

25° Profiling System

DOUBLE CLAMP TYPE
HOLDER FOR PROFILING



Double Clamp Type Holder for Profiling

25° Profiling System

Features

Holder

Double clamping for secure retention.

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

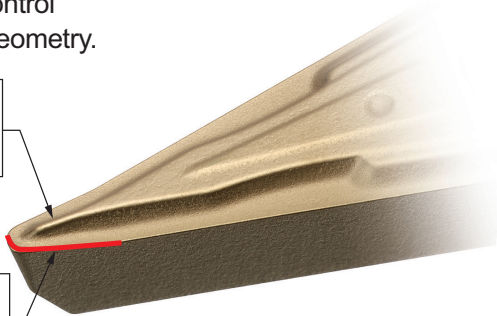


Insert

Maximum chip control through unique geometry.

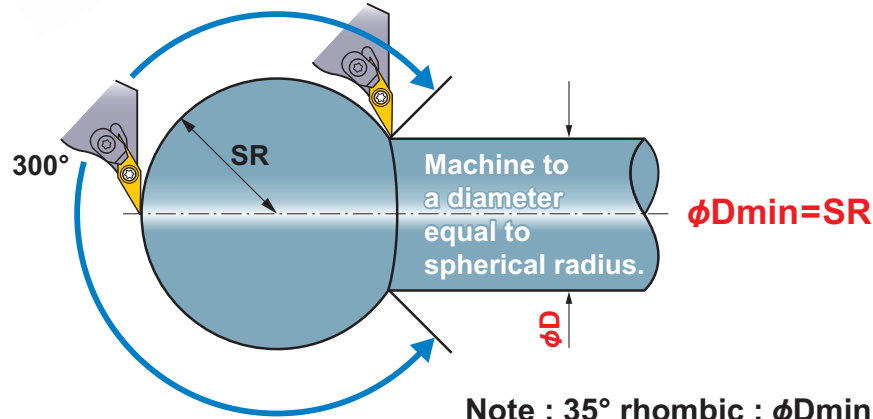
Narrow ridge gives excellent chip disposal.

Curved edge effective for back turning.



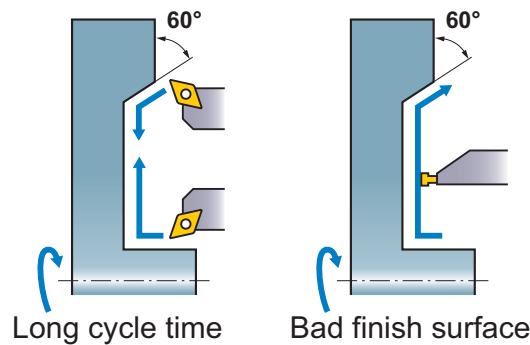
Benefits

Machine 300° of a sphere.

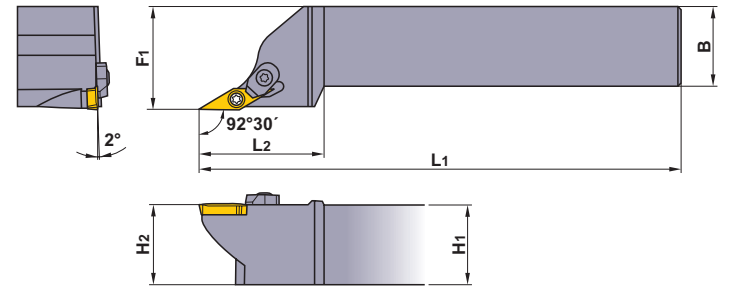
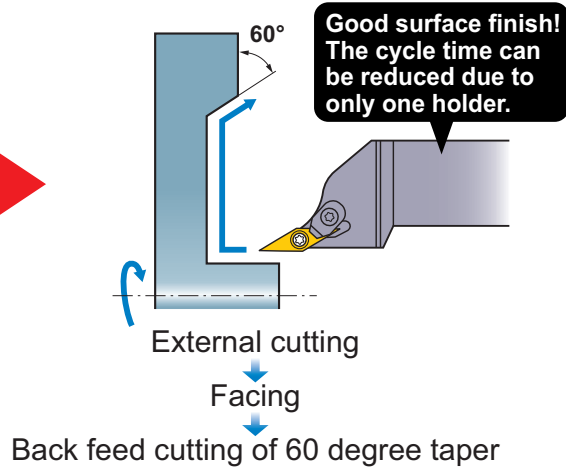


Machine a face relief with up to a 60° incline.

Conventional cutting



NEW method by Profile Holder



Inch Holder

Right hand holder shown.

Order Number	Stock		Insert Number	Dimensions (inch)											
	R	L		H1	B	L1	L2	H2	F1	Clamp Screw	Clamp Bridge	Clamp Bridge Screw	Spring	Wrench	
SXZCR/L-102	●	●	XCMT	22⌀SVX	.625	.625	4.000	1.378	.625	.750	TS255	AMS3	AJS3010T10	ASS2	TKY08F TKY10F
-122	●	●		22⌀SVX	.750	.750	4.500	1.378	.750	1.000	TS255	AMS3	AJS3010T10	ASS2	TKY08F TKY10F
-162	●	●		22⌀SVX	1.000	1.000	6.000	1.575	1.000	1.250	TS255	AMS3	AJS3010T10	ASS2	TKY08F TKY10F

Metric Holder

Right hand holder shown.

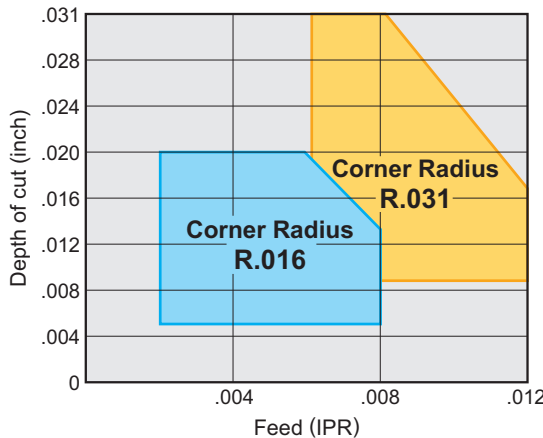
Order Number	Stock		Insert Number	Dimensions (mm)											
	R	L		H1	B	L1	L2	H2	F1	Clamp Screw	Clamp Bridge	Clamp Bridge Screw	Spring	Wrench	
SXZCR/L1616H15	●	●	XCMT	22 [○] SVX	16	16	100	35	16	20	TS255	AMS3	AJS3010T10	ASS2	TKY08F TKY10F
2020K15	●	●		22 [○] SVX	20	20	125	35	20	25	TS255	AMS3	AJS3010T10	ASS2	TKY08F TKY10F
2525M15	●	●		22 [○] SVX	25	25	150	40	25	32	TS255	AMS3	AJS3010T10	ASS2	TKY08F TKY10F

Insert

Shape	Order Number	(ISO) Number	Stock	Dimensions (inch)			Geometry
			Coated	D1	S1	Re	
	XCMT221SVX	XCMT150304-SVX	●	.250	.125	.016	
	222SVX	150308-SVX	●	.250	.125	.031	

● : Inventory maintained.

Application Range



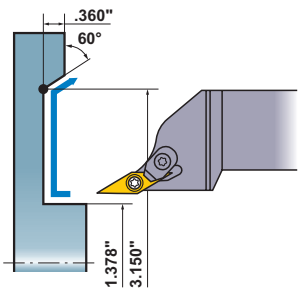
Recommended Cutting Conditions

Work Material	Hardness	Grade	Cutting Speed (SFM)
P Mild Steel	≤180HB	UE6020	490—1150
General Steel	150—250HB	UE6020	330—820

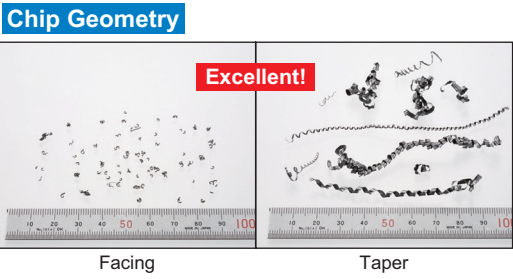
Note) The above cutting conditions are general guide lines. Adjustments maybe necessary depending on machine rigidity, workpiece geometry and clamping.

25° Profiling System

Application Examples



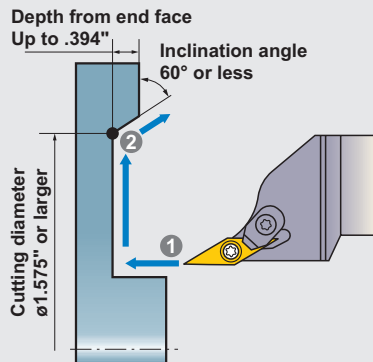
<Cutting Conditions>
Workpiece : 1045
Insert : XCMT221SVX
Grade : UE6020
Holder : SXZCR-162
Cutting at boss : Cutting Speed=655SFM,
Depth of cut=.008inch,
Feed=.002IPR, Wet cutting
Cutting from face to taper : Cutting Speed=655SFM,
Depth of cut=.008inch,
Feed=.008IPR, Wet cutting



Memo

Operational Guidance

Notes when end face copying



Pay special attention to the following when 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)

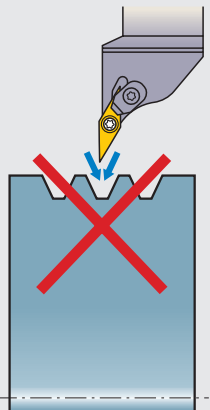
- To reduce the contact length of chips, the depth of cut should be below half the nose radius.
- To prevent interference between the tool and the workpiece, the cutting diameter should be 1.575" or larger, inclination angle 60° or less and depth from the end face up to .394".

When changing inserts

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

Not possible

Machining of V-pulleys



When machining V-pulleys, use a VNMG insert.



MACHINING TECHNOLOGY
AND EDUCATION CENTER

Welcome to our new world-class
Machining Technology and Education
Center (MTEC) in Mooresville, NC
providing year round support and
services to North America.



ABOUT MTEC

TOOLING PROPOSALS & EVALUATION

We will review your current processes or outline a new process. From this review, we will improve productivity, analyze programming methods and output a solution with programming, tooling and time savings.

MACHINING SIMULATION

Using the latest CAD/CAM software and our cutting tool experience, we will outline a new process using proper machining techniques to maximize tool life and productivity.

TECHNICAL SUPPORT

Dedicated local professionals to answer any of your order, product or technical questions.

TRAINING

We are excited to offer several levels of training with goals to reach our highest level--Craftsman Machining Technology. At MTEC NC, we will train using a combination of classroom and hands-on machine time to develop skills and real-world understanding of materials, tools and applications. In addition to multi-day courses, we will have Machining Technology skills seminars, as well as seminars from our partners to complement our apprentice level courses, our journeyman courses, and up to our craftsman level courses.

PROCESS IMPROVEMENTS

Review of the complete part processing and recommend changes of speed, feed, new tooling, reduction of passes, modifying programming and other solutions to reduce cycle time, save money and be proactive.



WEBINARS

Our FREE online webinar series is available anytime on-demand. Narrated by the MTEC training staff, you will receive in-depth knowledge of the topic. Simply register online at the link below for access. You will receive a certificate upon completion of each course.

mmusnewsstand.com/register

ONLINE TRAINING

Our FREE e-learning program offers 11 courses in drilling, milling, turning, threading, tool grades and workpiece materials. Once each course is completed, you will be given the opportunity to print a certificate.

- Basic Drilling
- Basic Milling
- Basic Turning
- Advanced Drilling
- Advanced End Milling
- Advanced Turning
- Basic Threading
- Advanced Face Milling
- Basic Workpiece Materials
- Tool Grades
- Advanced Workpiece Materials

TRAINING COURSES

Programs are designed for several levels of skill development – from basic understanding to advance manufacturing with digital solutions, complementing to your valued experience in CNC machining environment. Participate in machining demonstrations with Mitsubishi Materials' skilled engineers. Discover methods to reduce setup and cycle time, optimize programs and enhance your knowledge base.

Information on course schedule,
course description, and accommodations

MTECTRaining.INFO

Follow the QR Code for a virtual facility tour





MITSUBISHI MATERIALS U.S.A. CORPORATION

California Office (Headquarters)

3535 Hyland Avenue, Suite 200
Costa Mesa, CA 92626
Customer Service: 800.523.0800
Technical Service: 800.486.2341

Chicago Office (Engineering)

300 N. Martingale Road, Suite 500
Schaumburg, IL 60173
Main: 847.252.6300
Fax: 847.519.1732

MMC Metal de Mexico, S.A. DE C.V.

Av. La Cañada No.16,
Parque Industrial Bernardo
Quintana, El Marques,
Queretaro C.P. 76246 MEXICO
Main: +52.442.221.61.36
Fax: +52.442.221.61.34

North Carolina-MTEC (Marketing & Technical Center)

105 Corporate Center Drive, Suite A
Mooresville, NC 28117
Main: 980.312.3100
Fax: 704.746.9292

Toronto Office (Canada Branch)

600 Matheson Blvd. Unit 5 (Office)
Mississauga, ON L5R 4C1
Main: 905.814.0240
Fax: 905.814.0245

Detroit Office (Moldino CS)

41700 Gardenbrook Road, Suite 120
Novi, MI 48375
Main: 248.308.2620
Fax: 248.308.2627

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 driver.
- When using rotating tools, please make a trial run to check run-out, vibration and abnormal sounds etc.

www.mmc-carbide.com/us

Tools specifications subject to change without notice.

B126A-US-2008.4