



Multifunctional tool for drilling and turning

TUNGB^{ORE}MINI

Tungaloy Report No. 529S3-US

Expansion of **DMIN 0.315" (8mm)** to the TungBoreMini lineup

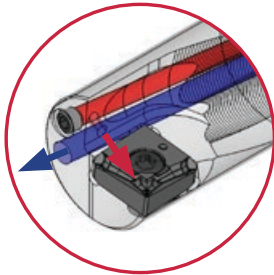


New toolholders for the minimum bore diameter (DMIN) range of 0.315" (8mm)

New Line ups

		DMIN (in)								
		0.315	0.394	0.472	0.551	0.630	0.709	0.787	0.984	1.260
TUNGB ^{ORE} MINI Inch shanks	New	Line up								
		DMIN (mm)								
		8	10	12	14	16	18	20	25	32
TUNGB ^{ORE} MINI Metric shanks	New	Line up								

Features

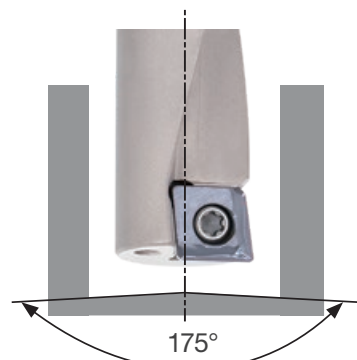
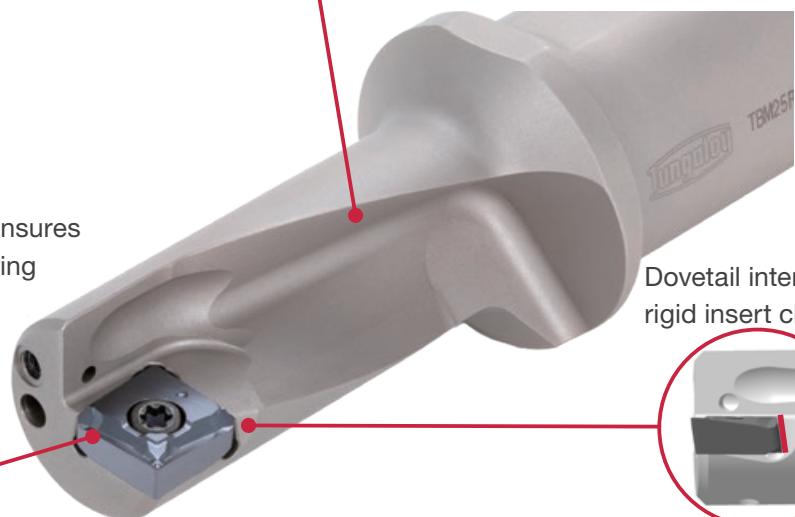


The flute is designed to promote smooth chip flow, while ensuring tool rigidity

Optimized through-coolant ensures effective chip evacuation during machining

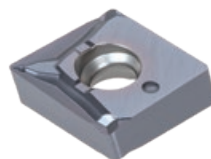
Dovetail interlocking ensures rigid insert clamping

Double-sided insert with 2 corners



Creates a near-flat hole bottom

Optimized chipbreaker design enables effective chip control in all applications



XOMU-PS

For toolholders for
DMIN = 0.394" - 1.260"
(10 - 32 mm)



New

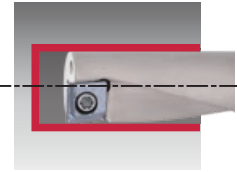
XCMT-PS

For toolholders for
DMIN = 0.315" (8 mm)

CUTTING PERFORMANCE

Drilling

P Holder : TBM08RF127-2.25
 Insert : XCMT040102R-PS AH725
 Workpiece material : S45C / C45
 Cutting speed : $V_c = 328$ sfm
 Application : Drilling
 Coolant : Internal



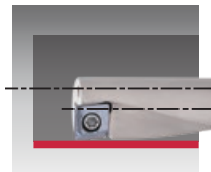
Drilling

0.0008	0.0012	0.0016	0.0020
Feed: f (ipr)			

Stable machining and excellent chip control during hole making process.

Internal turning

P Holder : TBM08RF127-2.25
 Insert : XCMT040102R-PS AH725
 Workpiece material : S45C / C45
 Cutting speed : $V_c = 492$ sfm
 Application : Internal turning
 Coolant : Internal



Turning

Depth of cut: ap (in)	0.039				
	0.020				
	0.008				
		0.0016	0.0024	0.0039	0.0047
		Feed: f (ipr)			

Excellent chip control during I.D. finishing operation.

STANDARD CUTTING CONDITIONS

Drilling

ISO	Workpiece materials	Cutting speed Vc (sfm)	Minimum bore diameter: DMIN								
			ø0.315" (ø8 mm)	ø0.394" (ø10 mm)	ø0.472" (ø12 mm)	ø0.551" (ø14 mm)	ø0.630" (ø16 mm)	ø0.709" (ø18 mm)	ø0.787" (ø20 mm)	ø0.984" (ø25 mm)	ø1.260" (ø32 mm)
			Depth of cut: ap (in)								
P	Low carbon steel Carbon steel	164 - 591	0.0008 - 0.0020	0.0008 - 0.0020	0.0008 - 0.0028	0.0004 - 0.0030	0.0004 - 0.0031	0.0020 - 0.0051	0.0020 - 0.0051	0.0020 - 0.0055	0.0020 - 0.0055
M	Stainless steel	164 - 525	0.0008 - 0.0020	0.0008 - 0.0020	0.0008 - 0.0028	0.0004 - 0.0030	0.0004 - 0.0031	0.0020 - 0.0051	0.0020 - 0.0051	0.0020 - 0.0055	0.0020 - 0.0055
K	Cast iron	164 - 591	0.0008 - 0.0020	0.0008 - 0.0020	0.0008 - 0.0028	0.0004 - 0.0030	0.0004 - 0.0031	0.0020 - 0.0051	0.0020 - 0.0051	0.0020 - 0.0055	0.0020 - 0.0055
N	Aluminum alloys	328 - 984	0.0008 - 0.0020	0.0008 - 0.0020	0.0008 - 0.0028	0.0004 - 0.0030	0.0004 - 0.0031	0.0020 - 0.0051	0.0020 - 0.0051	0.0020 - 0.0055	0.0020 - 0.0055

Internal turning

ISO	Workpiece materials	Cutting speed Vc (sfm)	Minimum bore diameter: DMIN								
			ø0.315" (ø8 mm)	ø0.394" (ø10 mm)	ø0.472" (ø12 mm)	ø0.551" (ø14 mm)	ø0.630" (ø16 mm)	ø0.709" (ø18 mm)	ø0.787" (ø20 mm)	ø0.984" (ø25 mm)	ø1.260" (ø32 mm)
			Depth of cut: ap (in)								
P	Low carbon steel Carbon steel	164 - 591	0.0079 - 0.0984	0.0197 - 0.1181	0.0197 - 0.1378	0.0197 - 0.1772	0.0197 - 0.1969	0.0197 - 0.2165	0.0197 - 0.2362	0.0197 - 0.2559	0.0197 - 0.2756
			Feed: f (ipr)								
			0.0008 - 0.0047	0.0020 - 0.0079	0.0020 - 0.0079	0.0020 - 0.0079	0.0020 - 0.0079	0.0039 - 0.0118	0.0039 - 0.0118	0.0039 - 0.0118	0.0039 - 0.0157

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			Feed: f (ipr)								
			0.0008 - 0.0047	0.0020 - 0.0079	0.0020 - 0.0079	0.0020 - 0.0079	0.0020 - 0.0079	0.0039 - 0.0118	0.0039 - 0.0118	0.0039 - 0.0118	0.0039 - 0.0157

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			Feed: f (ipr)								
			0.0008 - 0.0047	0.0020 - 0.0079	0.0020 - 0.0079	0.0020 - 0.0079	0.0020 - 0.0079	0.0039 - 0.0118	0.0039 - 0.0118	0.0039 - 0.0118	0.0039 - 0.0157

Tungaloy-NTK America Inc.

United States

3726 N Ventura Drive, Arlington Heights, IL 60004, U.S.A.

Inside Sales: +1-888-554-8394

Technical Support: +1-888-554-8391

Fax: +1-888-554-8392

www.tungaloy.com/us

Canada

432 Elgin St. Unit 3, Brantford, Ontario N3S 7P7, Canada

Phone: +1-519-758-5779 Fax: +1-519-758-5791

www.tungaloy.com/ca

Mexico

C Los Arellano 113, Parque Industrial Siglo XXI

Aguascalientes, AGS, Mexico 20290

Phone: +52-449-929-5410 Fax: +52-449-929-5411

www.tungaloy.com/mx



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