

PROFILE HOLDER

DOUBLE CLAMP TYPE HOLDER FOR COPYING



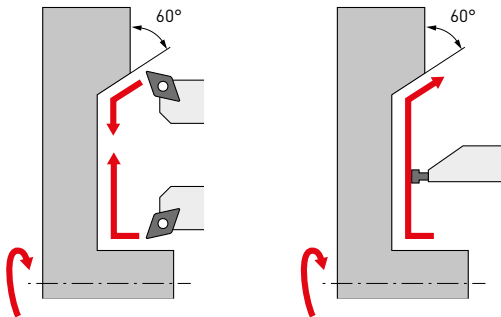
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25° rhombic insert for profile machining up to a 60° inclination.

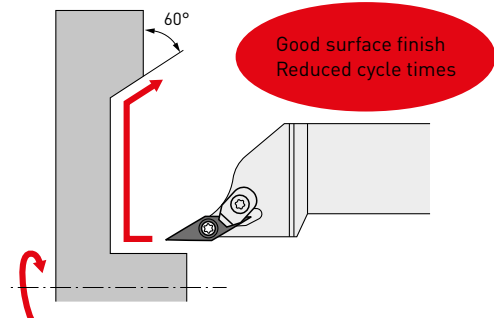
CONVENTIONAL

2 operations required or a custom made tool.



PROFILE HOLDER

Turning, facing and taper facing can be carried out in one process.



HOLDER

Use of a highly reliable double clamp system.

- Use of the shallow-depth clamp bridge ensures that coolant reaches the cutting edge.



INSERTS

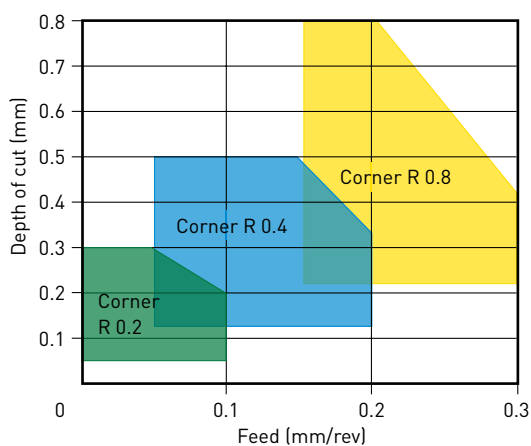
Chip control is improved by having a chip breaker geometry suitable for copying.

- Narrow protrusion gives excellent chip disposal.



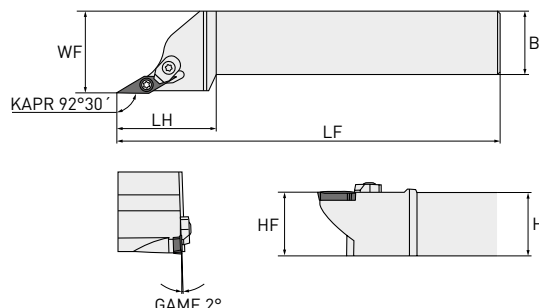
- Curved edge effective for back turning.

APPLICATION RANGE



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HOLDER

Order number	Stock		Insert number	H	B	LF	LH	HF	WF	
	R	L								
SXZCR/L1616H15	●	●	XCMT	1503○○-SVX	16	16	100	35	16	20
SXZCR/L2020K15	●	●		1503○○-SVX	20	20	125	35	20	25
SXZCR/L2525M15	●	●		1503○○-SVX	25	25	150	40	25	32



SPARE PARTS

Order number	*		*			
	Clamp screw	Clamp bridge	Clamp bridge screw	Spring	Wrench (Insert)	Wrench (Clamp bridge)
SXZCR/L1616H15						
SXZCR/L2020K15	TS255	AMS3	AJS3010T10	ASS2	TKY08F	TKY10F
SXZCR/L2525M15						

Clamp torque (N • m): TS255 = 1.0, AJS3010T10 = 2.5

INSERTS

Order number	RE	UE6020	MC6125	VP15TF	Shape
XCMT150302-SVX	0.2			●	
XCMT150304-SVX	0.4	●	●	●	
XCMT150308-SVX	0.8	●	●	●	

P	Steel	●	✱	●	✱
M	Stainless steel			●	✱
K	Cast iron			●	✱

Cutting conditions :

● : Stable cutting ● : General cutting
✱ : Unstable cutting

PROFILE HOLDER

RECOMMENDED CUTTING CONDITIONS

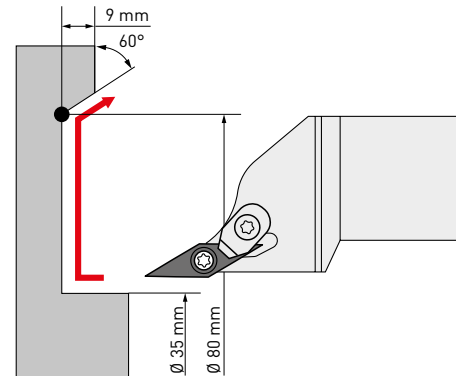
Material		Properties	Grade	Vc
P	Mild steel	≤180HB	UE6020	250 (150 – 350)
			MC6125	340 (240 – 400)
	Carbon and alloy steel	150 – 250HB	UE6020	175 (100 – 250)
			MC6125	220 (160 – 280)
M	Stainless steel	≤200HB	VP15TF	100 (70 – 120)
K	Cast iron	< 350Mpa	VP15TF	170 (140 – 200)



PROFILE HOLDER

APPLICATION EXAMPLES

Workpiece	DIN Ck45
Insert	XCMT150304-SVX
Grade	UE6020
Holder	SXZCR2525M15
Axial direction	Vc = 200 m/min, Depth of cut = 0.2 mm, Feed = 0.05 mm/rev, Wet cutting
To end face, 30° face	Vc = 200 m/min, Depth of cut = 0.2 mm, Feed = 0.2 mm/rev, Wet cutting



CHIP GEOMETRY

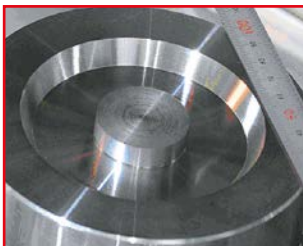


Facing



Facing an inclination

Smooth surface



Surface finish

2 passes with left and right hand tool holders are needed when conventional machining. With the profile holder only a single operation is required. Reduced cycle time and better surface finish is achieved because of improved chip control.

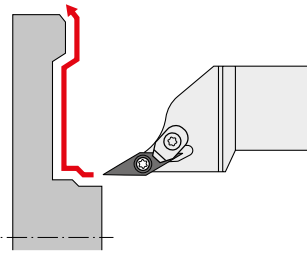
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OPERATIONAL GUIDANCE

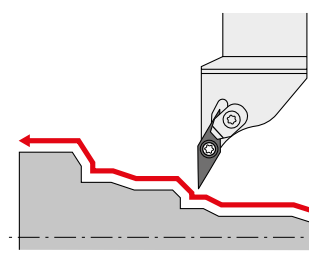
POSSIBLE

END FACE COPYING

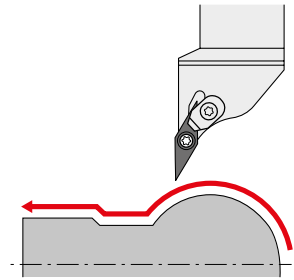
When end face copying, refer to the precautions below.



EXTERNAL COPYING



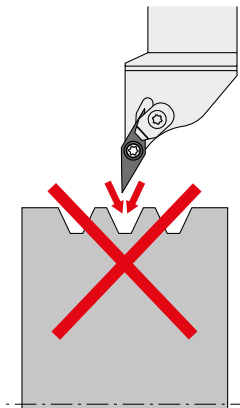
PROFILE TURNING



NOT POSSIBLE

MACHINING OF V-PULLEYS

When machining V-pulleys, use a VNMG insert.



NOTES WHEN END FACE COPYING

PAY SPECIAL ATTENTION TO THE FOLLOWING WHEN FACE COPYING:

1. MACHINING OF AN OUTER DIAMETER

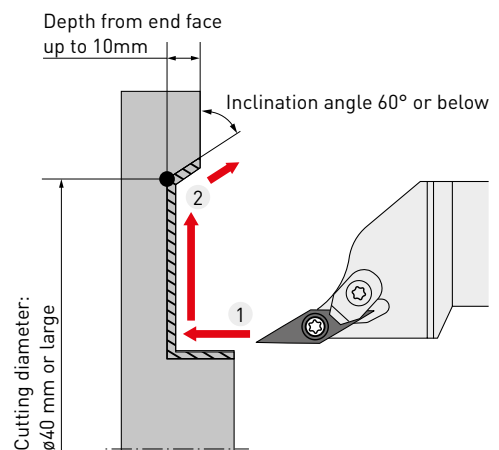
- To prevent burr formation, the depth of cut should be below half the nose radius.

2. MACHINING OF AN INCLINATION

- To reduce the contact length of chips, the depth of cut should be below half the nose radius.
- To prevent interference between the tool and the workpiece, the cutting diameter should be 40 mm or larger, inclination angle 60° or below and depth from the end face up to 10 mm.

3. WHEN CHANGING INSERTS

- When indexing the inserts, it is recommended to reset the cutting edge position to maintain machining accuracy.



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