

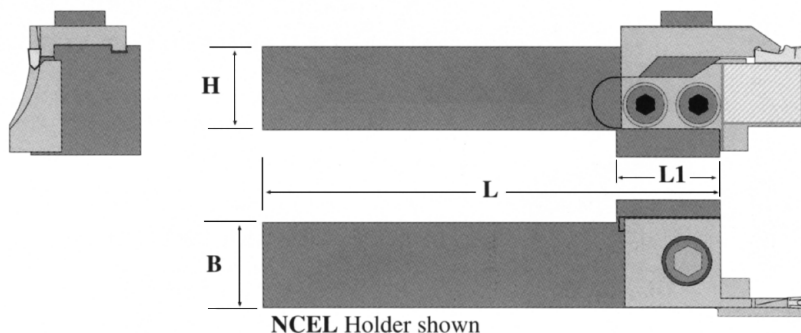
Premier

Manufacturers of Precision Ground Cutting Tools



Face Grooving
NC Modular System
e - Catalogue

Type NCER/L Toolholder



NOTE: Toolholders are supplied with screws for support blade and clamp only.

Clamps, support blades and inserts must be ordered separately.

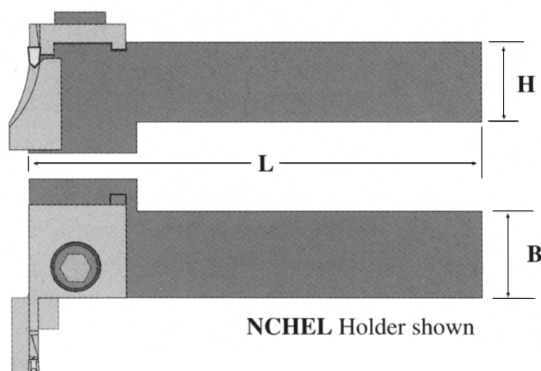
Inserts
Type 150
Page: EE7

NC basic straight toolholder

Part number	CW max.	CD max.	H	Dimensions			Insert Type	Clamp Screw	Clamp Screw Key	Support Blade-Screw	Blade-Screw Key
				B	L	L1					
NCER/L 2032	6	32	20	32	150	25	150	M8x16MC	Hex M8	M6x25MK	Hex M6
NCER/L 2525	6	32	25	25	150	25	150	M8x16MC	Hex M8	M6x25MK	Hex M6
NCER/L 2532	6	32	25	32	150	25	150	M8x16MC	Hex M8	M6x25MK	Hex M6
NCER/L 3232	10	40	32	32	150	25	150	M8x16MC	Hex M8	M6x25MK	Hex M6
NCER/L 4040	10	40	40	40	200	25	150	M8x16MC	Hex M8	M6x25MK	Hex M6

State R or L version

Type NCER/L Toolholder



NOTE: Toolholders are supplied with screws for support blade and clamp only.

Clamps, support blades and inserts must be ordered separately.

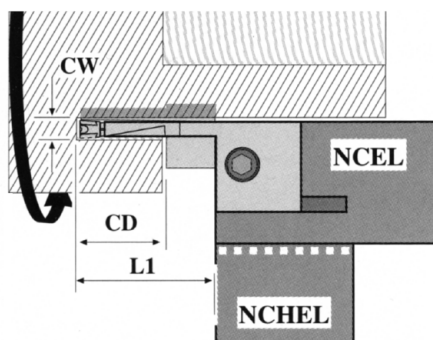
Inserts
Type 150
Page: EE7

NC cranked toolholder

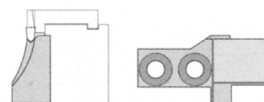
Part number	CW max.	CD max.	H	Dimensions			Insert Type	Clamp Screw	Clamp Screw Key	Support Blade-Screw	Blade-Screw Key
				B	L	B1					
NCHER/L 2035	4	25	20	35	150	35	150	M8x16MC	Hex M8	M6x25MK	Hex M6
NCHER/L 2525	6	40	25	25	150	35	150	M8x16MC	Hex M8	M6x25MK	Hex M6
NCHER/L 3235	10	40	32	35	150	35	150	M8x16MC	Hex M8	M6x25MK	Hex M6
NCHER/L 4040	10	40	40	40	200	35	150	M8x16MC	Hex M8	M6x25MK	Hex M6

State R or L version

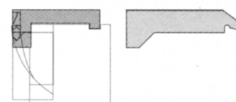
LH tools RH turning



SUPPORT BLADES



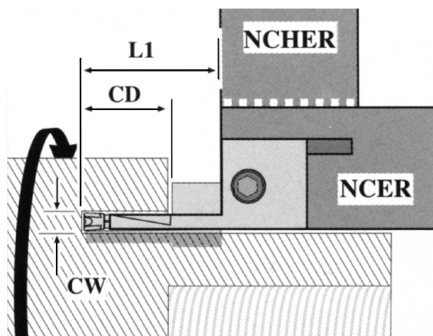
CLAMPS



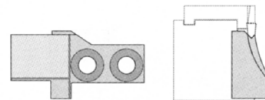
NC modular system support blades & clamps

CW mm.	Outer- Ø* mm.	CD mm.	L1 mm	Insert Type	Catalog Number	Catalog Number
3	40-45	12	32	150	312-15032-040	416-15032-040
	45-50	12		150	312-15032-045	
	50-60	16		150	316-15032-050	
	60-75	16		150	316-15032-060	
	75-100	20		150	320-15032-075	420-15032-075
	100-150	20		150	320-15032-100	
	150-250	25		150	325-15032-150	425-15032-150
	250-450	25		150	325-15032-250	
4	40-50	12	32	150	312-15042-040	416-15042-040
	50-60	16		150	316-15042-050	
	60-75	16		150	316-15042-060	
	75-100	20		150	320-15042-075	420-15042-075
	100-150	20		150	320-15042-100	
	150-250	25		150	325-15042-150	425-15042-150
	250-450	25		150	325-15042-250	
	450-∞	25		150	325-15042-450	
5	40-50	12	32	150	312-15052-040	416-15052-040
	50-60	16		150	316-15052-050	
	60-75	16		150	316-15052-060	
	75-100	20		150	320-15052-075	420-15052-075
	100-150	20		150	320-15052-100	
	150-250	25		150	325-15052-150	425-15052-150
	250-450	25		150	325-15052-250	
	450-∞	25		150	325-15052-450	
	70-100	30	40	150	330-15052-070	430-15052-070
	100-150	30		150	330-15052-100	
	150-250	30		150	330-15052-150	430-15052-150
	250-450	30		150	330-15052-250	
	450-∞	30		150	330-15052-450	
6	40-50	12	32	150	312-15062-040	416-15062-040
	50-75	16		150	316-15062-050	
	75-150	20		150	320-15062-075	425-15062-075
	150-300	25		150	325-15062-150	
	300-∞	25		150	325-15062-300	
	70-150	35	40	150	335-15062-070	435-15062-070
	150-300	35		150	335-15062-150	
	300-∞	35		150	335-15062-300	
8	40-50	12	32	150	312-15082-040	416-15082-040
	50-75	16		150	316-15082-050	
	75-150	20		150	320-15082-075	425-15082-075
	150-300	25		150	325-15082-150	
	300-∞	25		150	325-15082-300	
	70-150	35	40	150	335-15082-070	435-15082-070
	150-300	35		150	335-15082-150	
	300-∞	35		150	335-15082-300	

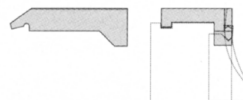
RH tools LH turning



SUPPORT BLADES



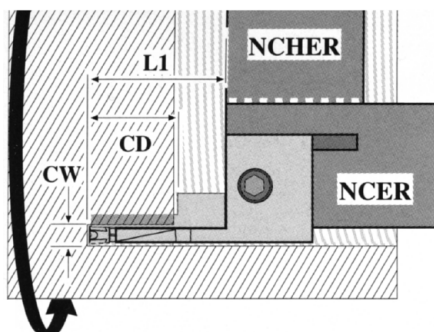
CLAMPS



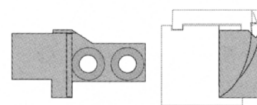
NC modular system support blades & clamps

CW mm.	Outer Ø* mm.	CD mm.	L1 mm	Insert Type	Catalog Number	Catalog Number
3	40-45	12	32	150	312-15031-040	416-15031-040
	45-50	12		150	312-15031-045	
	50-60	16		150	316-15031-050	
	60-75	16		150	316-15031-060	
	75-100	20		150	320-15031-075	420-15031-075
	100-150	20		150	320-15031-100	
	150-250	25		150	325-15031-150	425-15031-150
	250-450	25		150	325-15031-250	
4	40-50	12	32	150	312-15041-040	416-15041-040
	50-60	16		150	316-15041-050	
	60-75	16		150	316-15041-060	
	75-100	20		150	320-15041-075	420-15041-075
	100-150	20		150	320-15041-100	
	150-250	25		150	325-15041-150	425-15041-150
	250-450	25		150	325-15041-250	
	450-∞	25		150	325-15041-450	
5	40-50	12	32	150	312-15051-040	416-15051-040
	50-60	16		150	316-15051-050	
	60-75	16		150	316-15051-060	
	75-100	20		150	320-15051-075	420-15051-075
	100-150	20		150	320-15051-100	
	150-250	25		150	325-15051-150	425-15051-150
	250-450	25		150	325-15051-250	
	450-∞	25		150	325-15051-450	
	70-100	30	40	150	330-15051-070	430-15051-070
	100-150	30		150	330-15051-100	
	150-250	30		150	330-15051-150	430-15051-150
	250-450	30		150	330-15051-250	
6	40-50	12	32	150	312-15061-040	416-15061-040
	50-75	16		150	316-15061-050	
	75-150	20		150	320-15061-075	425-15061-075
	150-300	25		150	325-15061-150	
	300-∞	25		150	325-15061-300	
	70-150	35	40	150	335-15061-070	435-15061-070
	150-300	35		150	335-15061-150	
	300-∞	35		150	335-15061-300	
8	40-50	12	32	150	312-15081-040	416-15081-040
	50-75	16		150	316-15081-050	
	75-150	20		150	320-15081-075	425-15081-075
	150-300	25		150	325-15081-150	
	300-∞	25		150	325-15081-300	
	70-150	35	40	150	335-15081-070	435-15081-070
	150-300	35		150	335-15081-150	
	300-∞	35		150	335-15081-300	

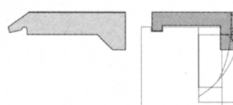
Contra RH tools RH turning



SUPPORT BLADE



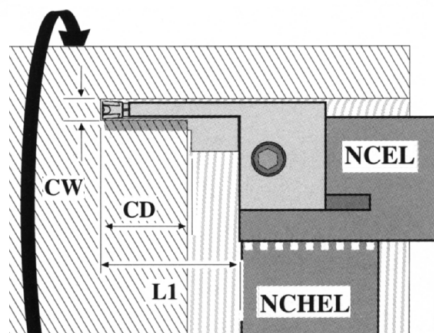
CLAMPS



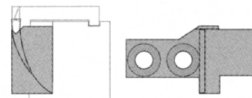
NC modular system support blades & clamps

CW mm.	Outer- Ø* mm.	CD mm.	L1 mm	Insert Type	Catalog Number	Catalog Number
3	40-45	12	32	150	312-15031-040 C	416-15031-040 C
	45-50	12		150	312-15031-045 C	
	50-60	16		150	316-15031-050 C	
	60-75	16		150	316-15031-060 C	
	75-100	20		150	320-15031-075 C	420-15031-075 C
	100-150	20		150	320-15031-100 C	
	150-250	25		150	325-15031-150 C	425-15031-150 C
	250-450	25		150	325-15031-250 C	
4	40-50	12	32	150	312-15041-040 C	416-15041-040 C
	50-60	16		150	316-15041-050 C	
	60-75	16		150	316-15041-060 C	
	75-100	20		150	320-15041-075 C	
	100-150	20		150	320-15041-100 C	420-15041-075 C
	150-250	25		150	325-15041-150 C	
	250-450	25		150	325-15041-250 C	425-15041-150 C
	450-∞	25		150	325-15041-450 C	
5	40-50	12	32	150	312-15051-040 C	416-15051-040 C
	50-60	16		150	316-15051-050 C	
	60-75	16		150	316-15051-060 C	
	75-100	20		150	320-15051-075 C	
	100-150	20		150	320-15051-100 C	420-15051-075 C
	150-250	25		150	325-15051-150 C	
	250-450	25	40	150	325-15051-250 C	425-15051-150 C
	450-∞	25		150	325-15051-450 C	
	70-100	30		150	330-15051-070 C	430-15051-070 C
	100-150	30		150	330-15051-100 C	
	150-250	30		150	330-15051-150 C	430-15051-150 C
	250-450	30		150	330-15051-250 C	
6	40-50	12	32	150	312-15061-040 C	416-15061-040 C
	50-75	16		150	316-15061-050 C	
	75-150	20		150	320-15061-075 C	425-15061-075 C
	150-300	25		150	325-15061-150 C	
	300-∞	25	40	150	325-15061-300 C	435-15061-070 C
	70-150	35		150	335-15061-070 C	
	150-300	35		150	335-15061-150 C	435-15061-150 C
	300-∞	35		150	335-15061-300 C	
8	40-50	12	32	150	312-15081-040 C	416-15081-040 C
	50-75	16		150	316-15081-050 C	
	75-150	20		150	320-15081-075 C	425-15081-075 C
	150-300	25		150	325-15081-150 C	
	300-∞	25	40	150	325-15081-300 C	435-15081-070 C
	70-150	35		150	335-15081-070 C	
	150-300	35		150	335-15081-150 C	435-15081-150 C
	300-∞	35		150	335-15081-300 C	
10	70-150	40	45	150	340-15101-070 C	440-15101-070 C
	150-300	40		150	340-15101-150 C	
	300-∞	40		150	340-15101-300 C	

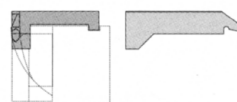
Contra LH tools LH turning



SUPPORT BLADES



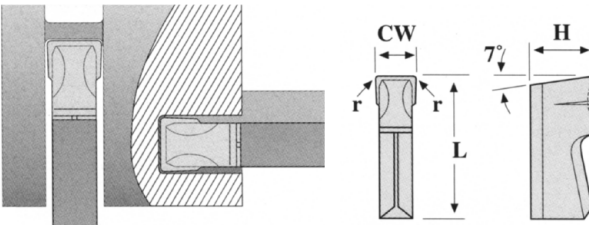
CLAMPS



NC modular system support blades & clamps

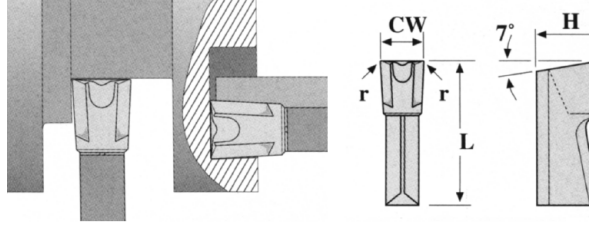
CW mm.	Outer- Ø* mm.	CD mm.	L1 mm	Insert Type	Catalog Number	Catalog Number
3	40-45	12	32	150	312-15032-040 C	416-15032-040 C
	45-50	12		150	312-15032-045 C	
	50-60	16		150	316-15032-050 C	
	60-75	16		150	316-15032-060 C	
	75-100	20		150	320-15032-075 C	420-15032-075 C
	100-150	20		150	320-15032-100 C	
	150-250	25		150	325-15032-150 C	425-15032-150 C
	250-450	25		150	325-15032-250 C	
4	40-50	12	32	150	312-15042-040 C	416-15042-040 C
	50-60	16		150	316-15042-050 C	
	60-75	16		150	316-15042-060 C	
	75-100	20		150	320-15042-075 C	
	100-150	20		150	320-15042-100 C	420-15042-075 C
	150-250	25		150	325-15042-150 C	
	250-450	25		150	325-15042-250 C	425-15042-150 C
	450-∞	25		150	325-15042-450 C	
5	40-50	12	32	150	312-15052-040 C	416-15052-040 C
	50-60	16		150	316-15052-050 C	
	60-75	16		150	316-15052-060 C	
	75-100	20		150	320-15052-075 C	
	100-150	20		150	320-15052-100 C	420-15052-075 C
	150-250	25		150	325-15052-150 C	
	250-450	25	40	150	325-15052-250 C	425-15052-150 C
	450-∞	25		150	325-15052-450 C	
	70-100	30		150	330-15052-070 C	430-15052-070 C
	100-150	30		150	330-15052-100 C	
	150-250	30		150	330-15052-150 C	430-15052-150 C
	250-450	30		150	330-15052-250 C	
6	40-50	12	32	150	312-15062-040 C	416-15062-040 C
	50-75	16		150	316-15062-050 C	
	75-150	20		150	320-15062-075 C	425-15062-075 C
	150-300	25		150	325-15062-150 C	
	300-∞	25	40	150	325-15062-300 C	435-15062-070 C
	70-150	35		150	335-15062-070 C	
	150-300	35		150	335-15062-150 C	
	300-∞	35		150	335-15062-300 C	
8	40-50	12	32	150	312-15082-040 C	416-15082-040 C
	50-75	16		150	316-15082-050 C	
	75-150	20		150	320-15082-075 C	425-15082-075 C
	150-300	25		150	325-15082-150 C	
	300-∞	25	40	150	325-15082-300 C	435-15082-070 C
	70-150	35		150	335-15082-070 C	
	150-300	35		150	335-15082-150 C	
	300-∞	35		150	335-15082-300 C	
10	70-150	40	45	150	340-15102-070 C	440-15102-070 C
	150-300	40		150	340-15102-150 C	
	300-∞	40		150	340-15102-300 C	

Type 150 Inserts



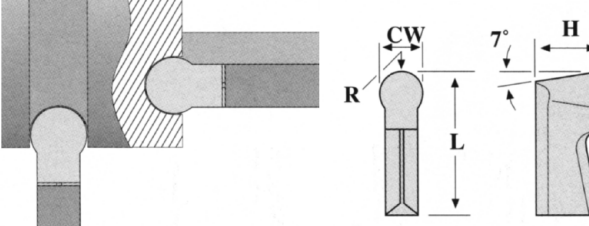
150 standard insert with chip-control

CW + 0,1	Part No.	H - 0,1	L	r	Available grades			
					P30C	K10C	P30	K10
3,0	150.3	6,0	14	0,3	●	●	●	●
4,0	150.4	6,0	14	0,3	●	●	●	●
5,0	150.5	6,0	14	0,3	●	●	●	●
6,0	150.6	6,0	14	0,3	●	●	●	●
8,0	150.8	6,0	14	0,3	●	●	●	●
10,0	150.10	7,5	16	0,3	●	●	●	●



150 GT grooving and side turning insert

CW + 0,1	Part No.	H - 0,1	L	r	Available grades			
					P30C	K10C	P30	K10
3,0	150.3.GT	6,0	14	0,3	●		●	
4,0	150.4.GT	6,0	14	0,3	●		●	
5,0	150.5.GT	6,0	14	0,3	●		●	
6,0	150.6.GT	6,0	14	0,3	●		●	
8,0	150.8.GT	8,0	14	0,3	●		●	
10	150.10.GT	10	14	0,3	●	●	●	●



150 standard radius insert

CW - 0,1	Part No.	H - 0,1	L	R - 0,05	Available grades			
					P30C	K10C	P30	K10
2,7	150.3.RD	6,0	14	1,35	●	●	●	●
3,7	150.4.RD	6,0	14	1,85	●	●	●	●
4,6	150.5.RD	6,0	14	2,3	●	●	●	●
5,6	150.6.RD	6,0	14	2,8	●	●	●	●
7,6	150.8.RD	6,0	14	3,8	●	●	●	●
9,5	150.10.RD	7,5	16	4,75	●	●	●	●

Recommendations for Face grooving

MATERIAL	RECOMMENDED CARBIDE GRADE	FEED MM REV			
		0,025	0,05	0,1	0,2
		CUTTING SPEED M/MIN			
Low carbon steel	P30C	130	100	90	90
Carbon steel	P30C	160	140	110	
Alloyed steel	P30C		110	80	75
Stainless steel	P30C		100	90	70
Cast steel	P30C		80	65	50
Heat resistant Iron-based alloys	K10C	100	65	60	40
Hard steel (Manganese steel)	K10		20	15	
Malleable Iron	K10C	130	130	110	
Cast Iron	K10C	110	110	95	
Aluminium alloys	K10		240	200	
Heat resistant Nickel-based alloys	K10	30	20	12	
Heat resistant Cobalt-based alloys	K10	30	20	12	
Non-Ferrous materials	K10	240	160	120	

NOTE

The above data are for guidance only.
 Actual performance depends on various factors,
 such as mounting stability, workpiece shape
 and specific material characteristics.

Technical Information - Face Grooving

Recommendations for face grooving and trepanning operations:

- cutting speed 80% of cutting speed for parting-off
- feed 50% of feed for parting-off
- apply sufficient cooling directly on cutting edge

Profile and contour turning:

The initial face groove must be made within the diameter range of assembly. From this first groove it is possible to turn toward larger or smaller diameters.

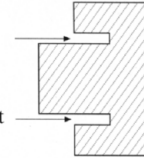
Trepanning:

When trepanning it is recommendable to stop cutting just before the tool penetrates through, then the slug can be knocked out with a hammer.

Special face grooving circumstances:

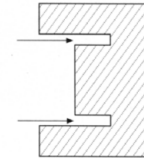
Close to a boss:

- **R.H.** turning / **L.H.** tool
 - **L.H.** turning / **R.H.** tool
- (use STANDARD support blades and clamps.



In a blind hole:

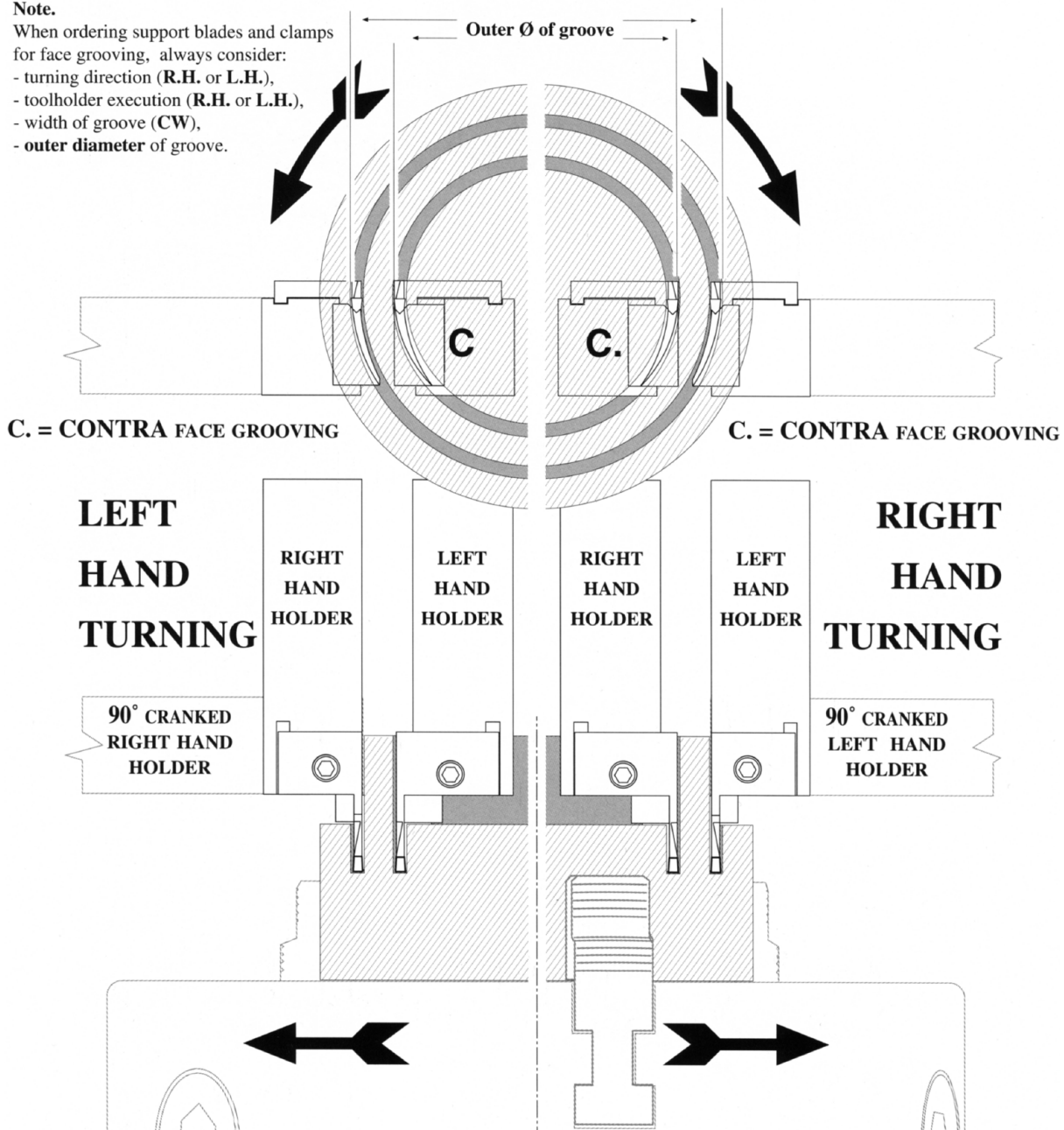
- **R.H.** turning / **R.H.** tool
 - **L.H.** turning / **L.H.** tool
- (use CONTRA support blades and clamps).



Note.

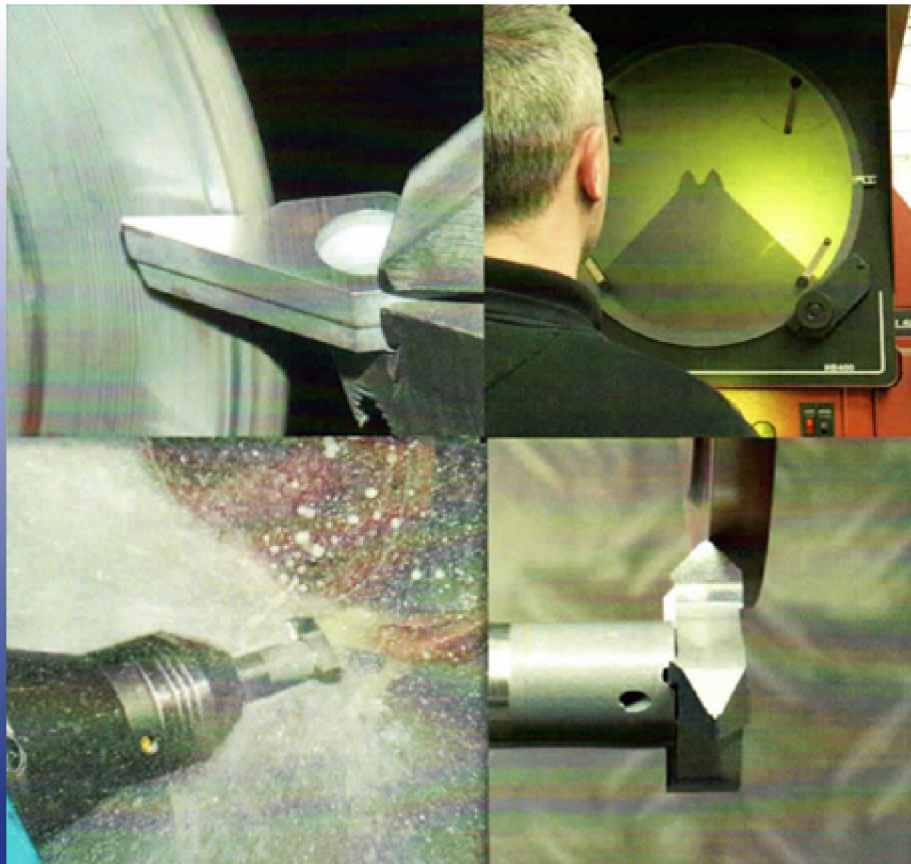
When ordering support blades and clamps for face grooving, always consider:

- turning direction (**R.H.** or **L.H.**),
- toolholder execution (**R.H.** or **L.H.**),
- width of groove (**CW**),
- outer diameter of groove.





Manufacturers of Precision Ground Cutting Tools



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