
	Right	Left					P M K BM1525	N BN1020	IC	d	T
	TKF12R050-S	TKF12L050-S	0.5	0	2.5	0.05	●	○	8.7	5	3
	TKF12R070-S	TKF12L070-S	0.7	0	4	0.05	●	○			
	TKF12R100-S	TKF12L100-S	1.0	0	6	0.08	●	○			
	TKF12R150-S	TKF12L150-S	1.5	0	6	0.08	●	○			
	TKF12R200-S	TKF12L200-S	2.0	0	6	0.08	●	○			
	TKF12R050-S16R	TKF12L050-S16R	0.5	16	2.5	0.05	●	○			
	TKF12R070-S16R	TKF12L070-S16R	0.7	16	4	0.05	●	○			
	TKF12R100-S16R	TKF12L100-S16R	1.0	16	6	0.08	●	○			
	TKF12R150-S16R	TKF12L150-S16R	1.5	16	6	0.08	●	○			
	TKF12R200-S16R	TKF12L200-S16R	2.0	16	6	0.08	●	○			
	TKF12R050-NB	TKF12L050-NB	0.5	0	2.5	0.05	○	○	8.7	5	3
	TKF12R070-NB	TKF12L070-NB	0.7	0	4	0.05	○	○			
	TKF12R100-NB	TKF12L100-NB	1.0	0	6	0.08	○	○			
	TKF12R150-NB	TKF12L150-NB	1.5	0	6	0.08	○	○			
	TKF12R200-NB	TKF12L200-NB	2.0	0	6	0.08	○	○			
	TKF12R050-NB-20DR	TKF12L050-NB-20DR	0.5	20	2.5	0.05	○	○			
	TKF12R070-NB-20DR	TKF12L070-NB-20DR	0.7	20	4	0.05	○	○			
	TKF12R100-NB-20DR	TKF12L100-NB-20DR	1.0	20	6	0.08	○	○			
	TKF12R150-NB-20DR	TKF12L150-NB-20DR	1.5	20	6	0.08	○	○			
	TKF12R200-NB-20DR	TKF12L200-NB-20DR	2.0	20	6	0.08	○	○			



● Stock ○ Extraordinary stock

INSERTS

## Grooving Inserts



Right hand

Type	Insert		Width W	Angle $\alpha$	Depth Dmax	Radius r	Material		Dimensions (mm)		
	Right	Left					P M K BM1525	N BN1020	IC	d	T
	TKF16R100-S	TKF16L100-S	1.0	0	7	0.08	●	○	9.5	5	4
	TKF16R150-S	TKF16L150-S	1.5	0	8	0.1	●	○			
	TKF16R200-S	TKF16L200-S	2.0	0	8	0.1	●	○			
	TKF16R250-S	TKF16L250-S	2.5	0	8	0.1	●	○			
	TKF16R300-S	TKF16L300-S	3.0	0	8	0.15	●	○			
	TKF16R100-S16R	TKF16L100-S16R	1.0	16	8	0.08	●	○			
	TKF16R150-S16R	TKF16L150-S16R	1.5	16	8	0.1	●	○			
	TKF16R200-S16R	TKF16L200-S16R	2.0	16	8	0.1	●	○			
	TKF16R250-S16R	TKF16L250-S16R	2.5	16	8	0.1	●	○			
	TKF16R300-S16R	TKF16L300-S16R	3.0	16	8	0.15	●	○			
	TKF16R100-NB	TKF16L100-NB	1.0	0	8	0.08	○	○			
	TKF16R150-NB	TKF16L150-NB	1.5	0	8	0.1	○	○			
	TKF16R200-NB	TKF16L200-NB	2.0	0	8	0.1	○	○			
	TKF16R250-NB	TKF16L250-NB	2.5	0	8	0.1	○	○			
	TKF16R300-NB	TKF16L300-NB	3.0	0	8	0.15	○	○			
	TKF16R100-NB-20DR	TKF16L100-NB-20DR	1.0	20	8	0.08	○	○			
	TKF16R150-NB-20DR	TKF16L150-NB-20DR	1.5	20	8	0.1	○	○			
	TKF16R200-NB-20DR	TKF16L200-NB-20DR	2.0	20	8	0.1	○	○			
	TKF16R250-NB-20DR	TKF16L250-NB-20DR	2.5	20	8	0.1	○	○			
	TKF16R300-NB-20DR	TKF16L300-NB-20SR	3.0	20	8	0.15	○	○			

● Stock ○ Extraordinary stock



# TKF 12 R 100 -S- 16 R

Series

Size

Flute  
100=1.0mm

Angle  
16=16°

R: Right  
L: Left

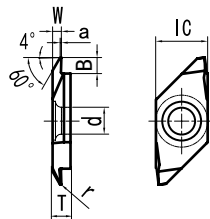
Chipper



Direction  
R: Right  
L: Left

## Adaptation examples

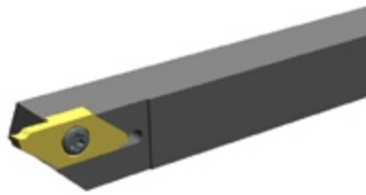
Right holder + Right insert		Right holder + Right insert		Left holder + Left insert	
Direction for insert	R	Direction for insert	L	Direction for insert	R
Ex. for insert	TKF12R150-S16R	Ex. for insert	TKF12R150-S16L	Ex. for insert	TKF12L150-S16R



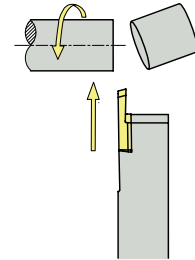
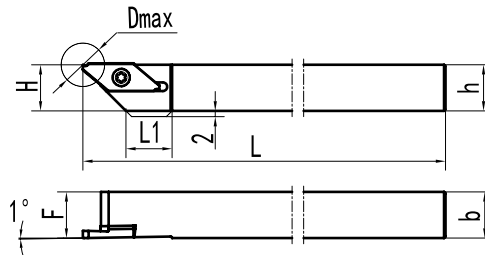
Model	Width	Flute	Depth	Radius	Material		Dimensions (mm)		
					PMK	N	IC	T	d
					BM1525	BN1020			
TKFB12R15005M	1.5	0.25	2.6	<0.05	●	○	8.7	3	5
TKFB12R28005M	2.8	0.3	4.6	<0.05	●	○			
TKFB12R28010M	2.8	0.3	4.6	<0.1	●	○			
TKFB16R38005M	3.8	0.3	6.3	<0.05	●	○	9.5	4	5
TKFB16R38010M	3.8	0.3	6.3	<0.1	●	○			

● Stock ○ Extraordinary stock

Grooving Toolholder



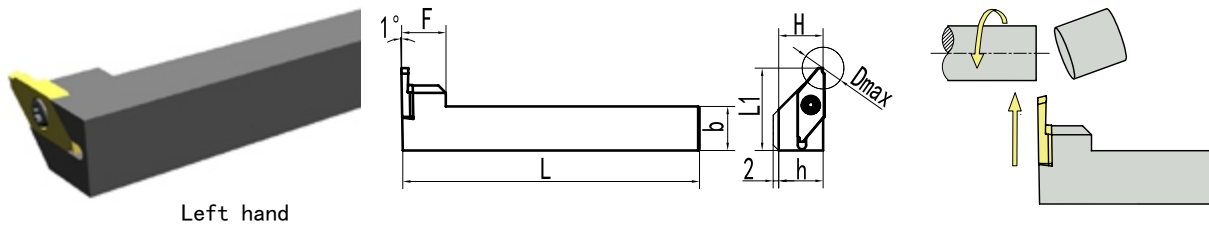
Right hand



INSERTS

Model	Insert	Dimensions (mm)							Screw	Torx key
		h	b	H	F	L	Dmax	L1		
KTKFR1010K-12	TKF12R**	10	10	10	10	125	12	15	L60M4*10*D5.7	T-15
KTKFR1212K-12		12	12	12	12			15		
KTKFR1212M-12	TKFB12R**	12	12	12	12	150	16	-		
KTKFR1616M-12		16	16	16	16					
KTKFR2020M-12	TKFT12R**	20	20	20	20	150	16	-		
KTKFR2525M-12		25	25	25	25					
KTKFR1010K-16	TKF16R**	10	10	10	10	125	16	20	L60M4*10*D5.7	T-15
KTKFR1212K-16		12	12	12	12			20		
KTKFR1212M-16	TKFB16R**	12	12	12	12	150	16	-		
KTKFR1616M-16		16	16	16	16					
KTKFR2020M-16	TKFT16R**	20	20	20	20	150	16	-		
KTKFR2525M-16		25	25	25	25					
KTKFL1010K-12	TKF12L**	10	10	10	10	125	12	15	L60M4*10*D5.7	T-15
KTKFL1212K-12		12	12	12	12			15		
KTKFL1212M-12	TKFB12L**	12	12	12	12	150	16	-		
KTKFL1616M-12		16	16	16	16					
KTKFL2020M-12	TKFT12L**	20	20	20	20	150	16	-		
KTKFL2525M-12		25	25	25	25					
KTKFL1010K-16	TKF16L**	10	10	10	10	125	16	20	L60M4*10*D5.7	T-15
KTKFL1212K-16		12	12	12	12			20		
KTKFL1212M-16	TKFB16L**	12	12	12	12	150	16	-		
KTKFL1616M-16		16	16	16	16					
KTKFL2020M-16	TKFT16L**	20	20	20	20	150	16	-		
KTKFL2525M-16		25	25	25	25					

# Grooving Toolholder



Model	Insert	Dimensions (mm)							Screw	Torx key
		h	b	H	F	L	D <sub>max</sub>	L1		
KTKFL1010F-12-A90	TKF12R**	10	10	10	10	80	12	16	L60M4*10*D5.7	T-15
KTKFL1212F-12-A90	TKFB12R**	12	12	12	12	80		20		
KTKFL1616H-12-A90	TKFT12R**	16	16	16	16	100		24		
KTKFL2020K-12-A90	TKFT12R**	20	20	20	20	125		30		
KTKFL1010F-16-A90	TKF16R**	10	10	10	10	80	16	20	L60M4*10*D5.7	T-15
KTKFL1212F-16-A90	TKFB16R**	12	12	12	12	80		20		
KTKFL1616H-16-A90	TKFT16R**	16	16	16	16	100		24		
KTKFL2020K-16-A90	TKFT16R**	20	20	20	20	125		30		

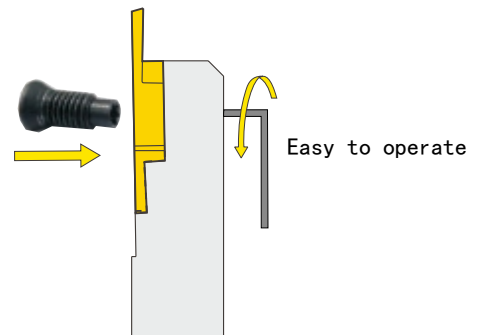
INSERTS

## Screw for CNC Precision Automatic Lathe tool holders

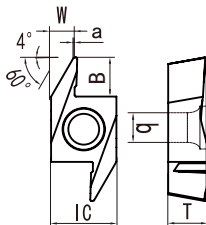


Ordering code: SP-M4X10

- ★ Screw for CNC Precision Automatic Lathe tool holders (M4\*10)
- ★ Front Side : Locking with T15 Wrench  
Reverse Side : Locking with T8 Wrench
- ★ Ordered Separately
- ★ Apply to : Tool Holders for inserts TGF32, TKF12/16, TKFB, THC42



## Grooving Inserts

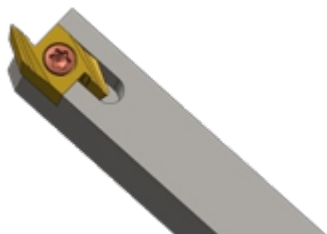


Model	Width	Flute	Depth	Radius	Material		Dimensions (mm)		
					PMK	N	IC	T	d
					BM1525	BN1020			
ABS15R4005	2.8	0.4	4.2	0.05	●	○	7.0	4	3.3
ABS15R4005M	2.8	0.4		<0.05	●	○			
ABS15R4015	2.8	0.4		0.15	●	○			
ABS15R4015M	2.8	0.4		<0.15	●	○			
ABW15R4005	4.7	0.6	4.2	0.05	●	○	7.0	4	3.3
ABW15R4005M	4.7	0.6		<0.05	●	○			
ABW15R4015	4.7	0.6		0.15	●	○			
ABW15R4015M	4.7	0.6		<0.15	●	○			

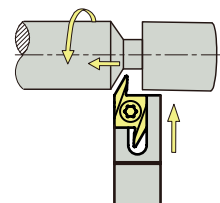
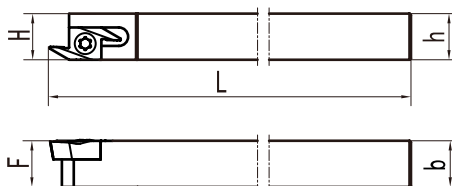
● Stock ○ Extraordinary stock

INSERTS

## Grooving Toolholder



Right hand

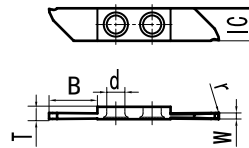


Model	Insert	Dimensions (mm)					Screw	Torx key
		h	b	H	F	L		
SABSR1010H-40F	ABS15R** ABW15R**	10	10	10	10	100	L60M3*8*D4	T-10
SABSR1212K-40F		12	12	12	12	125		
SABSR1616K-40F		16	16	16	16	125		

# Grooving Inserts



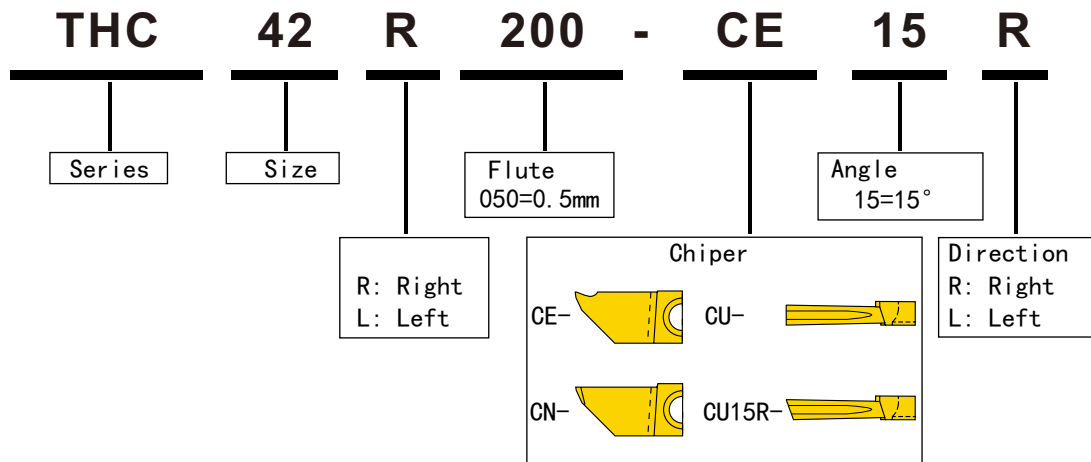
Right hand



Type	Insert		Width	Angle	Depth	Radius	Material		Dimensions (mm)			
	Right	Left					PMK	N	IC	d	T	
												BM1525
	THC42R100-CE	THC42L100-CE	1.0	0	5	0.06	●	○	7.94	4.35	3.07	
	THC42R150-CE	THC42L150-CE	1.5	0	8.5	0.06	●	○				
	THC42R200-CE	THC42L200-CE	2.0	0	11.5	0.1	●	○				
	THC42R250-CE	THC42L250-CE	2.5	0	11.5	0.1	●	○				
	THC42R300-CE	THC42L300-CE	3.0	0	11.5	0.2	●	○				
	THC42R340-CE	THC42L340-CE	3.4	0	11.5	0.2	●	○				
	THC42R100-CE15R	THC42L100-CE15R	1.0	15	5	0.06	●	○				
	THC42R150-CE15R	THC42L150-CE15R	1.5	15	8.5	0.06	●	○				
	THC42R200-CE15R	THC42L200-CE15R	2.0	15	11.5	0.1	●	○				
	THC42R250-CE15R	THC42L250-CE15R	2.5	15	11.5	0.1	●	○				
	THC42R300-CE15R	THC42L300-CE15R	3.0	15	11.5	0.2	○	○				
	THC42R340-CE15R	THC42L340-CE15R	3.4	15	11.5	0.2	○	○				
		THC42R200-CN	THC42L200-CN	2.0	0	11.5	0.1	○				○
		THC42R250-CN	THC42L250-CN	2.5	0	11.5	0.1	○				○
THC42R300-CN		THC42L300-CN	3.0	0	11.5	0.2	○	○				
	THC42R200-CU15R	THC42L200-CU15R	2.0	15	11.5	0.1	○	○				
	THC42R250-CU15R	THC42L250-CU15R	2.5	15	11.5	0.1	○	○				
	THC42R300-CU15R	THC42L300-CU15R	3.0	15	11.5	0.2	○	○				

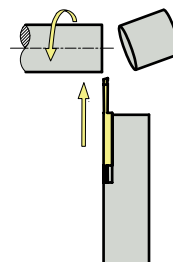
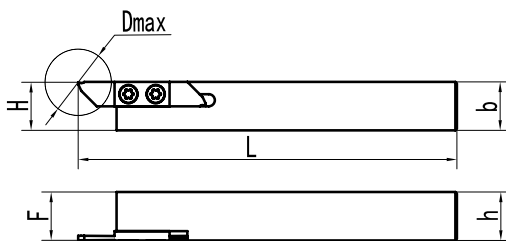
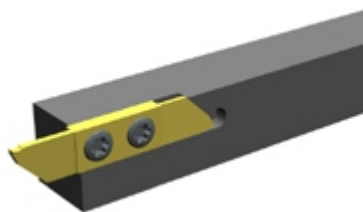
● Stock ○ Extraordinary stock

## Representation method for blade type



INSERTS

# Grooving Toolholder



INSERTS

Model	Insert	Dimensions (mm)						Screw	Torx key
		h	b	H	F	L	D <sub>max</sub>		
THCR1010J42	THC42R**	10	10	10	10	110	23	L60M4*10*D5.7	T-15
THCR1212J42		12	12	12	12				
THCR1616J42		16	16	16	16				
THCR2020K42		20	20	20	20	125			
THCR2525M42		25	25	25	25	150			
THCL1010J42	THC42L**	10	10	10	10	110	23	L60M4*10*D5.7	T-15
THCL1212J42		12	12	12	12				
THCL1616J42		16	16	16	16				
THCL2020K42		20	20	20	20	125			
THCL2525M42		25	25	25	25	150			

Grooving Inserts

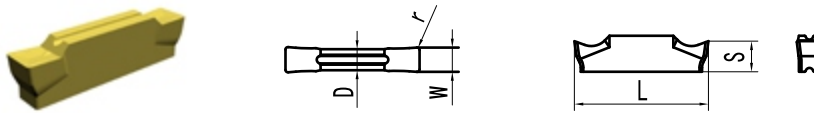


Fig.	Type	Insert	Width	Radius	Angle	Material			Dimensions (mm)			
						PMK	P	N	L	S	D	
						BM1525	BP1825	BN1020				
W	r	$\alpha$										
		MGGN150-LH	1.5	0.15	0	●	●	●	16	3.5	1.2	
		MGGN200-LH	2.0	0.2		●	●	●	16	3.5	1.6	
		MGGN250-LH	2.5	0.2		●	●	●	18.5	3.85	2	
		MGGN300-LH	3.0	0.4		●	●	●	21	4.8	2.35	
		MGGN400-LH	4.0	0.4		●	●	●	21	4.8	3.3	
		MGGN500-LH	5.0	0.8		●	●	●	26	5.8	4.12	
		MGGN150-S06R	1.5	0.15		●	●	●	16	3.5	1.2	
		MGGN200-S06R	2.0	0.2		●	●	●	16	3.5	1.6	
		MGGN250-S06R	2.5	0.2		●	●	●	18.5	3.85	2	
		MGGN300-S06R	3.0	0.4		●	●	●	21	4.8	2.35	
		MGGN400-S06R	4.0	0.4		●	●	●	21	4.8	3.3	
		MGGN500-S06R	5.0	0.8		●	●	●	26	5.8	4.12	
			MGGN150-S06L	1.5		0.15	●	●	●	16	3.5	1.2
			MGGN200-S06L	2.0		0.2	●	●	●	16	3.5	1.6
			MGGN250-S06L	2.5		0.2	●	●	●	18.5	3.85	2
		MGMN150-G	1.5	0.15	●	●		16	3.5	1.2		
		MGMN200-G	2.0	0.2	●	●		16	3.5	1.6		
		MGMN250-G	2.5	0.2	●	●		18.5	3.85	2		
		MGMN300-G	4.0	0.4	●	●		21	4.8	2.35		
		MGMN400-G	4.0	0.4	●	●		21	4.8	3.3		
		MGMN200-M	2.0	0.2	●	●		16	3.5	1.6		
		MGMN250-M	2.5	0.2	●	●		18.5	3.85	2		
		MGMN300-M	3.0	0.4	●	●		21	4.8	2.35		
		MGMN400-M	4.0	0.4	●	●		21	4.8	3.3		
		MGMN500-M	5.0	0.8	●	●		26	5.8	4.12		
		MGMN600-M	6.0	0.8	●	●		26	5.8			
		MGMN200-T	2.0	0.2	●	●		16	3.5	1.6		
		MGMN300-T	3.0	0.4	●	●		21	4.8	2.35		
		MGMN400-T	4.0	0.4	●	●		21	4.8	3.3		
		MGMN500-T	5.0	0.8	○	○		26	5.8	4.12		
		MGMN200-C	2.0	0.2	●	●		16	3.5	1.6		
		MGMN250-C	2.5	0.2	●	●		18.5	3.85	2		
		MGMN300-C	3.0	0.4	●	●		21	4.8	2.35		
		MGMN400-C	4.0	0.4	●	●		21	4.8	3.3		
		MGMN500-C	5.0	0.8	●	●		26	5.8	4.12		
		MRMN200-M	2.0	1.0	●	●		16	3.5	1.6		
		MRMN300-M	3.0	1.5	●	●		21	4.8	2.35		
		MRMN400-M	4.0	2.0	●	●		21	4.8	3.3		
		MRMN500-M	5.0	2.5	●	●		26	5.8	4.12		

INSERTS

● Stock ○ Extraordinary stock

Grooving Inserts

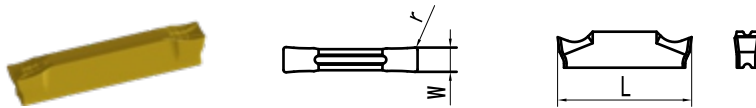


Fig.	Model	Width	Radius	Length	Material	
					P M K	P
					BM1525	BP1825
	MGMN150-J	1.5	0.2	20	●	●
	MGMN200-J	2.0	0.2	20	●	●
	MGMN250-J	2.5	0.2	20	●	●
	MGMN300-J	3.0	0.2	20	●	●
	MGMN400-J	4.0	0.8	20	●	●

● Stock ○ Extraordinary stock

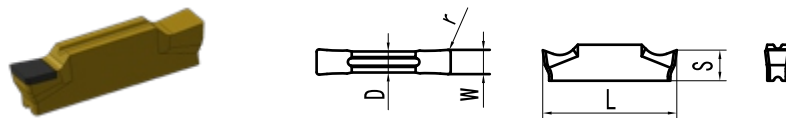


Fig.	Type	Model	Width	Radius	Material		Dimensions (mm)		
					P M K	N	L	S	D
					PCD	CBN			
		MGMN150-PCD	1.5	0.15	●	●	16	3.5	1.2
		MGMN200-PCD	2.0	0.2	●	●	16	3.5	1.6
		MGMN250-PCD	2.5	0.2	●	●	18.5	3.85	2
		MGMN300-PCD	3.0	0.4	●	●	21	4.8	2.35
		MGMN400-PCD	4.0	0.4	●	●	21	4.8	3.3
		MGMN500-PCD	5.0	0.4	●	●	26	5.8	4.12
		MGMN150-CBN	1.5	0.15	●	●	16	3.5	1.2
		MGMN200-CBN	2.0	0.2	●	●	16	3.5	1.6
		MGMN250-CBN	2.5	0.2	●	●	18.5	3.85	2
		MGMN300-CBN	3.0	0.4	●	●	21	4.8	2.35
		MGMN400-CBN	4.0	0.4	●	●	21	4.8	3.3
		MGMN500-CBN	5.0	0.4	●	●	26	5.8	4.12
		MRMN200-PCD	2.0	1.0	●	●	16	3.5	1.6
		MRMN300-PCD	3.0	1.5	●	●	21	4.8	2.35
		MRMN400-PCD	4.0	2.0	●	●	21	4.8	3.3
		MRMN500-PCD	5.0	2.5	●	●	26	5.8	4.12
		MRMN200-CBN	2.0	1.0	●	●	16	3.5	1.6
		MRMN300-CBN	3.0	1.5	●	●	21	4.8	2.35
		MRMN400-CBN	4.0	2.0	●	●	21	4.8	3.3
		MRMN500-CBN	5.0	2.5	●	●	26	5.8	4.12

● Stock ○ Extraordinary stock



# Grooving Inserts

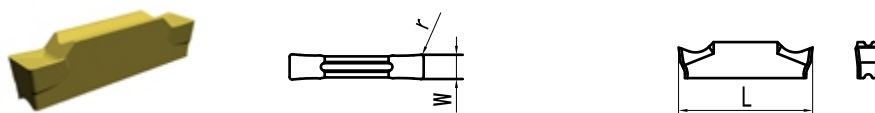
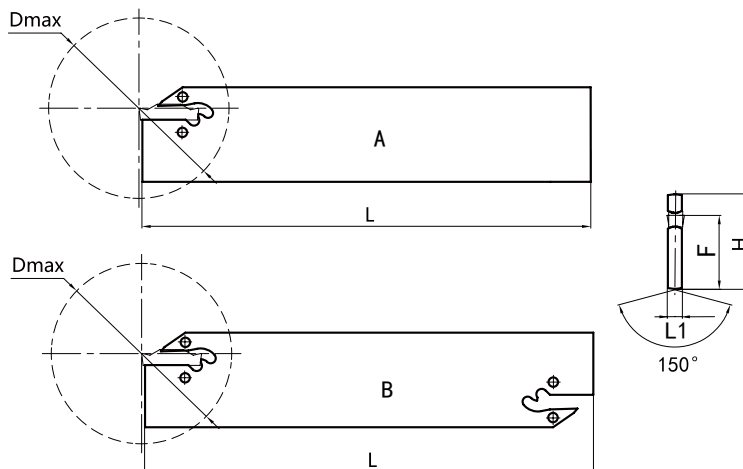


Fig.	Type	Insert	Width	Radius	Material			Dimensions (mm)		
					PMK	P	N	L	S	D
			W	r	BM1525	BP1825	BN1020			
		TDC2-LH	2	0.2	●	●		20	3.9	1.7
		TDC3-LH	3	0.2	●	●		20	4	2.4
		TDC4-LH	4	0.3	●	●		20	4.05	3
		TDC5-LH	5	0.3	●	●		25	4.89	4
		TDJ2	2	0.2	●	●		20	3.9	1.7
		TDJ3	3	0.2	●	●		20	4	2.4
		TDJ4	4	0.3	●	●		20	4.05	3
		TDJ5	5	0.3	●	●		25	4.89	4
		TDC2	2	0.2	●	●		20	3.9	1.7
		TDC3	3	0.2	●	●		20	4	2.4
		TDC4	4	0.3	●	●		20	4.05	3
		TDC5	5	0.3	●	●		25	4.89	4
		TDT3	3	0.2	●	●		20	4	2.4
		TDT4	4	0.3	●	●		20	4.05	3
		TDT5	5	0.3	●	●		25	4.89	4

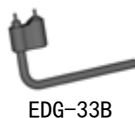
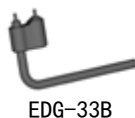
● Stock ○ Extraordinary stock

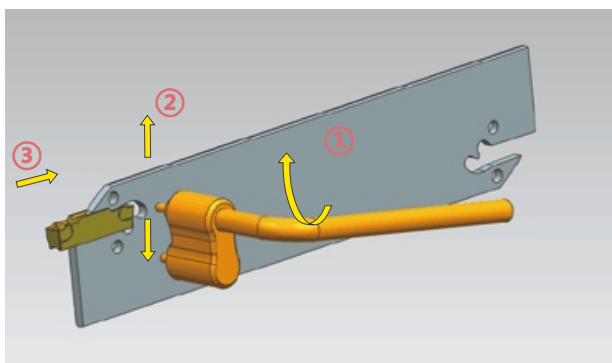
INSERTS

Blade holder



INSERTS

Model	Type	Insert	Depth	Dimensions (mm)				key	Toolholder
			Dmax	H	L	F	L1		
TGB26-2	A	TD*2	40	26	150	21.4	1.8	 EDG-33B	SMBB**-26
TGB32-2	B		50	32		24.9	1.8		SMBB**-32
TGB26-3	A	TD*3	50	26		21.4	2.4		SMBB**-26
TGB32-3	B		100	32		24.9	2.4		SMBB**-32
TGB26-4	A	TD*4	80	26		21.4	3.2		SMBB**-26
TGB32-4	B		100	32		24.6	3.2		SMBB**-32
TGB32-5	B	TD*5	120	32	24.6	4.0	 EDG-33B	SMBB**-32	
TGB32-6	B	TD*6				5.2			



- ① Aim the wrench at the two holes of blade, hold the handle and rotate
- ② to make upper and lower plate opened at appropriate distance and put insert into blade
- ③ Push the insert in the direction of the arrow
- ④ Turn wrench into initial position, take out the wrench

