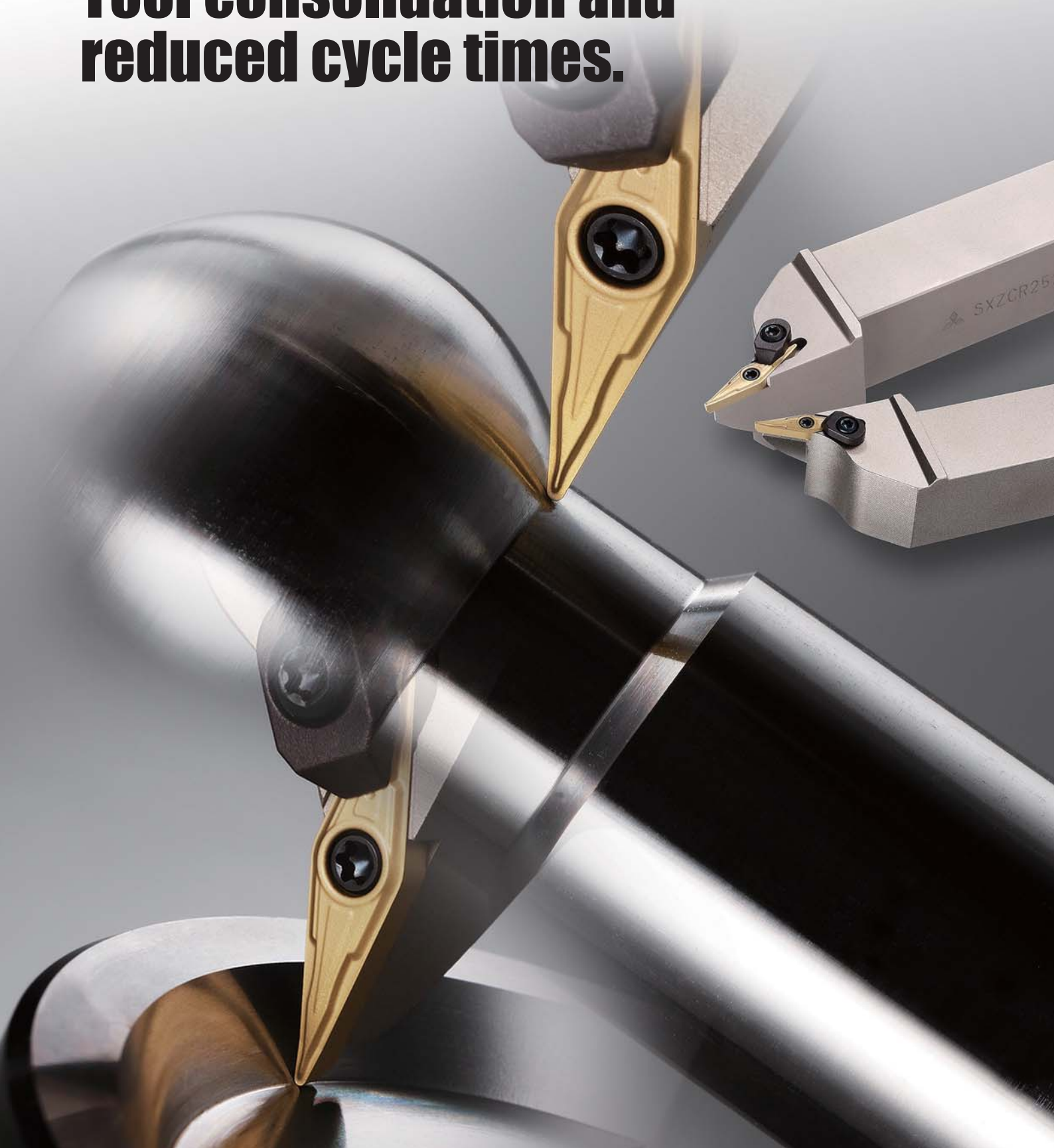


25° rhombic insert for profile machining  
up to a 60° inclination.

**Tool consolidation and  
reduced cycle times.**

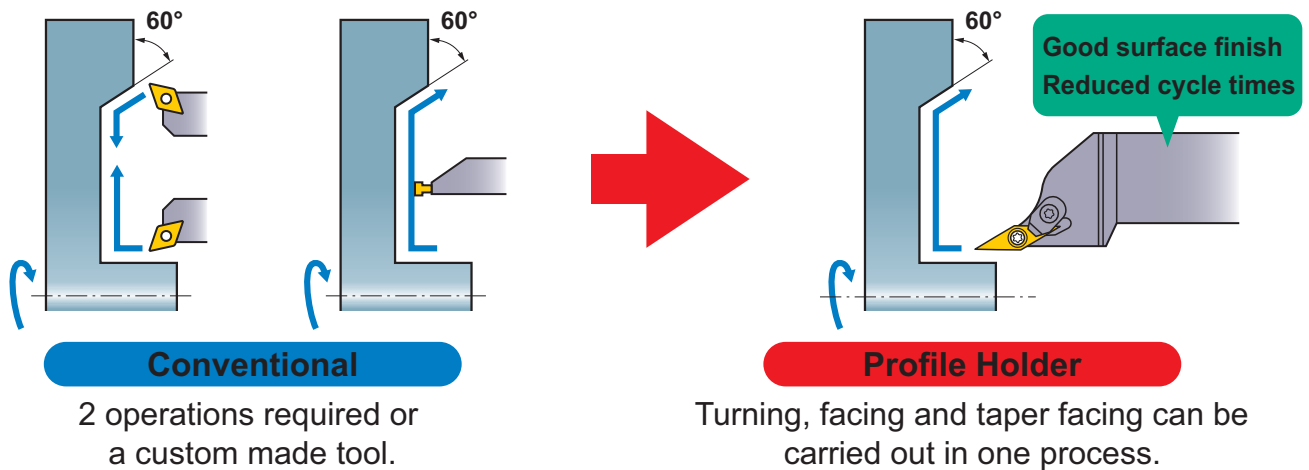


# Double Clamp Type Holder for Copying

# PROFILE HOLDER

## Features

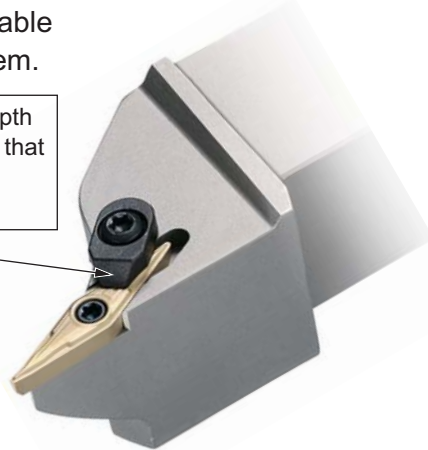
- 25° rhombic insert for profile machining up to a 60° inclination.



## Holder

Use of a highly reliable double clamp system.

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

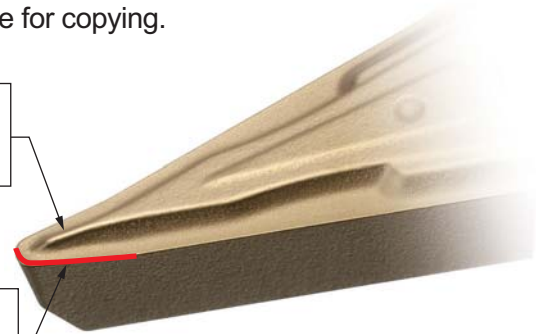


## Insert

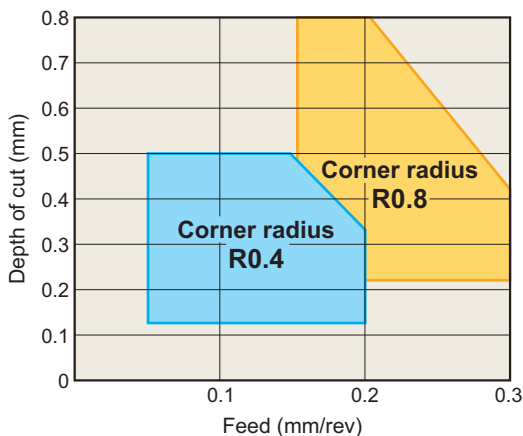
Chip control is improved by having a chip breaker geometry suitable for copying.

Narrow protrusion gives excellent chip disposal.

Curved edge effective for back turning.



## Application range

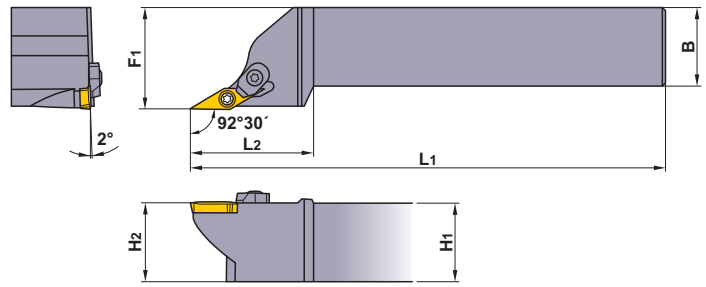


## Recommended Cutting Conditions

Work Material	Hardness	Grade	Cutting Speed (m/min)	
P	Mild Steel	≤180HB	UE6020	150–350
	General Steel	150–250HB	UE6020	100–250

Note) The above cutting conditions are general guide lines. Adjustments may be necessary depending on machine rigidity, workpiece geometry and clamping.

# Double Clamp Type Holder for Copying



## Holder

Right hand holder shown.

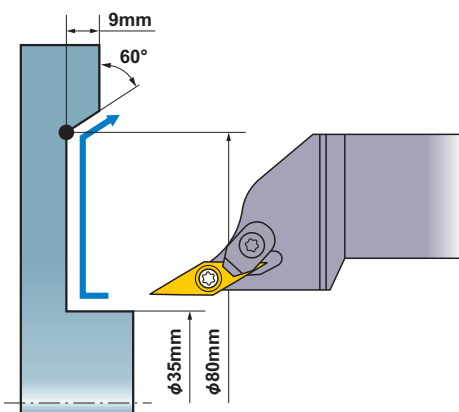
Order Number	Stock		Insert Number	Dimensions (mm)							Clamp Screw	Clamp Bridge	Clamp Bridge Screw	Spring	Wrench		
	R	L		H1	B	L1	L2	H2	F1								
<b>SXZCR/L1616H15</b>	●	●	XCMT	1503	●	SVX	16	16	100	35	16	20	TS255	AMS3	AJS3010T10	ASS2	TKY08F TKY10F
<b>2020K15</b>	●	●		1503	●	SVX	20	20	125	35	20	25	TS255	AMS3	AJS3010T10	ASS2	TKY08F TKY10F
<b>2525M15</b>	●	●		1503	●	SVX	25	25	150	40	25	32	TS255	AMS3	AJS3010T10	ASS2	TKY08F TKY10F

## Insert

Shape	Order Number	Stock	Dimensions (mm)				Geometry
		Coated	D1	S1	Re	D2	
		UE6020					
	<b>XCMT150304-SVX</b>	●	6.35	3.18	0.4	2.85	
	<b>150308-SVX</b>	●	6.35	3.18	0.8	2.85	

● : Inventory maintained.

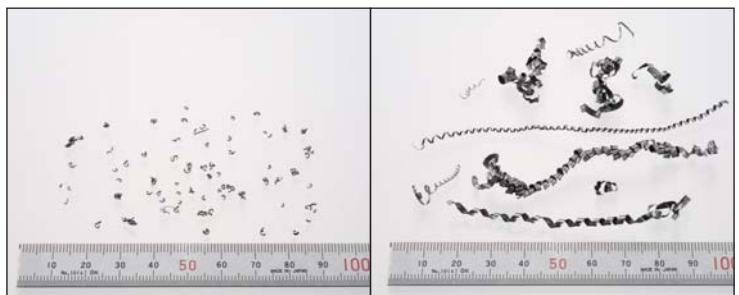
## Application examples



<Cutting Conditions>

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

### Chip Geometry



Facing

Facing an inclination



Surface finish

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

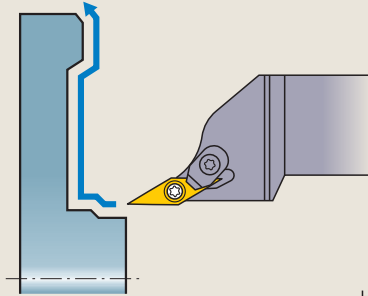
# PROFILE HOLDER

## Operational Guidance

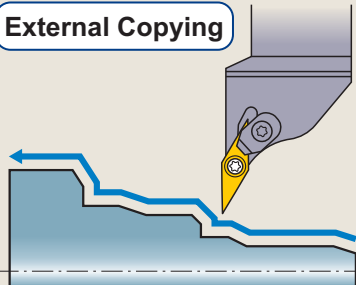
### Possible

#### End Face Copying

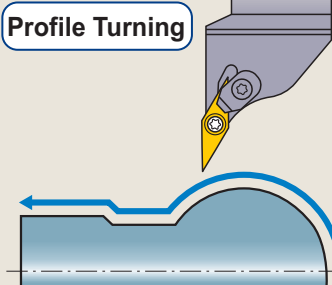
When end face copying, refer to the precautions below.



#### External Copying

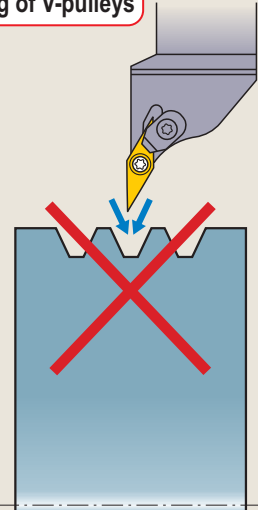


#### Profile Turning



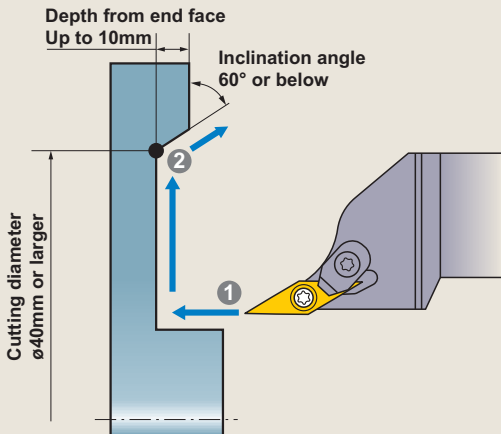
### Not possible

#### Machining of V-pulleys



When machining V-pulleys, use a VNMG insert.

## Notes when end face copying



Pay special attention to the following when end face copying.

#### Machining of an outer diameter (Step ①)

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

#### Machining of an inclination (Step ②)

- 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 40mm or larger, inclination angle 60° or below and depth from the end face up to 10mm.

#### When changing inserts

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



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