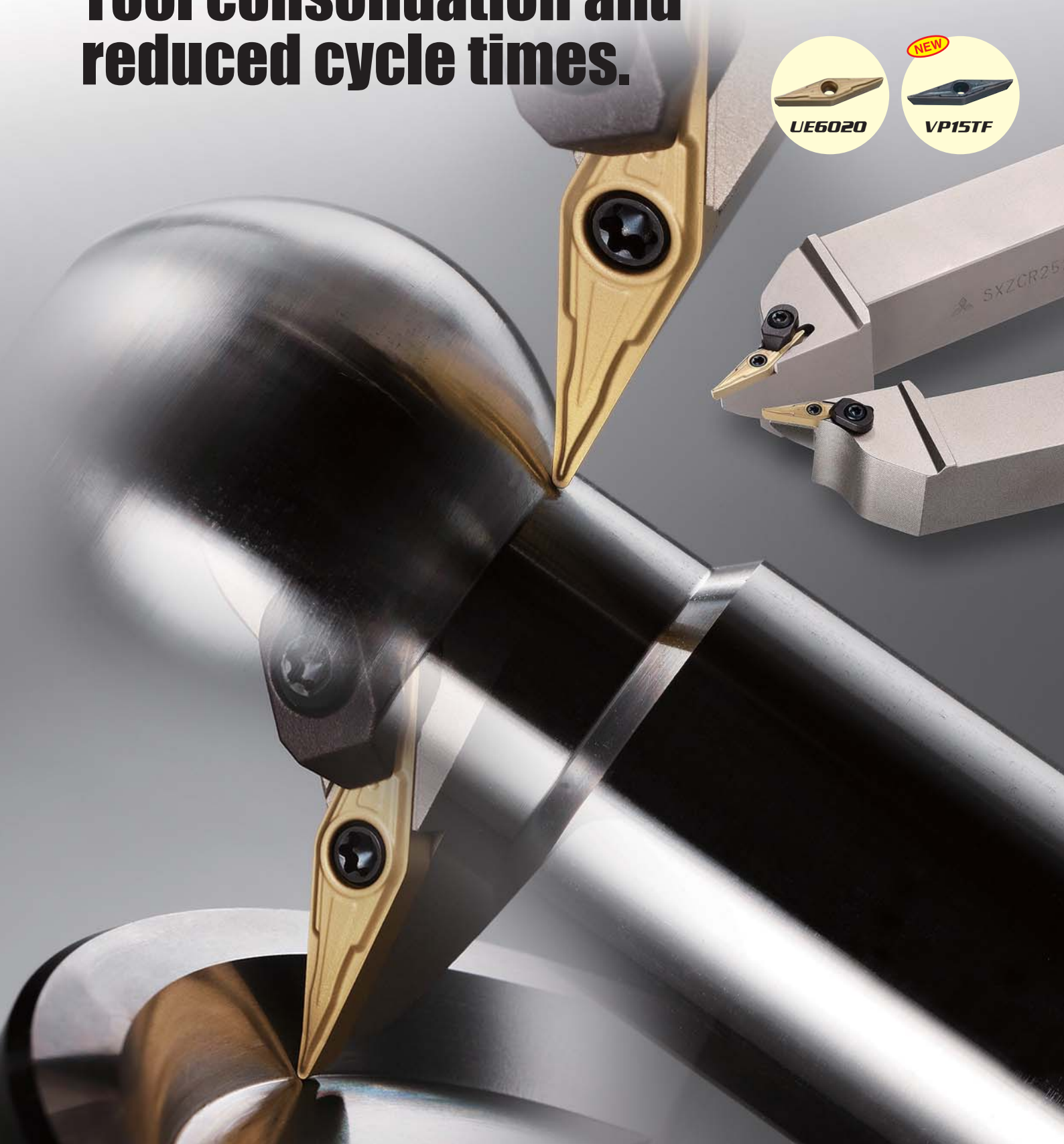


Inserts  
addition

## Double Clamp Type Holder for Copying **PROFILE HOLDER**

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

### Holder

Use of a highly reliable double clamp system.

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

For machining of transmissions

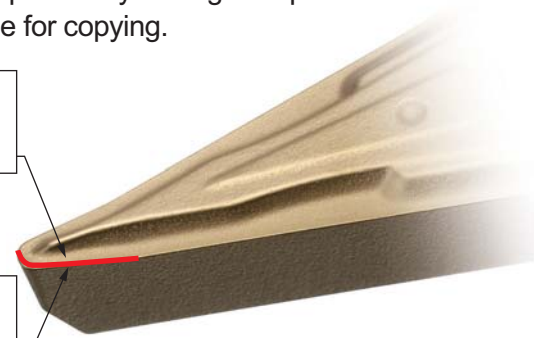


### Insert

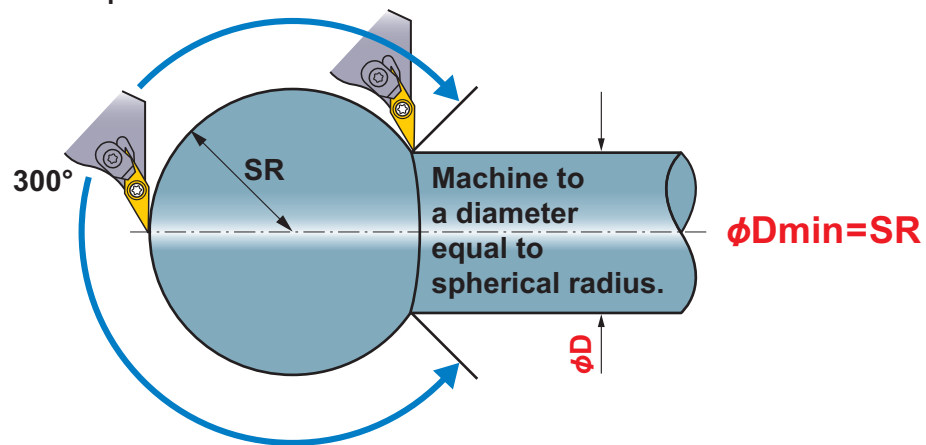
Chip control is improved by having a chip breaker geometry suitable for copying.

Narrow protrusion gives excellent chip disposal.

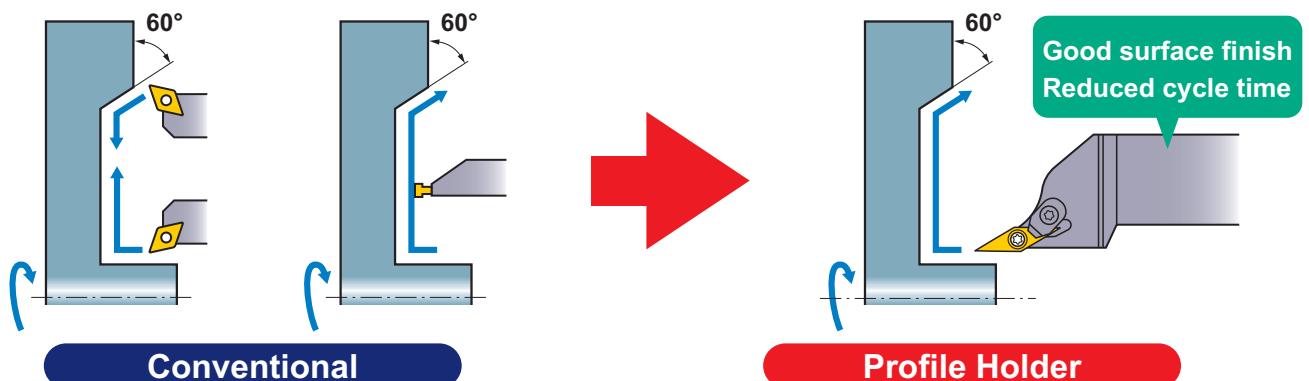
Curved edge effective for back turning.



- Machine 300° of a sphere.



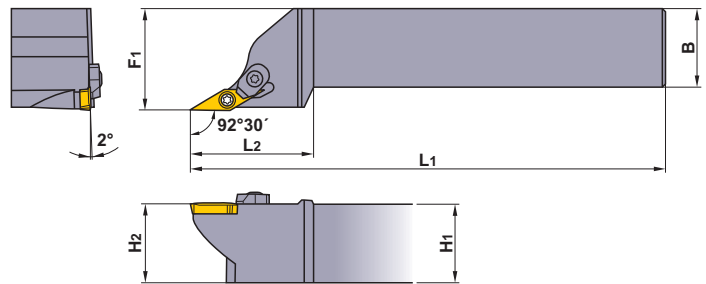
- 25° rhombic insert for profile machining up to a 60° inclination.



2 operations required or a custom made tool.

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

# PROFILE HOLDER



## Holder

Right hand holder shown.

Order Number	Stock		Insert Number	Dimensions (mm)												
	R	L		H1	B	L1	L2	H2	F1	Clamp Screw	Clamp Bridge	Clamp Bridge Screw	Spring	Insert Wrench	Clamp Bridge Wrench	
<b>SXZCR/L1616H15</b>	●	●	XCMT	1503	16	16	100	35	16	20	TS255	AMS3	AJS3010T10	ASS2	TKY08F	TKY10F
<b>2020K15</b>	●	●		1503	20	20	125	35	20	25	TS255	AMS3	AJS3010T10	ASS2	TKY08F	TKY10F
<b>2525M15</b>	●	●		1503	25	25	150	40	25	32	TS255	AMS3	AJS3010T10	ASS2	TKF08F	TKF10F

\* Clamp Torque (N · m): TS255=1.0, AJS3010T10=2.5

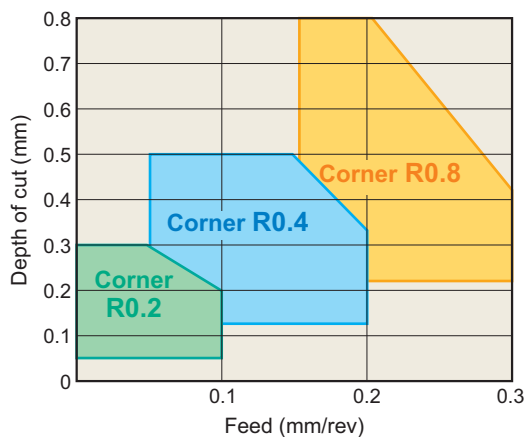
● : Inventory maintained.

## Insert

Shape	Order Number	Stock		Dimensions (mm)				Geometry
		Coated	NEW	D1	S1	Re	D2	
	<b>XCMT150302-SVX</b>	●	●	6.35	3.18	0.2	2.85	
	<b>150304-SVX</b>	●	●	6.35	3.18	0.4	2.85	
	<b>150308-SVX</b>	●	●	6.35	3.18	0.8	2.85	

● : Inventory maintained. (10 inserts in one case)

## Application Range

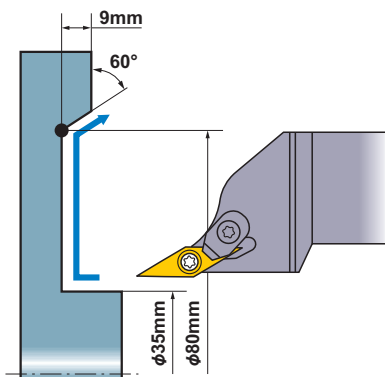


## Recommended Cutting Conditions

Work Material	Hardness	Grade	Cutting Speed (m/min)
<b>P</b> Mild Steel	≤180HB	<b>UE6020</b>	250 (150—350)
	150—250HB	<b>UE6020</b>	175 (100—250)
<b>M</b> Stainless Steel	≤200HB	<b>VP15TF</b>	100 ( 70—120)

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

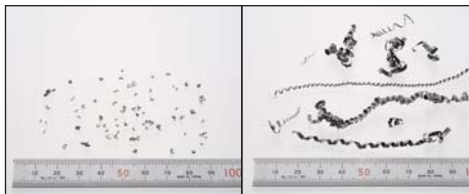
## Application Examples



### <Cutting Conditions>

Workpiece : JIS S45C  
 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



Smooth surface  
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.

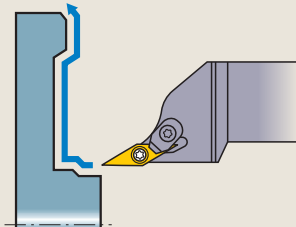
## Operational Guidance

Care should be taken to the following when using the profile turning tool holder.

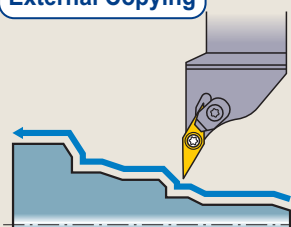
### Possible

#### End Face Copying

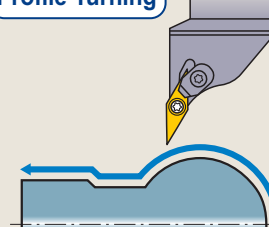
When end face copying, refer to the precautions below.



#### External Copying



#### Profile Turning



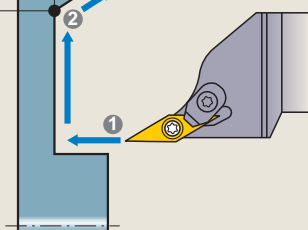
## Notes when end face copying

Pay special attention to the following when face copying.

Depth from end face  
Up to 10mm

Inclination angle  
60° or below

Cutting diameter  
ø40mm or larger



#### •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)

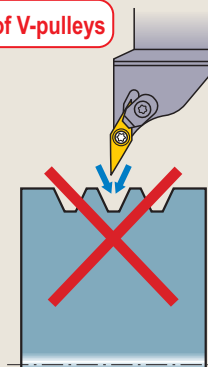
• To reduce the contact length of chips, the depth of cut should be below half the nose radius.  
 • To prevent interference between the tool and the workpiece, the cutting diameter should be 40mm or larger, inclination angle 60° or below and depth from the end face up to 10mm.

#### •When changing inserts

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

## Not possible

#### Machining of V-pulleys



When machining V-pulleys, use a VNMG insert.

### For Your Safety

●Don't handle inserts and chips without gloves. ●Please machine within the recommended application range and exchange expired tools with new ones in advance of breakage. ●Please use safety covers and wear safety glasses. ●When using compounded cutting oils, please take fire precautions. ●When attaching inserts or spare parts, please use only the correct wrench or spanner.

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