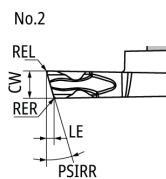
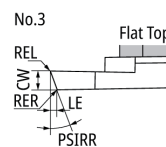
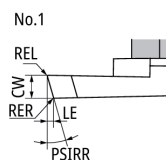
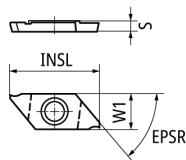


CTP.. series/Inserts Carbide Right-Hand

CTP-FR

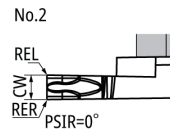
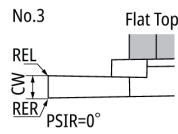
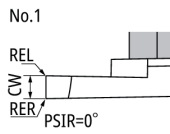
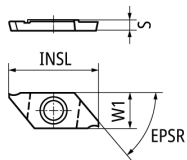


●All angles shown are obtained when insert is set in the holder.

Figure	Item Number	Hand	Chip-breaker														Carbide								PCD
																	PVD								
				CUTDIA	CW	EPSR	INSL	LE	PSIRR	REL	RER	S	W1												
				mm	mm	°	mm	mm	°	mm	mm	mm	mm	DM4	DT4	QM3	ST4	TM4	VM1	ZM3	KM1	PD1			
1	CTP05FR-SH	R	Yes	5	0.5	50	20	0.17	16	0.05	0.05	2.5	8								●				
1	CTP07FR	R	Yes	–	0.7	50	20	–	–	–	–	2.5	8								●				
1	CTP10FR	R	Yes	–	1	50	20	–	–	–	–	2.5	8		●						●				
2	CTP10FR-CX	R	Yes	12	1	50	20	0.32	16	0.05	0.05	2.5	8	●			●								
1	CTP10FR-SH	R	Yes	7	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				●								
3	CTP10FRV		R	No	12	1	50	20	0.4	20	0	–	2.5	8		●				●	●	●			
1	CTP13FR	R	Yes	12	1.3	50	20	0.4	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	●			●								
1	CTP15FR	R	Yes	12	1.5	50	20	0.46	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				●								
3	CTP15FRV		R	No	12	1.5	50	20	0.58	20	0	–	2.5	8						●	●	●			
1	CTP15FRX	R	Yes	12	1.5	50	20	0.46	16	0.05	0.05	2.5	8								●				
1	CTP20FR	R	Yes	12	2	50	20	0.61	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				●								
3	CTP20FRV		R	No	12	2	50	20	0.77	20	0	–	2.5	8						●	●	●			
1	CTP20FRX	R	Yes	12	2	50	20	0.61	16	0.05	0.05	2.5	8								●				
1	CTPX15FR	R	Yes	12	1.5	50	20	0.46	16	0.05	0.05	2.5	8		●	●					●				
1	CTPX20FR	R	Yes	12	2	50	20	0.61	16	0.05	0.05	2.5	8		●	●					●				

Cut-off
S

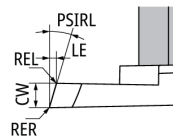
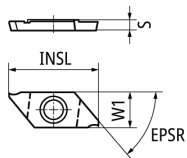
CTP-FRN



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

Figure	Item Number	Hand	Chip-breaker	CUTDIA	CW	EPSR	INSL	PSIR	REL	RER	S	W1	Carbide									PCD																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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				mm	mm	°	mm	°	mm	mm	mm	mm	DM4	DT4	QM3	ST4	TM4	VM1	ZM3	KM1	PD1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
1	CTP05FRN-SH	R	Yes	5	0.5	50	20	0	0.05	0.05	2.5	8																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

CTP-FRK

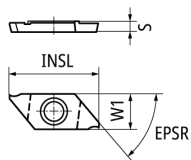


●All angles shown are obtained when insert is set in the holder.

Item Number	Hand	Chip-breaker	CUTDIA	CW	EPSR	INSL	LE	PSIRL	REL	RER	S	W1	Carbide										PCD	
													PVD											
													mm	mm	°	mm	mm	°	mm	mm	mm	mm	DM4	DT4
CTP10FRK	R	Yes	11	1	50	20	0.32	16	0.05	0.05	2.5	8								●				
CTP13FRK	R	Yes	12	1.3	50	20	0.4	16	0.05	0.05	2.5	8		●						●				
CTP15FRK	R	Yes	11	1.5	50	20	0.46	16	0.05	0.05	2.5	8								●				
CTP20FRK	R	Yes	11	2	50	20	0.61	16	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.

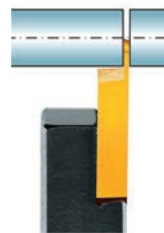
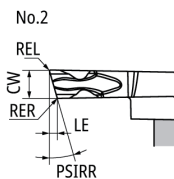
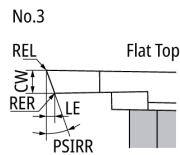
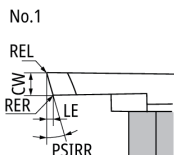
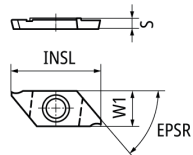


Figure	Item Number	Hand	Chip-breaker	CUTDIA	CW	EPSR	INSL	LE	PSIRR	REL	RER	S	W1	Carbide PVD								PCD			
														DM4	DT4	QM3	ST4	TM4	VM1	ZM3	KM1		PD1		
1	CTP05FLK-SH	L	Yes	5	0.5	50	20	0.17	16	0.05	0.05	2.5	8												
1	CTP10FLK	L	Yes	11	1	50	20	0.32	16	0.05	0.05	2.5	8		●										●
2	CTP10FLK-CX	L	Yes	11	1	50	20	0.32	16	0.05	0.05	2.5	8	●				●							
1	CTP10FLK-SH	L	Yes	7	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					●							
1	CTP13FLK	L	Yes	11	1.3	50	20	0.4	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	●				●							
1	CTP15FLK	L	Yes	11	1.5	50	20	0.46	16	0.05	0.05	2.5	8								●	●			
1	CTP15FLKB	L	Yes	11	1.5	50	20	0.46	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					●							
3	CTP15FLKV		L	No	11	1.5	50	20	0.58	20	0	0	2.5	8							●				●
1	CTP20FLK	L	Yes	11	2	50	20	0.61	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					●							
3	CTP20FLKV		L	No	11	2	50	20	0.77	20	0	0	2.5	8							●				
1	CTPX15FLK	L	Yes	11	1.5	50	20	0.46	16	0.05	0.05	2.5	8			●	●								
1	CTPX20FLK	L	Yes	11	2	50	20	0.61	16	0.05	0.05	2.5	8			●	●								

Cut-off S

CTP-FLN



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

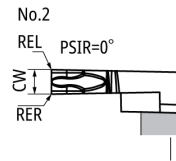
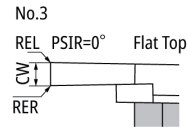
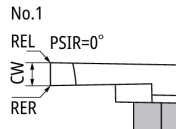
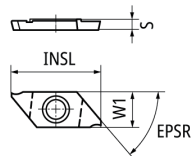


Figure	Item Number	Hand	Chip-breaker	CUTDIA	CW	EPSR	INSL	REL	RER	S	W1	Carbide PVD								PCD					
				mm	mm	°	mm	°	mm	mm	mm	mm	DM4	DT4	QM3	ST4	TM4	VM1	ZM3	KM1	PD1				
1	CTP05FLN-SH	L	Yes	5	0.5	50	20	0.05	0.05	2.5	8														
1	CTP10FLN	L	Yes	12	1	50	20	0.05	0.05	2.5	8														
2	CTP10FLN-CX	L	Yes	12	1	50	20	0.05	0.05	2.5	8														
1	CTP10FLN-SH	L	Yes	7	1	50	20	0.05	0.05	2.5	8														
1	CTP10FLN-TH	L	Yes	12	1	50	20	0.05	0.05	2.5	8														
1	CTP13FLN	L	Yes	12	1.3	50	20	0.05	0.05	2.5	8														
2	CTP13FLN02-CX	L	Yes	12	1.3	50	20	0.2	0.2	2.5	8														
2	CTP13FLN-CX	L	Yes	12	1.3	50	20	0.05	0.05	2.5	8														
1	CTP15FLN	L	Yes	12	1.5	50	20	0.05	0.05	2.5	8														
2	CTP15FLN02-CX	L	Yes	12	1.5	50	20	0.2	0.2	2.5	8														
2	CTP15FLN-CX	L	Yes	12	1.5	50	20	0.05	0.05	2.5	8														
1	CTP15FLN-TH	L	Yes	12	1.5	50	20	0.05	0.05	2.5	8														
3	CTP15FLNV		No	12	1.5	50	20	0	0	2.5	8														
1	CTP20FLN	L	Yes	12	2	50	20	0.05	0.05	2.5	8														
1	CTP20FLN-TH	L	Yes	12	2	50	20	0.05	0.05	2.5	8														
3	CTP20FLNV		No	12	2	50	20	0	0	2.5	8														
1	CTPX15FLN	L	Yes	12	1.5	50	20	0.05	0.05	2.5	8														
1	CTPX20FLN	L	Yes	12	2	50	20	0.05	0.05	2.5	8														

CTP-FL



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

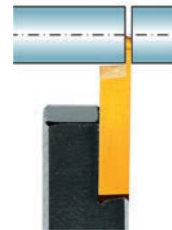
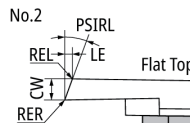
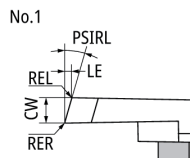
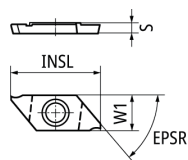


Figure	Item Number	Hand	Chip-breaker	CUTDIA	CW	EPSR	INSL	LE	PSIRL	REL	RER	S	W1	Carbide PVD								PCD	
				mm	mm	°	mm	mm	°	mm	mm	mm	mm	DM4	DT4	QM3	ST4	TM4	VM1	ZM3	KM1	PD1	
1	CTP07FL	L	Yes	8	0.7	50	20	0.23	16	0.05	0.05	2.5	8										
1	CTP10FL	L	Yes	12	1	50	20	0.32	16	0.05	0.05	2.5	8										
2	CTP10FLV		L	No	12	1	50	20	0.4	20	0	0	2.5	8									
1	CTP13FL	L	Yes	12	1.3	50	20	0.4	16	0.05	0.05	2.5	8										
1	CTP15FL	L	Yes	12	1.5	50	20	0.46	16	0.05	0.05	2.5	8										
2	CTP15FLV		L	No	12	1.5	50	20	0.58	20	0	0	2.5	8									
1	CTP20FL	L	Yes	12	2	50	20	0.61	16	0.05	0.05	2.5	8										
2	CTP20FLV		L	No	12	2	50	20	0.77	20	0	0	2.5	8									
1	CTPX15FL	L	Yes	12	1.5	50	20	0.46	16	0.05	0.05	2.5	8										
1	CTPX20FL	L	Yes	12	2	50	20	0.61	16	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.

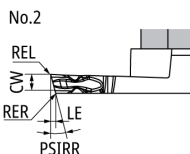
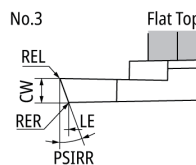
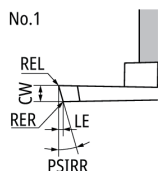
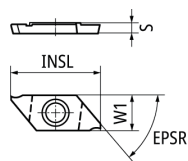


Figure	Item Number	Hand	Chip-breaker	CUTDIA	CW	EPSR	INSL	LE	PSIRR	REL	RER	S	W1	Carbide								PCD																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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1	CTPA07FR	R	Yes	8	0.7	45	25	0.23	16	0.05	0.05	3.5	9.4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									</

CTPA-FRN



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

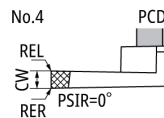
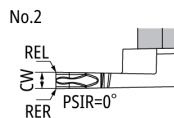
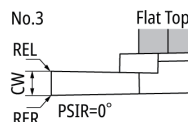
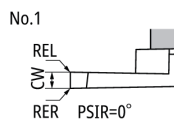
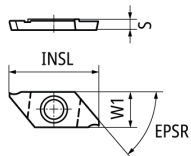


Figure	Item Number	Hand	Chip-breaker	CUTDIA	CW	EPSR	INSL	PSIR	REL	RER	S	W1	Carbide										PCD	
													PVD											
													DM4	DT4	QM3	ST4	TM4	VM1	ZM3	KM1	PD1			
1	CTPA07FRN	R	Yes	8	0.7	45	25	0	0.05	0.05	3.5	9.4												
1	CTPA10FRN	R	Yes	–	1	45	25	0	–	–	3.5	9.4												
1	CTPA15FRN	R	Yes	16	1.5	45	25	0	0.05	0.05	3.5	9.4			●	●				●	●			
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	R	Yes	16	2	45	25	0	0.05	0.05	3.5	9.4			●	●				●	●			
4	CTPA20FRN-P	R	Yes	16	2	45	25	0	0.1	0.1	3.5	9.4												●
1	CTPA20FRN-TH	R	Yes	16	2	45	25	0	0.05	0.05	3.5	9.4					●							
3	CTPA20FRNV	 R	No	16	2	45	25	0	0	0	3.5	9.4											●	
3	CTPA20FRS	R	No	16	2	45	25	0	0.05	0.05	3.5	9.4										●		
1	CTPA30FRN	R	Yes	16	3	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.

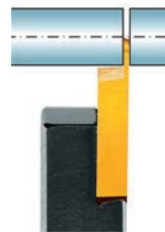
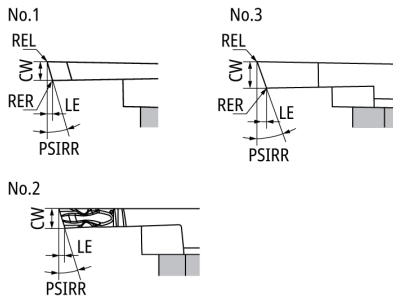
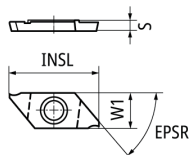
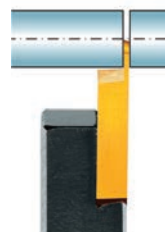
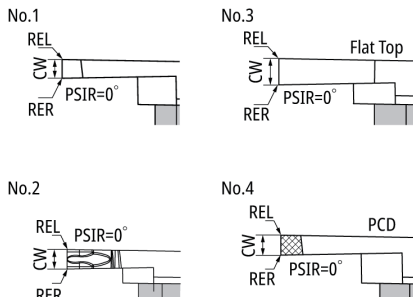


Figure	Item Number	Hand	Chip-breaker	CUTDIA	CW	EPSR	INSL	LE	PSIRR	REL	RER	S	W1	Carbide PVD								PCD	
				mm	mm	°	mm	mm	°	mm	mm	mm	mm	mm	DM4	DT4	QM3	ST4	TM4	VM1	ZM3	KM1	PD1
1	CTPA07FLK	L	Yes	6.5	0.7	45	25	0.23	16	0.05	0.05	3.5	9.4										
1	CTPA10FLK	L	Yes	–	1	45	25	–	–	–	–	3.5	9.4										
1	CTPA10FLKD	L	Yes	16	1	45	25	0.32	16	0.05	0.05	3.5	9.4										
1	CTPA15FLK	L	Yes	14.5	1.5	45	25	0.46	16	0.05	0.05	3.5	9.4										
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	L	Yes	14.5	2	45	25	0.61	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										
3	CTPA20FLKV 	L	No	14.5	2	45	25	0.77	20	0	0	3.5	9.4										

CTPA-FLN



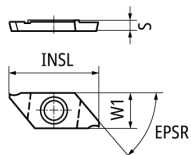
●All angles shown are obtained when insert is set in the holder.



Cut-off S

Figure	Item Number	Hand	Chip-breaker	CUTDIA	CW	EPSR	INSL	PSIR	REL	RER	S	W1	Carbide PVD								PCD	
				mm	mm	°	mm	°	mm	mm	mm	mm	mm	mm	DM4	DT4	QM3	ST4	TM4	VM1	ZM3	KM1
1	CTPA10FLN	L	Yes	-	1	45	25	0	-	-	3.5	9.4										
1	CTPA10FLND	L	Yes	16	1	45	25	0	0.05	0.05	3.5	9.4										
1	CTPA15FLN	L	Yes	16	1.5	45	25	0	0.05	0.05	3.5	9.4										
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	L	Yes	16	2	45	25	0	0.05	0.05	3.5	9.4										
4	CTPA20FLN-P	L	Yes	16	2	45	25	0	0.1	0.1	3.5	9.4										
1	CTPA20FLN-TH	L	Yes	16	2	45	25	0	0.05	0.05	3.5	9.4										
3	CTPA20FLNV	L	No	16	2	45	25	0	0	0	3.5	9.4										
3	CTPA20FLS	L	No	16	2	45	25	0	0.05	0.05	3.5	9.4										
1	CTPA30FLN	L	Yes	16	3	45	25	0	0.05	0.05	3.5	9.4										

CTPA-FL



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

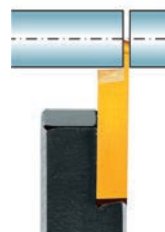
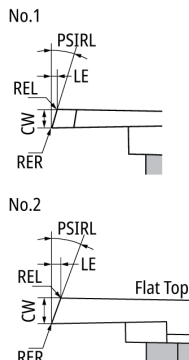
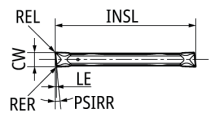


Figure	Item Number	Hand	Chip-breaker	CUTDIA	CW	EPSR	INSL	LE	PSIRL	REL	RER	S	W1	Carbide PVD								PCD																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
				mm	mm	°	mm	mm	°	mm	mm	mm	mm	DM4	DT4	QM3	ST4	TM4	VM1	ZM3	KM1	PD1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
1	CTPA07FL	L	Yes	8	0.7	45	25	0.23	16	0.05	0.05	3.5	9.4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										

CTDP.. series/Inserts Carbide

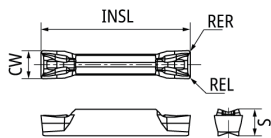
CTDP20/25 CUT DUO



Item Number	Hand	Chip-breaker	CW	INSL	PSIRR	REL	RER	Carbide		
			mm	mm	°	mm	mm	DM4	QM3	TM4
CTDP20N	N	Yes	2	19.1	–	0.05	0.05	●	●	●
CTDP20N02	N	Yes	2	19.1	–	0.2	0.2	●	●	●
CTDP25N	N	Yes	2.5	21.2	–	0.05	0.05	●	●	●
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	●	●	●
CTDP25R15	R	Yes	2.5	21.2	15	0.05	0.05	●	●	●

CTWP.. series/Inserts Carbide

GWPFM



Item Number	Hand	Chip-breaker	CW	INSL	REL	RER	S	Carbide PVD DM4
GWPFM300N02-GT	N	Yes	3	24.5	0.2	0.2	4.2	●
GWPFM300N04-GT	N	Yes	3	24.5	0.4	0.4	4.2	●