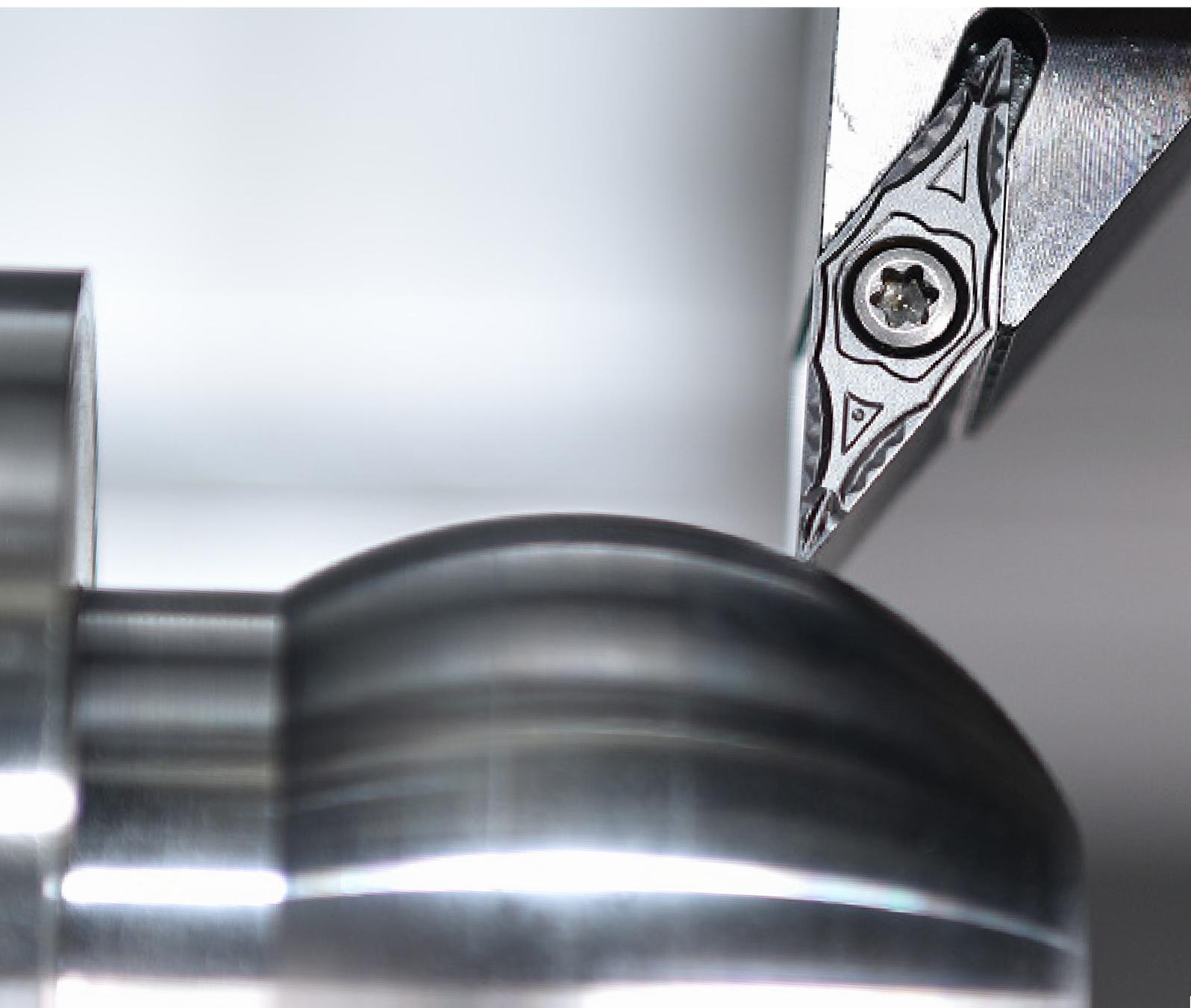


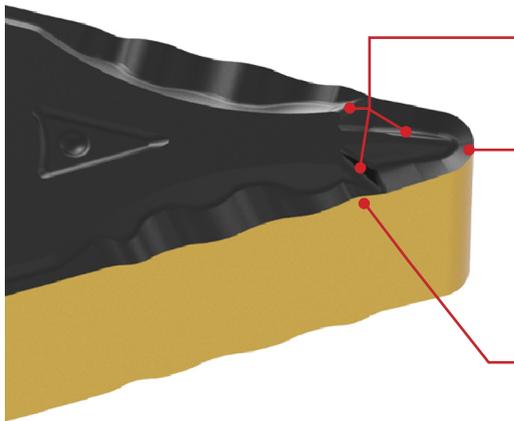
**NEW
PRODUCT!**

BS Geometry

Developed for Profile Turning at different Cutting Depth



• **1st geometry choice for profile turning**



Three chip breaker spots design

Ensuring good chip breaking during profile turning

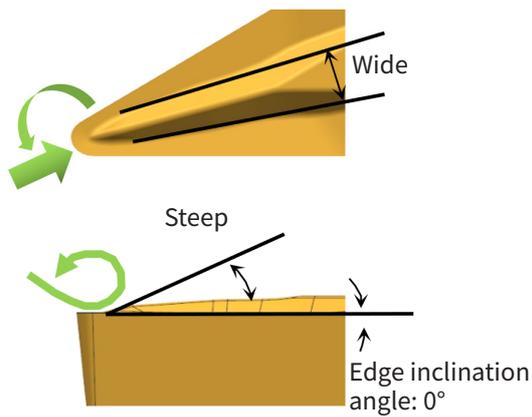
Sharp insert corner edge

Ensuring excellent surface quality at low cutting force

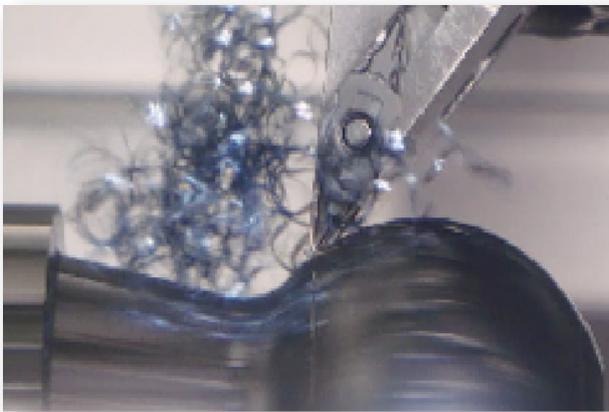
With edge inclination angle and wavy edge

Smooth chip evacuation at different cutting depth and outward turning

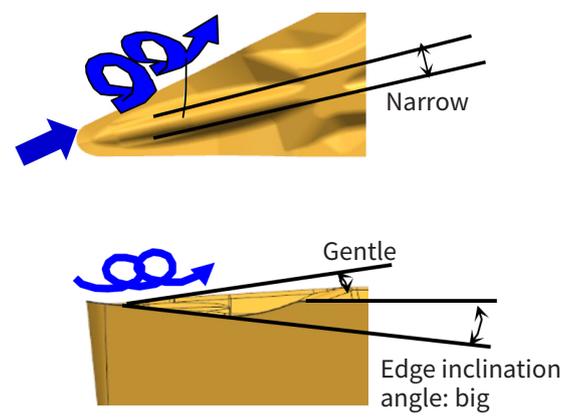
Ordinary Geometry



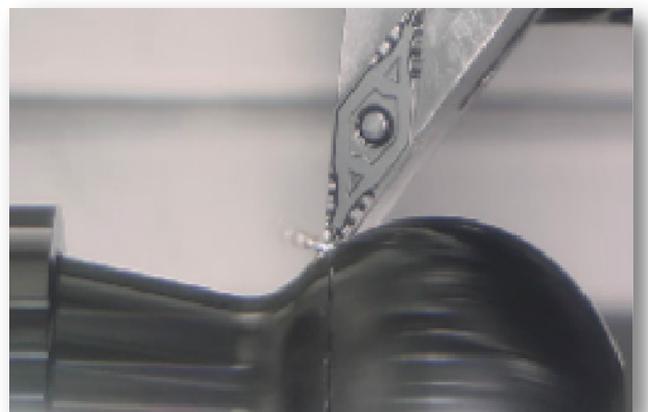
Chip formation of ordinary geometry



BS Geometry

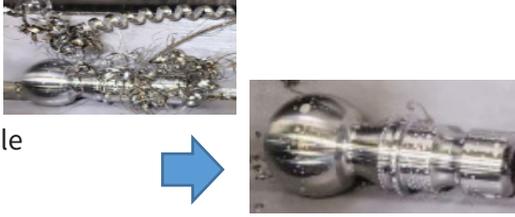


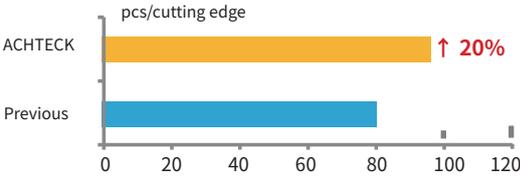
Chip formation of BS geometry

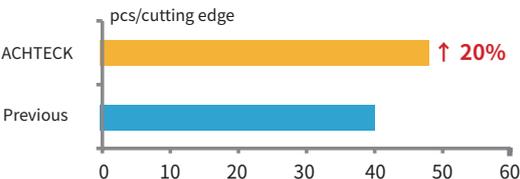


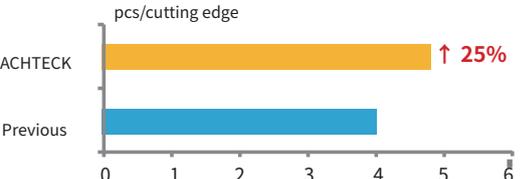
Tool holder: PVLNL 2525M-16Q
 Insert: VNMG 160408E-BS AC052P
 Material: 4340
 Parameters: $V_c=200\text{m/min}$, $a_p=0.5\sim 1.5\text{mm}$, $f=0.15\text{mm/rev}$, DRY

Success stories

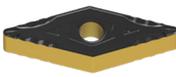
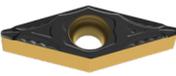
Insert	VNMG 160408E-BS AC052P
Work piece	 <p>Axle</p>
Material	30CrMo
Machining method	Finish turning
Cutting speed	268m/min
Feed	0.14mm/rev
Cutting depth	0.2mm
Coolant	Emulsion
Testing Result	<p>Previous: long chip twined on the workpiece Automatic production line. The chips seriously twined around the work piece which needs a lot of time to remove them. Not only it decreased the productivity, but also had potential injuries during removing the chips. BS geometry didn't have long chip problem, improved productivity and had normal insert wear.</p>

Insert	VBMT 160408E-BS AC052P
Work piece	 <p>Main decelerator gear</p>
Material	20CrMoH
Machining method	Rough turning
Cutting speed	180m/min
Feed	0.1~0.12 mm/rev
Cutting depth	0.2~0.3mm
Coolant	Emulsion
Testing Result	 <p>Under the same machining conditions, BS geometry got 16 pcs more than the previous insert. The tool life has been improved by 20%.</p>

Insert	VBMT 160408E-BS AC052P
Work piece	 <p>Gear</p>
Material	20Cr
Machining method	Finish turning
Cutting speed	238m/min
Feed	0.3~0.35mm/rev
Cutting depth	0.3~0.5mm
Coolant	Emulsion
Testing Result	 <p>Under the same machining conditions, BS got 8 pcs more than the previous insert. The tool life has been improved by 20%.</p>

Insert	VBMT 160408E-BS AC052P
Work piece	 <p>Bearing parts</p>
Material	GCr15SiMn
Machining method	Finish turning
Cutting speed	340m/min
Feed	0.15~0.3mm/rev
Cutting depth	0.3 mm
Coolant	Emulsion
Testing Result	 <p>At the high cutting speed $V_c=340$, the tool life has been improved by 25%.</p>

BS geometry insert list

Insert		Product code	Dimension (mm)				Recommended Parameters		Grade	
			R	IC	S	D1	f (mm/rev)	ap (mm)	AC052P	AT202
Negative		VNMG 160404E-BS	0.4	9.525	3.81	4.76	0.07-0.16	0.30-2.00	●	●
		VNMG 160408E-BS	0.8	9.525	3.81	4.76	0.08-0.20	0.30-2.00	●	●
		VNMG 160412E-BS	1.2	9.525	3.81	4.76	0.09-0.22	0.30-2.00	●	●
Positive		VBMT 110302E-BS	0.2	6.35	2.80	3.18	0.04-0.14	0.30-1.30	●	●
		VBMT 110304E-BS	0.4	6.35	2.80	3.18	0.04-0.16	0.30-1.30	●	●
		VBMT 110308E-BS	0.8	6.35	2.80	3.18	0.050.20	0.30-1.30	●	●
		VBMT 160402E-BS	0.2	9.525	4.40	4.76	0.04-0.14	0.30-1.50	●	●
		VBMT 160404E-BS	0.4	9.525	4.40	4.76	0.04-0.16	0.30-1.50	●	●
		VBMT 160408E-BS	0.8	9.525	4.40	4.76	0.04-0.20	0.30-1.50	●	●
		VBMT 160412E-BS	1.2	9.525	4.40	4.76	0.04-0.22	0.30-1.50	●	●

Note: ● Stocked