

PROFILE HOLDER

DOUBLE CLAMP TYPE HOLDER FOR COPYING



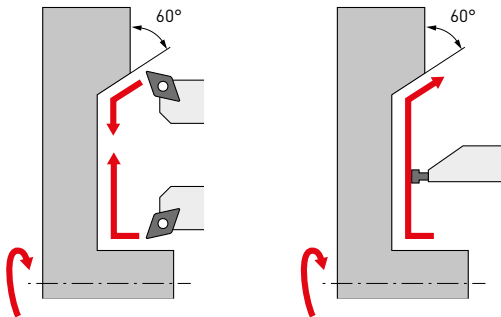
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25° rhombic insert for profile machining up to a 60° inclination.

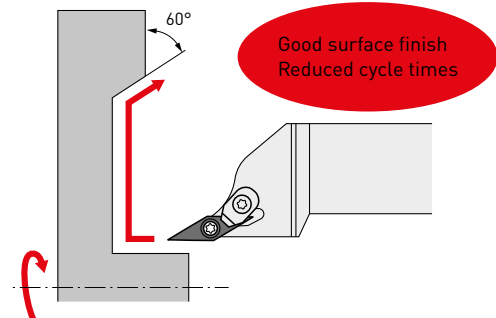
CONVENTIONAL

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

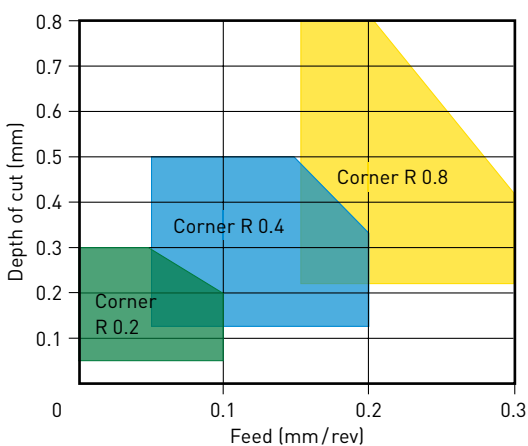
Chip control is improved by having a chipbreaker geometry suitable for copying.

- Narrow protrusion gives excellent chip disposal.



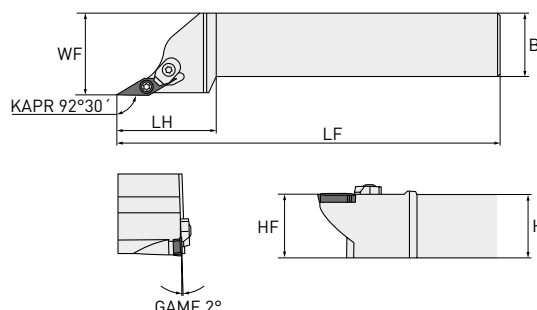
- Curved edge effective for back turning.

APPLICATION RANGE



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HOLDER

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

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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	●	●	●	

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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)

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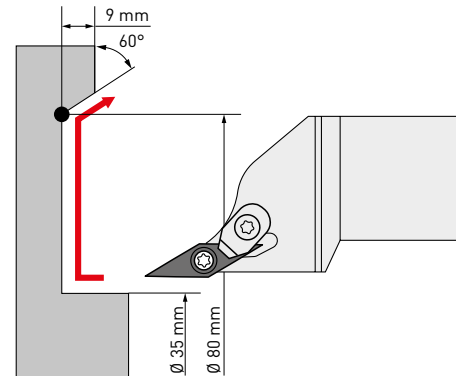
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PROFILE HOLDER

APPLICATION EXAMPLES

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



CHIP GEOMETRY

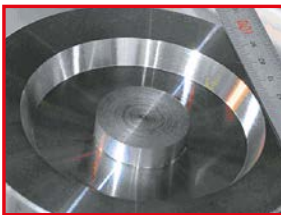


Facing



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.

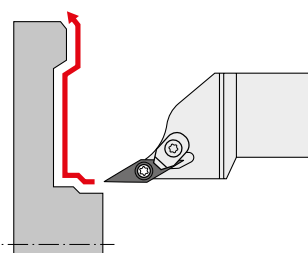
PROFILE HOLDER

OPERATIONAL GUIDANCE

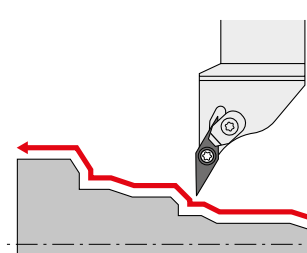
POSSIBLE

END FACE COPYING

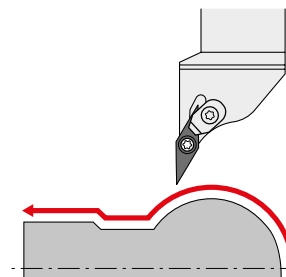
When end face copying, refer to the precautions below.



EXTERNAL COPYING



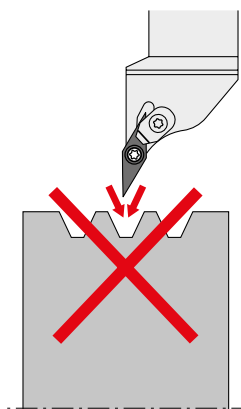
PROFILE TURNING



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

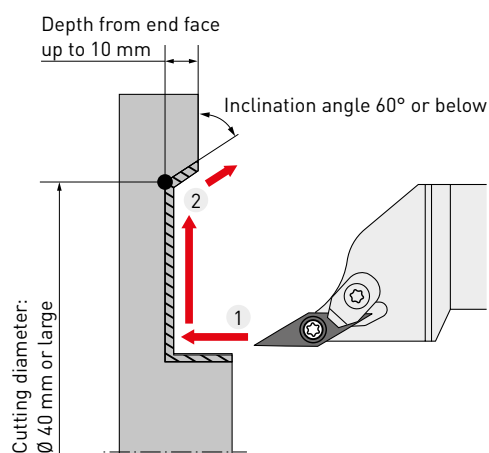
- To prevent burr formation, the depth of cut should be below half the nose radius.

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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