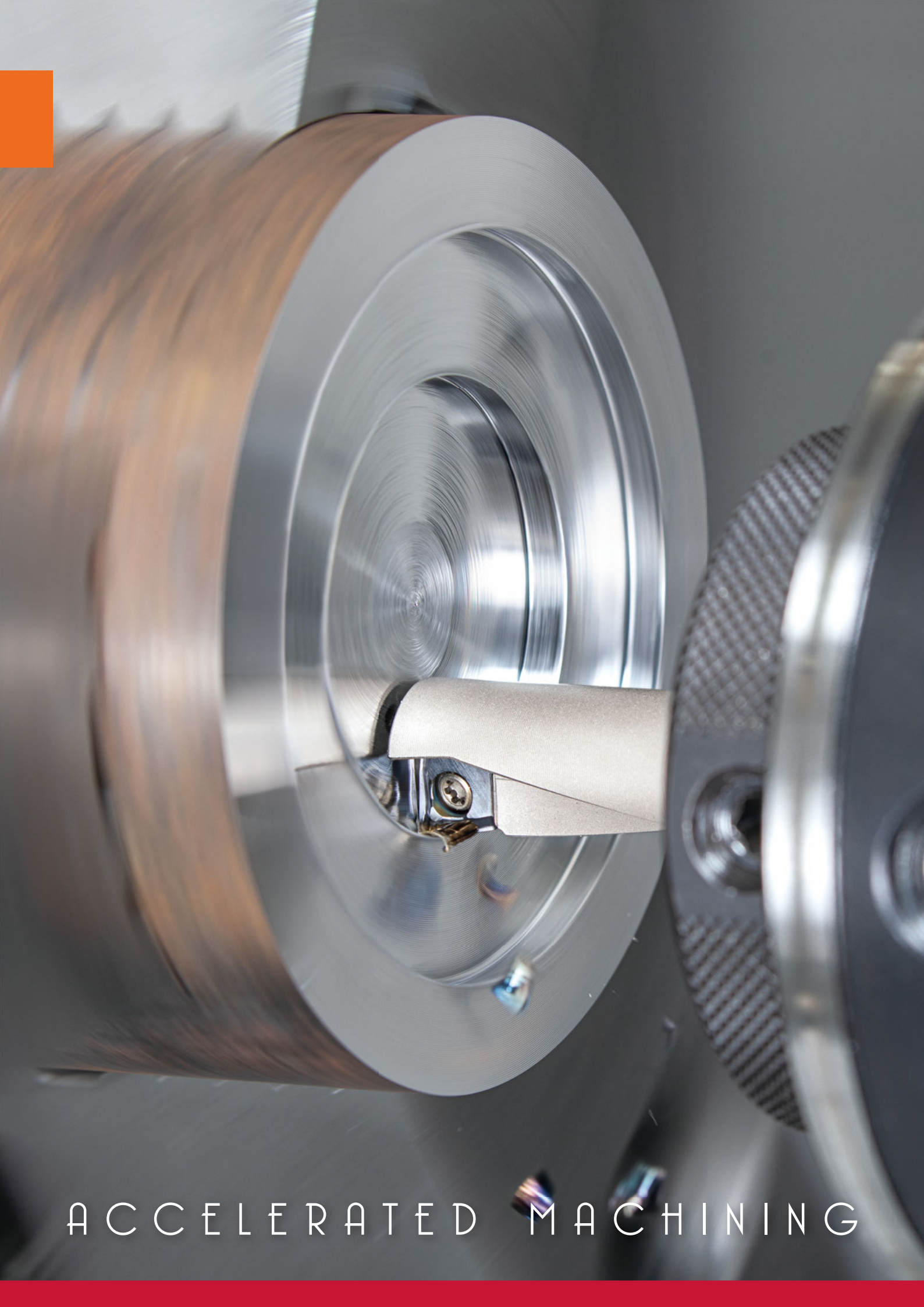


Multifunctional tool for drilling and turning





ACCELERATED MACHINING



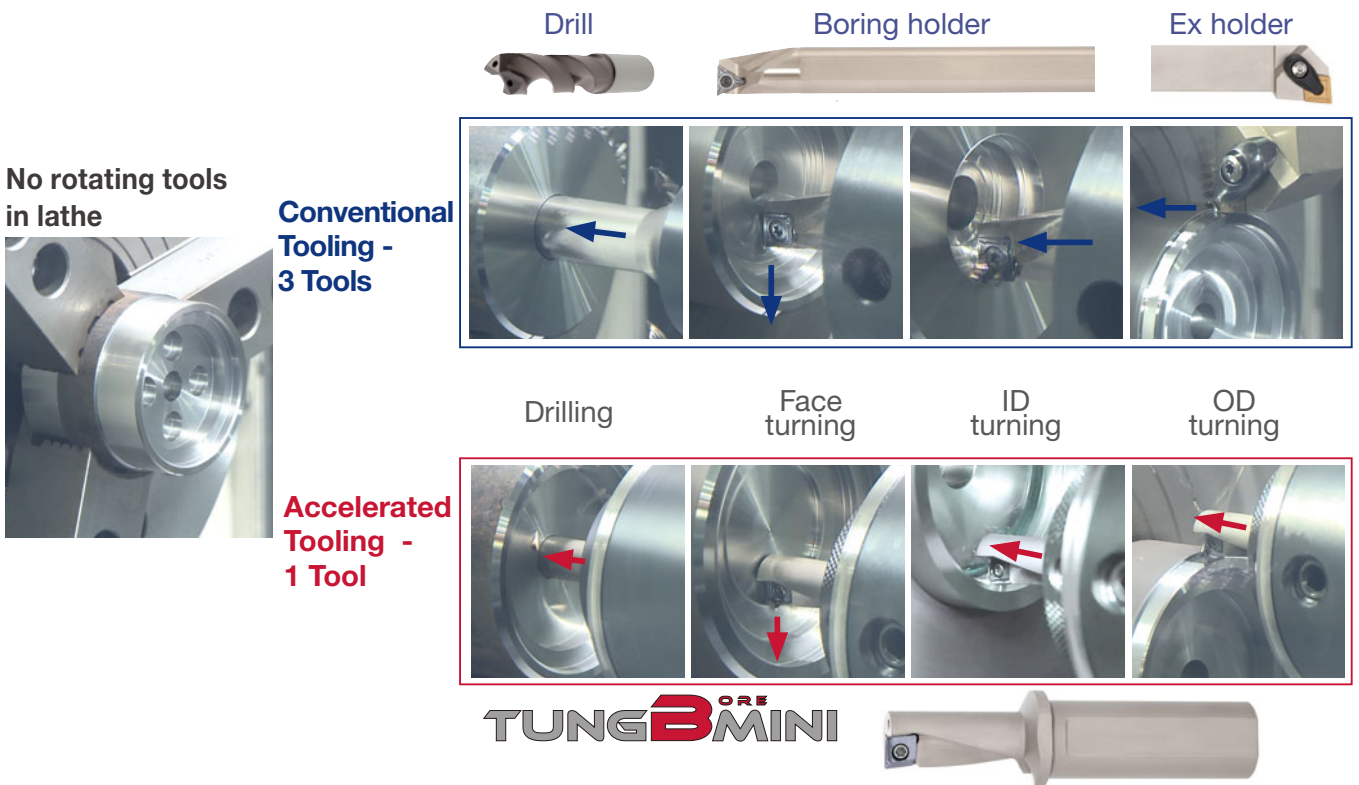
Reduced machine downtime thanks to eliminating the need for tool changes.

Multifunctional Tool for Drilling and Turning.

Multifunctional tool for improved productivity!

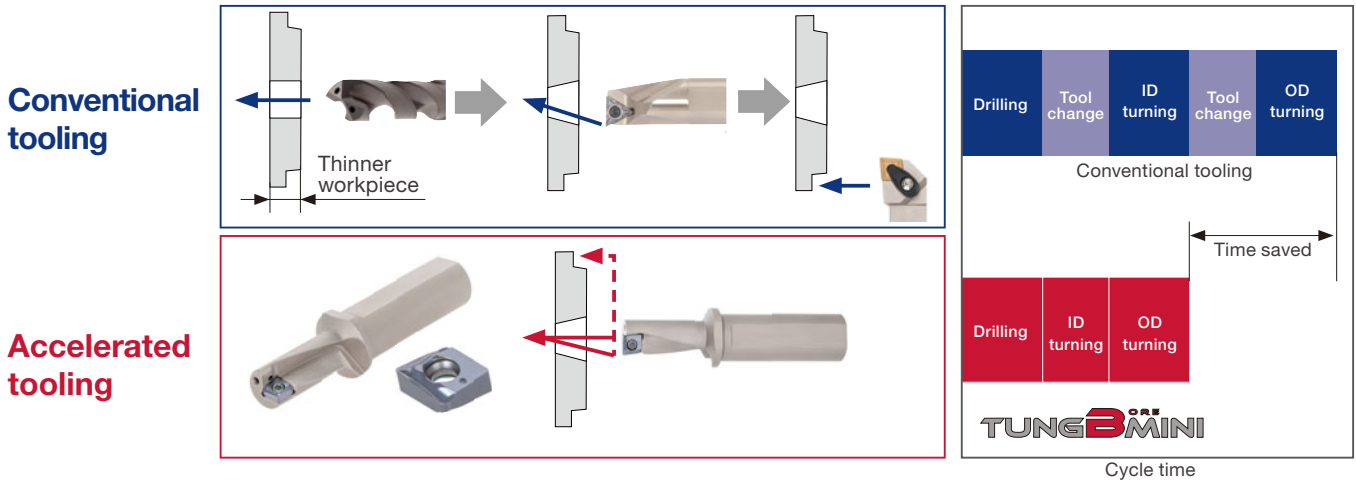
Minimum number of tools for maximum productivity

- A single TungBoreMini tool can handle multiple operations such as ID turning after drilling without exchanging the tools
- Allows drilling and hole enlargement on various materials, instead of using a drill and turning tool
- Can be used just like a standard ISO turning tool for ID, OD, and/or face turning applications

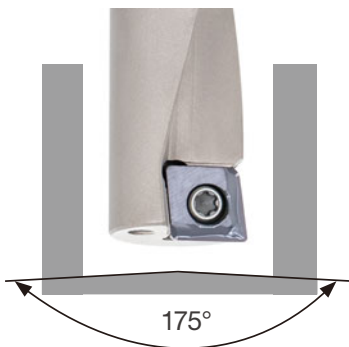


Reduced machine downtime

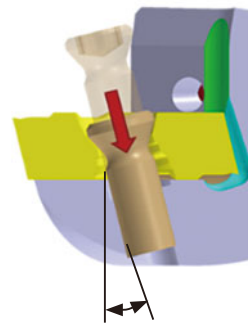
Multifunctional TungBoreMini eliminates tool changeover time, resulting in significantly reduced cycle time - this is especially effective in applications where individual processing time is short and quick, resulting in tremendous improvement in cycle time.



Features



Hole bottoms is almost flat because the front cutting edge of TungBoreMini does not have a point angle as with a twisted drill.



Slant clamping screw design allows increased screw the length of engagement for improved clamping rigidity.

PVD grade: AH725

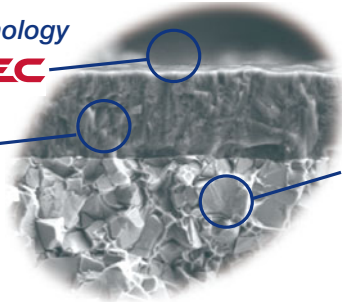
AH725 features a super tough substrate with a new PVD coating layer.

Special surface technology

PREMIUMTEC

Excellent adhesion strength of coating layer

PVD coating



Remarkable toughness

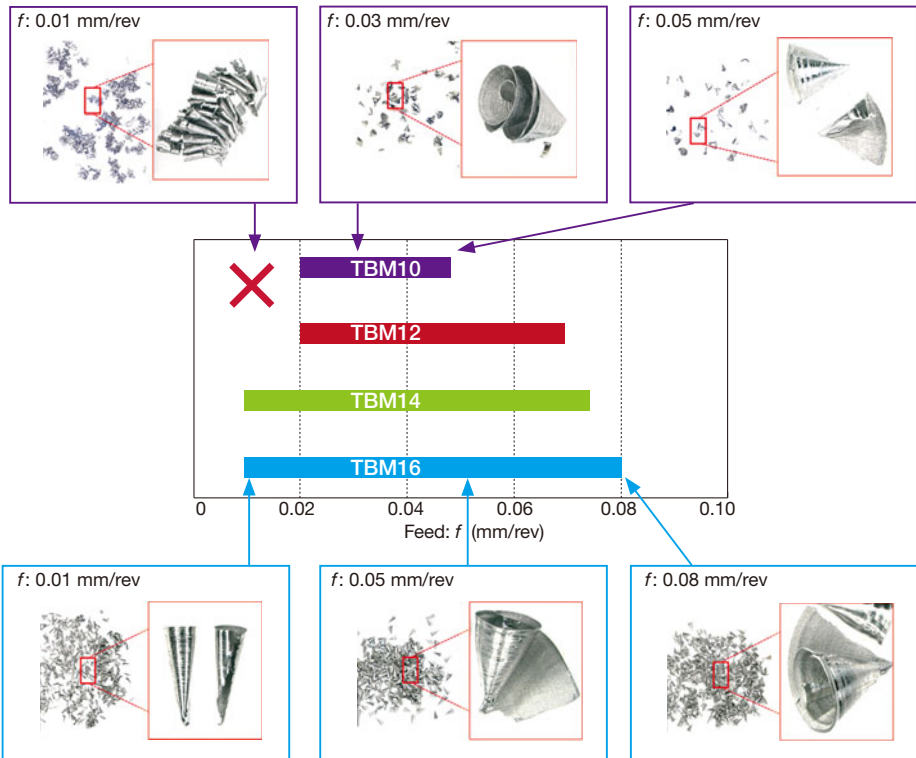
Fine grain carbide

Standard cutting conditions and chip control for drilling

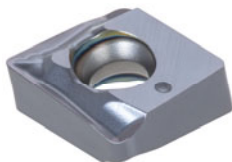
DMIN	Description		Feed: f (mm/rev)	Cutting speed: V_c (m/min)	
	Holder	Insert		Carbon steel, Alloy steel	Stainless steel
ø10	TBM10R/LF12-2.25	XOMU05X204-PS	0.02 - 0.050	50-180 m/min	50-160 m/min
ø12	TBM12R/LF16-2.25	XOMU06H204-PS	0.02 - 0.070		
ø14	TBM14R/LF16-2.25	XOMU07H304-PS	0.01 - 0.075		
ø16	TBM16R/LF20-2.25	XOMU08T304-PS	0.01 - 0.080		



Drilling



Please adjust the center height of the tool post before use



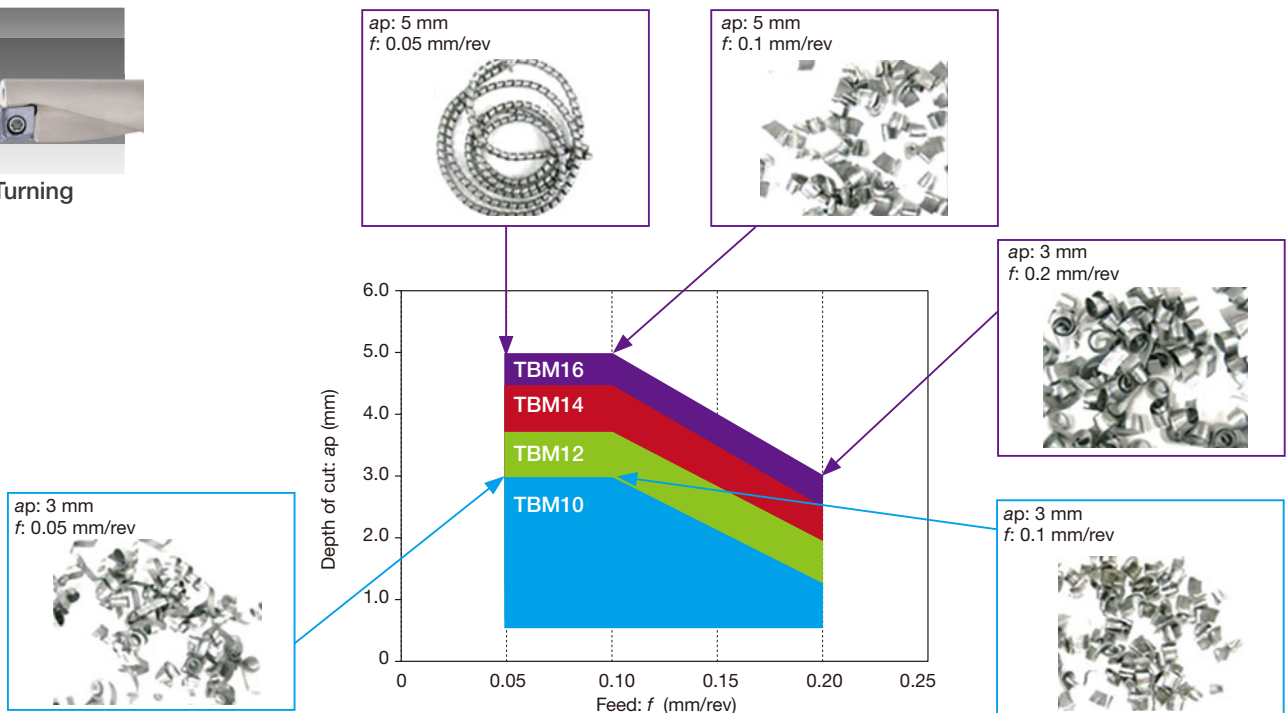
Improved chip evacuation during drilling by optimizing rake angle and breaker width.

Standard cutting conditions and chip control for turning

DMIN	Description		Depth of cut: a_p (mm)	Feed: f (mm/rev)	Cutting speed: V_c (m/min)	
	Holder	Insert			Carbon steel, Alloy steel	Stainless steel
ø10	TBM10R/LF12-2.25	XOMU05X204-PS	0.5 - 3.0	0.05 - 0.2	50 - 180 m/min	50 - 160 m/min
ø12	TBM12R/LF16-2.25	XOMU06H204-PS	0.5 - 3.5			
ø14	TBM14R/LF16-2.25	XOMU07H304-PS	0.5 - 4.5			
ø16	TBM16R/LF20-2.25	XOMU08T304-PS	0.5 - 5.0			



Turning

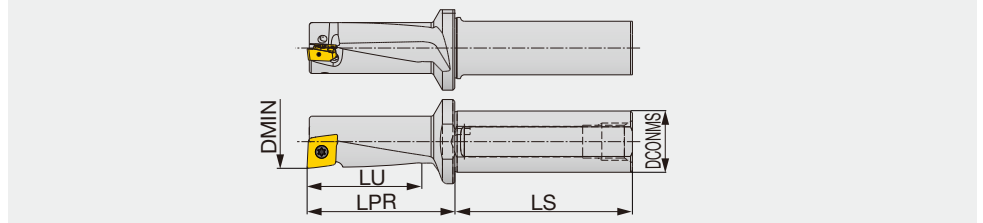


The first protrusion is effective for improving chip control at low feed rate machining.



TBM

Maximum hole depth for LH/DC = 2.25



Designation	DMIN	DCONMS	LU	LS	LPR	Insert
TBM10R/LF12-2.25	10	12	22.5	41.5	28.45	XOMU05X204-PS
TBM12R/LF16-2.25	12	16	27	43.9	33.53	XOMU06H204-PS
TBM14R/LF16-2.25	14	16	31.5	46.4	38.57	XOMU07H304-PS
TBM16R/LF20-2.25	16	20	36	57.1	42.9	XOMU08T304-PS

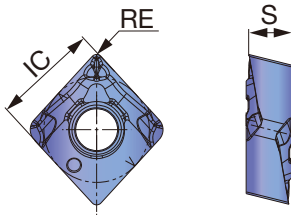
SPARE PARTS



Designation	Clamping screw	Wrench
TBM10R/LF12-2.25	CSTB-2L040	T-6D
TBM12R/LF16-2.25	CSPB-2.2	IP-7D
TBM14R/LF16-2.25	CSPB-2.5	IP-8D
TBM16R/LF20-2.25	CSTB-3	T-9D

INSERT

XOMU-PS



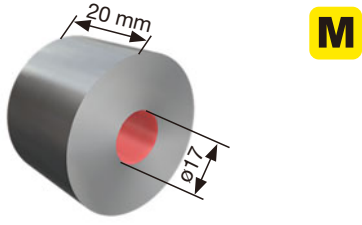
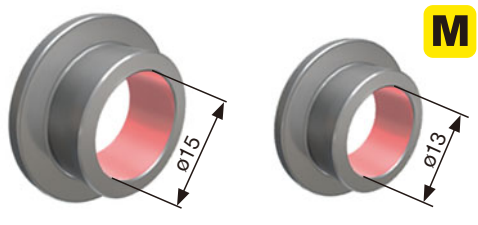
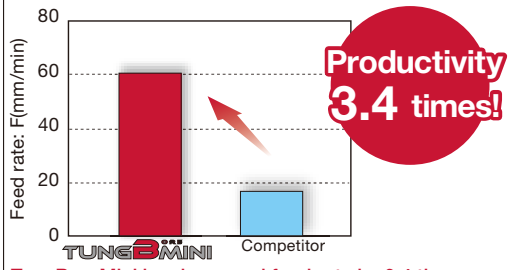

P Steel	★																			
M Stainless	★																			
K Cast iron	★																			
N Non-ferrous	★																			
S Superalloys																				
H Hard materials																				

★ : First choice
☆ : Second choice

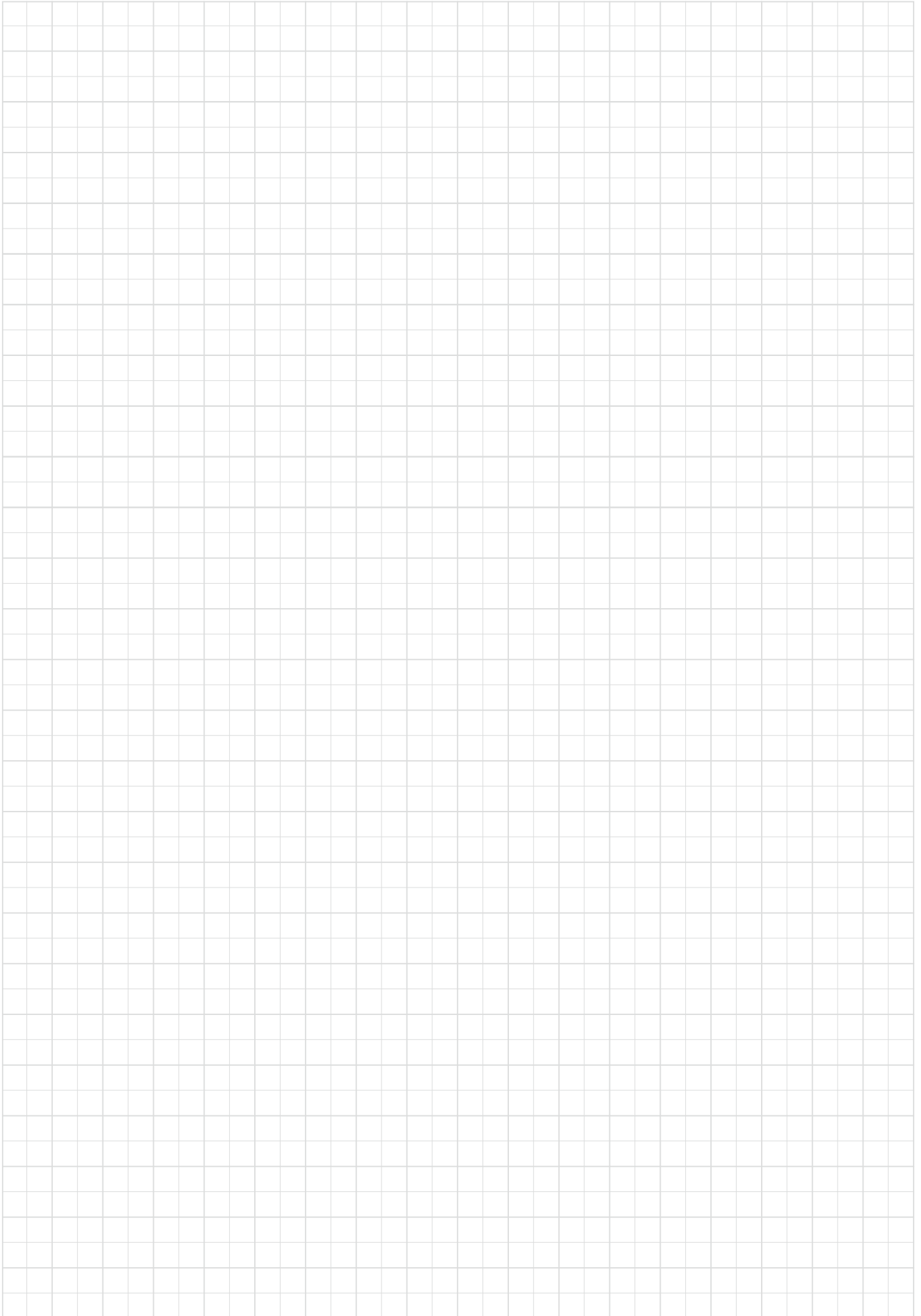
Designation	RE	Coated										S	IC		
		AH725													
XOMU05X204-PS	0.4	●												2.3	5.56
XOMU06H204-PS	0.4	●												2.7	6.3
XOMU07H304-PS	0.4	●												3.3	7.3
XOMU08T304-PS	0.4	●												4.0	8.3

● : Line up

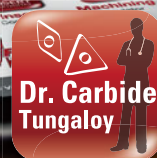
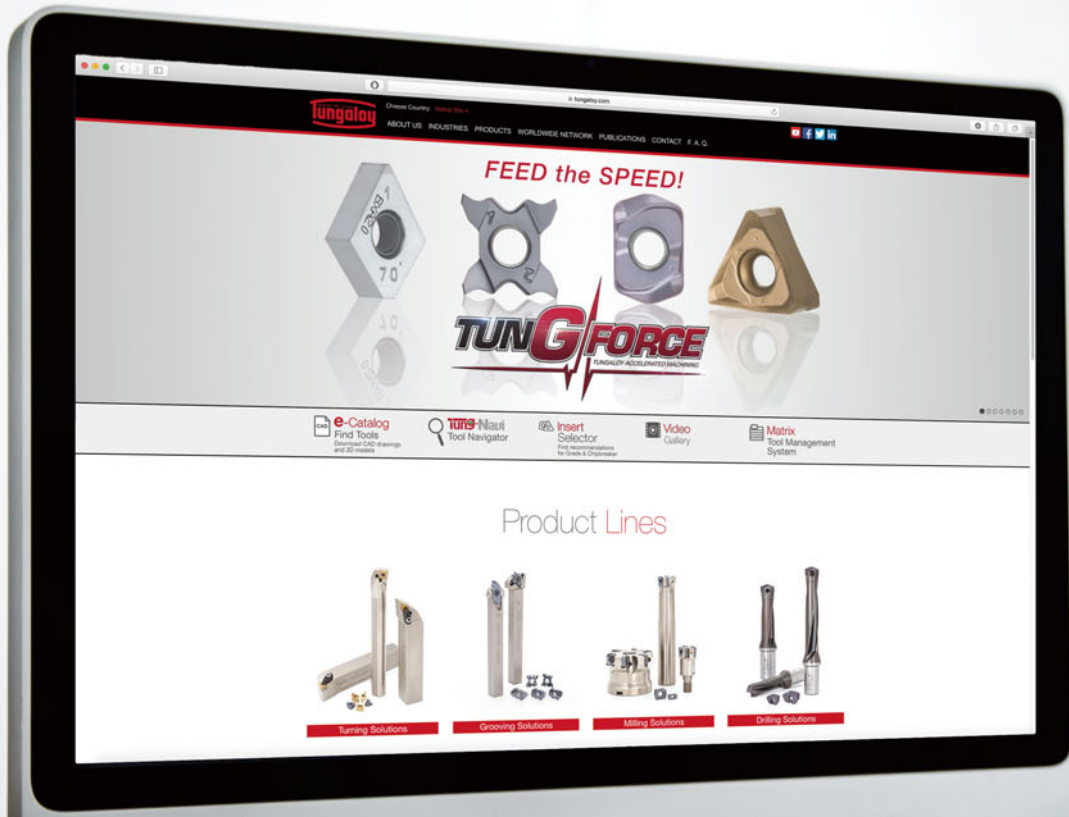
PRACTICAL EXAMPLES

Workpiece type		Machine parts	Machine parts
Holder		TBM12R/LF16-2.25	TBM12R/LF16-2.25
Insert		XOMU06H204-PS	XOMU06H204-PS
Grade		AH725	AH725
		X70CrMo15	X5CrNi18-9
Workpiece material			
Cutting conditions	Cutting speed: Vc (m/min)	350	80
	Feed : f (mm/rev)	0.15	0.04
	Depth of cut : ap (mm)	0.2	1, 1.5
	Coolant	Wet	Wet
Results		 <p>Productivity 3.4 times!</p> <p>TungBoreMini has improved feed rate by 3.4 times for drilling and 1.7 times for ID turning over the competitor's multifunction tool. Tool life has been improved by as much as 1.2 times.</p>	 <p>TungBoreMini can reduce the number of tools from 3 to 1.</p>

MEMO

A large grid of graph paper for taking notes, consisting of 20 columns and 30 rows of small squares.

Check our site and our App to get more info!



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