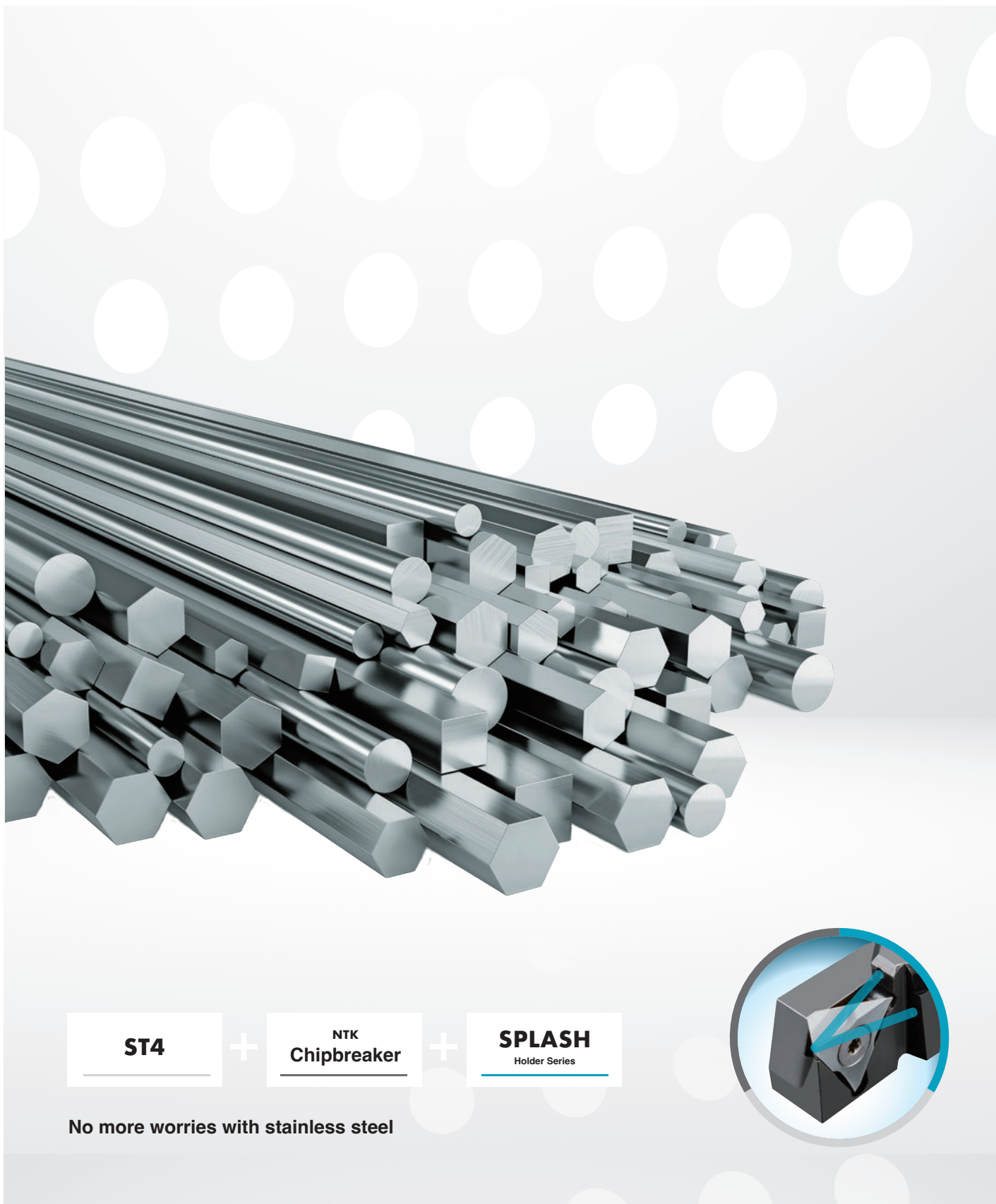


Stainless steel processing solutions

For small diameter parts | CNC automatic lathe tool



ST4

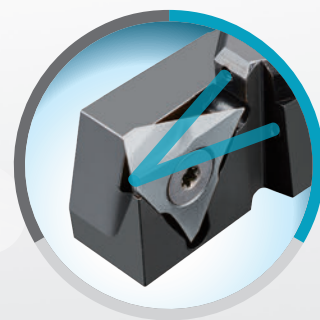
+

**NTK
Chipbreaker**

+

SPLASH
Holder Series

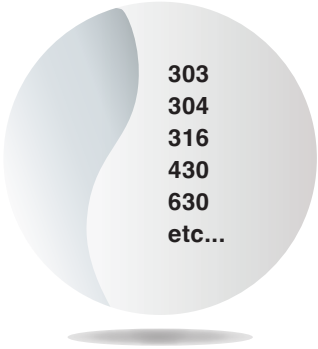
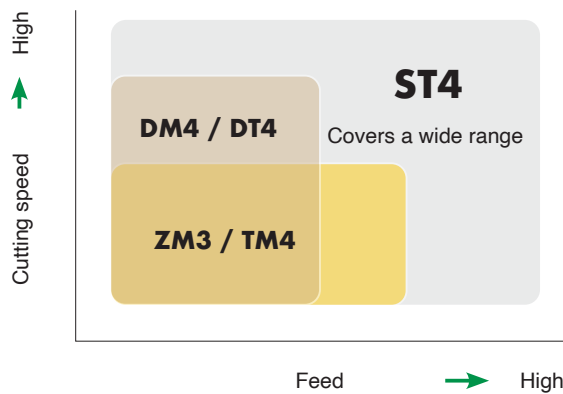
No more worries with stainless steel



ST4

Dedicated to stainless steel machining | CNC auto lathe tool material

APPLICATION AREA M



ST4 has long life with high-hardness and excellent oxidation resistance

Through our proprietary coating technology, we generate a high aluminum coating film, effectively reducing adhesion and weld-related issues.

Our tool effectively minimizes tool wear due to increased cutting edge temperatures during high-speed machining and difficult-to-cut stainless steel machining

| Example of machining

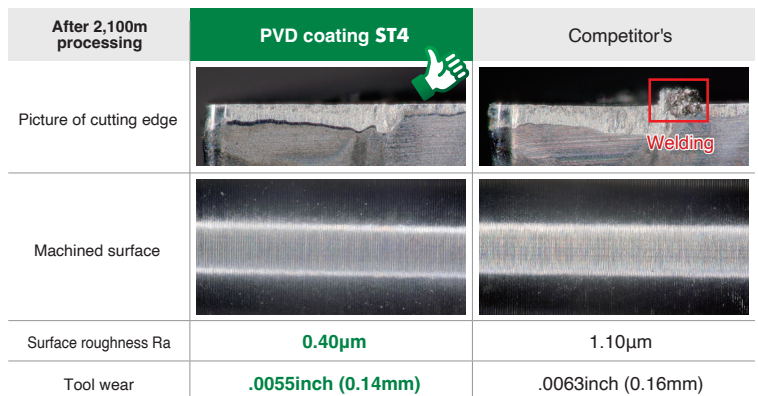
Stainless steel | Cut-off



304 ϕ .430 (ϕ 11) $V_c=260$ SFM (80m/min) $f=.0012$ IPR (0.03mm/rev) WET, CTPA15FLN

ST4 is not welded and tool wear is low.

Electromagnetic stainless steel | Front turning



Electromagnetic stainless steel $V_c=520$ SFM (160m/min) $f=.002$ IPR (0.05mm/rev) $a_p=.040$ inch (1.0mm) WET, DCGT 32.508M YL

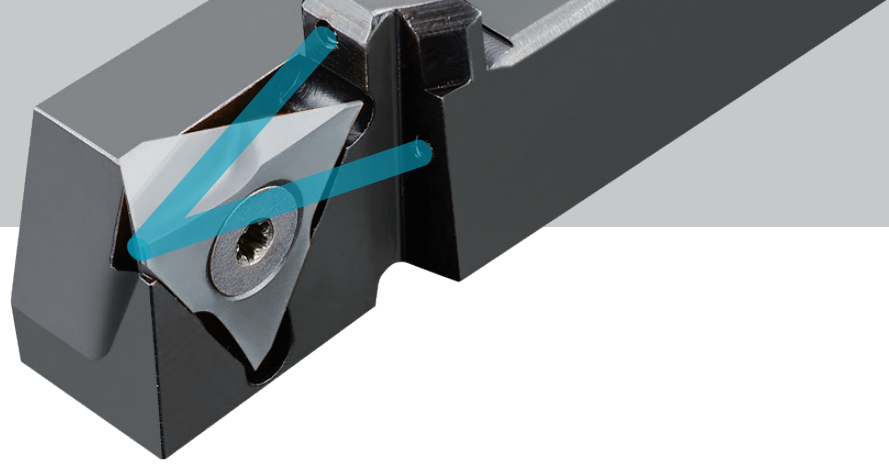
ST4 can also be machined with electro magnetic stainless-steel

In all applications, "ST4",

NTK
Chipbreaker



SPLASH
Holder Series

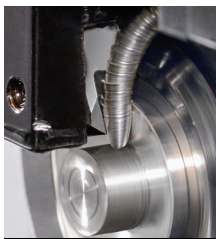


NTK Chipbreaker

New Addition to the lineup

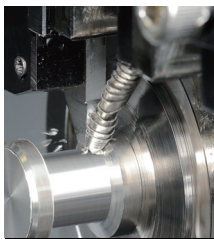
Expanded lineup for all applications

Select optimum chipbreaker according to machining conditions



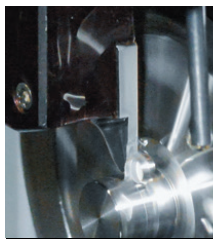
Front turning

→ P4



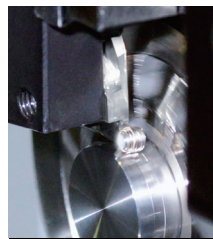
Back turning

→ P7



Cut-off

→ P8



Grooving

→ P12



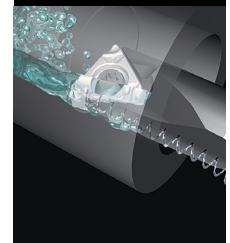
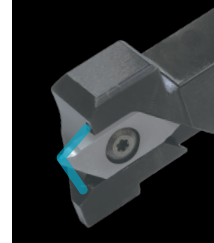
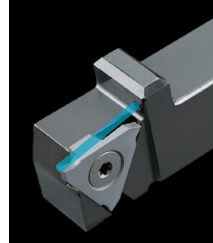
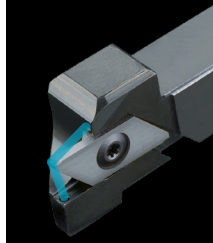
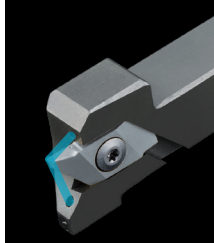
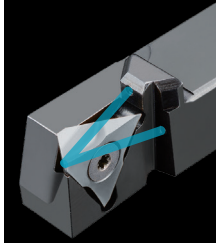
Threading

→ P13



Boring

→ P14



SPLASH

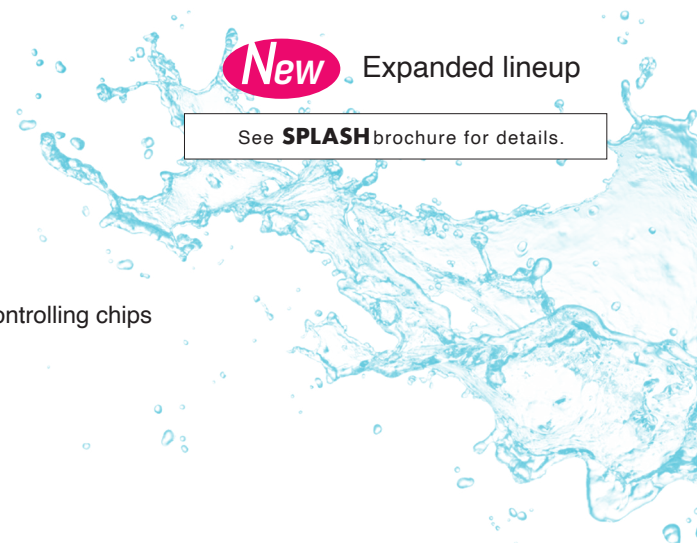
Coolant Through Holders | For Swiss CNC Lathes

Set up SPLASH series for each application

Reduces heat at the cutting edge, reducing tool wear while effectively controlling chips

New Expanded lineup

See **SPLASH** brochure for details.



"Chipbreaker" and "SPLASH" are available

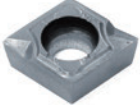
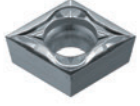
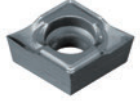
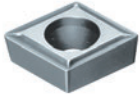
Front Turning

Inch

Inserts - Carbide

CCGT

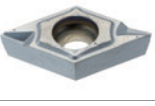


●: 1st Choice ○: 2nd choice

									Steel	○
									Stainless Steel	●
									Cast Iron	
									Non-Ferrous Material	
									Heat Resistant Alloy	
									Hardened Material	
									Others (non-metallic)	
Shape	Designation	CECC	EPSR	IC	S	AN	RE	Carbide		
	inch		°	inch	inch	°	inch		PVD	
	CCGT 32.504M R TMV	Up-sharp edge	80	3/8	5/32	7	.003	●		
	CCGT 32.508M R TMV	Up-sharp edge	80	3/8	5/32	7	.007	●		
	CCGT 32.51M R TMV	Up-sharp edge	80	3/8	5/32	7	.015	●		
	CCGT 32.504M YL	Up-sharp edge	80	3/8	5/32	7	.003	●		
	CCGT 32.508M YL	Up-sharp edge	80	3/8	5/32	7	.007	●		
	CCGT 32.51M YL	Up-sharp edge	80	3/8	5/32	7	.015	●		
	CCGT 32.52M YL	Up-sharp edge	80	3/8	5/32	7	.031	●		
	CCGT 21.504M CL	Up-sharp edge	80	1/4	3/32	7	.003	●		
	CCGT 21.508M CL	Up-sharp edge	80	1/4	3/32	7	.007	●		
	CCGT 32.504M CL	Up-sharp edge	80	3/8	5/32	7	.003	●		
	CCGT 32.508M CL	Up-sharp edge	80	3/8	5/32	7	.007	●		
	CCGT 32.51M CL	Up-sharp edge	80	3/8	5/32	7	.015	●		
	CCGT 21.504M FN AM3	Up-sharp edge	80	1/4	3/32	7	.003	●		
	CCGT 21.508M FN AM3	Up-sharp edge	80	1/4	3/32	7	.007	●		
	CCGT 21.51M FN AM3	Up-sharp edge	80	1/4	3/32	7	.015	●		
	CCGT 32.504M FN AM3	Up-sharp edge	80	3/8	5/32	7	.003	●		
	CCGT 32.508M FN AM3	Up-sharp edge	80	3/8	5/32	7	.007	●		
	CCGT 32.51M FN AM3	Up-sharp edge	80	3/8	5/32	7	.015	●		

● Stock(Newly added) ● Stock

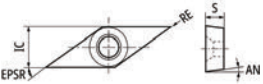
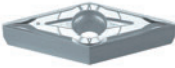
DCGT

●: 1st Choice ○: 2nd choice

									Steel	○
									Stainless Steel	●
									Cast Iron	
									Non-Ferrous Material	
									Heat Resistant Alloy	
									Hardened Material	
									Others (non-metallic)	
Shape	Designation	CECC	EPSR	IC	S	AN	RE	BS	Carbide	
	inch		°	inch	inch	°	inch	inch		PVD
	DCGT 32.504M R TMV	Up-sharp edge	55	1/4	3/32	7	.003	-	●	
	DCGT 32.508M R TMV	Up-sharp edge	55	1/4	3/32	7	.007	-	●	
	DCGT 32.51M R TMV	Up-sharp edge	55	1/4	3/32	7	.015	-	●	
	DCGT 32.504M YL	Up-sharp edge	55	3/8	5/32	7	.003	-	●	
	DCGT 32.508M YL	Up-sharp edge	55	3/8	5/32	7	.007	-	●	
	DCGT 32.51M YL	Up-sharp edge	55	3/8	5/32	7	.015	-	●	
	DCGT 32.52M YL	Up-sharp edge	55	3/8	5/32	7	.031	-	●	
	DCGT 21.504M CL	Up-sharp edge	55	1/4	3/32	7	.003	-	●	
	DCGT 21.508M CL	Up-sharp edge	55	1/4	3/32	7	.007	-	●	
	DCGT 21.51M CL	Up-sharp edge	55	1/4	3/32	7	.015	-	●	
	DCGT 32.504M CL	Up-sharp edge	55	3/8	5/32	7	.003	-	●	

VBGT

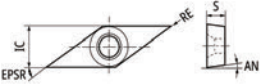




●: 1st Choice ○: 2nd choice

									Steel	○
									Stainless Steel	●
									Cast Iron	
									Non-Ferrous Material	
									Heat Resistant Alloy	
									Hardened Material	
									Others (non-metallic)	
Shape	Designation	CECC	EPSR	IC	S	AN	RE	Carbide		
	inch							°	inch	inch
	VBGT 3308 FN YL	Up-sharp edge	35	3/8	3/16	5	.008	●		
	VBGT 331 FN YL	Up-sharp edge	35	3/8	3/16	5	.016	●		
	VBGT 332 FN YL	Up-sharp edge	35	3/8	3/16	5	.031	●		

●: Stock(Newly added) ●: Stock

VCGT

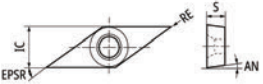

●: 1st Choice ○: 2nd choice

									Steel	○
									Stainless Steel	●
									Cast Iron	
									Non-Ferrous Material	
									Heat Resistant Alloy	
									Hardened Material	
									Others (non-metallic)	
Shape	Designation	CECC	EPSR	IC	S	AN	RE	Carbide		
	inch							°	inch	inch
	VCGT 2208M R TMV	Up-sharp edge	35	1/4	1/8	7	.007	●		
	VCGT 221M R TMV	Up-sharp edge	35	1/4	1/8	7	.015	●		
	VCGT 2204M YL	Up-sharp edge	35	1/4	1/8	7	.003	●		
	VCGT 2208M YL	Up-sharp edge	35	1/4	1/8	7	.007	●		
	VCGT 221M YL	Up-sharp edge	35	1/4	1/8	7	.015	●		
	VCGT 2204M CL	Up-sharp edge	35	1/4	1/8	7	.003	●		
	VCGT 2208M CL	Up-sharp edge	35	1/4	1/8	7	.007	●		
	VCGT 2204M FN AM3	Up-sharp edge	35	1/4	1/8	7	.003	●		
	VCGT 2208M FN AM3	Up-sharp edge	35	1/4	1/8	7	.007	●		
	VCGT 221M FN AM3	Up-sharp edge	35	1/4	1/8	7	.015	●		

●: Stock(Newly added) ●: Stock

VPGT

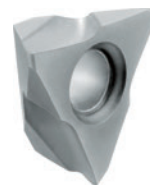
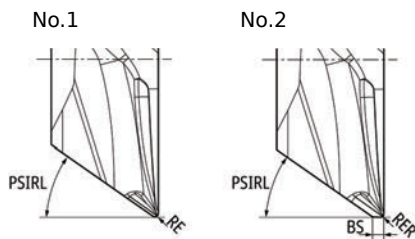
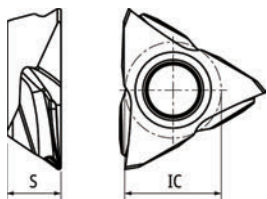
●: 1st Choice ○: 2nd choice

									Steel	○
									Stainless Steel	●
									Cast Iron	
									Non-Ferrous Material	
									Heat Resistant Alloy	
									Hardened Material	
									Others (non-metallic)	
Shape	Designation	CECC	EPSR	IC	S	AN	RE	Carbide		
	inch							°	inch	inch
	VPGT 2204M FN AM3	Up-sharp edge	35	1/4	1/8	11	.003	●		
	VPGT 2208M FN AM3	Up-sharp edge	35	1/4	1/8	11	.007	●		

●: Stock(Newly added) ●: Stock

TF.. series/Insert

TFX The Front Max



● Diagram shows right-hand tool
All angles shown are obtained when insert is set in the holder.

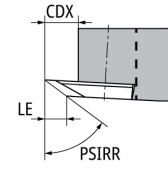
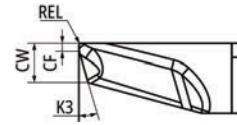
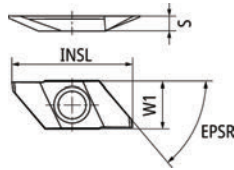
Figure	Designation	Hand	Wiper	APMX	IC	S	BS	PSIRL	RE	RER	Carbide
				inch	inch	inch	inch	°	inch	inch	PVD
1	TFX3301MR	R	No	.197	3/8	3/16	-	32	.003	-	●
1	TFX3302MR	R	No	.197	3/8	3/16	-	32	.007	-	●
1	TFX3304MR	R	No	.197	3/8	3/16	-	32	.015	-	●
2	TFX3301MRW	R	Straight	.197	3/8	3/16	.020	32	-	.003	●
2	TFX3302MRW	R	Straight	.197	3/8	3/16	.020	32	-	.007	●
2	TFX3304MRW	R	Straight	.197	3/8	3/16	.020	32	-	.015	●

●: Stock(Newly added) ●: Stock

Back Turning

TBP.. series/Inserts Carbide

TBP-BM



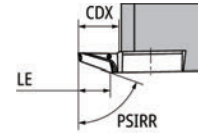
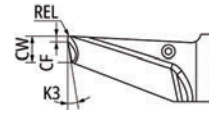
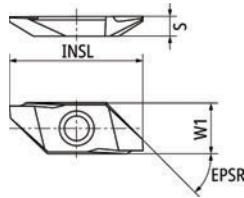
● Diagram shows right-hand tool

Designation	Hand	Chipbreaker	LE	CDX	CF	CW	EPSR	INSL	K3	PSIRR	REL	S	W1	Carbide
			inch	inch	inch	inch	°	inch	°	°	inch	inch	inch	PVD
TBP72FR05-BM	R	Yes	.138	.209	.012	.055	50	.787	16	72	.002	.098	.315	●
TBP72FR10M-BM	R	Yes	.138	.209	.012	.055	50	.787	16	72	.003	.098	.315	●
TBP72FR20M-BM	R	Yes	.138	.209	.012	.055	50	.787	16	72	.007	.098	.315	●

● Stock(Newly added) ● Stock

TBPA.. series/Inserts Carbide

TBPA-BM



● Diagram shows right-hand tool

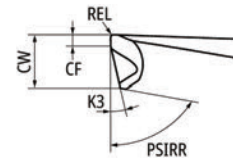
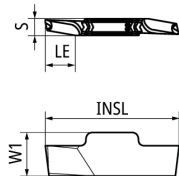
Designation	Hand	Chipbreaker	LE	CDX	CF	CW	EPSR	INSL	K3	PSIRR	REL	S	W1	Carbide
			inch	inch	inch	inch	°	inch	°	°	inch	inch	inch	PVD
TBPA70FR05-BM	R	Yes	.217	.256	.012	.053	45	.984	12	70	.002	.138	.370	●
TBPA70FR10M-BM	R	Yes	.217	.256	.012	.053	45	.984	12	70	.003	.138	.370	●
TBPA70FR20M-BM	R	Yes	.217	.256	.012	.053	45	.984	12	70	.007	.138	.370	●

● Stock(Newly added) ● Stock

BACK DUO

TBDP.. series/Inserts Carbide

TBDP



● Diagram shows right-hand tool

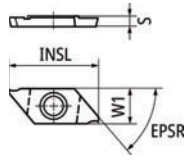
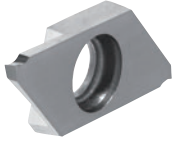
Designation	Hand	Chipbreaker	LE	CF	CW	INSL	K3	PSIRR	REL	S	W1	Carbide
			inch	inch	inch	inch	°	°	inch	inch	inch	PVD
TBDP22005R	R	Yes	.138	.012	.055	.688	13	80	.002	.087	.236	●
TBDP2201MR	R	Yes	.138	.012	.055	.688	13	80	.003	.087	.236	●
TBDP2202MR	R	Yes	.138	.012	.055	.688	13	80	.007	.087	.236	●

● Stock(Newly added) ● Stock

Cut-off

CTP.. series/Inserts Carbide Right-Hand

CTP-FR



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

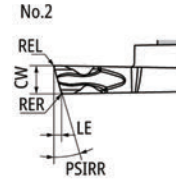
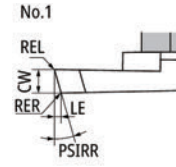
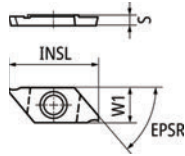
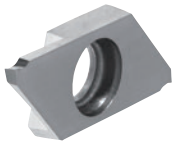


Figure	Designation	Hand	Chipbreaker	CUTDIA	CW	EPSR	INSL	LE	PSIRR	REL	RER	S	W1	Carbide
				inch	inch	°	inch	inch	°	inch	inch	inch	inch	PVD
2	CTP10FR-CX	R	Yes	.472	.039	50	.787	.013	16	.002	.002	.098	.315	●
1	CTP10FR-TH	R	Yes	.472	.039	50	.787	.013	16	.002	.002	.098	.315	●
2	CTP13FR-CX	R	Yes	.472	.051	50	.787	.016	16	.002	.002	.098	.315	●
2	CTP15FR-CX	R	Yes	.472	.059	50	.787	.018	16	.002	.002	.098	.315	●
1	CTP15FR-TH	R	Yes	.472	.059	50	.787	.018	16	.002	.002	.098	.315	●
1	CTP20FR-TH	R	Yes	.472	.079	50	.787	.024	16	.002	.002	.098	.315	●

●: Stock(Newly added) ●: Stock

CTP-FRN



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

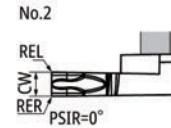
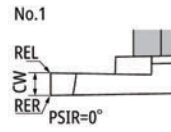
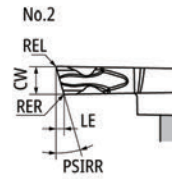
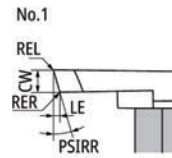
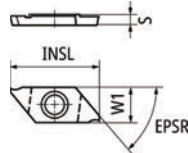


Figure	Designation	Hand	Chipbreaker	CUTDIA	CW	EPSR	INSL	PSIR	REL	RER	S	W1	Carbide
				inch	inch	°	inch	°	inch	inch	inch	inch	PVD
2	CTP10FRN-CX	R	Yes	.472	.039	50	.787	0	.002	.002	.098	.315	●
1	CTP10FRN-TH	R	Yes	.472	.039	50	.787	0	.002	.002	.098	.315	●
2	CTP13FRN02-CX	R	Yes	.472	.051	50	.787	0	.008	.008	.098	.315	●
2	CTP13FRN-CX	R	Yes	.472	.051	50	.787	0	.002	.002	.098	.315	●
2	CTP15FRN02-CX	R	Yes	.472	.059	50	.787	0	.008	.008	.098	.315	●
2	CTP15FRN-CX	R	Yes	.472	.059	50	.787	0	.002	.002	.098	.315	●
1	CTP15FRN-TH	R	Yes	.472	.059	50	.787	0	.002	.002	.098	.315	●
1	CTP20FRN-TH	R	Yes	.472	.079	50	.787	0	.002	.002	.098	.315	●

●: Stock(Newly added) ●: Stock

CTP.. series/Inserts Carbide Left-Hand

CTP-FLK

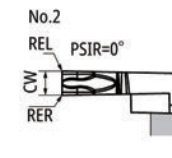
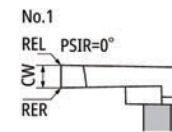
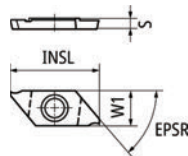
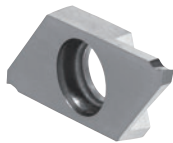


●All angles shown are obtained when insert is set in the holder.

Figure	Designation	Hand	Chipbreaker	CUTDIA	CW	EPSR	INSL	LE	PSIRR	REL	RER	S	W1	Carbide
														PVD
				inch	inch	°	inch	inch	°	inch	inch	inch	inch	ST4
2	CTP10FLK-CX	L	Yes	.433	.039	50	.787	.013	16	.002	.002	.098	.315	●
1	CTP10FLK-TH	L	Yes	.433	.039	50	.787	.013	16	.002	.002	.098	.315	●
2	CTP13FLK-CX	L	Yes	.433	.051	50	.787	.016	16	.002	.002	.098	.315	●
2	CTP15FLK-CX	L	Yes	.433	.059	50	.787	.018	16	.002	.002	.098	.315	●
1	CTP15FLK-TH	L	Yes	.433	.059	50	.787	.018	16	.002	.002	.098	.315	●
1	CTP20FLK-TH	L	Yes	.433	.079	50	.787	.024	16	.002	.002	.098	.315	●

● Stock(Newly added) ● Stock

CTP-FLN



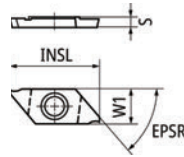
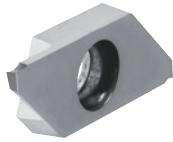
●All angles shown are obtained when insert is set in the holder.

Figure	Designation	Hand	Chipbreaker	CUTDIA	CW	EPSR	INSL	PSIR	REL	RER	S	W1	Carbide
													PVD
				inch	inch	°	inch	°	inch	inch	inch	inch	ST4
2	CTP10FLN-CX	L	Yes	.472	.039	50	.787	0	.002	.002	.098	.315	●
1	CTP10FLN-TH	L	Yes	.472	.039	50	.787	0	.002	.002	.098	.315	●
2	CTP13FLN02-CX	L	Yes	.472	.051	50	.787	0	.008	.008	.098	.315	●
2	CTP13FLN-CX	L	Yes	.472	.051	50	.787	0	.002	.002	.098	.315	●
2	CTP15FLN02-CX	L	Yes	.472	.059	50	.787	0	.008	.008	.098	.315	●
2	CTP15FLN-CX	L	Yes	.472	.059	50	.787	0	.002	.002	.098	.315	●
1	CTP15FLN-TH	L	Yes	.472	.059	50	.787	0	.002	.002	.098	.315	●
1	CTP20FLN-TH	L	Yes	.472	.079	50	.787	0	.002	.002	.098	.315	●

● Stock(Newly added) ● Stock

CTPA.. series/Inserts Carbide Right-Hand

CTPA-FR



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

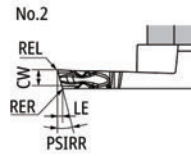
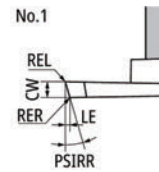
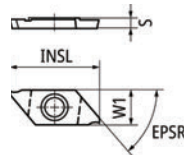


Figure	Designation	Hand	Chipbreaker	CUTDIA	CW	EPSR	INSL	LE	PSIRR	REL	RER	S	W1	Carbide
				inch	inch	°	inch	inch	°	inch	inch	inch	inch	PVD
2	CTPA15FR-CX	R	Yes	.630	.059	45	.984	.018	16	.002	.002	.138	.370	●
1	CTPA15FR-TH	R	Yes	.630	.059	45	.984	.018	16	.002	.002	.138	.370	●
1	CTPA20FR-TH	R	Yes	.630	.079	45	.984	.024	16	.002	.002	.138	.370	●

●: Stock(Newly added) ●: Stock

CTPA-FRN



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

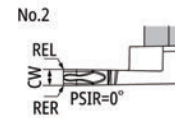
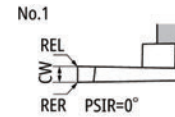
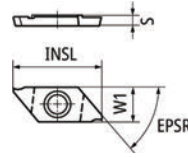


Figure	Designation	Hand	Chipbreaker	CUTDIA	CW	EPSR	INSL	PSIR	REL	RER	S	W1	Carbide
				inch	inch	°	inch	°	inch	inch	inch	inch	PVD
2	CTPA15FRN-CX	R	Yes	.630	.059	45	.984	0	.002	.002	.138	.370	●
1	CTPA15FRN-TH	R	Yes	.630	.059	45	.984	0	.002	.002	.138	.370	●
1	CTPA20FRN-TH	R	Yes	.630	.079	45	.984	0	.002	.002	.138	.370	●

●: Stock(Newly added) ●: Stock

CTPA.. series/Inserts Carbide Left-Hand

CTPA-FLK



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

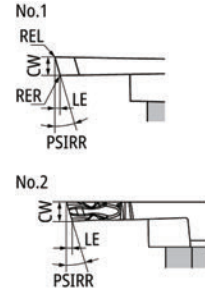
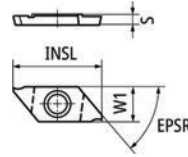


Figure	Designation	Hand	Chipbreaker	CUTDIA	CW	EPSR	INSL	LE	PSIRR	REL	RER	S	W1	Carbide
				inch	inch	°	inch	inch	°	inch	inch	inch	inch	PVD
2	CTPA15FLK-CX	L	Yes	.571	.059	45	.984	.018	16	.002	.002	.138	.370	●
1	CTPA15FLK-TH	L	Yes	.571	.059	45	.984	.018	16	.002	.002	.138	.370	●
1	CTPA20FLK-TH	L	Yes	.571	.079	45	.984	.024	16	.002	.002	.138	.370	●

● Stock(Newly added) ● Stock

CTPA-FLN



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

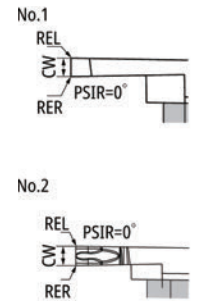
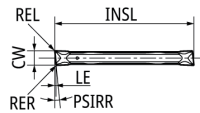


Figure	Designation	Hand	Chipbreaker	CUTDIA	CW	EPSR	INSL	PSIR	REL	RER	S	W1	Carbide
				inch	inch	°	inch	°	inch	inch	inch	inch	PVD
2	CTPA15FLN-CX	L	Yes	.630	.059	45	.984	0	.002	.002	.138	.370	●
1	CTPA15FLN-TH	L	Yes	.630	.059	45	.984	0	.002	.002	.138	.370	●
1	CTPA20FLN-TH	L	Yes	.630	.079	45	.984	0	.002	.002	.138	.370	●

● Stock(Newly added) ● Stock

CTDP.. series/Inserts Carbide

CTDP20/25 CUT DUO



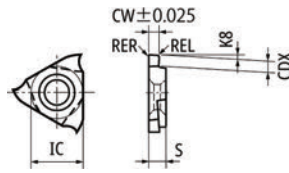
Designation	Hand	Chipbreaker	CW	INSL	PSIRR	REL	RER	Carbide
			inch	inch	°	inch	inch	PVD
CTDP20N	N	Yes	.079	.752	-	.002	.002	●
CTDP20N02	N	Yes	.079	.752	-	.008	.008	●
CTDP25N02	N	Yes	.098	.835	-	.008	.008	●
CTDP20R6	R	Yes	.079	.752	6	.002	.002	●
CTDP25R6	R	Yes	.098	.835	6	.002	.002	●
CTDP20R15	R	Yes	.079	.752	15	.002	.002	●

● Stock(Newly added) ● Stock

OD Grooving

GTMH(X)32.. series/Inserts Carbide

GTMH32-GX Side Turning / 3D mold chipbreaker



● Diagram shows right-hand tool

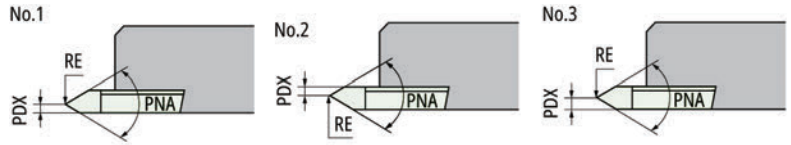
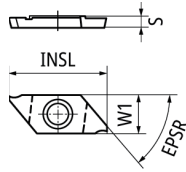
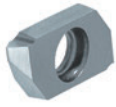
Designation	Hand	Chipbreaker	APMX	CDX	CW	EPSR	GAN	IC	K8	REL	RER	S	Carbide
			inch	inch	inch	°	°	inch	°	inch	inch	inch	PVD
													ST4
GTMH32033RGX	R	Yes	.010	.024	.013	60	17	3/8	2	.002	.002	1/8	●
GTMH32043RGX	R	Yes	.035	.047	.017	60	17	3/8	2	.002	.002	1/8	●
GTMH32050RGX	R	Yes	.035	.047	.020	60	17	3/8	2	.002	.002	1/8	●
GTMH32053RGX	R	Yes	.035	.047	.021	60	17	3/8	2	.002	.002	1/8	●
GTMH32075RGX	R	Yes	.063	.079	.030	60	17	3/8	2	.002	.002	1/8	●
GTMH32095RGX	R	Yes	.063	.079	.037	60	17	3/8	2	.002	.002	1/8	●
GTMH32100RGX	R	Yes	.063	.079	.039	60	17	3/8	2	.002	.002	1/8	●
GTMH32100RGX01	R	Yes	.063	.079	.039	60	17	3/8	2	.004	.004	1/8	●
GTMH32150RGX	R	Yes	.106	.118	.059	60	17	3/8	2	.002	.002	1/8	●
GTMH32150RGX01	R	Yes	.106	.118	.059	60	17	3/8	2	.004	.004	1/8	●
GTMH32150RGX02	R	Yes	.106	.118	.059	60	17	3/8	2	.008	.008	1/8	●
GTMH32200RGX	R	Yes	.106	.118	.079	60	17	3/8	2	.002	.002	1/8	●
GTMH32200RGX01	R	Yes	.106	.118	.079	60	17	3/8	2	.004	.004	1/8	●
GTMH32200RGX02	R	Yes	.106	.118	.079	60	17	3/8	2	.008	.008	1/8	●
GTMH32300RGX	R	Yes	.106	.118	.118	60	17	3/8	2	.002	.002	1/8	●
GTMH32300RGX02	R	Yes	.106	.118	.118	60	17	3/8	2	.008	.008	1/8	●

●: Stock(Newly added) ●: Stock

External Thread

TTP.. series/Inserts Carbide

TTP-R

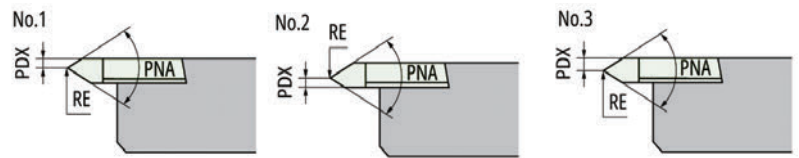
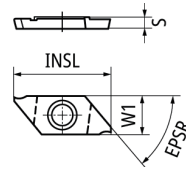


● Diagram shows right-hand tool

Figure	Designation	Hand	Chipbreaker	Pitch	EPSR	INSL	PDX	PNA	RE	S	W1	Carbide
				TPI	°	inch	inch	°	inch	inch	inch	PVD
1	TTP60FR4A	R	Yes	127-34	50	.783	.016	60	.002MAX Flat	.098	.315	●
1	TTP60FR8A	R	Yes	63-21	50	.783	.031	60	(R.002)	.098	.315	●
2	TTP60FR4B	R	Yes	127-34	50	.783	.016	60	.002MAX Flat	.098	.315	●
2	TTP60FR8B	R	Yes	63-21	50	.783	.031	60	(R.002)	.098	.315	●
3	TTP60FR-N	R	Yes	25-17	50	.783	.049	60	(R.004)	.098	.315	●
3	TTP60FR-N02	R	Yes	16-13	50	.783	.049	60	(R.008)	.098	.315	●

● Stock(Newly added) ● Stock

TTP-L



● Diagram shows left-hand tool

Figure	Designation	Hand	Chipbreaker	Pitch	EPSR	INSL	PDX	PNA	RE	S	W1	Carbide
				TPI	°	inch	inch	°	inch	inch	inch	PVD
1	TTP60FL4A	L	Yes	127-34	50	.783	.016	60	.002MAX Flat	.098	.315	●
1	TTP60FL8A	L	Yes	63-21	50	.783	.031	60	(R.002)	.098	.315	●
2	TTP60FL4B	L	Yes	127-34	50	.783	.016	60	.002MAX Flat	.098	.315	●
2	TTP60FL8B	L	Yes	63-21	50	.783	.031	60	(R.002)	.098	.315	●
3	TTP60FL-N	L	Yes	25-17	50	.783	.049	60	(R.004)	.098	.315	●
3	TTP60FL-N02	L	Yes	16-13	50	.783	.049	60	(R.008)	.098	.315	●

● Stock(Newly added) ● Stock

ID Tooling

Inserts Carbide

CC..

●: 1st Choice ○: 2nd choice

	Steel	<input type="radio"/>
	Stainless Steel	<input checked="" type="radio"/>
	Cast Iron	
	Non-Ferrous Material	
	Heat Resistant Alloy	
	Hardened Material	
Others (non-metallic)		

Shape	Designation	CECC	EPSR	IC	S	AN	RE	Carbide	
	inch							°	inch
	CCGT 21.504 FR F1	Up-sharp edge	80	1/4	3/32	7	.004	●	●
	CCGT 21.508 FR F1	Up-sharp edge	80	1/4	3/32	7	.008	●	●
	CCGT 21.51 FR F1	Up-sharp edge	80	1/4	3/32	7	.016	●	●
	CCGT 32.508 FR F1	Up-sharp edge	80	3/8	3/32	7	.008	●	●
	CCGT 32.51 FR F1	Up-sharp edge	80	3/8	3/32	7	.016	●	●

●: Stock(Newly added) ●: Stock

CP..

●: 1st Choice ○: 2nd choice

	Steel	<input type="radio"/>
	Stainless Steel	<input checked="" type="radio"/>
	Cast Iron	
	Non-Ferrous Material	
	Heat Resistant Alloy	
	Hardened Material	
Others (non-metallic)		

Shape	Designation	CECC	EPSR	IC	S	AN	RE	Carbide	
	inch							°	inch
	CPGP 6204 FR F1	Up-sharp edge	80	3/16	1/16	11	.004	●	●
	CPGP 6208 FR F1	Up-sharp edge	80	3/16	1/16	11	.008	●	●
	CPGP 621 FR F1	Up-sharp edge	80	3/16	1/16	11	.016	●	●
	CPGP 21.508 FR F1	Up-sharp edge	80	1/4	3/32	11	.008	●	●
	CPGP 21.51 FR F1	Up-sharp edge	80	1/4	3/32	11	.016	●	●

●: Stock(Newly added) ●: Stock

ER..

●: 1st Choice ○: 2nd choice

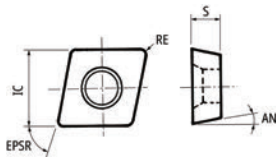
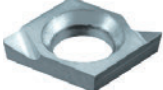
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	Stainless Steel	<input checked="" type="radio"/>
	Cast Iron	
	Non-Ferrous Material	
	Heat Resistant Alloy	
	Hardened Material	
Others (non-metallic)		

Shape	Designation	CECC	EPSR	IC	S	AN	RE	Carbide	
	inch							°	inch
	ERGP 5204 FR F1	Up-sharp edge	75	5/32	1/16	9	.004	●	●
	ERGP 5208 FR F1	Up-sharp edge	75	5/32	1/16	9	.008	●	●
	ERGP 521 FR F1	Up-sharp edge	75	5/32	1/16	9	.016	●	●

●: Stock(Newly added) ●: Stock

MBL

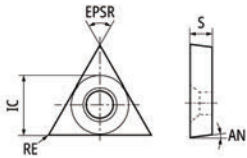
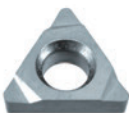
●: 1st Choice ○: 2nd choice

				Steel				
				Stainless Steel	Cast Iron			
				Non-Ferrous Material				
				Heat Resistant Alloy				
				Hardened Material				
				Others (non-metallic)				
Shape	Designation	CECC	EPSR	IC	S	AN	RE	Carbide
	inch		°	inch	inch	°	inch	PVD ST4
	MBL 005 FR F1	Up-sharp edge	75	.142	.039	9	.002	●
	MBL 015 FR F1	Up-sharp edge	75	.142	.039	9	.006	●

● Stock(Newly added) ● Stock

TC..

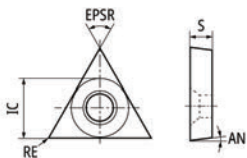

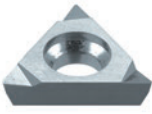
●: 1st Choice ○: 2nd choice

				Steel				
				Stainless Steel	Cast Iron			
				Non-Ferrous Material				
				Heat Resistant Alloy				
				Hardened Material				
				Others (non-metallic)				
Shape	Designation	CECC	EPSR	IC	S	AN	RE	Carbide
	inch		°	inch	inch	°	inch	PVD ST4
	TCGP 5204 FR F05	Up-sharp edge	60	5/32	1/16	7	.004	●
	TCGP 5208 FR F05	Up-sharp edge	60	5/32	1/16	7	.008	●
	TCGP 521 FR F05	Up-sharp edge	60	5/32	1/16	7	.016	●

● Stock(Newly added) ● Stock

TP..

●: 1st Choice ○: 2nd choice

				Steel				
				Stainless Steel	Cast Iron			
				Non-Ferrous Material				
				Heat Resistant Alloy				
				Hardened Material				
				Others (non-metallic)				
Shape	Designation	CECC	EPSR	IC	S	AN	RE	Carbide
	inch		°	inch	inch	°	inch	PVD ST4
	TPGP 7308 R FG	Up-sharp edge	60	7/32	3/32	11	.008	●
	TPGP 731 R FG	Up-sharp edge	60	7/32	3/32	11	.016	●
	TPGH 2208 R FG	Up-sharp edge	60	1/4	1/8	11	.008	●
	TPGH 221 R FG	Up-sharp edge	60	1/4	1/8	11	.016	●
	TPGP 7304 FR F1	Up-sharp edge	60	7/32	3/32	11	.004	●
	TPGP 7308 FR F1	Up-sharp edge	60	7/32	3/32	11	.008	●
	TPGP 731 FR F1	Up-sharp edge	60	7/32	3/32	11	.016	●
	TPGP 732 FR F1	Up-sharp edge	60	7/32	3/32	11	.031	●
	TPGH 2208 FR F1	Up-sharp edge	60	1/4	1/8	11	.008	●
	TPGH 221 FR F1	Up-sharp edge	60	1/4	1/8	11	.016	●
	TPGH 222 FR F1	Up-sharp edge	60	1/4	1/8	11	.031	●

● Stock(Newly added) ● Stock

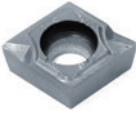
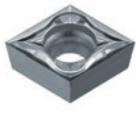
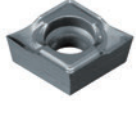
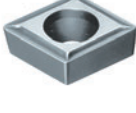
MEMO

Front Turning

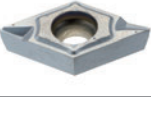


Metric

Inserts - Carbide

CCGT

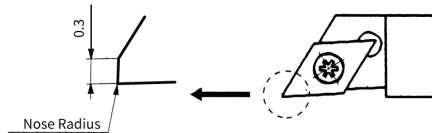
			Steel						○
			Stainless Steel						●
			Cast Iron						
			Non-Ferrous Material						
			Heat Resistant Alloy						
			Hardened Material						
			Others (non-metallic)						
Shape	Designation	CECC	EPSR	IC	S	AN	RE	BS	Carbide
	(ISO)		°	mm	mm	°	mm	mm	PVD ST4
	CCGT 09T301M R TMV	Up-sharp edge	80	9.525	3.97	7	0.08	-	●
	CCGT 09T302M R TMV	Up-sharp edge	80	9.525	3.97	7	0.18	-	●
	CCGT 09T304M R TMV	Up-sharp edge	80	9.525	3.97	7	0.38	-	●
	CCGT 09T301M YL	Up-sharp edge	80	9.525	3.97	7	0.08	-	●
	CCGT 09T302M YL	Up-sharp edge	80	9.525	3.97	7	0.18	-	●
	CCGT 09T304M YL	Up-sharp edge	80	9.525	3.97	7	0.38	-	●
	CCGT 09T308M YL	Up-sharp edge	80	9.525	3.97	7	0.78	-	●
	CCGT 060201M CL	Up-sharp edge	80	6.35	2.38	7	0.08	-	●
	CCGT 060202M CL	Up-sharp edge	80	6.35	2.38	7	0.18	-	●
	CCGT 09T301M CL	Up-sharp edge	80	9.525	3.97	7	0.08	-	●
	CCGT 09T302M CL	Up-sharp edge	80	9.525	3.97	7	0.18	-	●
	CCGT 09T304M CL	Up-sharp edge	80	9.525	3.97	7	0.38	-	●
	CCGT 060201M FN AM3	Up-sharp edge	80	6.35	2.38	7	0.08	-	●
	CCGT 060202M FN AM3	Up-sharp edge	80	6.35	2.38	7	0.18	-	●
	CCGT 060204M FN AM3	Up-sharp edge	80	6.35	2.38	7	0.38	-	●
	CCGT 09T301M FN AM3	Up-sharp edge	80	9.525	3.97	7	0.08	-	●
	CCGT 09T302M FN AM3	Up-sharp edge	80	9.525	3.97	7	0.18	-	●
	CCGT 09T304M FN AM3	Up-sharp edge	80	9.525	3.97	7	0.38	-	●

DCGT

			Steel						○
			Stainless Steel						●
			Cast Iron						
			Non-Ferrous Material						
			Heat Resistant Alloy						
			Hardened Material						
			Others (non-metallic)						
Shape	Designation	CECC	EPSR	IC	S	AN	RE	BS	Carbide
	(ISO)		°	mm	mm	°	mm	mm	PVD ST4
	DCGT 11T301M R TMV	Up-sharp edge	55	9.525	3.97	7	0.08	-	●
	DCGT 11T302M R TMV	Up-sharp edge	55	9.525	3.97	7	0.18	-	●
	DCGT 11T304M R TMV	Up-sharp edge	55	9.525	3.97	7	0.38	-	●
	DCGT 11T301M YL	Up-sharp edge	55	9.525	3.97	7	0.08	-	●
	DCGT 11T302M YL	Up-sharp edge	55	9.525	3.97	7	0.18	-	●
	DCGT 11T304M YL	Up-sharp edge	55	9.525	3.97	7	0.38	-	●
	DCGT 11T308M YL	Up-sharp edge	55	9.525	3.97	7	0.78	-	●
	DCGT 070201M CL	Up-sharp edge	55	6.35	2.38	7	0.08	-	●
	DCGT 070202M CL	Up-sharp edge	55	6.35	2.38	7	0.18	-	●
	DCGT 070204M CL	Up-sharp edge	55	6.35	2.38	7	0.38	-	●
	DCGT 11T301M CL	Up-sharp edge	55	9.525	3.97	7	0.08	-	●
	DCGT 11T302M CL	Up-sharp edge	55	9.525	3.97	7	0.18	-	●
	DCGT 11T304M CL	Up-sharp edge	55	9.525	3.97	7	0.38	-	●

			Steel						○
			Stainless Steel						●
			Cast Iron						
			Non-Ferrous Material						
			Heat Resistant Alloy						
			Hardened Material						
			Others (non-metallic)						
Shape	Designation	CECC	EPSR	IC	S	AN	RE	BS	Carbide
	(ISO)		°	mm	mm	°	mm	mm	PVD ST4
	DCGT 070201M FN AM3	Up-sharp edge	55	6.35	2.38	7	0.08	-	●
	DCGT 070202M FN AM3	Up-sharp edge	55	6.35	2.38	7	0.18	-	●
	DCGT 070204M FN AM3	Up-sharp edge	55	6.35	2.38	7	0.38	-	●
	DCGT 11T301M FN AM3	Up-sharp edge	55	9.525	3.97	7	0.08	-	●
	DCGT 11T302M FN AM3	Up-sharp edge	55	9.525	3.97	7	0.18	-	●
	DCGT 11T304M FN AM3	Up-sharp edge	55	9.525	3.97	7	0.38	-	●
	DCGT 070201M AMX	Up-sharp edge	55	6.35	2.38	7	0.08	-	●
	DCGT 070202M AMX	Up-sharp edge	55	6.35	2.38	7	0.18	-	●
	DCGT 11T301M AMX	Up-sharp edge	55	9.525	3.97	7	0.08	-	●
	DCGT 11T302M AMX	Up-sharp edge	55	9.525	3.97	7	0.18	-	●
	DCGT 11T3005 AM3 -WP	Up-sharp edge	55	9.525	3.97	7	0.05	(0.3)	●
	DCGT 11T3015 AM3 -WP	Up-sharp edge	55	9.525	3.97	7	0.15	(0.3)	●

Features of DC.T-WP insert



NTK WP style inserts have a wiper facet design.

The insert has a 0.3mm flat on the cutting edge when the insert is set into the toolholder.

The flat on the cutting edge ensures a superior surface when feed rates are increased.

WP style inserts can be used in toolholders: SDJC, CH-SDUL and DS-SDUL.

TNGG

			Steel						○
			Stainless Steel						●
			Cast Iron						
			Non-Ferrous Material						
			Heat Resistant Alloy						
			Hardened Material						
			Others (non-metallic)						
Shape	Designation	CECC	EPSR	IC	S	AN	RE	BS	Carbide
	(ISO)		°	mm	mm	°	mm	mm	PVD ST4
	TNGG 160402M R TMV	Up-sharp edge	60	9.525	4.76	-	0.18	-	●
	TNGG 160404M R TMV	Up-sharp edge	60	9.525	4.76	-	0.38	-	●
	TNGG 160401M FN UL	Up-sharp edge	60	9.525	4.76	-	0.08	-	●
	TNGG 160402M FN UL	Up-sharp edge	60	9.525	4.76	-	0.18	-	●
	TNGG 160404M FN UL	Up-sharp edge	60	9.525	4.76	-	0.38	-	●
	TNGG 160408M FN UL	Up-sharp edge	60	9.525	4.76	-	0.78	-	●

VBGT

										Steel	○
										Stainless Steel	●
										Cast Iron	
										Non-Ferrous Material	
										Heat Resistant Alloy	
										Hardened Material	
										Others (non-metallic)	
Shape	Designation	CECC	EPSR	IC	S	AN	RE	BS	Carbide		
	(ISO)		°	mm	mm	°	mm	mm	PVD	ST4	
	VBGT 160402 FN YL	Up-sharp edge	35	9.525	4.76	5	0.2	-	●	●	
	VBGT 160404 FN YL	Up-sharp edge	35	9.525	4.76	5	0.4	-	●	●	
	VBGT 160408 FN YL	Up-sharp edge	35	9.525	4.76	5	0.8	-	●	●	

VCGT

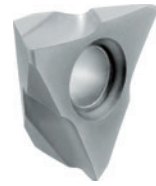
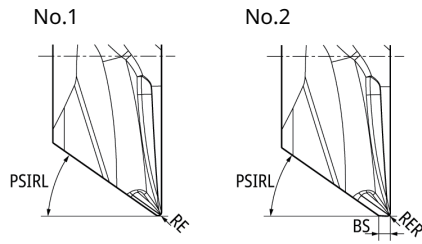
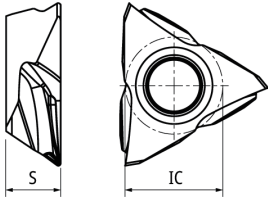
										Steel	○
										Stainless Steel	●
										Cast Iron	
										Non-Ferrous Material	
										Heat Resistant Alloy	
										Hardened Material	
										Others (non-metallic)	
Shape	Designation	CECC	EPSR	IC	S	AN	RE	BS	Carbide		
	(ISO)		°	mm	mm	°	mm	mm	PVD	ST4	
	VCGT 110302M R TMV	Up-sharp edge	35	6.35	3.18	7	0.18	-	●	●	
	VCGT 110304M R TMV	Up-sharp edge	35	6.35	3.18	7	0.38	-	●	●	
	VCGT 110301M YL	Up-sharp edge	35	6.35	3.18	7	0.08	-	●	●	
	VCGT 110302M YL	Up-sharp edge	35	6.35	3.18	7	0.18	-	●	●	
	VCGT 110304M YL	Up-sharp edge	35	6.35	3.18	7	0.38	-	●	●	
	VCGT 110301M CL	Up-sharp edge	35	6.35	3.18	7	0.08	-	●	●	
	VCGT 110302M CL	Up-sharp edge	35	6.35	3.18	7	0.18	-	●	●	
	VCGT 110301M FN AM3	Up-sharp edge	35	6.35	3.18	7	0.08	-	●	●	
	VCGT 110302M FN AM3	Up-sharp edge	35	6.35	3.18	7	0.18	-	●	●	
	VCGT 110304M FN AM3	Up-sharp edge	35	6.35	3.18	7	0.38	-	●	●	

VPGT

										Steel	○
										Stainless Steel	●
										Cast Iron	
										Non-Ferrous Material	
										Heat Resistant Alloy	
										Hardened Material	
										Others (non-metallic)	
Shape	Designation	CECC	EPSR	IC	S	AN	RE	BS	Carbide		
	(ISO)		°	mm	mm	°	mm	mm	PVD	ST4	
	VPGT 110301M FN AM3	Up-sharp edge	35	6.35	3.18	11	0.08	-	●	●	
	VPGT 110302M FN AM3	Up-sharp edge	35	6.35	3.18	11	0.18	-	●	●	

TF.. series/Insert

TFX The Front Max



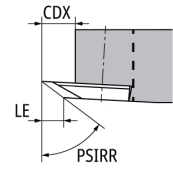
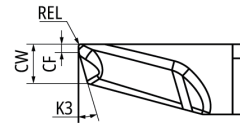
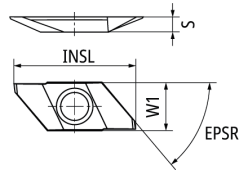
● Diagram shows right-hand tool
All angles shown are obtained when insert is set in the holder.

Figure	Designation	Hand	Wiper	APMX	IC	S	BS	PSIRL	RE	RER	Carbide
				mm	mm	mm	mm	°	mm	mm	PVD
1	TFX3301MR	R	-	5	9.525	4.76	-	32	0.08	-	●
1	TFX3302MR	R	-	5	9.525	4.76	-	32	0.18	-	●
1	TFX3304MR	R	-	5	9.525	4.76	-	32	0.38	-	●
2	TFX3301MRW	R	Straight	5	9.525	4.76	0.5	32	-	0.08	●
2	TFX3302MRW	R	Straight	5	9.525	4.76	0.5	32	-	0.18	●
2	TFX3304MRW	R	Straight	5	9.525	4.76	0.5	32	-	0.38	●

Back Turning

TBP.. series/Inserts Carbide

TBP-BM

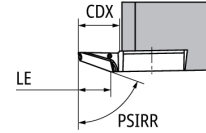
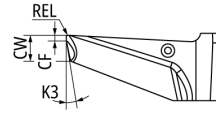
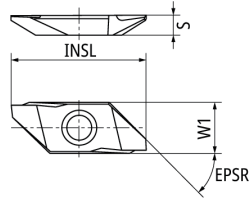


● Diagram shows right-hand tool

Designation	Hand	Chipbreaker	LE	CDX	CF	CW	EPSR	INSL	K3	PSIRR	REL	S	W1	Carbide
			mm	mm	mm	mm	°	mm	°	°	mm	mm	mm	PVD
TBP72FR05-BM	R	Yes	3.5	5.3	0.3	1.4	50	20	16	72	0.05	2.5	8	●
TBP72FR10M-BM	R	Yes	3.5	5.3	0.3	1.4	50	20	16	72	0.08	2.5	8	●
TBP72FR20M-BM	R	Yes	3.5	5.3	0.3	1.4	50	20	16	72	0.18	2.5	8	●

TBPA.. series/Inserts Carbide

TBPA-BM



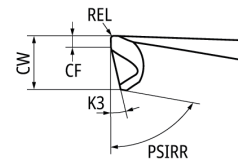
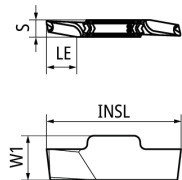
● Diagram shows right-hand tool

Designation	Hand	Chipbreaker	LE	CDX	CF	CW	EPSR	INSL	K3	PSIRR	REL	S	W1	Carbide
			mm	mm	mm	mm	°	mm	°	°	mm	mm	mm	PVD
TBPA70FR05-BM	R	Yes	5.5	6.5	0.3	1.35	45	25	12	70	0.05	3.5	9.4	●
TBPA70FR10M-BM	R	Yes	5.5	6.5	0.3	1.35	45	25	12	70	0.08	3.5	9.4	●
TBPA70FR20M-BM	R	Yes	5.5	6.5	0.3	1.35	45	25	12	70	0.18	3.5	9.4	●

BACK DUO

TBDP.. series/Inserts Carbide

TBDP



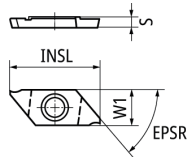
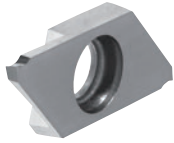
● Diagram shows right-hand tool

Designation	Hand	Chipbreaker	LE	CF	CW	INSL	K3	PSIRR	REL	S	W1	Carbide
			mm	mm	mm	mm	°	°	mm	mm	mm	PVD
TBDP22005R	R	Yes	3.5	0.3	1.4	17.48	13	80	0.05	2.2	6	●
TBDP2201MR	R	Yes	3.5	0.3	1.4	17.48	13	80	0.08	2.2	6	●
TBDP2202MR	R	Yes	3.5	0.3	1.4	17.48	13	80	0.18	2.2	6	●

Cut-off

CTP.. series/Inserts Carbide Right-Hand

CTP-FR



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

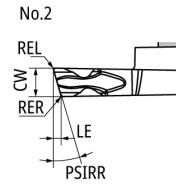
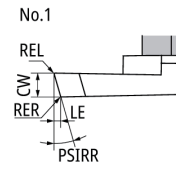
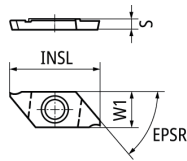
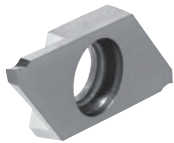


Figure	Designation	Hand	Chipbreaker	CUTDIA	CW	EPSR	INSL	LE	PSIRR	REL	RER	S	W1	Carbide
				mm	mm	°	mm	mm	°	mm	mm	mm	mm	PVD
2	CTP10FR-CX	R	Yes	12	1	50	20	0.32	16	0.05	0.05	2.5	8	●
1	CTP10FR-TH	R	Yes	12	1	50	20	0.32	16	0.05	0.05	2.5	8	●
2	CTP13FR-CX	R	Yes	12	1.3	50	20	0.4	16	0.05	0.05	2.5	8	●
2	CTP15FR-CX	R	Yes	12	1.5	50	20	0.46	16	0.05	0.05	2.5	8	●
1	CTP15FR-TH	R	Yes	12	1.5	50	20	0.46	16	0.05	0.05	2.5	8	●
1	CTP20FR-TH	R	Yes	12	2	50	20	0.61	16	0.05	0.05	2.5	8	●

CTP-FRN



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

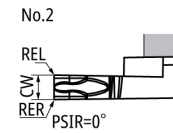
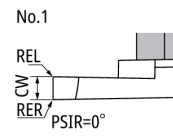
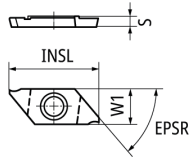


Figure	Designation	Hand	Chipbreaker	CUTDIA	CW	EPSR	INSL	PSIR	REL	RER	S	W1	Carbide
				mm	mm	°	mm	°	mm	mm	mm	mm	PVD
2	CTP10FRN-CX	R	Yes	12	1	50	20	0	0.05	0.05	2.5	8	●
1	CTP10FRN-TH	R	Yes	12	1	50	20	0	0.05	0.05	2.5	8	●
2	CTP13FRN02-CX	R	Yes	12	1.3	50	20	0	0.2	0.2	2.5	8	●
2	CTP13FRN-CX	R	Yes	12	1.3	50	20	0	0.05	0.05	2.5	8	●
2	CTP15FRN02-CX	R	Yes	12	1.5	50	20	0	0.2	0.2	2.5	8	●
2	CTP15FRN-CX	R	Yes	12	1.5	50	20	0	0.05	0.05	2.5	8	●
1	CTP15FRN-TH	R	Yes	12	1.5	50	20	0	0.05	0.05	2.5	8	●
1	CTP20FRN-TH	R	Yes	12	2	50	20	0	0.05	0.05	2.5	8	●

CTP.. series/Inserts Carbide Left-Hand

CTP-FLK



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

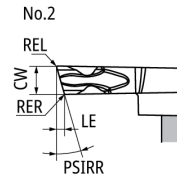
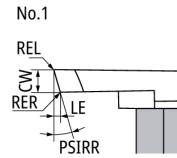
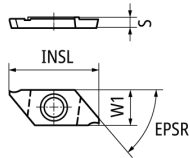
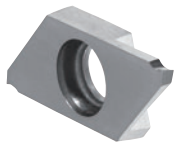


Figure	Designation	Hand	Chipbreaker	CUTDIA	CW	EPSR	INSL	LE	PSIRR	REL	RER	S	W1	Carbide
				mm	mm	°	mm	mm	°	mm	mm	mm	mm	PVD ST4
2	CTP10FLK-CX	L	Yes	11	1	50	20	0.32	16	0.05	0.05	2.5	8	●
1	CTP10FLK-TH	L	Yes	11	1	50	20	0.32	16	0.05	0.05	2.5	8	●
2	CTP13FLK-CX	L	Yes	11	1.3	50	20	0.4	16	0.05	0.05	2.5	8	●
2	CTP15FLK-CX	L	Yes	11	1.5	50	20	0.46	16	0.05	0.05	2.5	8	●
1	CTP15FLK-TH	L	Yes	11	1.5	50	20	0.46	16	0.05	0.05	2.5	8	●
1	CTP20FLK-TH	L	Yes	11	2	50	20	0.61	16	0.05	0.05	2.5	8	●

CTP-FLN



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

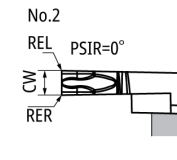
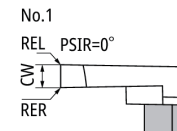
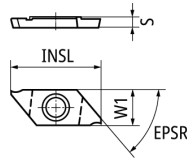
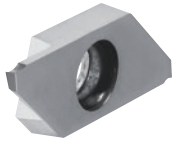


Figure	Designation	Hand	Chipbreaker	CUTDIA	CW	EPSR	INSL	PSIR	REL	RER	S	W1	Carbide
				mm	mm	°	mm	°	mm	mm	mm	mm	PVD ST4
2	CTP10FLN-CX	L	Yes	12	1	50	20	0	0.05	0.05	2.5	8	●
1	CTP10FLN-TH	L	Yes	12	1	50	20	0	0.05	0.05	2.5	8	●
2	CTP13FLN02-CX	L	Yes	12	1.3	50	20	0	0.2	0.2	2.5	8	●
2	CTP13FLN-CX	L	Yes	12	1.3	50	20	0	0.05	0.05	2.5	8	●
2	CTP15FLN02-CX	L	Yes	12	1.5	50	20	0	0.2	0.2	2.5	8	●
2	CTP15FLN-CX	L	Yes	12	1.5	50	20	0	0.05	0.05	2.5	8	●
1	CTP15FLN-TH	L	Yes	12	1.5	50	20	0	0.05	0.05	2.5	8	●
1	CTP20FLN-TH	L	Yes	12	2	50	20	0	0.05	0.05	2.5	8	●

CTPA.. series/Inserts Carbide Right-Hand

CTPA-FR



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

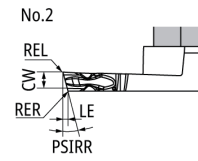
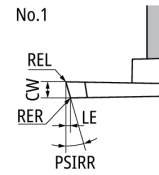
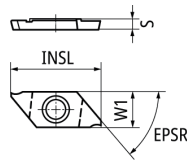
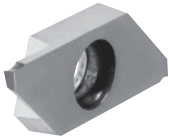


Figure	Designation	Hand	Chipbreaker	CUTDIA	CW	EPSR	INSL	LE	PSIRR	REL	RER	S	W1	Carbide
														PVD
														ST4
2	CTPA15FR-CX	R	Yes	16	1.5	45	25	0.46	16	0.05	0.05	3.5	9.4	●
1	CTPA15FR-TH	R	Yes	16	1.5	45	25	0.46	16	0.05	0.05	3.5	9.4	●
1	CTPA20FR-TH	R	Yes	16	2	45	25	0.61	16	0.05	0.05	3.5	9.4	●

CTPA-FRN



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

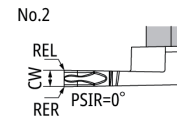
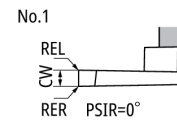
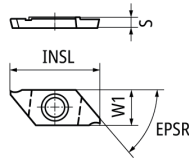


Figure	Designation	Hand	Chipbreaker	CUTDIA	CW	EPSR	INSL	PSIR	REL	RER	S	W1	Carbide
													PVD
													ST4
2	CTPA15FRN-CX	R	Yes	16	1.5	45	25	0	0.05	0.05	3.5	9.4	●
1	CTPA15FRN-TH	R	Yes	16	1.5	45	25	0	0.05	0.05	3.5	9.4	●
1	CTPA20FRN-TH	R	Yes	16	2	45	25	0	0.05	0.05	3.5	9.4	●

CTPA.. series/Inserts Carbide Left-Hand

CTPA-FLK



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

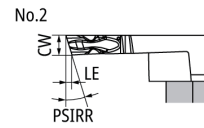
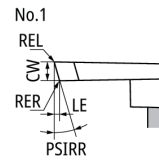
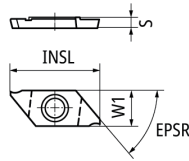


Figure	Designation	Hand	Chipbreaker	CUTDIA	CW	EPSR	INSL	LE	PSIRR	REL	RER	S	W1	Carbide
				mm	mm	°	mm	mm	°	mm	mm	mm	mm	PVD
2	CTPA15FLK-CX	L	Yes	14.5	1.5	45	25	0.46	16	0.05	0.05	3.5	9.4	●
1	CTPA15FLK-TH	L	Yes	14.5	1.5	45	25	0.46	16	0.05	0.05	3.5	9.4	●
1	CTPA20FLK-TH	L	Yes	14.5	2	45	25	0.61	16	0.05	0.05	3.5	9.4	●

CTPA-FLN



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

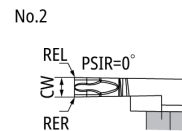
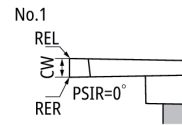
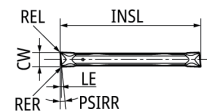


Figure	Designation	Hand	Chipbreaker	CUTDIA	CW	EPSR	INSL	PSIR	REL	RER	S	W1	Carbide
				mm	mm	°	mm	°	mm	mm	mm	mm	PVD
2	CTPA15FLN-CX	L	Yes	16	1.5	45	25	0	0.05	0.05	3.5	9.4	●
1	CTPA15FLN-TH	L	Yes	16	1.5	45	25	0	0.05	0.05	3.5	9.4	●
1	CTPA20FLN-TH	L	Yes	16	2	45	25	0	0.05	0.05	3.5	9.4	●

CTDP.. series/Inserts Carbide

CTDP20/25 CUT DUO

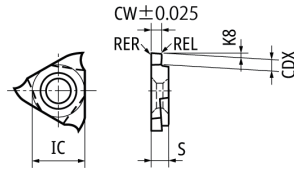


Designation	Hand	Chipbreaker	CW	INSL	PSIRR	REL	RER	Carbide
			mm	mm	°	mm	mm	PVD
CTDP20N	N	Yes	2	19.1	-	0.05	0.05	●
CTDP20N02	N	Yes	2	19.1	-	0.2	0.2	●
CTDP25N02	N	Yes	2.5	21.2	-	0.2	0.2	●
CTDP20R6	R	Yes	2	19.1	6	0.05	0.05	●
CTDP25R6	R	Yes	2.5	21.2	6	0.05	0.05	●
CTDP20R15	R	Yes	2	19.1	15	0.05	0.05	●

OD Grooving

GTMH(X)32.. series/Inserts Carbide

■ GTMH32-GX Side Turning / 3D mold chipbreaker



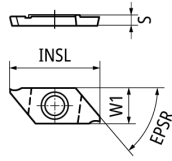
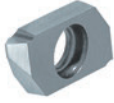
● Diagram shows right-hand tool

Designation	Hand	Chipbreaker	APMX	CDX	CW	EPSR	GAN	IC	K8	REL	RER	S	Carbide
			mm	mm	mm	°	°	mm	°	mm	mm	mm	PVD
GTMH32033RGX	R	Yes	0.25	0.6	0.33	60	17	9.525	2	0.05	0.05	3.18	●
GTMH32043RGX	R	Yes	0.9	1.2	0.43	60	17	9.525	2	0.05	0.05	3.18	●
GTMH32050RGX	R	Yes	0.9	1.2	0.5	60	17	9.525	2	0.05	0.05	3.18	●
GTMH32053RGX	R	Yes	0.9	1.2	0.53	60	17	9.525	2	0.05	0.05	3.18	●
GTMH32075RGX	R	Yes	1.6	2	0.75	60	17	9.525	2	0.05	0.05	3.18	●
GTMH32095RGX	R	Yes	1.6	2	0.95	60	17	9.525	2	0.05	0.05	3.18	●
GTMH32100RGX	R	Yes	1.6	2	1	60	17	9.525	2	0.05	0.05	3.18	●
GTMH32100RGX01	R	Yes	1.6	2	1	60	17	9.525	2	0.1	0.1	3.18	●
GTMH32150RGX	R	Yes	2.7	3	1.5	60	17	9.525	2	0.05	0.05	3.18	●
GTMH32150RGX01	R	Yes	2.7	3	1.5	60	17	9.525	2	0.1	0.1	3.18	●
GTMH32150RGX02	R	Yes	2.7	3	1.5	60	17	9.525	2	0.2	0.2	3.18	●
GTMH32200RGX	R	Yes	2.7	3	2	60	17	9.525	2	0.05	0.05	3.18	●
GTMH32200RGX01	R	Yes	2.7	3	2	60	17	9.525	2	0.1	0.1	3.18	●
GTMH32200RGX02	R	Yes	2.7	3	2	60	17	9.525	2	0.2	0.2	3.18	●
GTMH32300RGX	R	Yes	2.7	3	3	60	17	9.525	2	0.05	0.05	3.18	●
GTMH32300RGX02	R	Yes	2.7	3	3	60	17	9.525	2	0.2	0.2	3.18	●

External Thread

TTP.. series/Inserts Carbide

TTP-R



● Diagram shows right-hand tool

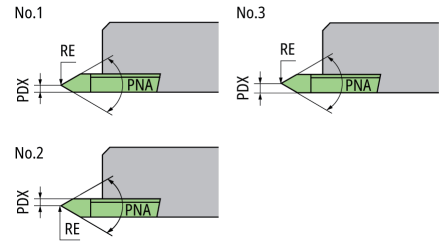
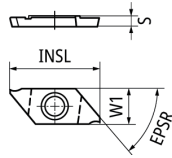
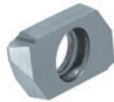


Figure	Designation	Hand	Chipbreaker	Pitch	EPSR	INSL	PDX	PNA	RE	S	W1	Carbide
				mm								°
1	TTP60FR4A	R	Yes	0.2-0.75	50	19.9	0.4	60	0.05MAX Flat	2.5	8	●
1	TTP60FR8A	R	Yes	0.4-1.25	50	19.9	0.8	60	0.05	2.5	8	●
2	TTP60FR4B	R	Yes	0.2-0.75	50	19.9	0.4	60	0.05MAX Flat	2.5	8	●
2	TTP60FR8B	R	Yes	0.4-1.25	50	19.9	0.8	60	0.05	2.5	8	●
3	TTP60FR-N	R	Yes	1-1.5	50	19.9	1.25	60	0.1	2.5	8	●
3	TTP60FR-N02	R	Yes	1.5-2	50	19.9	1.25	60	0.2	2.5	8	●

TTP-L



● Diagram shows left-hand tool

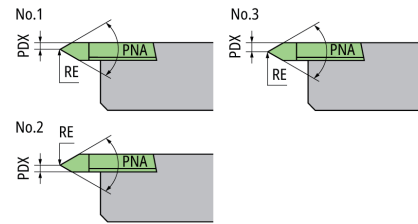
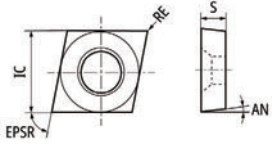
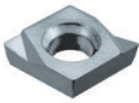


Figure	Designation	Hand	Chipbreaker	Pitch	EPSR	INSL	PDX	PNA	RE	S	W1	Carbide
				mm								°
1	TTP60FL4A	L	Yes	0.2-0.75	50	19.9	0.4	60	0.05MAX Flat	2.5	8	●
1	TTP60FL8A	L	Yes	0.4-1.25	50	19.9	0.8	60	0.05	2.5	8	●
2	TTP60FL4B	L	Yes	0.2-0.75	50	19.9	0.4	60	0.05MAX Flat	2.5	8	●
2	TTP60FL8B	L	Yes	0.4-1.25	50	19.9	0.8	60	0.05	2.5	8	●
3	TTP60FL-N	L	Yes	1-1.5	50	19.9	1.25	60	0.1	2.5	8	●
3	TTP60FL-N02	L	Yes	1.5-2	50	19.9	1.25	60	0.2	2.5	8	●

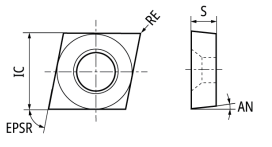
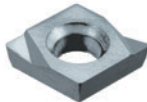
ID Tooling

Inserts Carbide

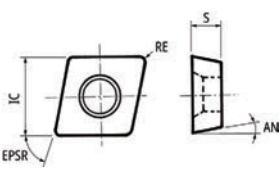
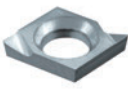
CC..

									Steel	○
									Stainless Steel	●
									Cast Iron	
									Non-Ferrous Material	
									Heat Resistant Alloy	
									Hardened Material	
									Others (non-metallic)	
Shape	Designation	CECC	EPSR	IC	S	AN	RE	Carbide		
	(ISO)		°	mm	mm	°	mm	PVD	ST4	
	CCGT 060201 FR F1	Up-sharp edge	80	6.35	2.38	7	0.1	●		
	CCGT 060202 FR F1	Up-sharp edge	80	6.35	2.38	7	0.2	●		
	CCGT 060204 FR F1	Up-sharp edge	80	6.35	2.38	7	0.4	●		
	CCGT 09T302 FR F1	Up-sharp edge	80	9.525	2.38	7	0.2	●		
	CCGT 09T304 FR F1	Up-sharp edge	80	9.525	2.38	7	0.4	●		

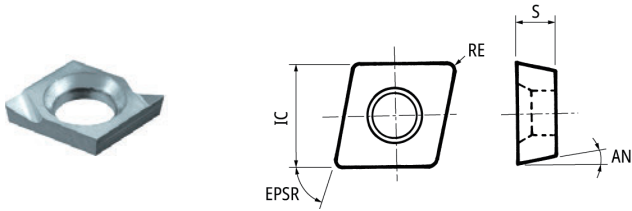
CP..

									Steel	○
									Stainless Steel	●
									Cast Iron	
									Non-Ferrous Material	
									Heat Resistant Alloy	
									Hardened Material	
									Others (non-metallic)	
Shape	Designation	CECC	EPSR	IC	S	AN	RE	Carbide		
	(ISO)		°	mm	mm	°	mm	PVD	ST4	
	CPGH 040101 FR F1	Up-sharp edge	80	4.76	1.59	11	0.1	●		
	CPGH 040102 FR F1	Up-sharp edge	80	4.76	1.59	11	0.2	●		
	CPGH 040104 FR F1	Up-sharp edge	80	4.76	1.59	11	0.4	●		
	CPGH 060202 FR F1	Up-sharp edge	80	6.35	2.38	11	0.2	●		
	CPGH 060204 FR F1	Up-sharp edge	80	6.35	2.38	11	0.4	●		

ERGH

									Steel	○
									Stainless Steel	●
									Cast Iron	
									Non-Ferrous Material	
									Heat Resistant Alloy	
									Hardened Material	
									Others (non-metallic)	
Shape	Designation	CECC	EPSR	IC	S	AN	RE	Carbide		
	(ISO)		°	mm	mm	°	mm	PVD	ST4	
	ERGH T30101 FR F1	Up-sharp edge	75	3.97	1.59	9	0.1	●		
	ERGH T30102 FR F1	Up-sharp edge	75	3.97	1.59	9	0.2	●		
	ERGH T30104 FR F1	Up-sharp edge	75	3.97	1.59	9	0.4	●		

MBL



Designation	Hand	Chipbreaker	AN	EPSR	IC	RE	S	Carbide
			°	°	mm	mm	mm	PVD ST4
MBL 005 FR F1	R	Yes	9	75	3.6	0.05	1	●
MBL 015 FR F1	R	Yes	9	75	3.6	0.15	1	●

TCGH

Shape	Designation (ISO)	CECC	EPSR	IC	S	AN	RE	Carbide
			°	mm	mm	°	mm	PVD ST4
	TCGH 060101 FR F05	Up-sharp edge	60	-	-	7	-	●
	TCGH 060102 FR F05	Up-sharp edge	60	3.97	1.59	7	0.2	●
	TCGH 060104 FR F05	Up-sharp edge	60	-	-	7	-	●

TPGH

Shape	Designation (ISO)	CECC	EPSR	IC	S	AN	RE	Carbide
			°	mm	mm	°	mm	PVD ST4
	TPGH 090202 R FG	Up-sharp edge	60	5.56	2.38	11	0.2	●
	TPGH 090204 R FG	Up-sharp edge	60	5.56	2.38	11	0.4	●
	TPGH 110302 R FG	Up-sharp edge	60	6.35	3.18	11	0.2	●
	TPGH 110304 R FG	Up-sharp edge	60	6.35	3.18	11	0.4	●
	TPGH 090201 FR F1	Up-sharp edge	60	5.56	2.38	11	0.1	●
	TPGH 090202 FR F1	Up-sharp edge	60	5.56	2.38	11	0.2	●
	TPGH 090204 FR F1	Up-sharp edge	60	5.56	2.38	11	0.4	●
	TPGH 090208 FR F1	Up-sharp edge	60	5.56	2.38	11	0.8	●
	TPGH 110302 FR F1	Up-sharp edge	60	6.35	3.18	11	0.2	●
	TPGH 110304 FR F1	Up-sharp edge	60	6.35	3.18	11	0.4	●
	TPGH 110308 FR F1	Up-sharp edge	60	6.35	3.18	11	0.8	●

Front turning

Mechanical equipment

Work material	316L	
Cutting Speed	200SFM (60m/min)	
Feed	.0011IPR (0.03mm/rev)	
D.O.C.	.020inch (0.5mm)	
Coolant	WET	
YL chipbreaker ST4 CCGT 32.51M YL		4,000 pcs/ Corner
Grinded chipbreaker from Competitor (PVD coated carbide)		2,000 pcs/ Corner

ST4 achieved double the tool life compared to competitor.

Cut-off

Sleeve

Work material	304	
Cutting Speed	330SFM (100m/min)	
Feed	.0008IPR (0.02mm/rev)	
Coolant	WET	
CX chipbreaker ST4 CTP15FLN-CX		
Grinded chipbreaker from Competitor (PVD coated carbide)		2,000 pcs/ Corner

CX chipbreaker was able to perform stable machining without chip control issues. By combining it with the specialized ST4 material for stainless steel processing, we achieved a tool life extension of over 1.5 times compared to competitor.

Back turning

Stud parts

Work material	430F	
Cutting Speed	160SFM (50m/min)	
Feed	.0021IPR (0.05mm/rev)	
D.O.C.	.080inch (2.0mm)	
Coolant	WET	
TBP-BM chipbreaker ST4 TBP72FR10M-BM		①1PASS machining *No grooving and roughing / finishing required!
Grinded chipbreaker from competitor (PVD coated carbide)		①Rough : Grooving ②Back turning

Conventional tools machine in 2 passes to prevent roughness of the back surface of the flange caused by chips. By using the BM chipbreaker a superior surface finish was achieved on the back surface in 1PASS machining, and the cycle time was also drastically reduced.

Grooving

Automotive parts

Work material	430	
Cutting Speed	260SFM (80m/min)	
Feed	.0012IPR (0.03mm/rev)	
D.O.C.	.040inch (1.0mm)	
Coolant	WET	
GX chipbreaker ST4 GTMH32200RGX		3,500 pcs/ Corner
Grinded chipbreaker from competitor (PVD coated carbide)		2,500 pcs/ Corner

Using the GX chipbreaker, we have eliminated chip packing at the bottom of the groove, leading to a reduction in the inspection process.

Tungaloy-NTK America, Inc.

3726 N. Ventura Drive
Arlington Heights
IL 60004, U.S.A.
Phone: +1-888-554-8394
Fax: +1-888-554-8392
www.tungaloy.com/us
https://www.ntkcuttingtools.com/us/

Tungaloy Canada

432 Elgin St. Unit 3, Brantford
Ontario N3S 7P7, Canada
Phone: +1-519-758-5779
Fax: +1-519-758-5791
www.tungaloy.com/ca

Tungaloy-NTK de Mexico S.A.

C/ Los Arellano 113
Parque Industrial Siglo XXI
Aguascalientes, AGS
Mexico 20290
Phone: +52-449-929-5410
Fax: +52-449-929-5411
www.tungaloy.com/mx
https://www.ntkcuttingtools.com/mx/

Tungaloy-NTK do Brasil Ltda.

Avd. Independencia N4158
Residencial Flora
13280-000 Vinhedo
São Paulo, Brazil
Phone: +55-19-38262757
Fax: +55-19-38262757
www.tungaloy.com/br
https://www.ntkcuttingtools.com/br/

Tungaloy Hungary Kft

Erzsébet királyné útja 125
H-1142 Budapest, Hungary
Phone: +36 1 781-6846
Fax: +36 1 781-6866
www.tungaloy.com/hu

Tungaloy Turkey

Serifali Mah. bayraktar
Bulvari Kule Sk. No:26
34775 Umraniye / Istanbul / Turkey
Phone: +90 216 540 04 67
Fax: +90 216 540 04 87
www.tungaloy.com/tr

Tungaloy Benelux b.v.

Tjalk 70
NL-2411 NZ Bodegraven Netherlands
Phone: +31 172 630 420
Fax: +31 172 630 429
www.tungaloy.com/nl

Tungaloy Croatia

Ulica bana Josipa Jelačića 87,
10430 Samobor, Croatia
Phone: +385 1 3326 604
Fax: +385 1 3327 683
www.tungaloy.com/hr

NTK Cutting Tools (Shanghai) Co., Ltd

Room 103, Building C, No. 7666 Zhong-
chun Road, Minhang District, Shanghai,
200131, China
Phone: +86-21-64788878
Fax: +86-21-64788879
www.ntkcuttingtools.com/zh-hans/

Tungaloy-NTK Germany GmbH

Katzbergstr. 3a
D-40764 Langenfeld, Germany
Phone: +49-2173-90420-0
Fax: +49-2173-90420-19
www.tungaloy.com/de
https://www.ntkcuttingtools.com/de/

Tungaloy France S.A.S.

Les Fjords
19 avenue de Norvège
91140 Villebon Sur Yvette, France
Phone: +33-1-6486-4300
Fax: +33-1-6907-7817
www.tungaloy.com/fr

Tungaloy Italia S.r.l.

Viale Sarca 336/Edificio 13
20126 Milano, Italy
Phone: +39-02-252012-1
Fax: +39-02-252012-65
www.tungaloy.com/it

Tungaloy Czech s.r.o

Turanka 1583/115g,
627 00 Brno, Czech Republic
Phone: +420-532 123 391
www.tungaloy.com/cz

Tungaloy Ibérica S.L.

C/Miquel Servet, 43B, Nau 7
Pol. Ind. Bufalvent
ES-08243 Manresa (BCN), Spain
Phone: +34 93 113 1360
Fax: +34 93 876 2798
www.tungaloy.com/es

Tungaloy-NTK Cutting Tools (Thailand) Co.,Ltd.

Interlink tower 4th Fl.
1858/5-7 Bangna-Trad Road
km.5 Bangna, Bangna, Bangkok 10260
Thailand
Phone: +66-2-751-5711
Fax: +66-2-751-5715
www.tungaloy.com/th
https://www.ntkcuttingtools.com/th/

Tungaloy Cutting Tools (Taiwan) Co.,Ltd.

9F. No.293, Zhongyang Rd,
Xinzhuang Dist, New Taipei City,
24251 Taiwan
Phone: +886-2-8521-9986
Fax: +886-2-8521-8935
www.tungaloy.com/tw

Tungaloy Singapore (Pte.), Ltd.

62 Ubi Road 1,
#08-09 Oxley BizHub 2
Singapore 408734
Phone: +65-6391-1833
Fax: +65-6299-4557
www.tungaloy.com/sg

Tungaloy-NTK Vietnam LLC

3rd Floor, Licogi 13 Tower,
164 Khuat Duy Tien, Nhan Chinh, Thanh
Xuan District,
Hanoi, Vietnam
Phone: +84 24 63282086
www.tungaloy.com/vn

Tungaloy Scandinavia AB

Bultgatan 38, 442 40
Kungälv, Sweden
Phone: +46-462119200
Fax: +46-462119207
www.tungaloy.com/se

Tungaloy Rus, LLC

Andropova avenue, h.18/7,
11 floor, office 3, 115432,
Moscow, Russia
Phone: +7-499-683-01-80
Fax: +7-499-683-01-81
www.tungaloy.com/ru

Tungaloy Polska Sp. z o.o.

Ul. Irysowa 1, 55-040 Bielany
Wrocławskie, Poland
Phone: +48 607 907 237
www.tungaloy.com/pl

Tungaloy-NTK U.K. Ltd

Suite 3, Pioneer House, Mill Street,
Cannock, WS11 0EF, UK
Phone: +44 121 4000 231
Fax: +44 121 270 9694
www.tungaloy.com/uk
https://www.ntkcuttingtools.com/uk/

Tungaloy India Pvt. Ltd.

One International Center,
Unit # 902-A, 9th Floor,
Tower 1, Senapati Bapat Marg,
Elphinstone Road (West),
Mumbai -400013, India
Phone: +91-22-6124-8804
Fax: +91-22-6124-8899
www.tungaloy.com/in

Tungaloy-NTK Korea Ltd

1040 Gachang-ro, Gachang-myeon,
Dalseong-gun, Daegu, 42936, Korea
Phone: +82-53-760-7698
Fax: +82-53-768-9912
www.tungaloy.com/kr

Tungaloy Malaysia Sdn Bhd

50 K-2, Kelana Mall, Jalan
SS6/14, Kelana Jaya, 47301
Petaling Jaya, Selangor Darul Ehsan
Malaysia
Phone: +603-7805-3222
Fax: +603-7804-8563
www.tungaloy.com/my

Tungaloy Australia Pty Ltd

Unit 68 1470 Ferntree Gully Road
Knoxfield 3180 Victoria, Australia
Phone: +61-3-9755-8147
Fax: +61-3-9755-6070
www.tungaloy.com/au

PT. Tungaloy Indonesia

Kompleks Grand Wisata Block AA-10
No.3-5 Cibitung
Bekasi 17510, Indonesia
Phone: +62-21-8261-5808
Fax: +62-21-8261-5809
www.tungaloy.com/id