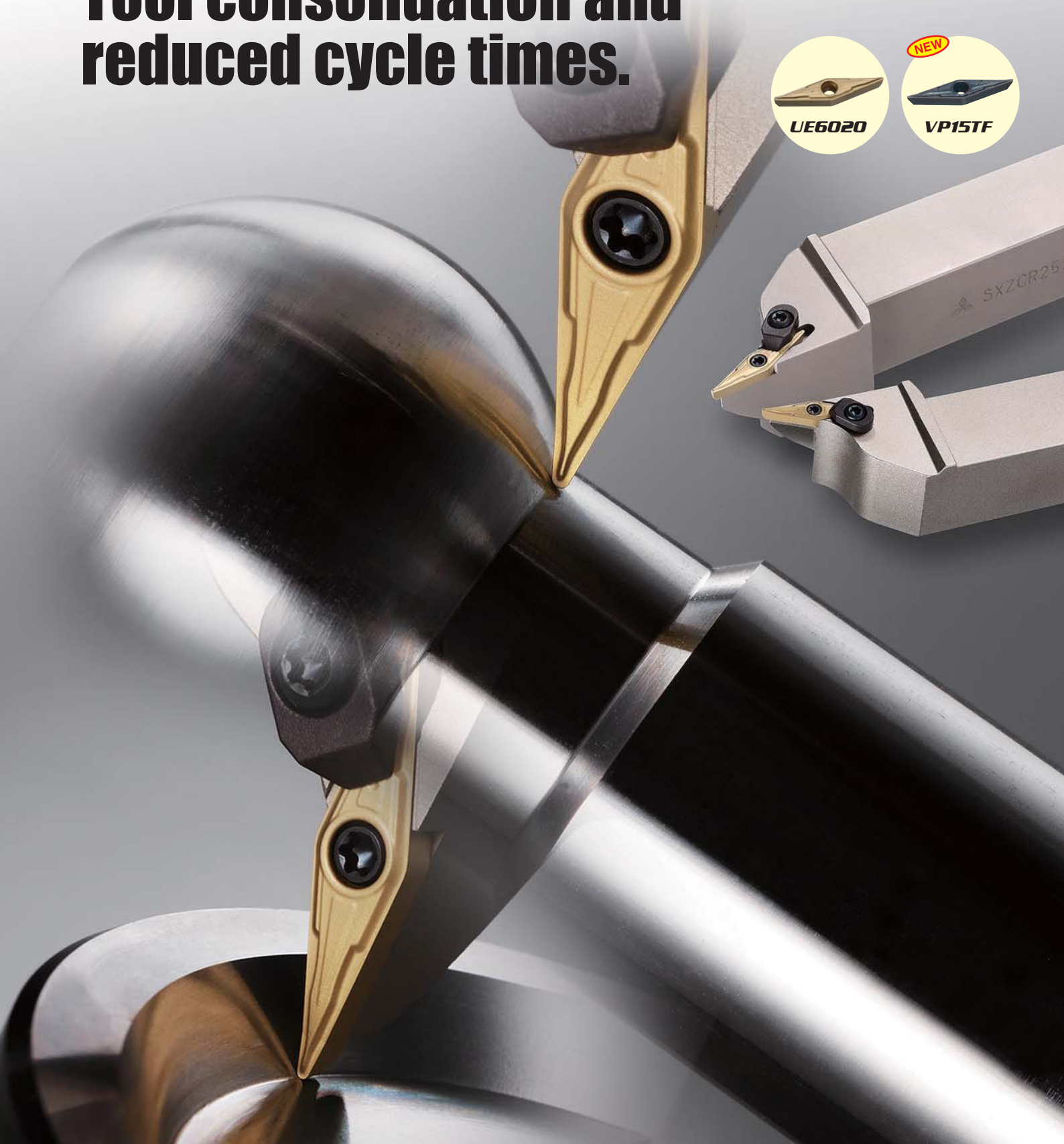


Inserts
addition

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

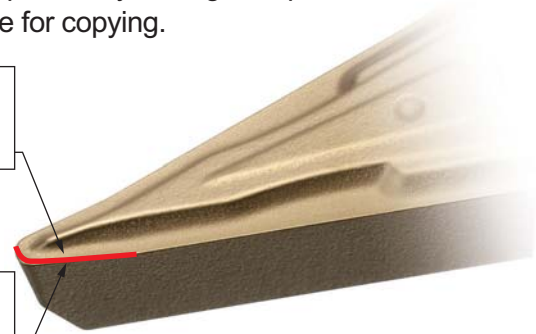


Insert

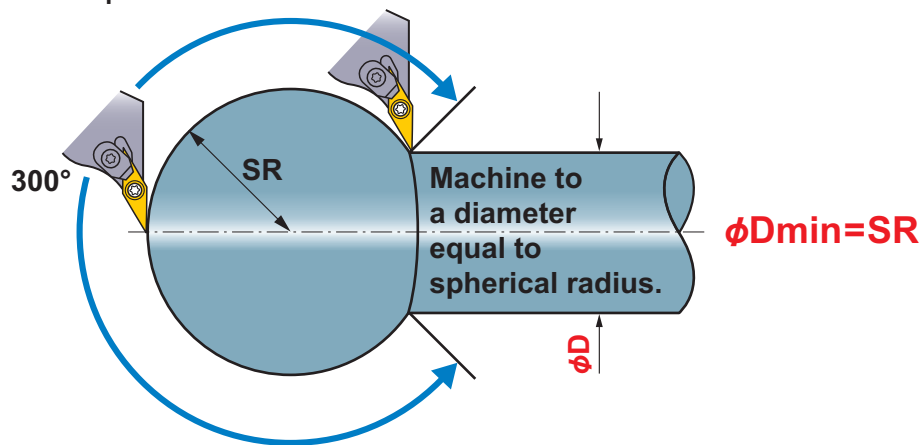
Chip control is improved by having a chip breaker geometry suitable for copying.

Narrow protrusion gives excellent chip disposal.

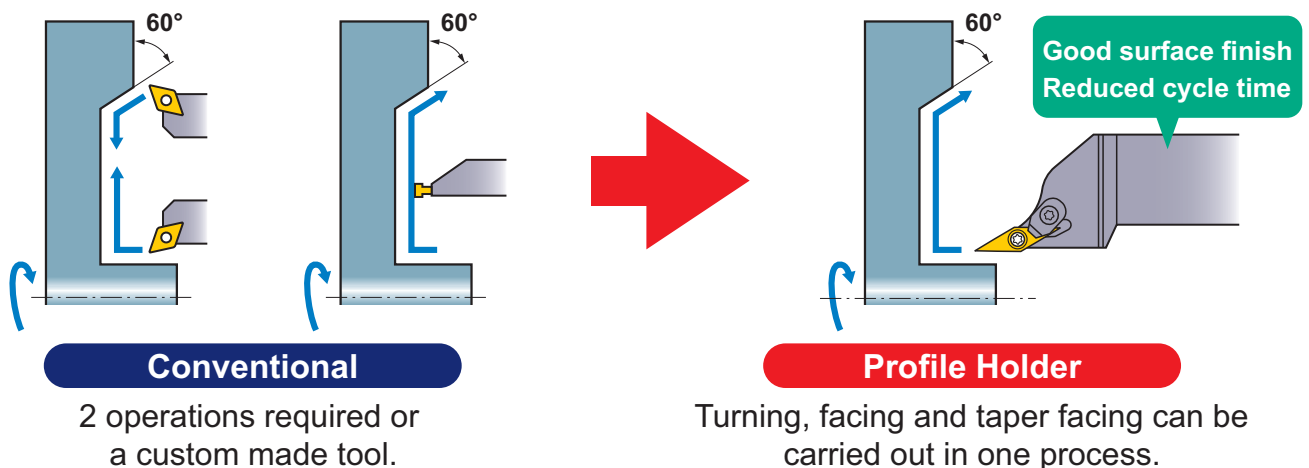
Curved edge effective for back turning.



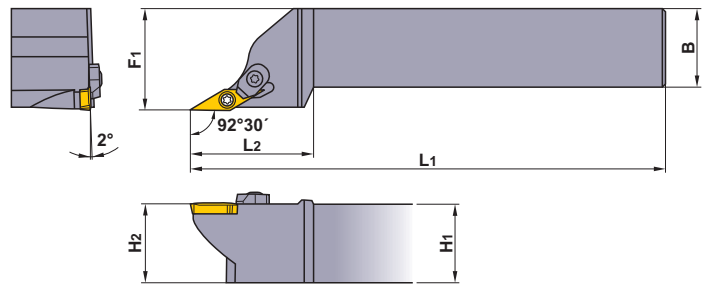
- Machine 300° of a sphere.



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



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	
SXZCR/L1616H15	●	●	XCMT	1503	16	16	100	35	16	20	TS255	AMS3	AJS3010T10	ASS2	TKY08F	TKY10F
2020K15	●	●		1503	20	20	125	35	20	25	TS255	AMS3	AJS3010T10	ASS2	TKY08F	TKY10F
2525M15	●	●		1503	25	25	150	40	25	32	TS255	AMS3	AJS3010T10	ASS2	TKF08F	TKF10F

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

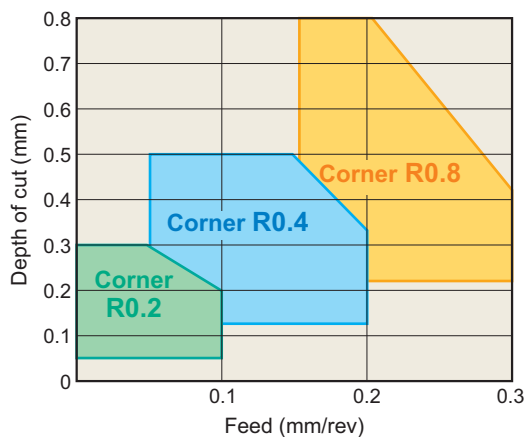
● : Inventory maintained.

Insert

Shape	Order Number	Stock		Dimensions (mm)				Geometry
		Coated		D1	S1	Re	D2	
		UE6020	VP15TF					
	XCMT150302-SVX	●	●	6.35	3.18	0.2	2.85	
	150304-SVX	●	●	6.35	3.18	0.4	2.85	
	150308-SVX	●	●	6.35	3.18	0.8	2.85	

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

Application Range

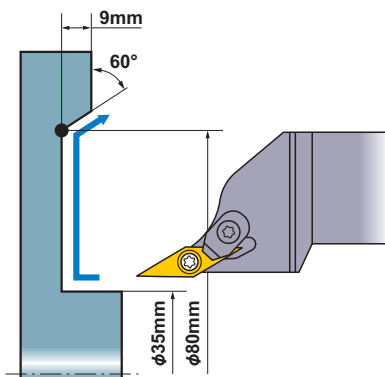


Recommended Cutting Conditions

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

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

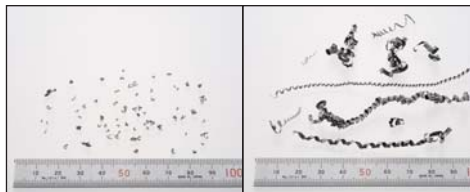
Application Examples



<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.

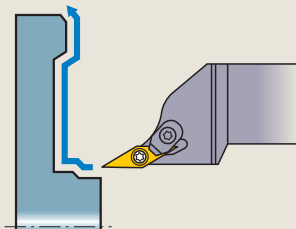
Operational Guidance

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

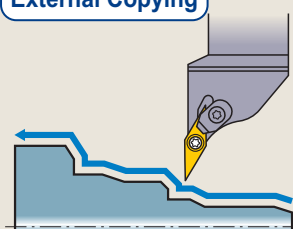
Possible

End Face Copying

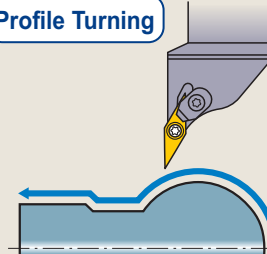
When end face copying, refer to the precautions below.



External Copying



Profile Turning



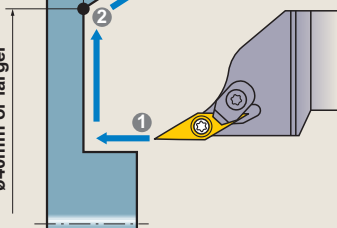
Notes when end face copying

Pay special attention to the following when face copying.

Depth from end face
Up to 10mm

Inclination angle
60° or below

Cutting diameter
φ40mm 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)

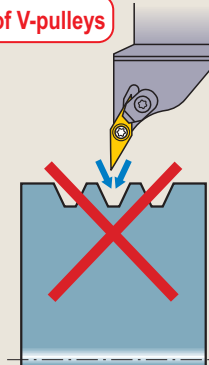
- To reduce the contact length of chips, the depth of cut should be below half the nose radius.
- To prevent interference between the tool and the workpiece, the cutting diameter should be 40mm or larger, inclination angle 60° or below and depth from the end face up to 10mm.

•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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