

NEW PRODUCT NEWS

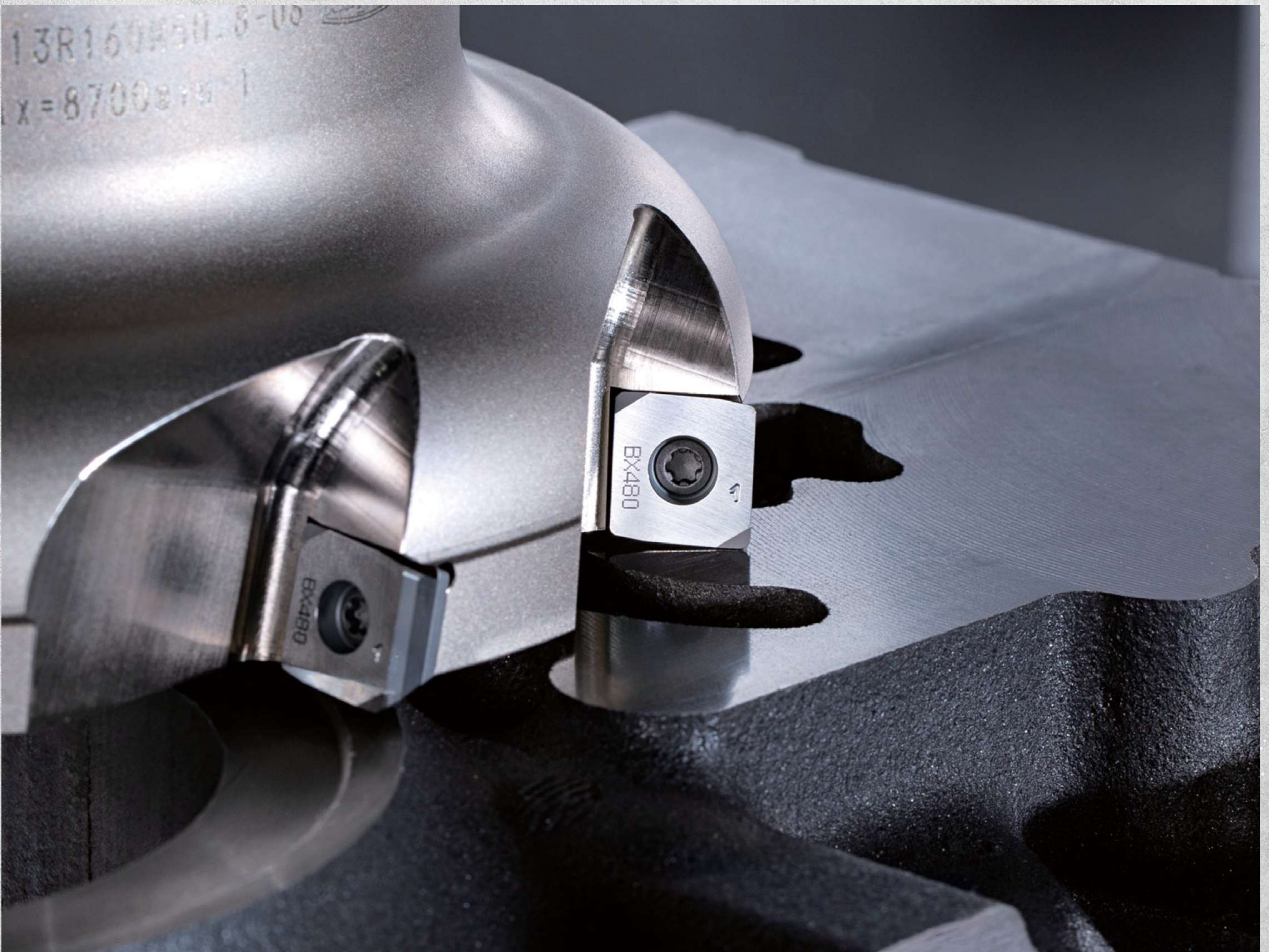


Tungaloy Report No. 358S1-G

Face milling cutter

TPW / EPW

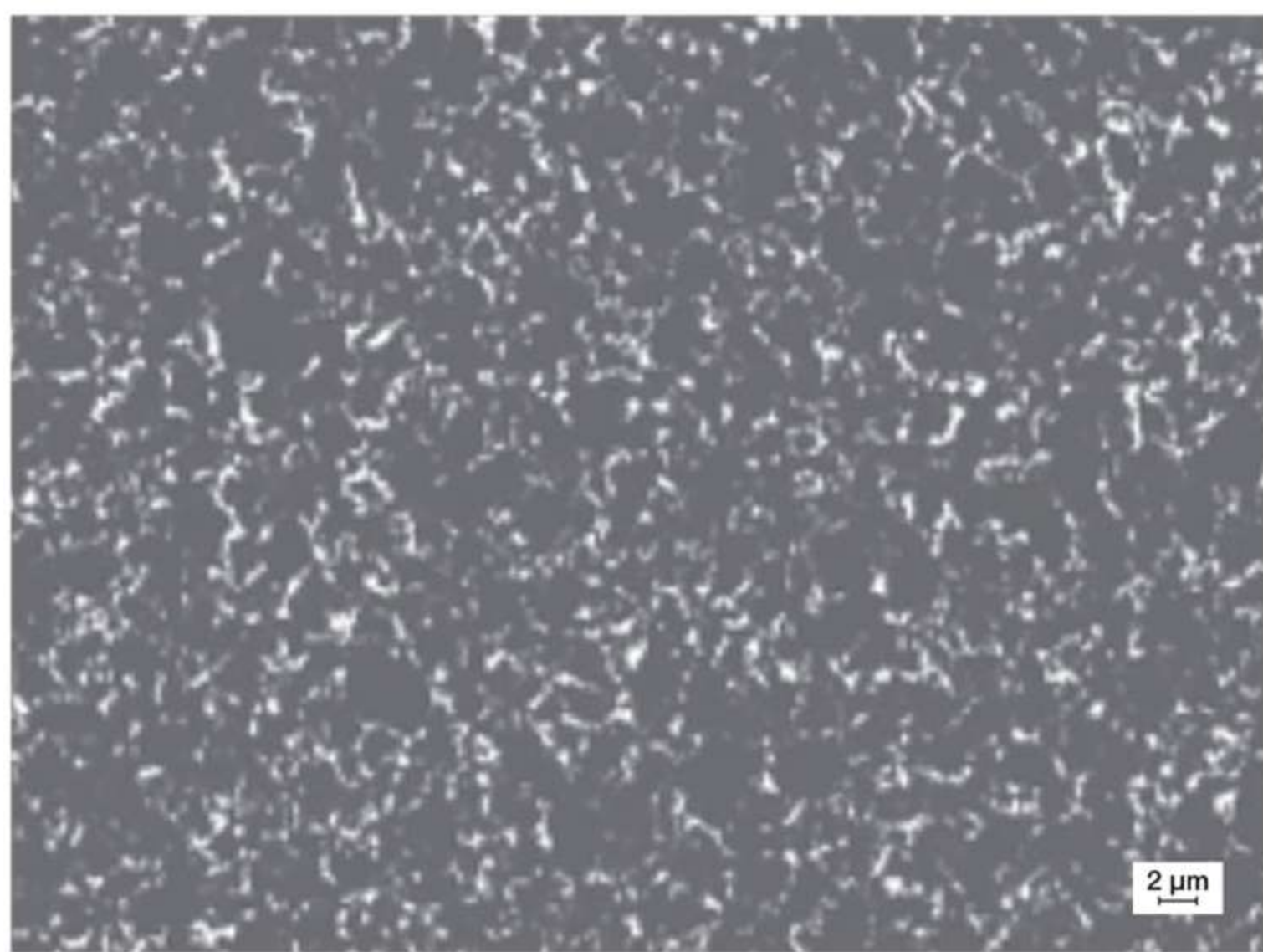
**Introducing CBN inserts for increased Productivity
and tool life in cast iron**



TPW / EPW

CBN grade inserts for high-speed cast iron machining

High CBN content grade composed of extremely dense medium CBN grains



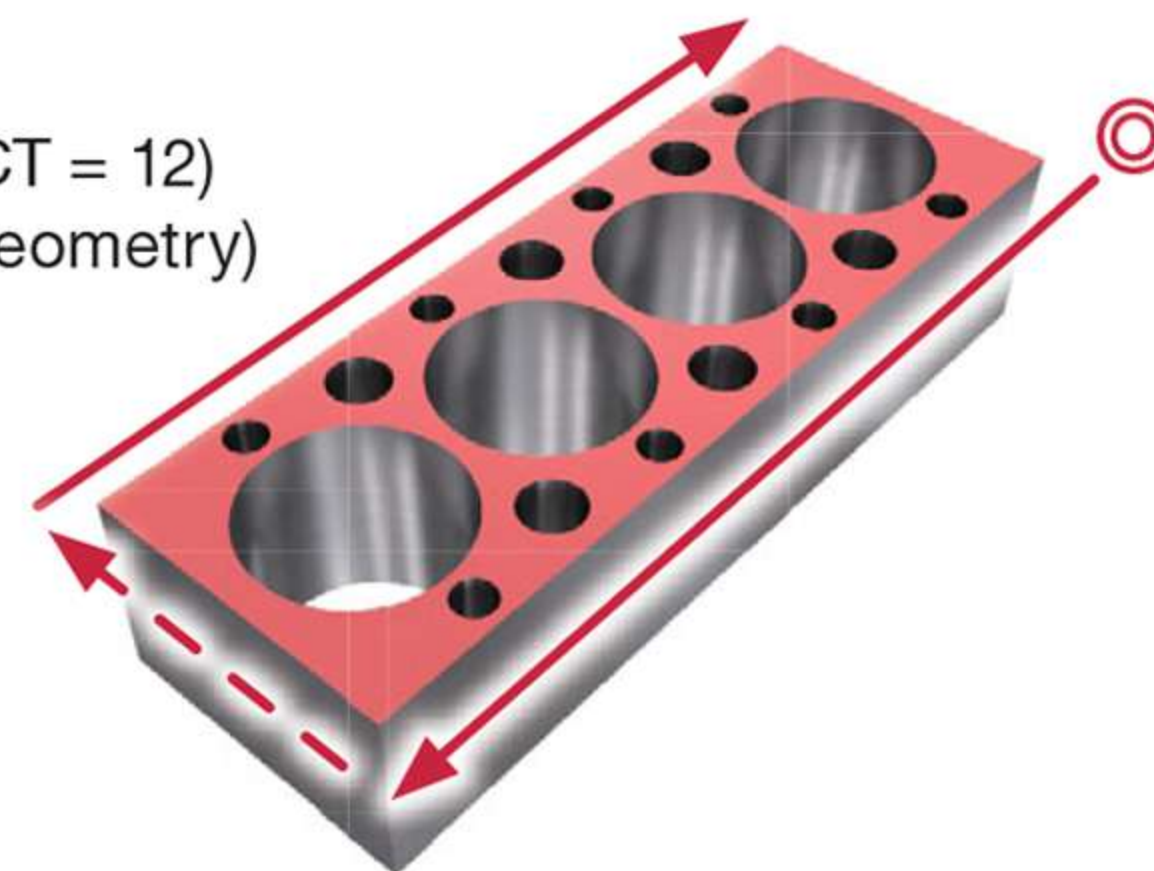
BX480 K

- High hardness
- High toughness
- High thermal conductivity

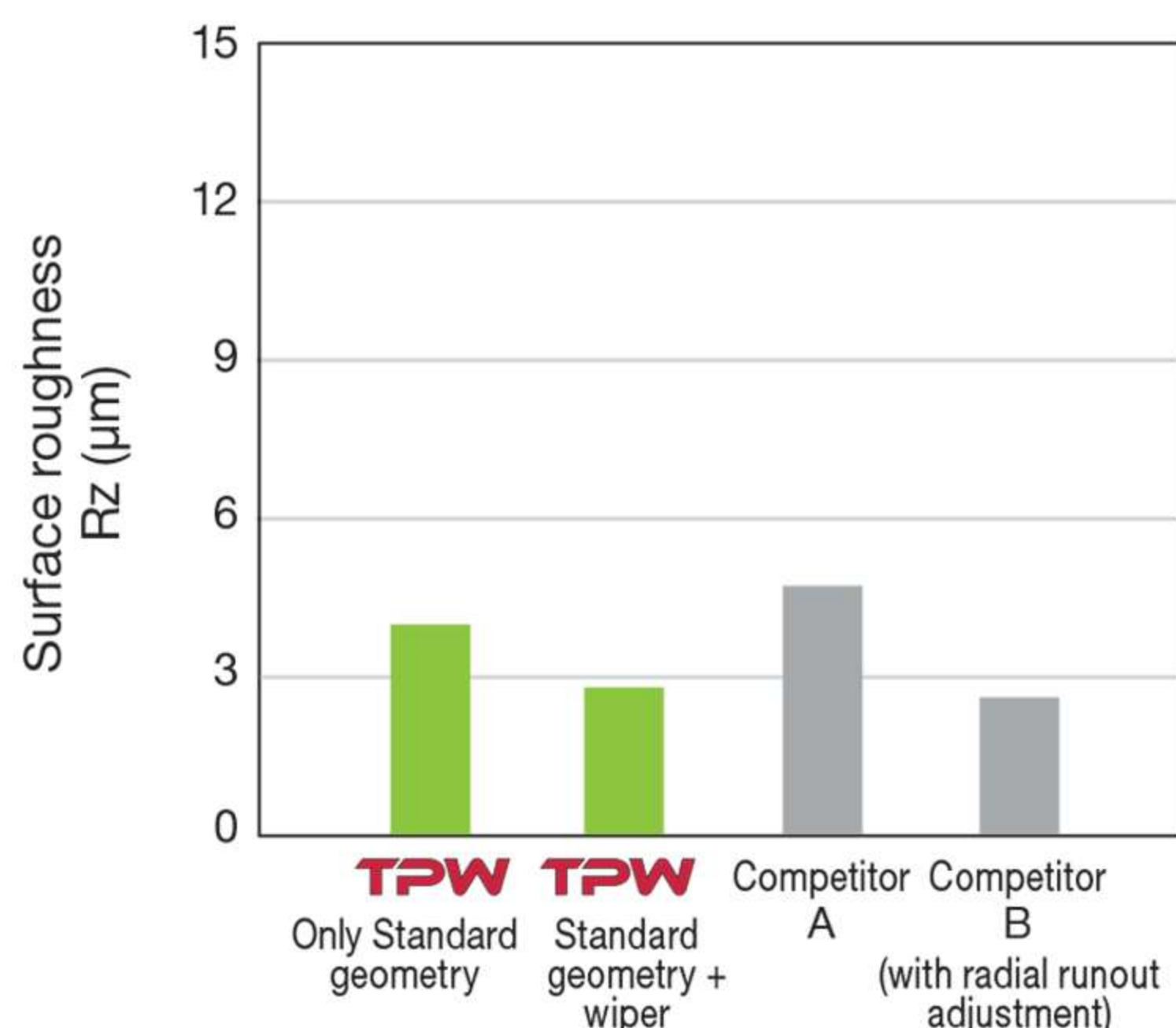
Enables high speed machining of cast iron

Cutting performance

K	Cutter	: TPW13R160M40.0E12 (DCX = 160 mm, CICT = 12)
	Insert	: 2-SWGW130508PDLSR BX480 (Standard geometry) : WSGW130508PDLSR BX480 (Wiper)
	Workpiece material	: FC300 / 300 (220HB)
	Cutting speed	: $V_c = 1,500$ m/min
	Feed per tooth	: $f_z = 0.15$ mm/t
	Depth of cut	: $a_p = 0.3$ mm
	Width of cut	: $a_e = 100 / 60$ mm
	Coolant	: Dry

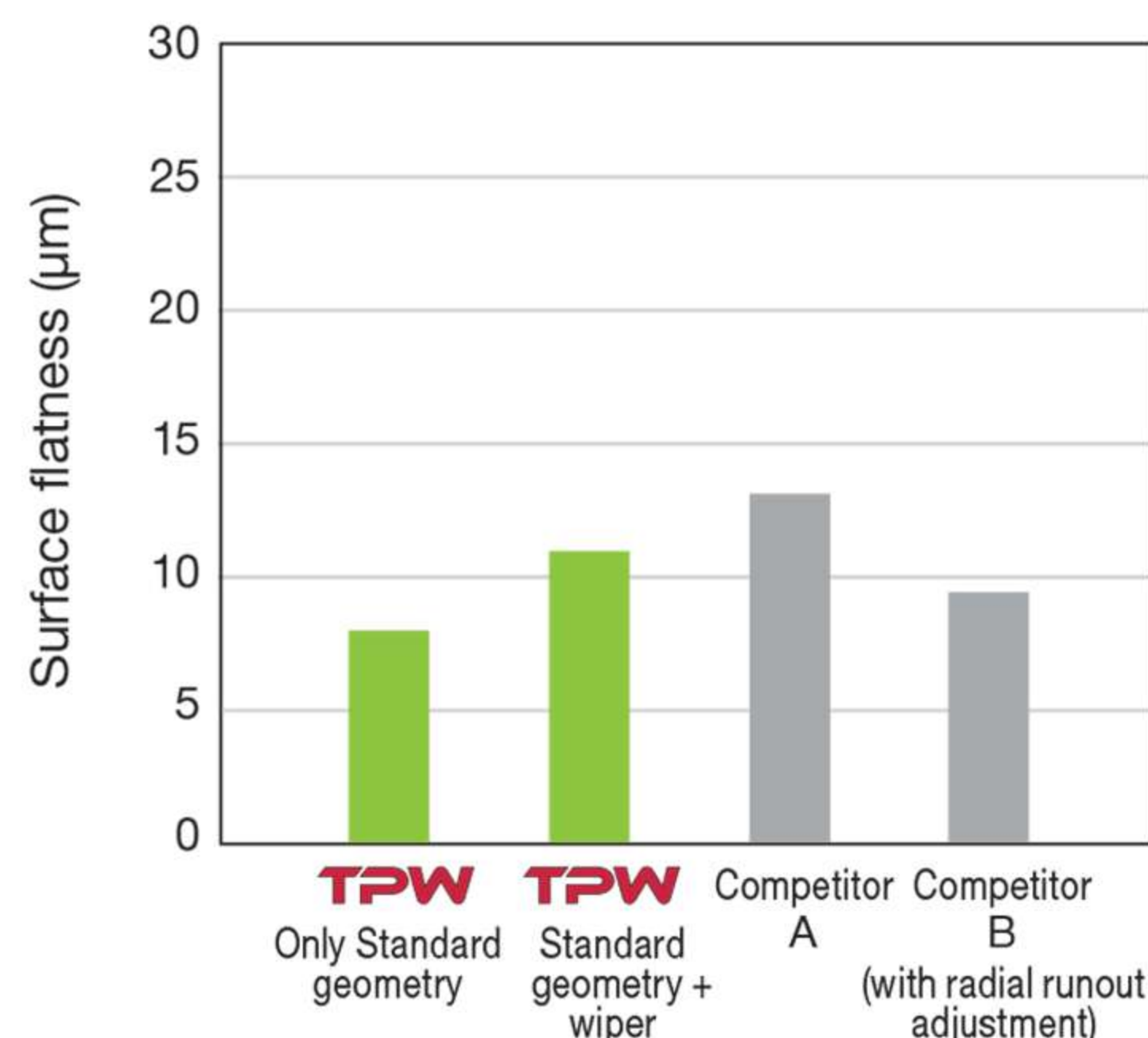


Surface roughness



With standard inserts only and no wiper, TPW provided better surface roughness compared to Competitor A with no radial run-out adjustments. With standard + wiper inserts mixed, TPW provided the same surface quality as the competitor B with radial run-out adjustments.

Surface flatness



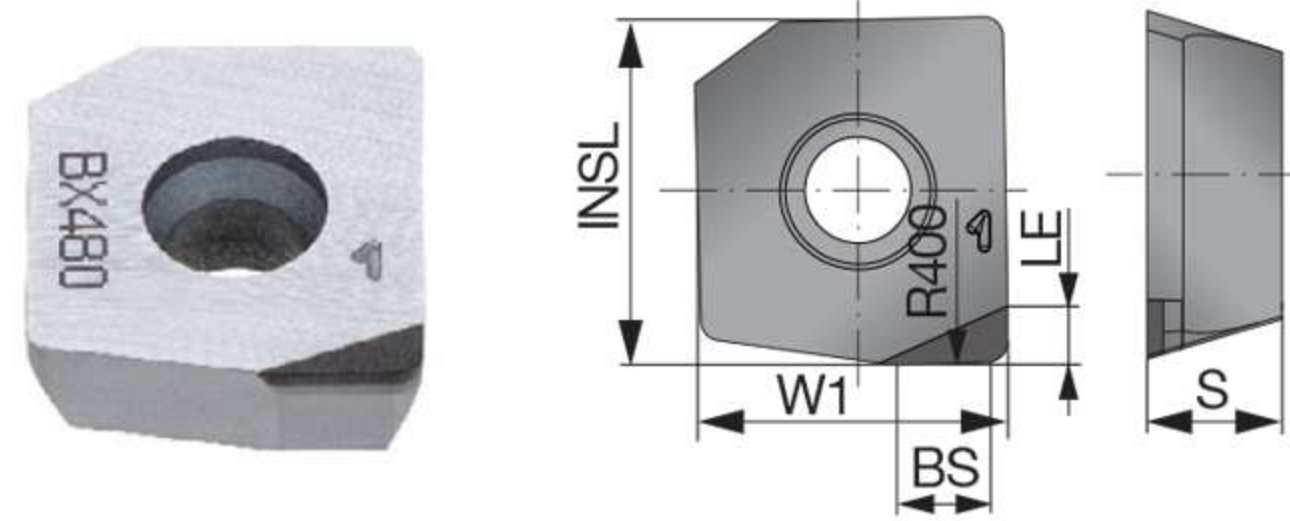
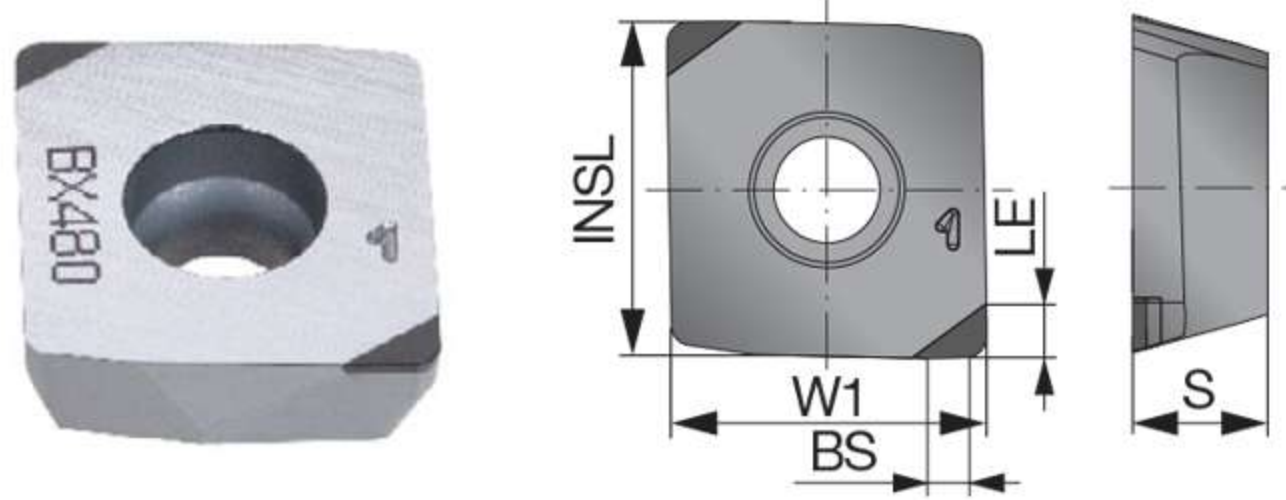
With standard inserts only, TPW provided better surface flatness compared to Competitor A or B.

Tungaloy Report No. 358S1-G

INSERTS

F2-SWGW...

WSGW... (Wiper edge)



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

★ : First choice
☆ : Second choice

Designation	RE	APMX	CBN							LE	INSL	W1	S	BS
			BX480											
F2-SWGW130508PDLR	0.8	0.5	●							2	13.8	13.1	5.6	1.5
WSGW130508PDLR	0.8	-	●							2	14.3	12.8	5.6	3.7

CBN inserts are not designed to be reground.
F2-SWGW.... inserts are sold in 5 pcs per box. (The prefix "F" indicates five)

● : New product

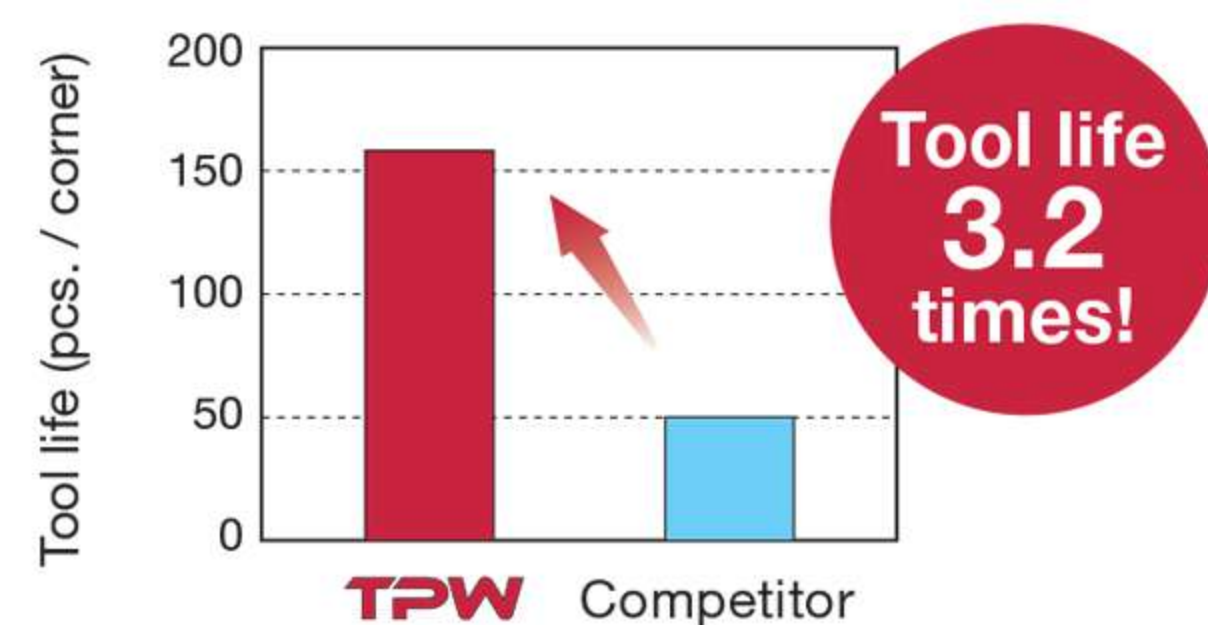
STANDARD CUTTING CONDITIONS

ISO	Workpiece materials	Grades	Shape	Cutting speed Vc (m/min)	Feed per tooth fz (mm/t)
K	Grey cast iron FC250, etc. 250, etc.	BX480	2-SWGW130508PDLR	800 - 1500	0.05 - 0.3

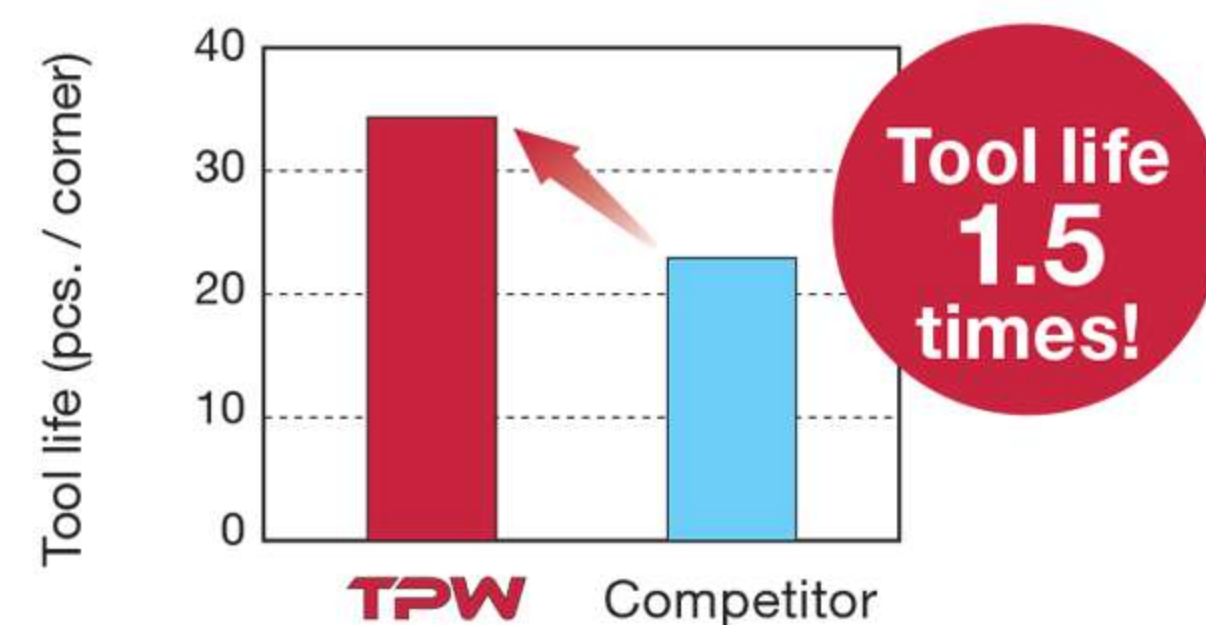
PRACTICAL EXAMPLES

Workpiece type	Cylinder block	Cylinder block
Cutter	TPW13R125M38.1-08 (DCX = 125 mm, CICT = 8)	TPW13 cutter (customized, DCX: 250 mm, CICT: 12 mm)
Insert	2-SWGW130508PDLR x6, WSWG130508PDLR x2	2-SWGW130508PDLR x10, WSWG130508PDLR x2
Grade	BX480	BX480
Workpiece material	FC250 / 250	FC250 / 250
	K	K
Cutting speed: Vc (m/min)	800	1,178 ~ 1,257
Feed per tooth: fz (mm/t)	0.11	0.05 ~ 0.11
Feed speed : Vf (mm/min)	1,760	900 ~ 1,980
Depth of cut : ap (mm)	0.2	0.2
Width of cut : ae (mm)	~ 80	~ 200
Machining	Face milling	Face milling
Coolant	Dry	Dry
Machine	Horizontal M/C, KM100	Horizontal M/C, KM100

Results



TPW provided 3.2 times tool life thanks to its strong cutting edge design.



Thanks to its light-cutting geometry, TPW eliminated chatter, extending tool life by 1.5 times.

CONTACT US



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Information

SCAN NOW

