

Back Turning

CSV Series Best for up to 5mm diameter material

CSV

For Cam-style machine

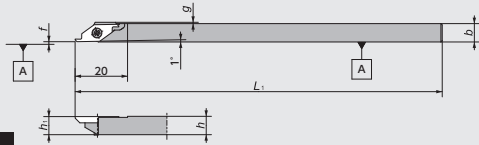


Figure-1

● Right-Hand style shown

CSV-NC

For Gang-style machine

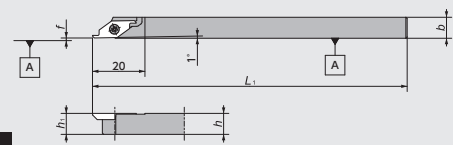


Figure-2

● Right-Hand style shown

CSV-NC-F

For Gang-style machine

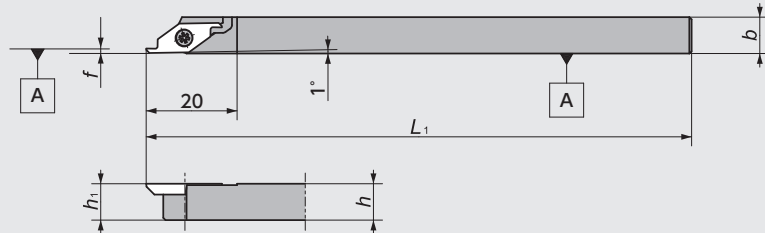


Figure-3

● Right-Hand style shown

CSV Series - Toolholders

Figure	Code No.		Item Number	Stock		Dimensions (mm)					Gage insert	Spare Parts		
	R	L		R	L	h	b	L ₁	h ₁	f		g	Clamp Screw	Wrench
1	5492962		CSV ^{R/L} 07GX	●		7	7	85	7		0.5	CSVB	LRIS-2.5*7	CLR-15S
	5303169	5303193	07	●	●			140						
	5492954		08GX	●				85						
	5303151	5303201	08	●	●	8	8		8	0.1				
	5303136		095	●				140	9.5		0.0			
	5303144	5303177	10	●	●	10	10		10					
	5474770		12GX	●				85						
5327929		12	●		12	12	140	12						
2	5514062	5514070	CSV ^{R/L} 08NC	●	●	8	8	120	8	0.1		CSVB	LRIS-2.5*7	CLR-15S
	5563010		10GXNC	●				85						
	5477492	5477542	10NC	●	●	10	10		10	0.1	-			
	5477534	5477500	12NC	●	●	12	12	120	12					
3	5789615		CSV ^{R/L} 08NC-F	●		8	8	120	8	0.0~0.1	-	CSVB	LRIS-2.5*7	CLR-15S

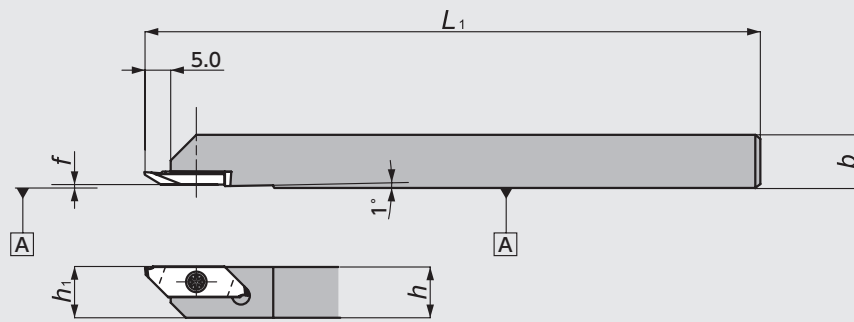
☆All the inserts can use the same toolholder CSV series → G94

CSV Series - Inserts Mirror finish

Shape	Item Number	Chip-breaker	Length of Blade a	Max Depth of cut b	Dimensions (mm)		PVD Coated Carbide							
					W	Edge Geometry (α×β)	ZM3		VM1		DT4			
							R	Stock	R	Stock	L	Stock	R	Stock
<p>Right-Hand style shown</p>	CSVB11F ^{R/L} V	No	0.7	2.0	1.00	0.3×5°		5303573	●	5303532	●			
	11F ^{R/L} V-A						5358791	●						
	11F ^{R/L} V-M						5435995	●	5386289	●	5386297	●	5827480	●
	11F ^{R/L} V-C							5358809	●					
	11F ^{R/L} V12							5344890	●					
11F ^{R/L} V14			1.0		1.40	0.3×5°		5344908	●					
<p>Right-Hand style shown</p>	CSVB11F ^{R/L} VB	Yes	0.7	2.0	1.00	0.3×5°		5358825	●					
	11F ^{R/L} VB-A						5358833	●						
	11F ^{R/L} VB-M						5435987	●	5386305	●	5386313	●	5827472	●
	11F ^{R/L} VB-C							5358841	●					
	11F ^{R/L} VB12							5358718	●					
11F ^{R/L} VB14			1.0		1.40	0.3×5°		5358726	●					
For Profiling	CSVB11F ^{R/L} VX	No	-	-	-	-	-					5358817	●	

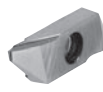


CTPS Series

CTPS



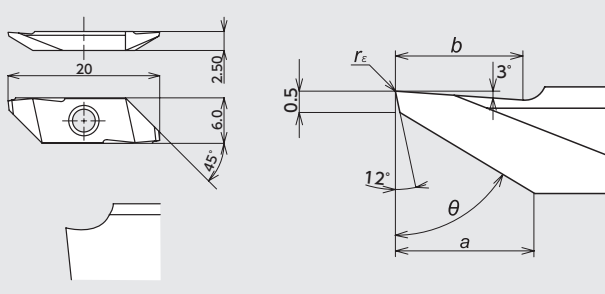
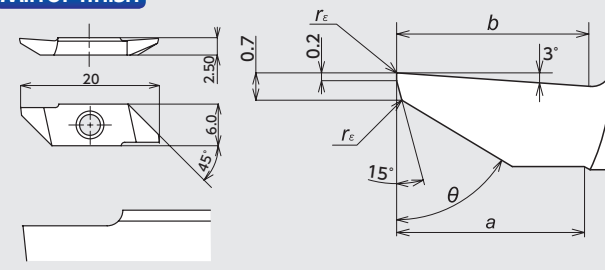

● Right-Hand style shown

CTPS Series - Toolholders

Code No.	Item Number	Stock	Dimensions (mm)					Gage insert 	Spare Parts	
			<i>h</i>	<i>b</i>	<i>L</i> ₁	<i>h</i> ₁	<i>f</i>		Clamp Screw 	Wrench 
5346572	CTPSR10	●	10	10	120	10	0.0	TBPS	LRIS-2.5*7	CLR-15S
5397187	R12	●	12	12		12				

☆ All the inserts can use the same toolholder CTPS series → G98

TBPS Series - Inserts

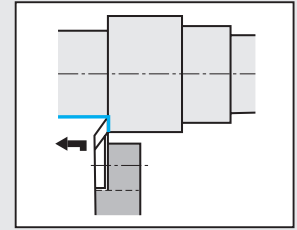
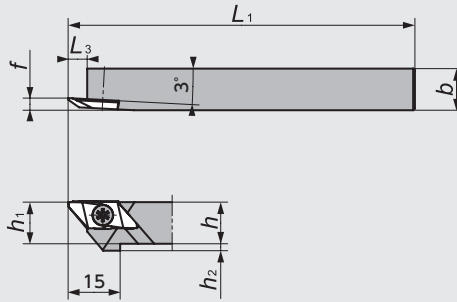
Shape	Item Number	Chip-breaker	Length of Blade <i>a</i>	Max Depth of cut <i>b</i>	Dimensions (mm)		PVD Coated Carbide			
					θ	<i>r_ε</i>	ZM3	Stock	VM1	Stock
(with Chipbreaker)  <p>● Right-Hand style shown</p>	TBPS 60FR00	Yes	3.1	3.5	60°	0.0	5346150	●	5362553	●
	60FR10	No	4.8	4.8	60°	0.1	5346168	●	5362561	●
(without Chipbreaker) Mirror finish  <p>● Right-Hand style shown</p>	TBPS 60FRV 	No	4.8	4.8	60°	0.0	5357058	●	5362579	●

Note: All angles shown are obtained when insert is set in the holder.

TBP Series

TBP

Screw accessible from both sides

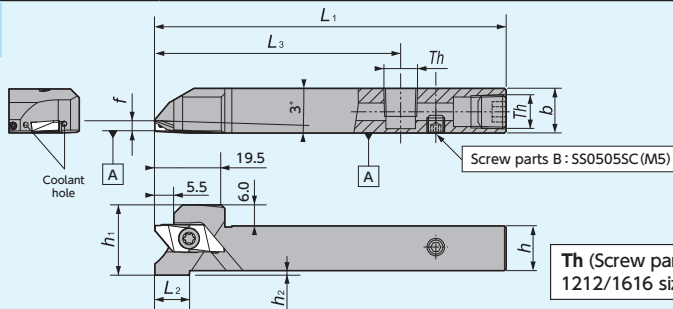


● Right-Hand style shown

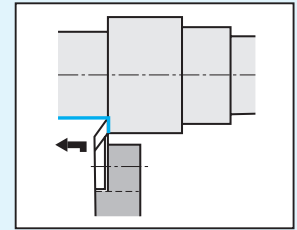
Figure-1

TBP-OH2

(Coolant through)
Screw accessible from both sides



Th (Screw parts A)
1212/1616 size : SPR1/8(Rc1/8)

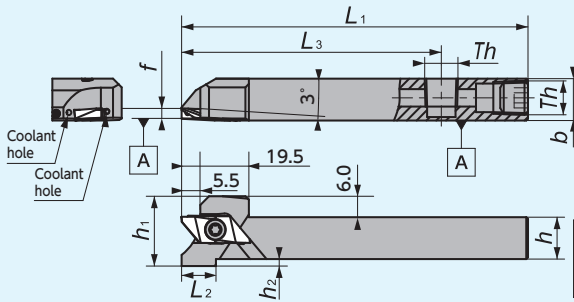


● Right-Hand style shown

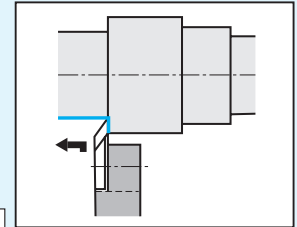
Figure-2

TBP-OH

(Coolant through)
Screw accessible from both sides



Th (Screw parts A)
1012 size : SS0605SC (M6×1.0)
1212/1616 size : SPR1/8(Rc1/8)

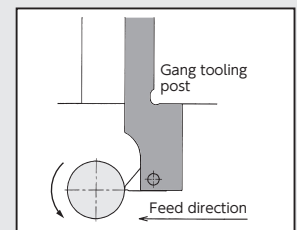
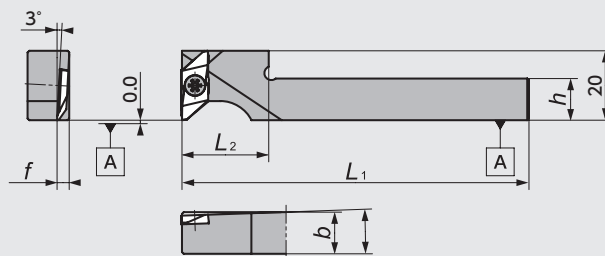


● Right-Hand style shown

Figure-3

Y-TBP

Screw accessible from both sides

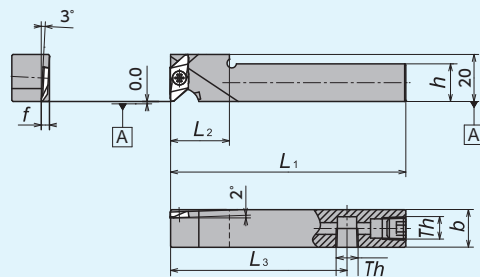


● Right-Hand style shown
☆ Takes Right-hand insert

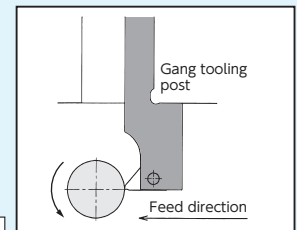
Figure-4

Y-TBP-OH

(Coolant through)
Screw accessible from both sides



Th (Screw parts A)
1212/1616 size : SPR1/8(Rc1/8)

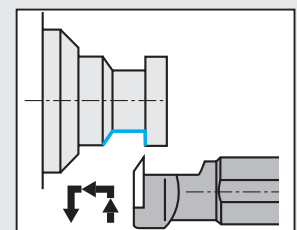
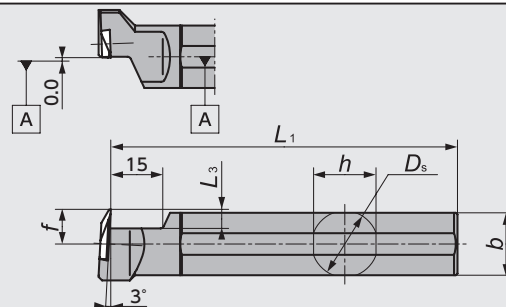


● Right-Hand style shown
☆ Takes Right-hand insert

Figure-5

DS-TBP

(DS Holder)



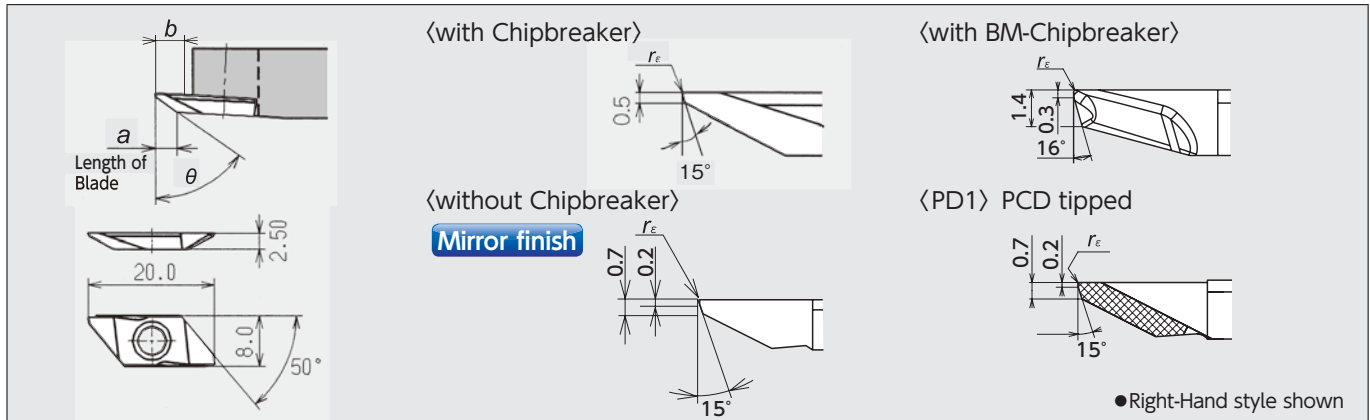
● Left-Hand style shown
☆ Takes Right-hand insert

Figure-6

TBP Series - Toolholders

Figure	Code No.		Item Number	Stock		Dimensions (mm)								Gage insert	Spare Parts			
	R	L		R	L	D_s	h	b	L_1	h_1	h_2	f	L_2		L_3	Clamp Screw		Wrench
																(A)	(B)	(A)
1	5133285	5133293	TBP $\frac{R}{L}$ 08	●	●	-	8	10	120	8	4	3.5	-	5.5	TBP	LRIS-4*10PW (A)	CLR-15S (A)	
	5873856		10H	●	●		10	10	100	10	2							
	5090436	5090444	10	●	●		12	12	85	12	0							
	5459771		12GX	●	●		13	13	120	13	0							
	5090451	5090469	12	●	●		16	16	100	16	0							
	5090477	5090485	13	●	●		16	16	120	16	0							
	5459789		16H	●	●													
5270822	5270830	16	●	●														
2	5037965		TBPR $\frac{R}{L}$ 12H-OH2	●	●	-	12	12	100	12	2	3.5	10	70	TBP	LRIS-4*12PW (A)	CLR-15S (A)	
	5043971		16X-OH2	●	●		16	16	120	16	0							
3	5925722		TBP $\frac{R}{L}$ 1012H-OH	●	●	-	10	12	100	10	4	3.5	19	75	TBP	LRIS-4*10PW (A)	CLR-15S (A)	
	5925730		12H-OH	●	●		12	12	100	12	2							
	5925748		16H-OH	●	●		16	16	16	16	0							
4	5371554		Y-TBP $\frac{R}{L}$ 10S	●	●	-	10	10	120	-	-	3.5	20	-	TBP	LRIS-4*10PW(A)	CLR-15S (A)	
	5950399		10MS	●	●		10	10										22
	5371588		12S	●	●		12	12										20
	5950407		12MS	●	●		12	12										22
5	5911508		Y-TBP $\frac{R}{L}$ 12HS-OH	●	●	-	12	12	100	-	-	3.5	20	-	TBP	LRIS-4*12PW (A)	CLR-15S (A)	
	5911516		16H-OH	●	●		16	16	100	-	-							
6		5540414	DS-TBP $\frac{R}{L}$ 19	●	●	19.050	18	18	120	-	-	10.0	-	5.5	TBP	LRIS-4*10 (B)	LLR-25S -20*65 (B)	
		5540422	20	●	●	20.000	19	19	120	-	-							
		5540430	25	●	●	25.400	24	24	150	-	-							

TBP Series - Inserts



Item Number	Chip-breaker	Length of Blade a	Max Depth of cut b	Dimensions (mm)		PVD Coated Carbide												Carbide		PCD									
				θ	r_e	ST4		ZM3		QM3		VM1		TM4		DT4		DM4		KM1		PD1							
						R	Stock	R	Stock	L	Stock	R	Stock	R	Stock	L	Stock	R	Stock	R	Stock	R	Stock	R	Stock				
TBP72FR05-BM 72FR10M-BM 72FR20M-BM	Yes	3.5	72°	0.05	5039524	●												5868310	●			5868401	●						
				0.08	5039532	●														5868351	●			5868419	●				
				0.18	5039540	●															5868336	●			5868393	●			
TBP55F $\frac{R}{L}$ 00 55F $\frac{R}{L}$ 10	Yes	3.0	55°	0.00			5090378	●	5090360	●																			
				0.10			5090352	●	5090386	●																			
TBP60F $\frac{R}{L}$ 00 60F $\frac{R}{L}$ 05 60F $\frac{R}{L}$ 10 60F $\frac{R}{L}$ 10M 60F $\frac{R}{L}$ 20 60F $\frac{R}{L}$ V	Yes	3.7	5.3	0.00			5090410	●	5090428	●	5494711	●	5275508	●					5710108	●	5850805	●							
				0.05																									
				0.10			5090402	●	5090394	●	5362488	●	5269949	●							5706114	●							
				※0.08								5486964	●	5476403	●									5850813	●				
				0.2																									
60FRV00-P	No	4.8	60°	0.00			5345715	●					5264940	●	5264957	●									5299276	●			
60FRV05-P	No	4.0		0.05										5440680	●											5781745 (1 corner)	●		
60FRV10-P	No	4.8		0.10				5482690	●					5440698	●												5575675	●	
60FRV10-P	No	4.0		0.10																							5575683	●	
																											5785118 (1 corner)	●	

※Inserts having "10M" the R code can be used for machining when the component drawing specifies that the radius is less than R=0.1
 Note: All angles shown are obtained when insert is set in the holder.

New Products
 Tool Materials / Selection Guide
 Micrograin Carbide, BIDE/MCS, PCD
 PVD/CVD-coated Carbide, CBN and Ceramics
 Insert Item List
 General Turning Toolholders
 Unique Swiss Tooling
 Grooving / Side Turning
 Threading
 Shaper
 ID Tooling
 Application Introduction
 Endmills
 Rotating Tools
 Information
 Index

TBPA Series

CTPA

Screw accessible from both sides

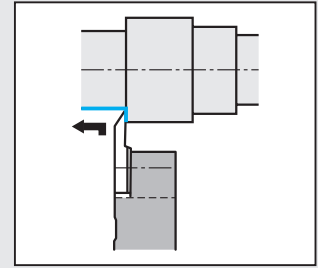
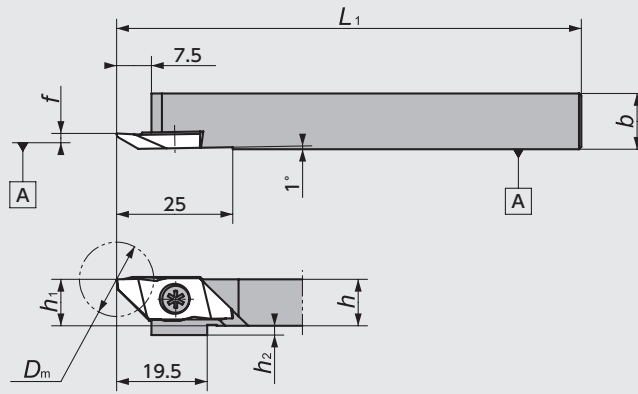


Figure-1

● Right-Hand style shown

TBPA-OH

(Coolant through)
Screw accessible from both sides

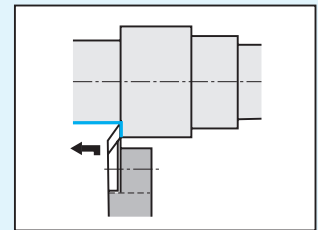
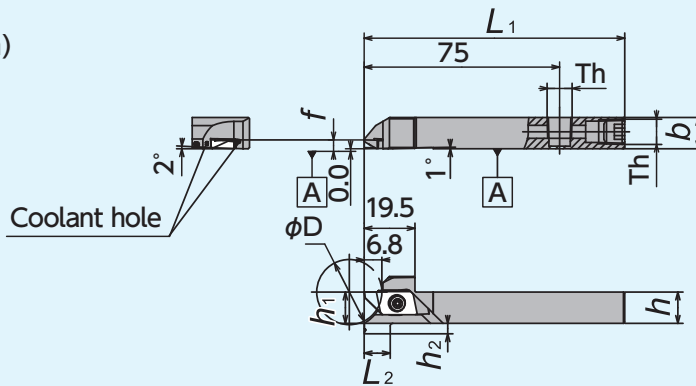


Figure-2

● Left-Hand coolant through holders are designed for Right-Hand machines.

Th □12, □16, □20 : Rc1/8 (PT1/8)

● Right-Hand style shown

CH-TBPA

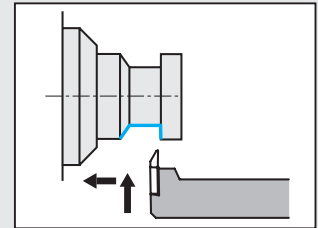
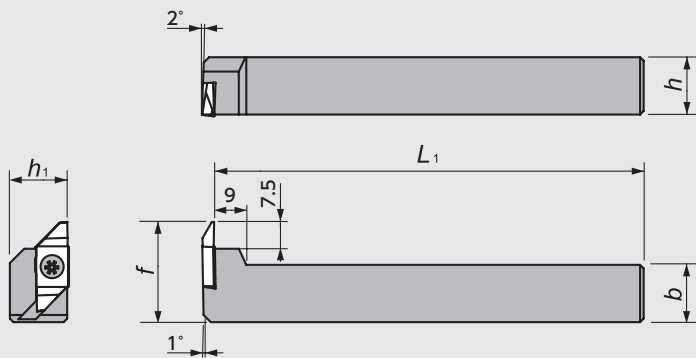


Figure-3

● Left-Hand style shown
☆ Takes Right-hand insert

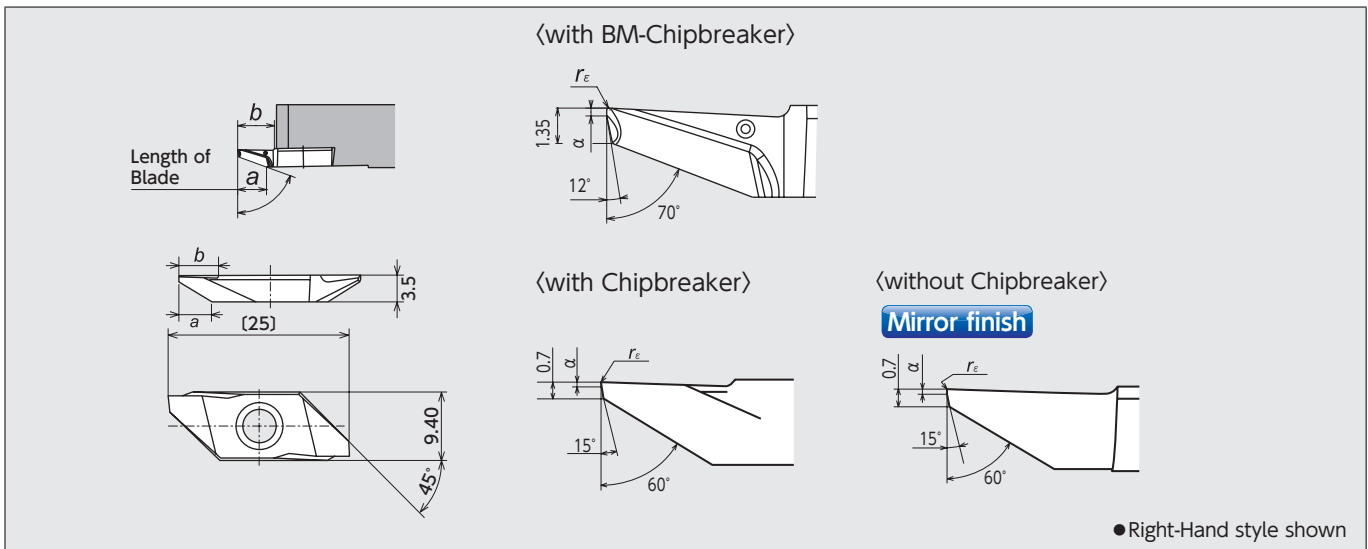
TBPA Series - Toolholders

Figure	Code No.		Item Number	Stock		Dimensions (mm)						Gage insert	Spare Parts		
	R	L		R	L	h	b	L ₁	h ₁	f	h ₂		D _m	Clamp Screw	Wrench
1	5199187	5199153	CTPA ^R / _L 10	●	●	10	10		10				TBPA (Back Turning) CTPA (Cut-off)	LRIS-4*10PW(A) LRIS-4*12PW(A) LRIS-4*10(B)	CLR-15S (A) LLR-25S(B)
	5199195	5199161	12	●	●	12	12	120	12	3.4	0	16			
	5199203	5199179	16	●	●	16	16		16						
	5459540	5459557	20F	●	●	20	20	80	20						

Figure	Code No.	Item Number	Stock	Max Bar Dia φD (mm)	Dimensions (mm)						Gage insert	Spare Parts	
					h	b	L ₁	h ₁	f	L ₂		h ₂	Clamp Screw
2	5932983	TBPAR12H-OH	●	25	12	12		12			TBPA (Back Turning)	LRIS-4*12PW	CLR-15S
	5932991	16H-OH	●	35	16	16	100	16	3.4	10			
	5945811	20H-OH	●	50	20	20		20					

Figure	Code No.		Item Number	Stock		Dimensions (mm)					Gage insert	Spare Parts	
	R	L		R	L	h	b	L ₁	h ₁	f		Clamp Screw	Wrench
3		5884945	CH-TBPA ^R / _L 16	●	●	16	16	120	16	28	TBPA (Back Turning)	LRIS-4*10	LLR-25S
		5884952	20	●	●	20	20		20	32			

TBPA Series - Inserts

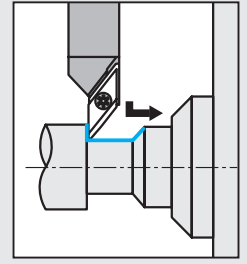
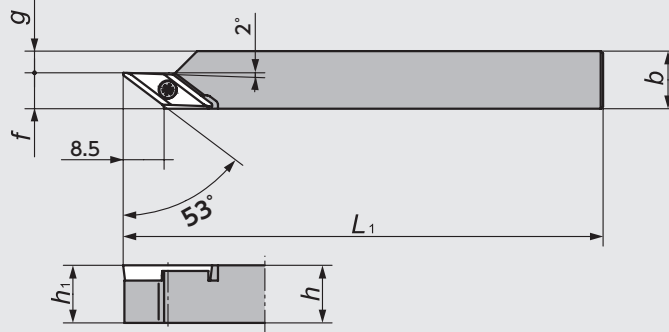


Item Number	Chip-breaker	Length of Blade a	Max Depth of cut b	Dimensions (mm)		PVD Coated Carbide																	
				α	r _e	ST4		ZM3		QM3		VM1		TM4		DT4		DM4					
						R	Stock	R	Stock	L	Stock	R	Stock	R	Stock	R	Stock	R	Stock	R	Stock		
TBPA70FR05-BM	Yes	5.5	6.5	0.3	0.05	5039557	●									5892583	●		5892591	●			
TBPA70FR10M-BM						5039565	●								5892567	●				5892575	●		
TBPA70FR20M-BM						5039573	●								5892542	●					5892559	●	
TBPA60F ^R / _L VB		4.5	5.3	0.3	0.2	0.0			5344833	●	5362538	●			5439344	●			5850847	●			
TBPA60F ^R / _L PB10									5344858	●	5362520	●			5379151	●							
TBPA60F ^R / _L 10M									*0.08							5486956	●						
TBPA60F ^R / _L PB10M								*0.18									5476395	●			5850821	●	
TBPA60F ^R / _L PB20M																5850839	●						
TBPA60F ^R / _L V	No	6.3	6.8	0.2	0.0			5344817	●	5362546	●			5439336	●								

*Inserts having "10M", "20M" as the R code can be used for machining when the component drawing specifies that the radius is less than R=0.1, R=0.2
Note: All angles shown are obtained when insert is set in the holder.

■ TBVC Series

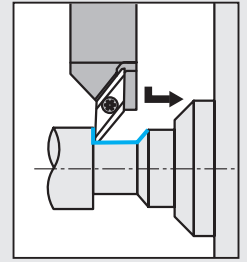
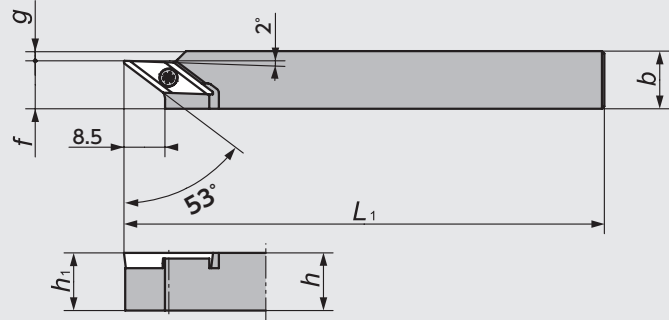
TBVC



● Right-Hand style shown
※ For non-ferrous materials

Figure-1

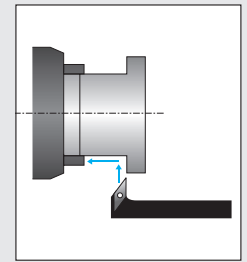
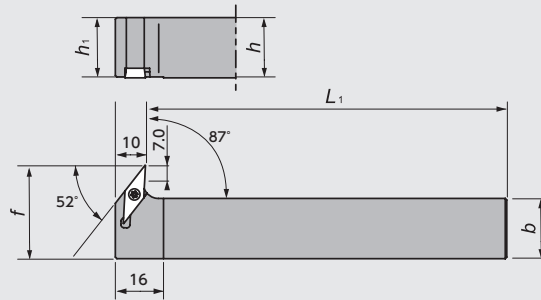
TBVC-F10



● Right-Hand style shown
※ For steel materials

Figure-2

CH-SVXCL



● Left-Hand style shown
☆ Takes Right-hand or Neutral insert

Figure-3

■ TBVC Series - Toolholders

Figure	Code No.		Item Number	Stock		Dimensions (mm)					Gage insert	Spare Parts		
	R	L		R	L	h	b	L ₁	h ₁	f		g	Clamp Screw	Wrench
1		5204953	TBVC _{R/L} 10	●		10	10		10		2.5	TBVC VCGT1103 E49~50	LRIS-2.5*7	CLR-15S
		5204946	12	●		12	12	120	12	7.5	4.5			
		5204920	16	●		16	16		16		8.5			
2		5344254	TBVC _{R/L} 10-F10	●		10	10	120	10		0	TBVC VCGT1103 E49~50	LRIS-2.5*7	CLR-15S
		5459797	12GX-F10	●		12	12	85	12		2			
		5344262	12-F10	●		12	12	120			6			
		5459805	16H-F10	●		16	16	100	16		10			
		5344270	16-F10	●		16	16	120						
		5459565	20F-F10	●		20	20	80	20					
3		5890637	CH-SVXC _{R/L} 1616X11	●		16	16	120	16	27	—	VC□□1103 E49~50	LRIS-2.5*7	CLR-15S
		5890645	2020X11	●		20	20		20	31	—			

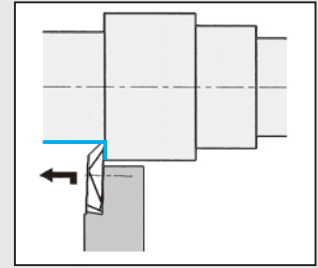
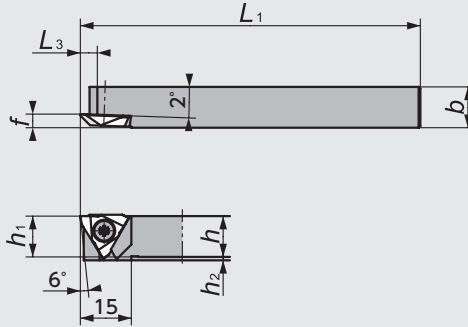
■ TBVC Series - Inserts

Shape	Item Number	Dimensions (mm)			PVD Coated Carbide			
		d	s	r _ε	ZM3	Stock	VM1	Stock
<p>● Right-Hand style shown</p>	TBVC11FR05U	6.35	3.18	0.05	5204870	●		
	11FR10U			0.10	5204888	●	5341763	●
	11FR10S	6.35	3.18	0.10	5433107	●		

TB Series

TBT

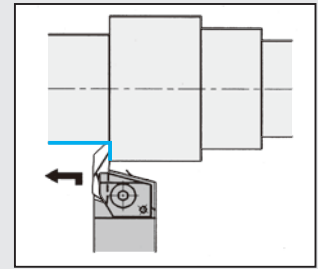
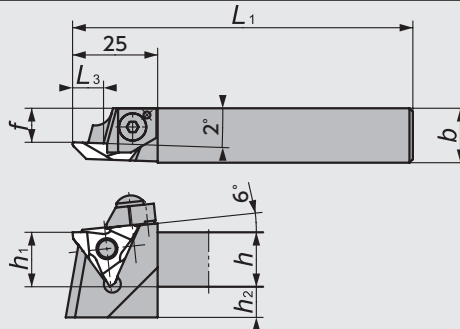
Screw accessible from both sides



● Right-Hand style shown

Figure-1

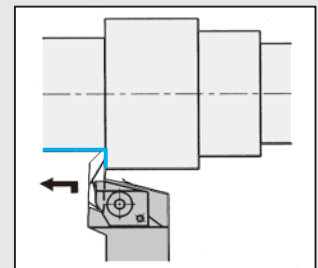
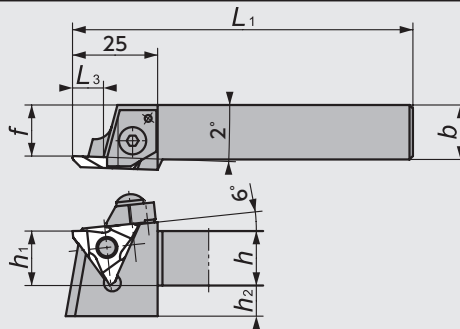
TB-N



● Right-Hand style shown

Figure-2

TB-F



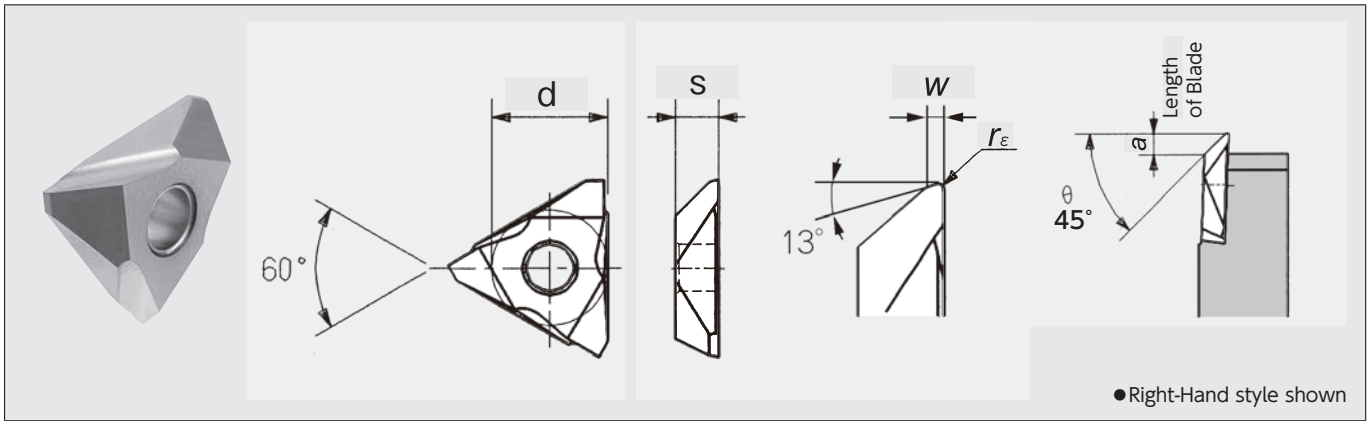
● Right-Hand style shown

Figure-3

TB Series - Toolholders

Figure	Code No.		Item Number	Stock		Dimensions (mm)							Gage insert	Spare Parts				
	R	L		R	L	h	b	L ₁	h ₁	h ₂	f	L ₃		Clamp Screw	Clamp	Clamp Bolt	Spring	Wrench
1	5107511	5107503	TBT ^{R/L} 08F	●	●	8	8	80	8	5			TB32	LR-S-4* 10PW	-	-	-	CLR-15S (A)
	5107578	5107560	08K	●	●			120										
	5107495	5107487	10F	●	●	10	10	80	10	3	4	5.0						
	5107552	5107545	10K	●	●			120										
	5107479	5107461	12F	●	●	12	12	80	12	1								
	5107537	5107529	12K	●	●			120										
2	5837141		TB ^{R/L} 16N-42	●				78			11.5	9.0	TB42	-	CPR/L5S	A0S-5*25	ASG-5	LW-2.5 (B)
	5504543		16NS	●		16	16		16	9		5.0						
	5504550	5524145	16N	●	●			100			10		TB43					
	5820618		16N-H	●				125				9.0						
	5553540	5524152	20N	●	●	20	20	100	20	5	14							
		5524160	25N	●		25	25	150	25	0	19							
3	5505029		TB ^{R/L} 16FS	●		16	16		16	9	15	5.0	TB43	-	CPR/L5	A0S-5*25	ASG-5	LW-2.5 (B)
	5505037		16F	●				100				9.0						
	5526298		20FS	●		20	20		20	5	20	5.0						
	5505052		20F	●								9.0						
	5519723		25F	●		25	25	150	25	0	25							

TB Series - Inserts



● Right-Hand style shown

Item Number	Chip-breaker	Length of Blade <i>a</i>	Max Depth of cut <i>b</i>	Dimensions (mm)					PVD Coated Carbide			
				θ	r_{ϵ}	<i>w</i>	<i>d</i>	<i>s</i>	ZM3			
									R	Stock	L	Stock
TB3200 ^{R/L}	Yes	2.7	4.8	45°	0.00	0.5	9.525	3.18	5810544	●		
TB3205 ^{R/L}					0.05				5810536	●	5982335	●
TB3215 ^{R/L}					0.15				5810528	●	5033550	●
TB3220 ^{R/L}					0.20				5160544	●		
TB4215 ^{R/L}		2.3	8.8	45°	0.15	1.0	12.70	3.18	5914270	●		
TB4305 ^{R/L}	Yes	4.0	4.8 ^{*1} 8.8	45°	0.05	1.0	12.70	4.76	5810502	●		
TB4315 ^{R/L}					0.15				5756614	●		
TB4340 ^{R/L}					0.40				5796412	●		

Note: All angles shown are obtained when insert is set in the holder.

GTT Series

GTT

Screw accessible from both sides

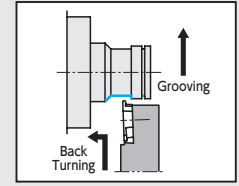
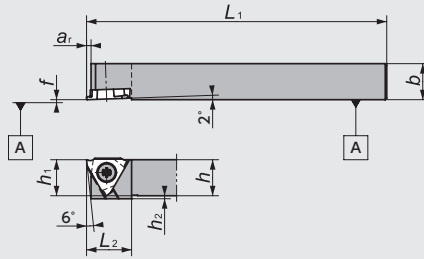


Figure-1

● Right-Hand style shown

GTT-OH2

(Coolant through)
Screw accessible from both sides

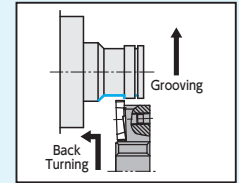
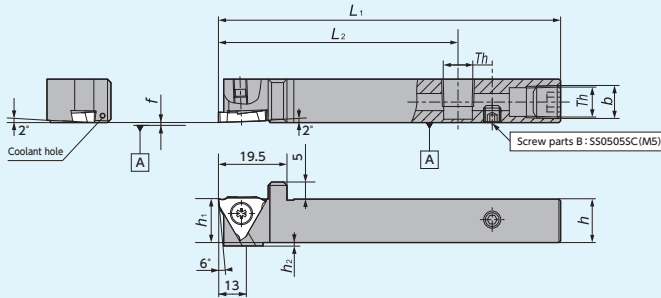


Figure-2

Th (Screw parts A)
1212/1616 size : SPR1/8(Rc1/8)

● Right-Hand style shown

GTT-OH

(Coolant through)
Screw accessible from both sides

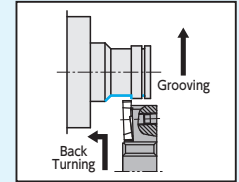
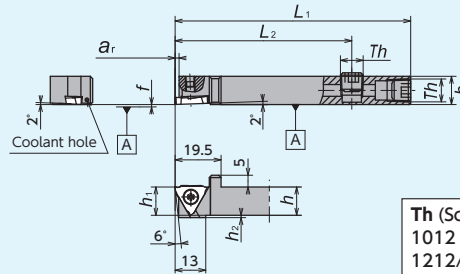


Figure-3

Th (Screw parts A)
1012 size : SS0605SC (M6x1.0)
1212/1616 size : SPR1/8(Rc1/8)

● Right-Hand style shown

CH-GTT

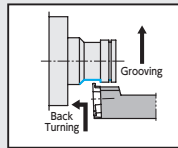
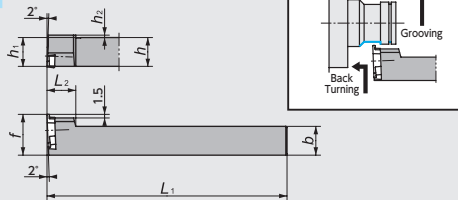


Figure-4

● Left-Hand style shown

DS-GTT

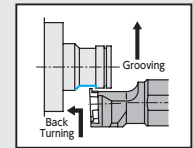
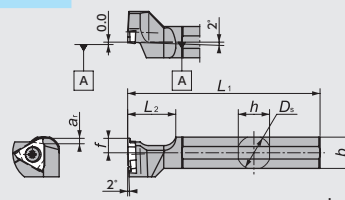


Figure-5

● Left-Hand style shown
☆ Takes Right-hand insert

Y-GTT

Screw accessible from both sides

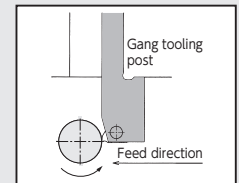
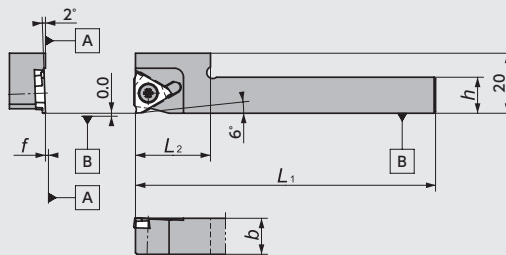


Figure-6

● Right-Hand style shown
☆ Takes Right-hand insert

Y-GTT-OH

(Coolant through)
Screw accessible from both sides

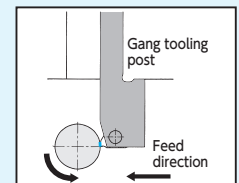
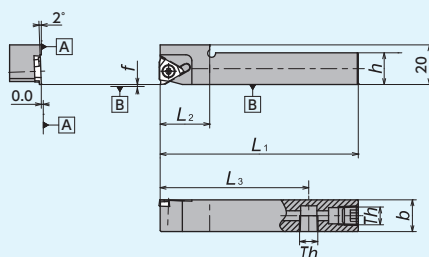

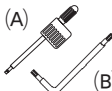








Figure-7

Th (Screw parts A)
1212/1616 size : SPR1/8(Rc1/8)


● Right-Hand style shown
☆ Takes Right-hand insert

GTT Series - Toolholders

Figure	Code No.		Item Number	Stock		Dimensions (mm)								Gage insert	Spare Parts			
	R	L		R	L	D_s	h	b	L_1	h_1	f	L_2	a_r		h_2	Clamp Screw	Wrench	
1	5107305	5107313	GTT_{R/L} 08F00	●	●	-	8	8	80	8	0	15	1.6	5		R:LR-S-4*10PW (A)		
	5608682		0810F00	●				10	120									
	5107206	5107214	08K00	●	●			8	120									
	5608690		0810K00	●				10	120									
	5107321	5107339	10F00	●	●			10	10							80		10
	5107222	5107230	10K00	●	●			10	10							120		10
	5107347	5107354	12F00	●	●			12	12							80		12
	5107248	5107255	12K00	●	●			12	12							120		12
	5459896	5551387	16H00	●	●			16	16							100		16
	5173687	5173679	16K00	●	●			16	16							120		16
	5530852	5780317	20K00	●	●			20	20							125		20
	5780309	5780291	25M00	●	●			25	25							150		25
	5107362	5107370	10F15	●	●			10	10							80		10
	5107263	5107271	10K15	●	●			10	10							120		10
	5537220	5537147	12F15	●	●			12	12							80		12
	5537246	5537162	12K15	●	●			12	12							120		12
	5537261	5537188	16H15	●	●			16	16							100		16
	5537287	5537204	16K15	●	●			16	16							120		16
	5107388	5107396	10F25	●	●			10	10							80		10
	5107289	5107297	10K25	●	●			10	10							120		10
5537238	5537154	12F25	●	●	12	12	80	12										
5537253	5537170	12K25	●	●	12	12	120	12										
5537279	5537196	16H25	●	●	16	16	100	16										
5537295	5537212	16K25	●	●	16	16	120	16										
2	5035381		GTT_{R/L} 12H00-OH2	●		-	12	12	100	12	0	70	1.6	1		LR-S-4*10PW (A)	CLR-15S	
	5043997		16X00-OH2	●				16	16	120						16		
3	5921705		GTT_{R/L} 1012H00-OH	●		-	10	12	100	12	0	70	1.6	1		LR-S-4*10PW (A)	CLR-15S (A)	
	5890157		12H00-OH	●				12	16	16								
	5921713		16H00-OH	●				16	16	16								
4		5659248	CH-GTT_{R/L} 10H00	●		-	10	10	100	15	12	1.5	3		LR-S-4*9 (B)	RLR-20S (B)		
		5659255	12H00	●				12	17	12								
		5960836	16H00	●				16	21	12								
5		5348560	DS-GTT_{R/L} 14F	●		14.000	13	13	80	6	20	1.6	-		LR-S-4*9 (B)	RLR-20S (B)		
		5348081	15H	●				15	15								100	
		5341532	16X*	●				16	15								95	
		5278288	19	●				19	18								18	
		5278304	20	●				20	19								19	120
		5324041	22*	●				22	21								21	
		5483433	25MET	●				25	24								24	150
		5317144	25	●				25	24								24	120
	5937693	32	●		32	30	30	150										
6	5371604		Y-GTT_{R/L} 10S	●		-	10	10	120	-	0	20	1.6	-		LR-S-4*10PW (A)	CLR-15S (A)	
	5371620		12S	●				12	12									120
7	5911466		Y-GTT_{R/L} 12H00S-OH	●		-	12	12	100	-	0	20	1.6	-		LR-S-4*10PW (A)	CLR-15S (A)	
	5911474		16H00-OH	●				16	16									100

*Compatible with 16mm / 22mm round shank DS Series holders. DS-Sleeve → G103

GTT Series - Inserts

Shape	Item Number	Chip-breaker	Length of Blade a	Max Depth of cut b	Dimensions (mm)			PVD Coated Carbide	
					w	θ	r_e		
	TBMH32100R05-22	Yes	0.3	1.8	1.0	22°	0.05	ZM3	
	100R05-45							5395199	●
	TBMH32150R05-22							5395215	●
	150R05-45							5395207	●
			1.3	2.6	1.5	45°		5395223	●

Note: All angles shown are obtained when insert is set in the holder.