

The latest CBN generation – hard machining at the highest level.

NEW

THE INDEXABLE INSERTS

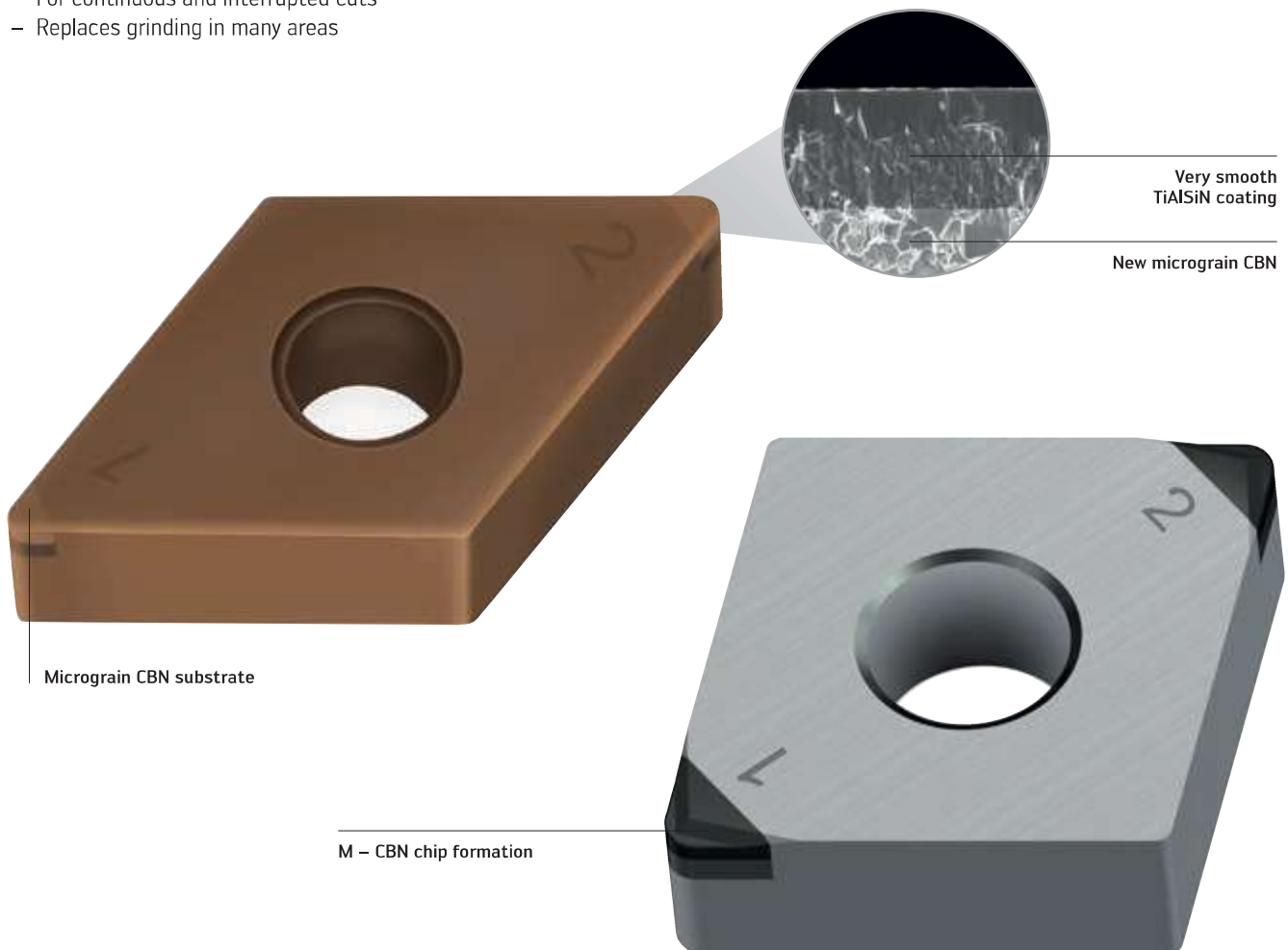
- New CBN grades for hard machining
- Technology update for chip formation and wiper geometry

THE APPLICATION

- Hard materials up to 65 HRC
- ISO H materials
- For continuous and interrupted cuts
- Replaces grinding in many areas

THE COATING TECHNOLOGY

- New TiAlSiN coating technology
- Finest surface structure and layer smoothness
- Defect free coating and superb layer adhesion
- Very high thermal stability and oxidation resistance



ISO H CBN indexable inserts

Fig.: DNGA150608TM-2 WBH10C, CNGA120408TM-M2 WBH10



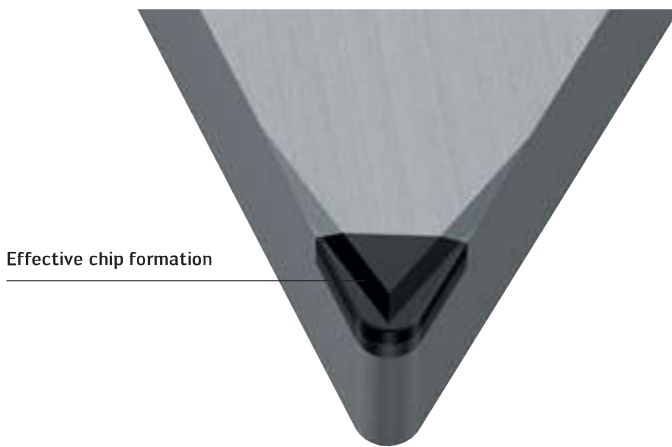
Watch the product video:
www.youtube.com/waltertools

BENEFITS FOR YOU

- Optimum component surface finish thanks to the latest wiper technology
- High process reliability thanks to the latest production technology
- Long tool life thanks to the TiAlSiN coating technology with extremely fine surface structure

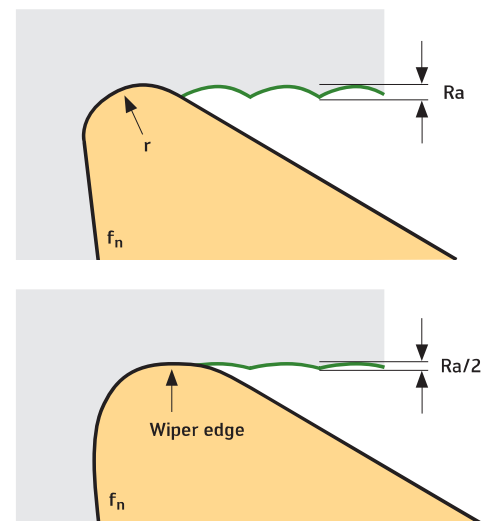
THE CHIP FORMATION

- M CBN chip formation
- Controlled chip removal
- Series production without interruptions



THE WIPER GEOMETRY

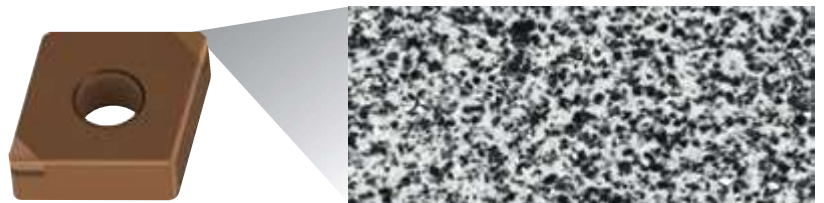
- MW wiper geometry
- Higher feed
- Better surface quality



THE CBN GRADES*

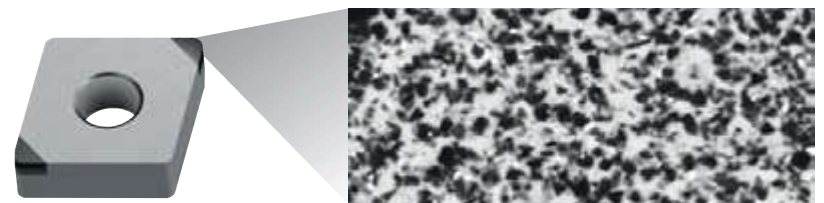
WBH10C (ISO H10)

- CBN substrate (grain size dia. 1.5 μm)
- Coated with new TiAlSiN coating technology
- Wear-resistant at highest v_c



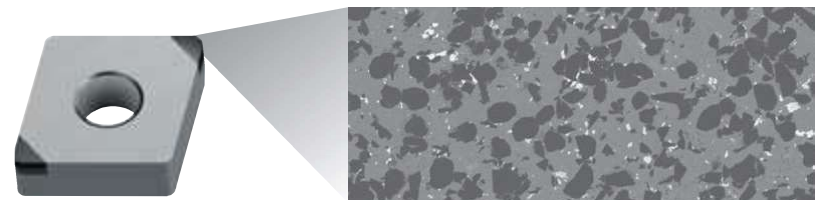
WBH10 (ISO H10)

- CBN substrate (grain size dia. 1.5 μm)
- Wear-resistant at high v_c



WBH20 (ISO H20)

- CBN substrate (grain size dia. 2.0 μm)
- Wear-resistant with interrupted cuts and medium v_c



* Substrate grain sizes: Micrograin – 1.5 μm | Fine grain – 2.0 μm

Finishing heat-resistant high-temperature alloys at 250 m/min.

NEW

THE INDEXABLE INSERT

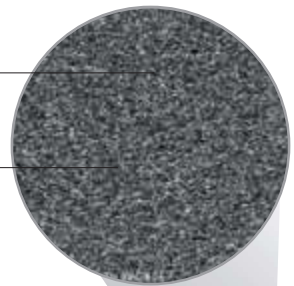
- New CBN grades for ISO S materials
- Optimised microgeometry for longer tool life

THE APPLICATION

- Continuous and interrupted-cut finishing operations
- Areas of use: Aerospace industry, general mechanical engineering

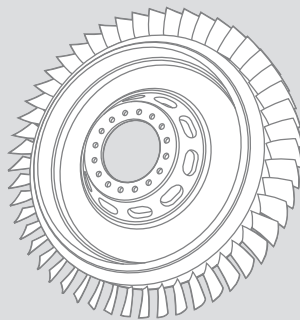
Optimised microgeometry for longer tool life

Micrograin CBN with ceramic binder



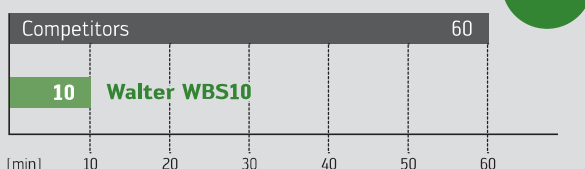
APPLICATION EXAMPLE

Facing – blisk



Material:	Inconel 718-42HRc (2.4668)	
Tool:	SVHCL2525M16	
Indexable insert:	VCGW160408EM-2	
Grade:	WBS10	
	Competitors Carbide ISO S	Walter CBN WBS10
v_c (m/min)	50	250
f (mm)	0.10	0.10
a_p (mm)	0.25	0.25
Unwound turning length/hour (m)	3,000	15,000
Comment	Structural changes	No structural changes

Comparison: Machining time for 3,000 m turning length per cutting edge



CBN indexable insert – ISO S

Fig.: CNGA120408-EM2 WBS10



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BENEFITS FOR YOU

- High machining speeds with CBN compared to carbide
- No structural changes in the cutting zone
- Higher output thanks to shorter machining times

The new CBN generation for cast iron and sintered metals.

NEW

THE INDEXABLE INSERT

- New CBN grades for ISO K and H materials
- Optimised microgeometry design for the relevant application

THE APPLICATION

WBK20

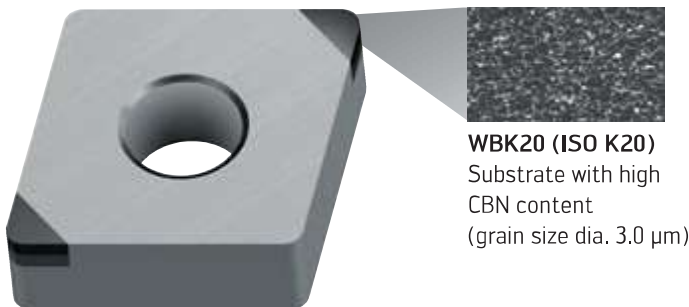
- ISO K materials: Finishing

WBK30

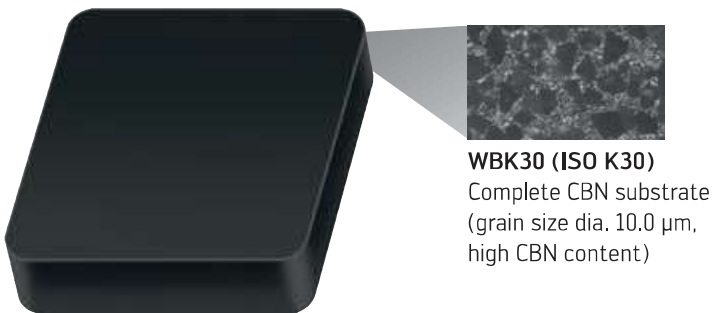
- ISO K materials: Roughing
- ISO H materials: Machining with large depths of cut

WBK20 + WBK30

- Sintered materials: Roughing and finishing
- ISO H materials: Finishing with heavily interrupted cuts
- Areas of use: Automotive industry, general mechanical engineering, among others



WBK20 (ISO K20)
Substrate with high CBN content (grain size dia. 3.0 µm)



WBK30 (ISO K30)
Complete CBN substrate (grain size dia. 10.0 µm, high CBN content)

CBN indexable inserts

Fig.: CNGA120408TS-2 WBK20/CNGN120412TM-S WBK30

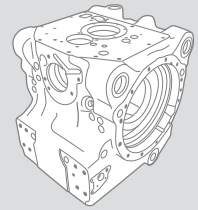
BENEFITS FOR YOU

- Maximum tool life in ISO K and ISO H thanks to new CBN grades
- Highly productive and reliable due to high-precision manufacturing
- Wear-resistant in cast iron and sintered steel (WBK20) and at high a_p in hardened steel (WBK30)

APPLICATION EXAMPLE

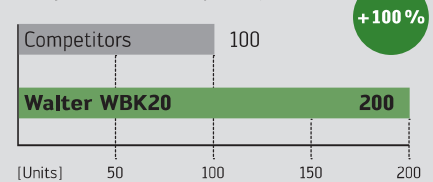
WBK20 – spindle boring the casing

Material:
GG25 - EN-GJL-250
Tool:
B3230.C8.135-178.Z1.CC06
Indexable insert:
CCGW060204TS-2
Grade: WBK20



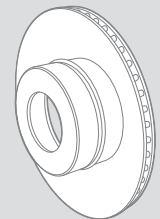
Cutting data:	Competitors	Walter WBK20
v_c (m/min)	190	250
f (mm)	0.07	0.07
a_p (mm)	0.5	0.5

Comparison: Tool life quantity [units]



WBK30 – brake disc

Material:
GG25 - EN-GJL-250
Tool:
DCLNL2525M12
Indexable insert:
CNGN120412TS-2
Grade: WBK30



Cutting data:	Competitors	Walter WBK30
v_c (m/min)	1000	1200
f (mm)	0.5	0.5
a_p (mm)	2.5	2.5

Comparison: Tool life quantity [units]

