WALTER
Engineering Kompetenz

ابزار فروشان

Product highlights
Edition 2022-2

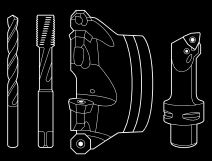
_PRODUCT HIGHLIGHTS

Metal is our whole world.

How quickly can you provide a perfectly moulded response?

Fast change of design, new look or feel, more wear-resistant materials, ever-shorter changeover and delivery times: Modern components are a challenge for mould and die makers. Their products must be more precise and robust, whilst machines and tools must meet the highest standards of flexibility and process reliability. This is because one thing hasn't changed: Moulds and dies often have to be produced individually or in small series, meaning that no errors are permissible. It's good to have access to a unique tool database as early as in the process simulation.

Moulding the future: With Engineering Kompetenz from Walter.



walter-tools.com

WALTER
Engineering Kompetenz

Walter highlight flyer 22-2

Contents

A – Turning

The latest generation of universal wiper geometries.

NEW

THE GEOMETRY

- FW4 – universal wiper geometry for finishing operations
- MW4 – universal wiper geometry for medium machining

THE GRADE

- Tiger·tec® Gold turning grades for machining steel: WPP10G, WPP20G
- Tiger·tec® Silver turning grades for stainless steels and heat-resistant high-temperature alloys: WSM10S, WSM20S, WSM30S
- Tiger·tec® Silver turning grades for machining cast iron: WKK10S, WKK20S

THE APPLICATION

FW4 geometry

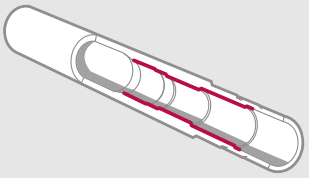
- Machining parameters f: 0.03–0.50 mm, a_p: 0.1–2.5 mm
- Primary application: ISO material groups P, M, K
- Secondary application: ISO material group S
- Finishing with excellent surfaces at high feeds

MW4 geometry

- Machining parameters f: 0.12–0.55 mm a_p: 0.5–4.5 mm
- Primary application: ISO material groups P and K
- Secondary application: ISO material groups M and S
- Medium machining with excellent surfaces at maximum feeds

APPLICATION EXAMPLE

Rotor shaft – internal contour finishing

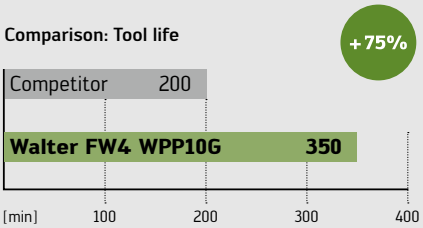


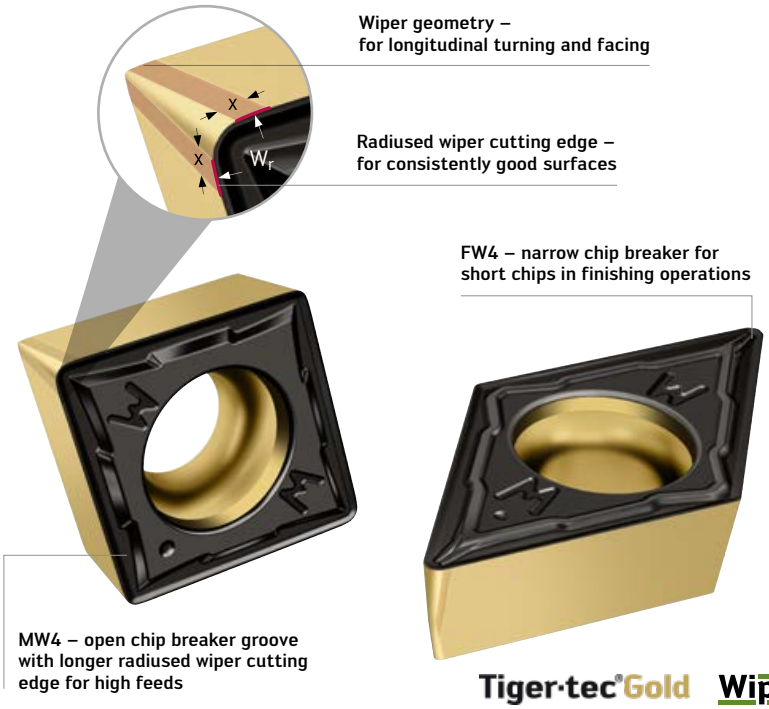
Material:	42CrMo4 / DIN 1.7225
Tensile strength:	1100 N/mm²
Tool:	Special boring bar, dia. 25 mm
Tool life criteria:	Dimensional accuracy ±0.006 mm Surface quality R_z 6.3/R_z 10 µm

Cutting data

	Competitor without wiper edge	**Walter with new wiper edge**
Indexable insert	DCMT11T312 ISO P10	DCMT11T308-FW4 WPP10G
v_c (m/min)	280	280
a_p (mm)	0.3	0.3
f (mm/rev)	0.16 / 0.28	0.26 / 0.40
Cooling	Emulsion	Emulsion
Tool life (min)	200	350

Comparison: Tool life





Indexable inserts with new wiper geometries

Fig.: CCMT120408-MW4 WPP20G
Fig.: DCMT11T304-FW4 WPP10G

BENEFITS FOR YOU

- Consistently good surfaces throughout the entire tool life
- Reduced machining time by increasing the feed by up to 300% with the same surface quality
- Maximum productivity due to the wear-resistant Tiger·tec® Gold grade

_CN1000-M4-1 PLATEAU COOLING ELEMENT

Ultimate cooling thanks to 3D printing.

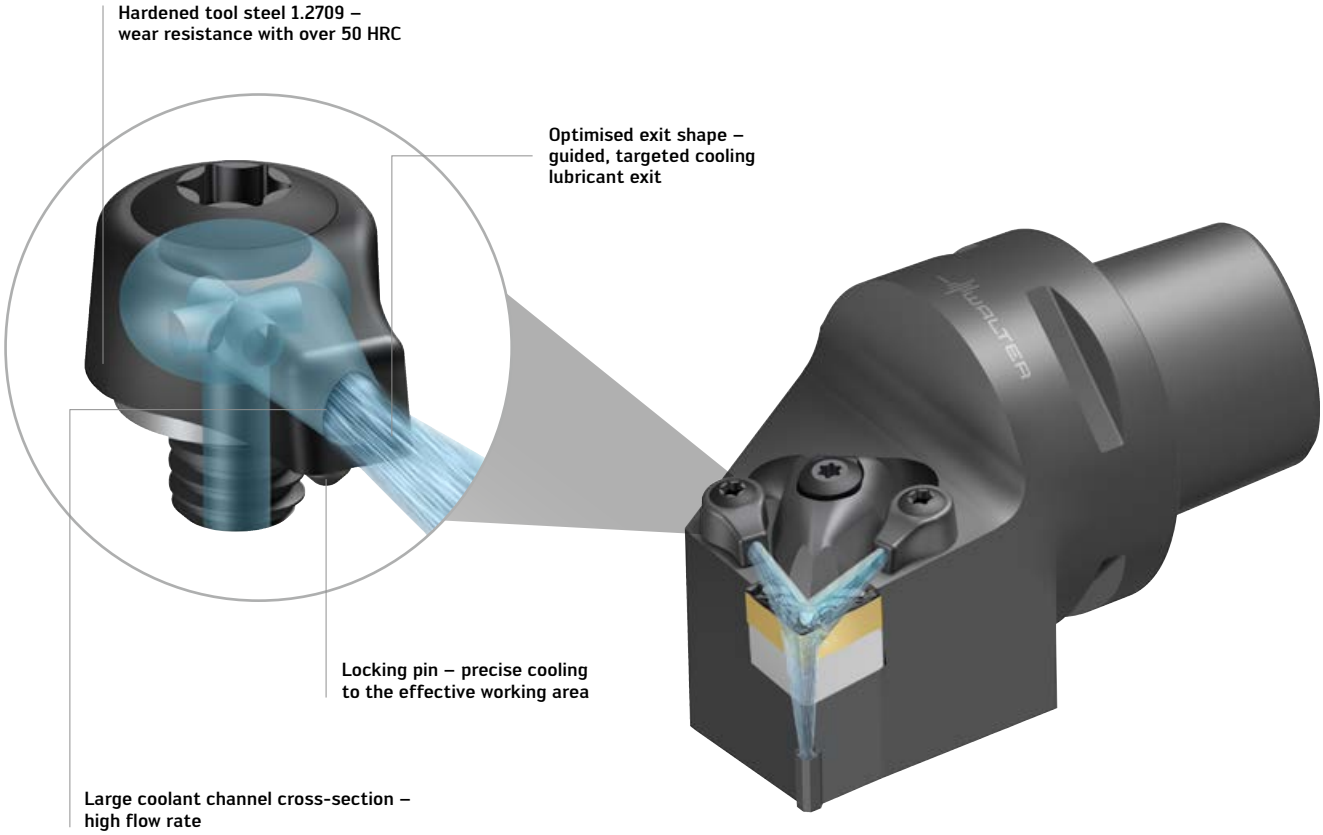
NEW

THE TOOL

- 3D-printed cooling lubricant nozzle
- Set CN1000-M4-1, consisting of:
  Cooling lubricant nozzle, screw and seal

THE APPLICATION

- Can be used on special turning toolholders such as Walter Capto™ or square shanks
- Can be used with a coolant pressure of up to 150 bar/2175 psi
- Also suitable for large depths of cut (more than 5 mm)



3D-printed cooling lubricant nozzles on the special turning toolholder

Fig.: CN1000-M4-1
Fig.: Walter Capto™ C5-DSXNL-27060-12-P

BENEFITS FOR YOU

- Tool life increase due to high, precise cooling lubricant volume
- High wear resistance against chips and abrasive cooling lubricant thanks to heat treatment
- Suitable for flexible use on different turning toolholder types
- Reduced costs due to replaceable cooling lubricant nozzles

Harder than hard – from slightly interrupted cuts to finish cuts.

NEW

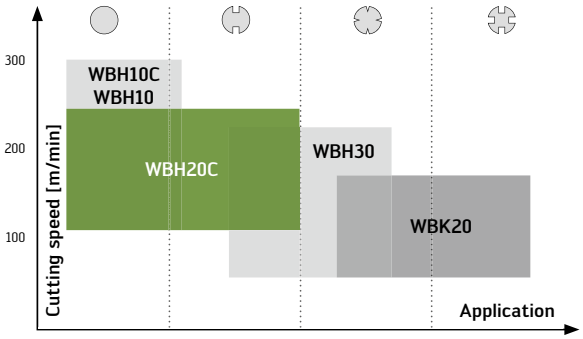
THE GEOMETRY

- ISO indexable inserts with and without MW wiper geometry
- Available basic shapes: CCGW06..., CCGW09..., CNGA12..., DCGW11..., DNGA15..., TCGW11..., VCGW11..., VBGW16...
- WL25: Full-radius and V-shaped inserts with WL positive engagement

THE GRADE

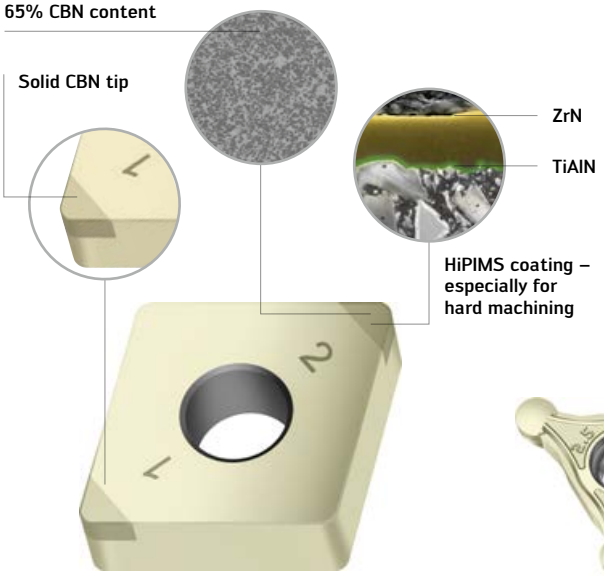
- CBN grade WBH20C for hard machining
- Patent-pending TiAlN PVD coating with zirconium nitride top layer
- 65% CBN content
- Ceramic binder
- Bimodal grain size: Dia. <1.0 µm/4.0 µm
- Maximum purity of the CBN substrate used

APPLICATION RANGES



THE APPLICATION

- ISO H materials up to 65 HRC
- Suitable, and recommended for use with coolant
- Finish cuts and slightly interrupted cuts
- Material recommendations (examples):
  - Bearing steel, e.g. 100Cr6 (1.3536)
  - Heat treatable steels, e.g. C35 (1.0501), 34CrS4 (1.7033), 42CrMo4 (1.7225)
- Profile turning with stable WL insert seat
- Replaces grinding in many areas (e.g. turning gears)



WBH20C ISO indexable insert Fig.: CNGA120408TM-2 WBH20C

Fig.: WL25-RC0525NTM-3 WBH20C

Fig.: WL25-VC0704NTM-3 WBH20C

WBH20C WL25 indexable inserts

WL positive engagement for maximum stability and precision

BENEFITS FOR YOU

- High level of wear resistance due to a combination of ultra pure CBN and a new PVD coating
- Excellent layer bonding and long tool life due to patent-pending method for pretreating the indexable insert
- Reliable machining of contours due to stable WL positive engagement
- Excellent wear detection due to the light-coloured decorative finish

Tools in just four weeks – cost-effective and customised.

NEW

THE TOOL

- G1111 axial monoblock special tools for GX24 and GX30 indexable inserts
- With and without precision cooling
- Square shank sizes/boring bar diameters: 10–50 mm/Walter Capto™ C3–C8
- Approach angle: 0 to 90° possible

THE APPLICATION

- Axial grooves from dia. 34 mm
- Cutting depths up to 33 mm
- Can be used from 10 bar up to a maximum coolant pressure of 150 bar (connections freely selectable)
- Ideal grooving tool design (e.g. reinforcement of the cutting insert support for longer tool life and higher productivity)

Fig.: G1121-2525L-5T15-080GX24

Fig.: G1121-2525L-5T15-080GX24C

Fig.: G1111-C5L-5T15-080GX24-P

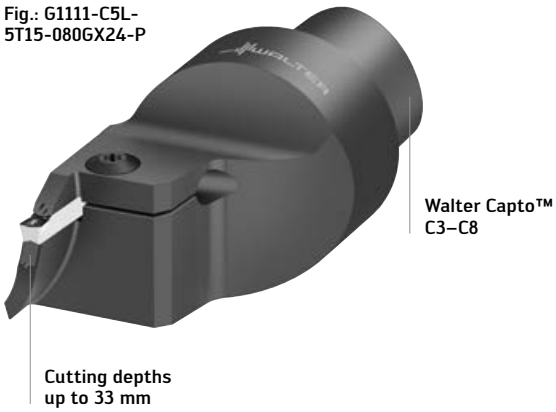


Fig.: G1311-20L-4T12-040GX24

BENEFITS FOR YOU

- Greater flexibility due to four-week delivery time for little more than the standard price
- Fewer tool design errors through a rule-based design approach in accordance with the component definition
- Superlative machining results due to proven standard technology plus optimal special design: Walter Xpress is available for grooving tools and indexable inserts

Walter Xpress

B – Drilling

B1: Drilling from solid

Greatest precision down to the smallest detail.

EXPANSION OF THE RANGE

NEW ADDITION TO THE PRODUCT RANGE

DB133 Supreme – with internal coolant:
- 5 × D_C in accordance with Walter standard; Dia. 2–2.95 mm
- 8 × D_C in accordance with Walter standard; Dia. 2–2.95 mm
- 12 × D_C in accordance with Walter standard; Dia. 2–2.95 mm
- 16 × D_C in accordance with Walter standard; Dia. 2–2.95 mm
- 20 × D_C in accordance with Walter standard; Dia. 2–2.95 mm
- 25 × D_C in accordance with Walter standard; Dia. 2–2.95 mm
- 30 × D_C in accordance with Walter standard; Dia. 2–2.95 mm

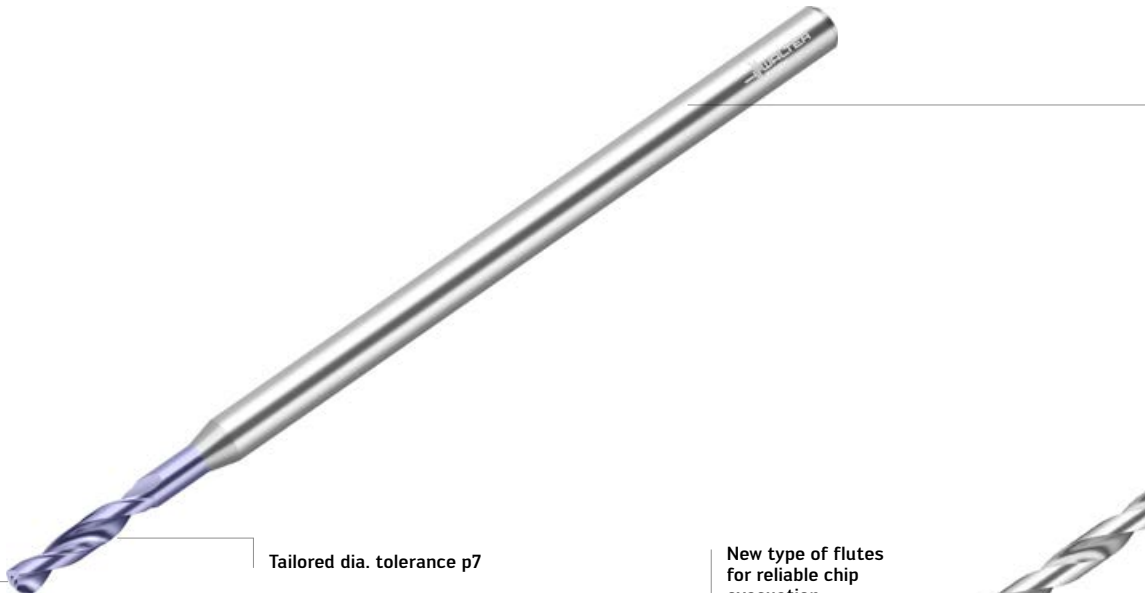
DB131 Supreme – with internal coolant:
- 2 × D_C in accordance with Walter standard; Dia. 2–2.95 mm

Further dimensions:
- DB133 Supreme – with internal coolant:
  - Dia. 0.7–1.984 mm
  - 5/8 and 12 × D_C
- DB133 Supreme – without internal coolant:
  - Dia. 0.5–2.95 mm
  - 5 and 8 × D_C
- DB131 Supreme – without internal coolant:
  - Dia. 0.5–1.984 mm
  - 2 × D_C

THE TOOL

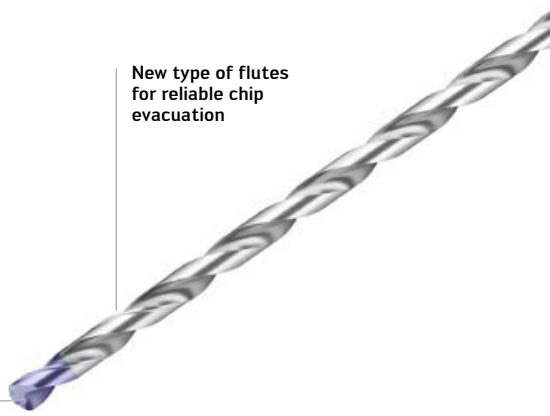
DB131 Supreme solid carbide micro pilot drill
- Dimensions in accordance with Walter standard: 2 × D_C
- With internal coolant; diameter range: 2–2.95 mm
- Without internal coolant; diameter range: 0.5–1.984 mm
- Grade:
  - WJ30EL, K30F, AlCrN (full coating)

DB133 Supreme solid carbide micro drill
- Dimensions in accordance with Walter standard: 5–30 × D_C
- With internal coolant; diameter range: 0.7–2.95 mm
- Without internal coolant; diameter range: 0.5–2.95 mm
- Grades:
  - WJ30EL, K30F, AlCrN (full coating)
  - WJ30ER, K30F, AlCrN (point coating)



DB131 Supreme solid carbide micro pilot drill

Fig.: DB131-02-02.000A1-WJ30EL



THE APPLICATION

With internal coolant

– ISO material groups P, M, K, N, S, H, O

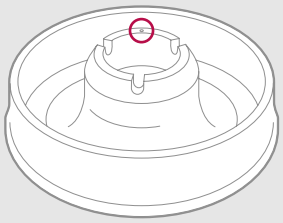
Without internal coolant

– ISO material groups P, K, N, S, H, O
– Areas of use: Medical technology, watchmaking industry, general mechanical engineering, mould and die making, energy and automotive industries
– Can be used with emulsion, oil and MQL

DB133 Supreme solid carbide micro drill Fig.: DB133-20-02.000A1-WJ30ER

APPLICATION EXAMPLE

Pulley

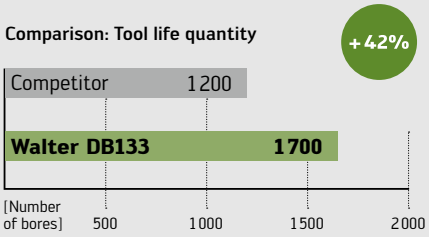


Material:	20CrMoH
Tensile strength:	165–197 [HB]
Tools:	Solid carbide micro pilot drill DB131-02-02.500A1-WJ30EL Solid carbide micro drill DB133-16-02.500A1-WJ30ER
Cooling:	8% emulsion, 20 bar

Cutting data

	Competitor	Walter DB133 Supreme
v_c (m/min)	44	44
n (rpm)	5600	5600
f (mm/rev)	0.054	0.054
v_f (mm/min)	300	300
Drilling depth (mm)	41	41
No. of bores	1200	1700

Comparison: Tool life quantity



BENEFITS FOR YOU

– Maximum process reliability combined with minimal dimensions
– Optimised dimensions for maximum stability
– Adjusted dia. tolerance and 140° point angle for DB133 micro drill
– Excellent component surfaces due to cutting edge preparation on the drill
– DB131 micro pilot drill with adjusted dia. tolerance and 150° point angle

B – Threading

B6: Thread milling

Mill small threads – perfectly, reliably, quickly.

NEW

THE TOOL

- Universal indexable insert thread milling cutter
- Designed for high cutting speeds and high feeds per tooth

THE APPLICATION

- Indexable insert solution for small thread sizes – M16, M18, UNC¾
- Thread depth ≤ 2.5 × D_N
- Blind-hole and through-hole threads
- Universal application in ISO P, M, K, N, S and H up to 55 HRC

THE INDEXABLE INSERTS

- Easy-cutting indexable insert with three cutting edges
- Defined corner radius for standard threads
- Wear-resistant universal grade WSM37S
- D67 – universal geometry for maximum tool life
- D61 – with anti-vibration land for excellent operational smoothness

T2711 indexable insert thread milling cutter

Fig.: T2711-M-W-1-06_SILVER_P_01

BENEFITS FOR YOU

- 100% productivity: Fast machining and high tool life quantity
- 100% process reliability: Easy handling and few radius corrections
- 100% quality: High operational smoothness and cylindrical threads

Also available as

Walter Xpress

C – Milling

Setting the benchmark for ISO P machining.

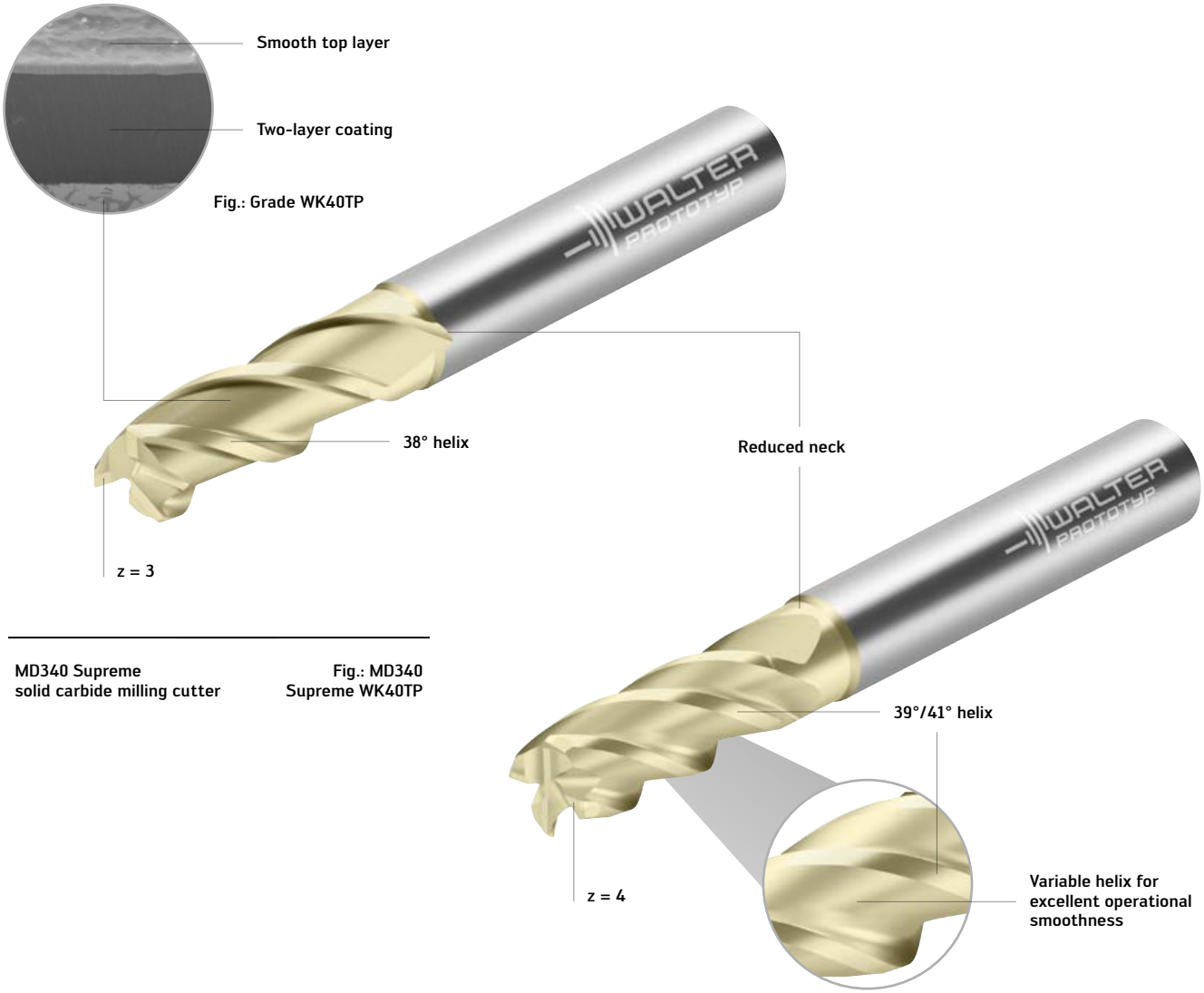
NEW

THE TOOL

- Solid carbide milling cutter for machining steel
- Developed to machine all ISO P materials at the highest level
- D_C = dia. 2–25 mm (metric) / 1/16–¾ (inch)
- z3 / z4 / z5
- With centre cut

THE GRADE

- ISO P: Tough milling grade WK40TP with TiAlN and ZrN coating

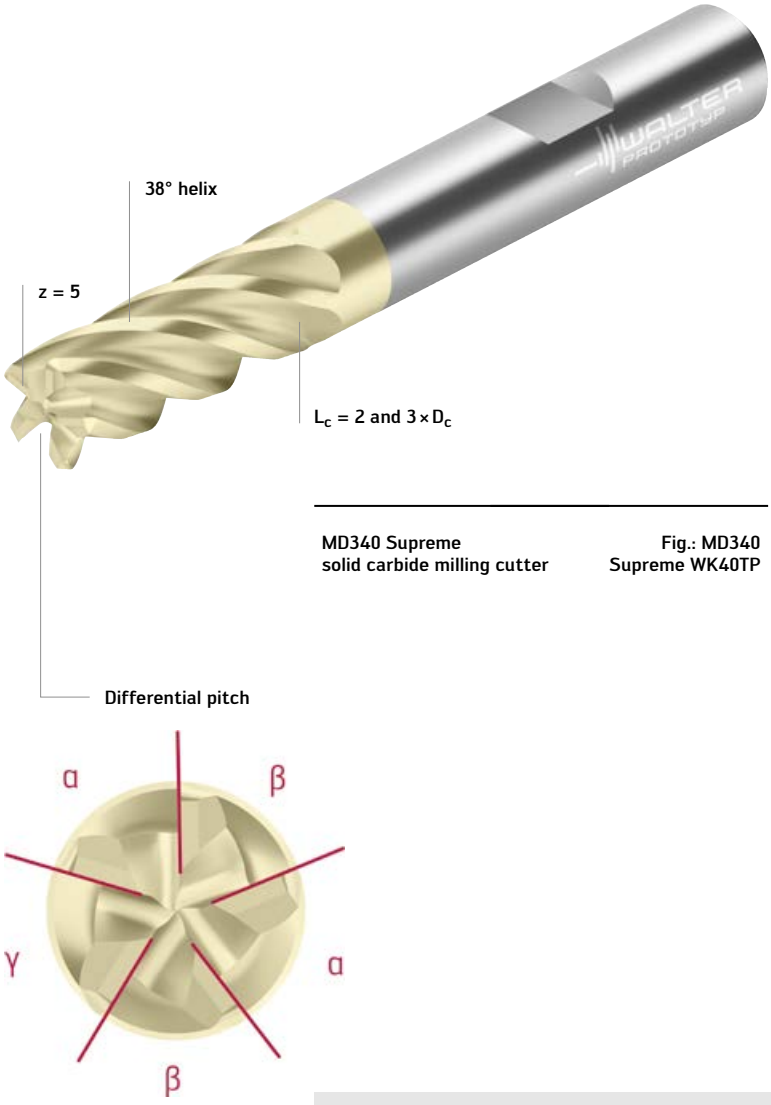


MD340 Supreme solid carbide milling cutter — Fig.: MD340 Supreme WK40TP

MD340 Supreme solid carbide milling cutter — Fig.: MD340 Supreme WK40TP

THE APPLICATION

- Universal application for securing a cost-effective milling process
- Reliable milling with an extremely high metal removal rate
- Roughing/finishing geometry

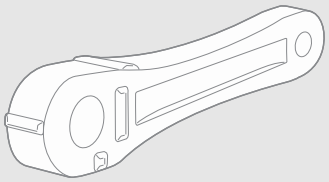


MD340 Supreme solid carbide milling cutter

Fig.: MD340 Supreme WK40TP

APPLICATION EXAMPLE

Brake lever



Material: 15CrMoV6 [250 HB]

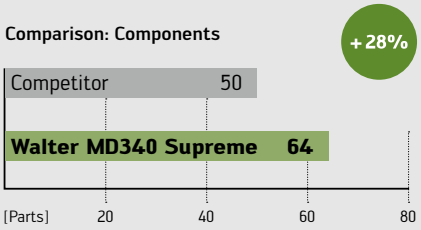
Tool: MD340-12.0A4B300C-WK40TP

Machining strategy: Dynamic roughing

Cutting data

	Competitor	Walter MD340 Supreme
D_c (mm)	12	12
z	4	4
v_c (m/min)	66	160
f_z (mm)	0.036	0.075
v_f (mm/min)	252	1273
a_e (mm)	6 / 12	1.7
a_p (mm)	12 / 6	6 / 12

Comparison: Components



BENEFITS FOR YOU

- Exceptional performance in machining processes involving ISO P materials due to the grade developed in-house at Walter
- Optimal operational smoothness and tool life increase due to special geometry
- Wide variety of products with different numbers of teeth for an extremely productive process

The professional with real depth.

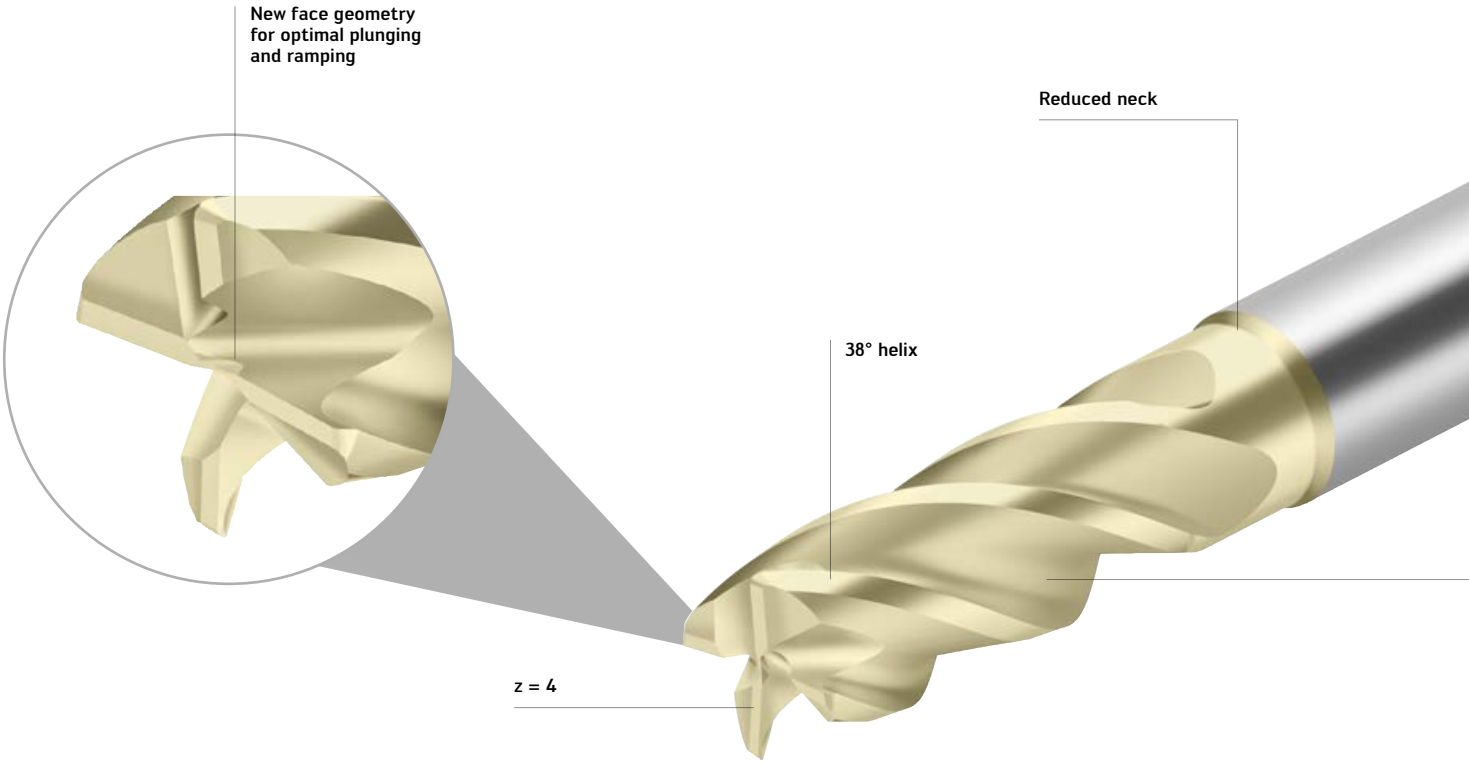
NEW

THE TOOL

- Solid carbide milling cutter for machining steel
- Specialist for plunging and ramping
- Dia. 6–20 mm
- z = 4
- R = 5% × D_C

THE GRADE

- ISO P: Tough milling grade WK40TP with TiAlN and ZrN coating



MD344 Supreme
solid carbide milling cutter

Fig.: MD344 Supreme WK40TP

THE APPLICATION

- Plunging
- Ramping
- Helical plunging
- Drilling
- Full slotting and shoulder machining

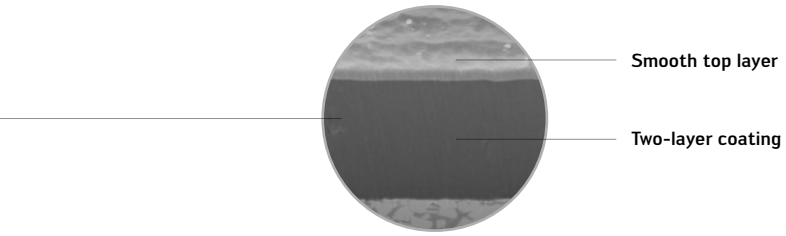
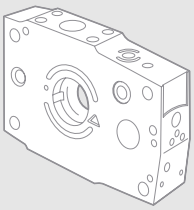


Fig.: Grade WK40TP

APPLICATION EXAMPLE

Hydraulic insert

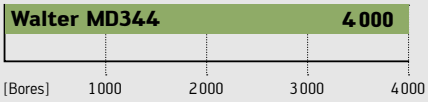


Material:	31CrMo4
Tool:	MD344-12.0W4B060C-WK40TP
Machining strategy:	Helical milling/finishing

Cutting data

Walter MD344 Supreme	Helical milling	Finishing
D_c (mm)	12	12
z	4	4
v_c (m/min)	90	190
f_z (mm)	0.075	0.15
n (rpm)	2400	5000
v_f (mm/min)	800	3000
a_e (mm)	12	0.15
a_p (mm)	5.7 (37°)	5.7

Helical interpolation: Tool life quantity



BENEFITS FOR YOU

- Opening and machining cavities and pockets with a single tool
- Reduced machining time and tool costs

Profiled roughing specialist for ISO N.

NEW

THE TOOL

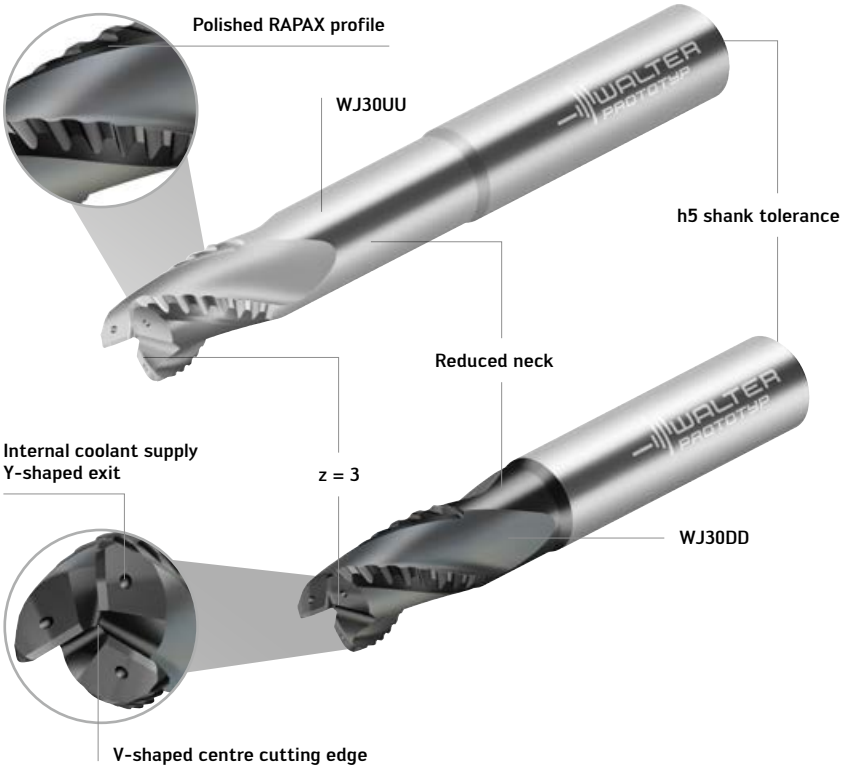
- Aluminium roughing specialist suitable for all ISO N materials
- RAPAX profile
- Dia. 16–25 mm
- z3 with internal coolant supply
- Stabilising chamfer geometry

THE GRADE

- WJ30DD (coated)
- WJ30UU (uncoated)

THE APPLICATION

- Developed in the aerospace industry; suitable for all industries with ISO N machining
- Specialist for roughing aluminium components
- Focus: High-performance machining operations

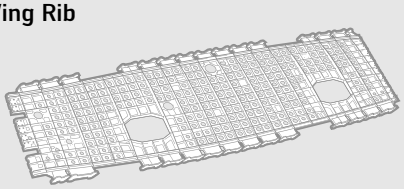


MD265 Supreme solid carbide milling cutter

Fig.: MD265 Supreme WJ30DD
Fig.: MD265 Supreme WJ30UU

APPLICATION EXAMPLE

Wing Rib



Material: AL 7050

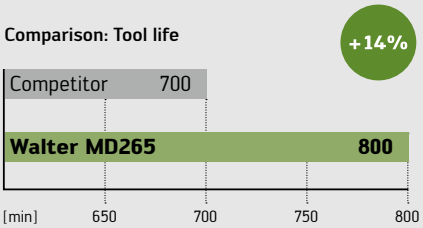
Tool: MD265-25.0A3B300C-WJ30DD

Machining strategy: Roughing

Cutting data

	Competitor	Walter MD265 Supreme
D_c (mm)	25	25
z	3	3
v_c (m/min)	2257	2257
f_z (mm)	0.13	0.13
v_f (mm/min)	10800	10800
a_e (mm)	25	25
a_p (mm)	15	15

Comparison: Tool life



BENEFITS FOR YOU

- Profiled RAPAX cutting edge for reduced cutting forces and a high level of process reliability
- Stabilising chamfer geometry for maximum process reliability and metal removal rates
- New grades WJ30DD for maximum tool life
- Preventing material build-up

Clear benefits when roughing ISO N.

NEW

THE TOOL

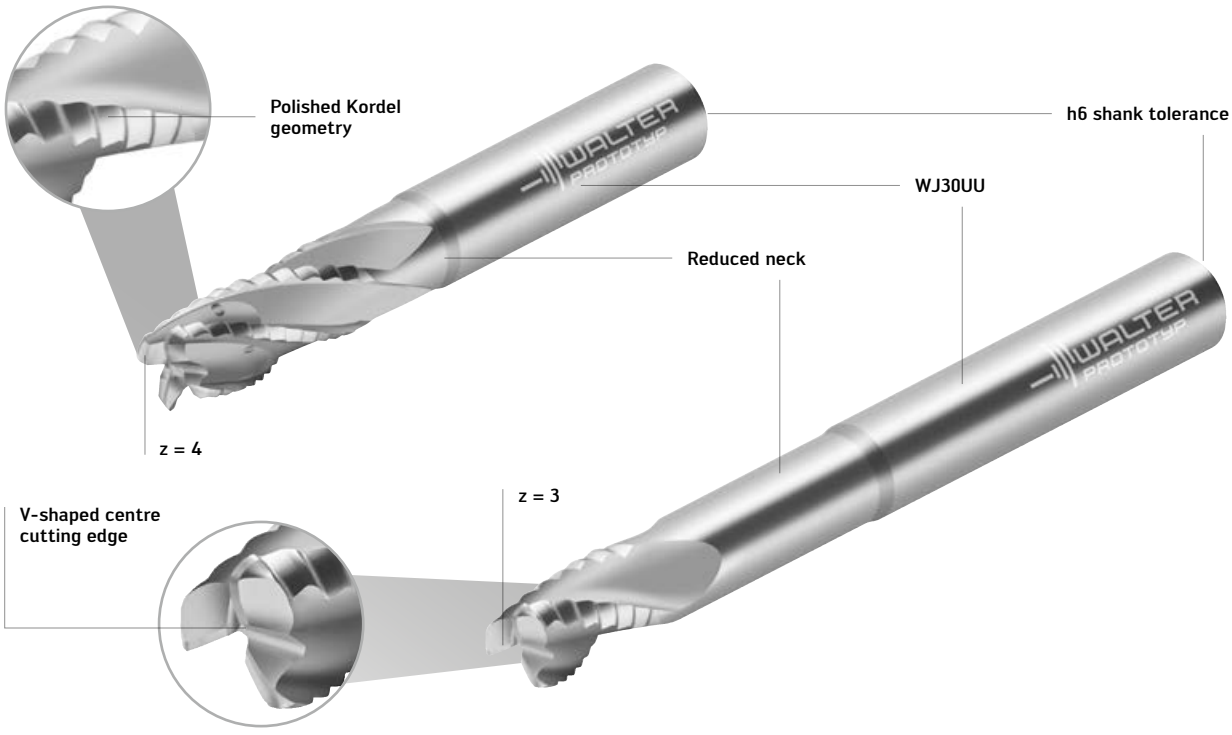
- Universal aluminium roughing tool with polished Kordel profiling
- Dia. 6–25 mm
- z3 / z4
- With internal cooling (from D_C dia. 16 mm) and without internal cooling

THE APPLICATION

- Roughing of aluminium components in all sectors of industry
- Ideal for ISO N materials such as copper, magnesium, brass

THE GRADE

- WJ30UU (uncoated)



MC268 Advance solid carbide milling cutter

Fig.: MC268 Advance WJ30UU

BENEFITS FOR YOU

- Tools with three or four teeth for cost-effective machining of the customer's component
- Short machining times due to high metal removal rate
- Tools ≥ dia. 16 mm with internal cooling for excellent tool life

Tiger·tec® Gold is pushing the boundaries.

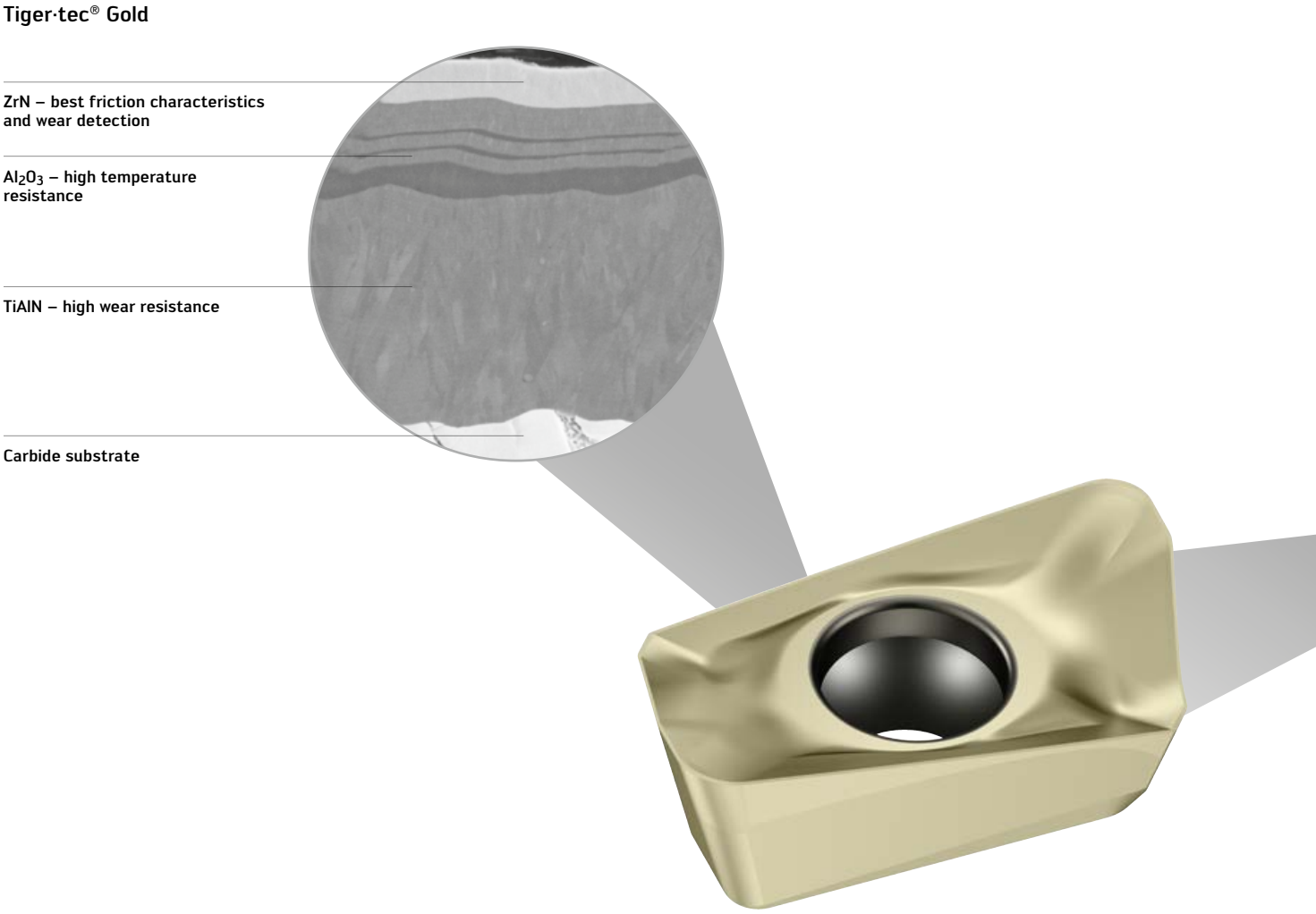
NEW

THE GRADE

- PVD coated Tiger·tec® Gold milling grades WKK25G and WSM35G
- The only PVD Al_2O_3 coating technology of its kind in the world
- ZrN top layer for the best wear detection
- Perfect balance between wear resistance and toughness
- Extremely smooth rake face for low friction

THE TOOL

- Compatible with all standard milling cutters from the Walter range



Tiger·tec® Gold milling grade WKK25G Fig.: BCMT120408R-F55 WKK25G

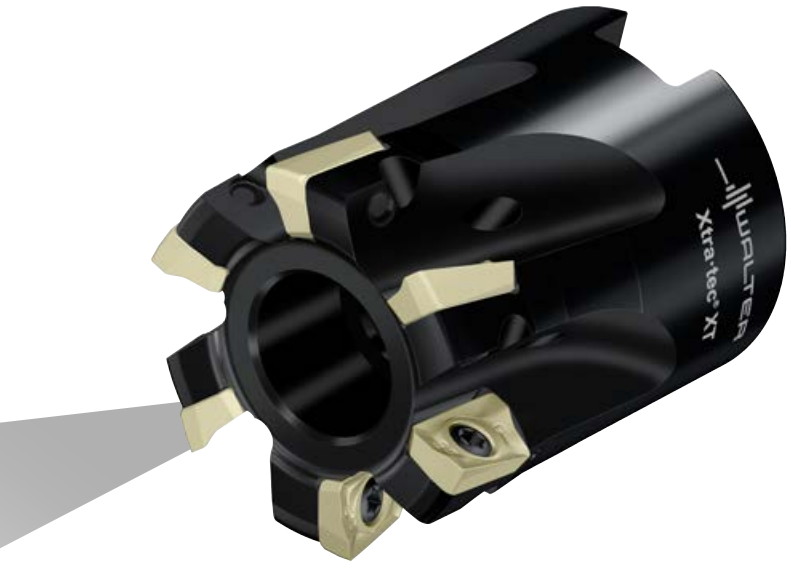
THE APPLICATION

WKK25G

- Universal application for ISO K materials (e.g. ductile cast iron)
- Ideal for unfavourable conditions such as interrupted cuts or for wet machining
- Areas of use: E.g. automotive industry and general mechanical engineering

WSM35G

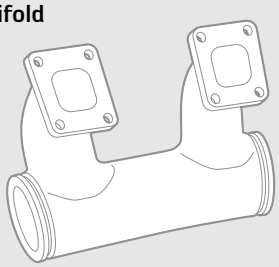
- Universal application for ISO M and S (e.g. austenitic stainless steel or nickel-based alloys)
- For good conditions and long tool life (even during wet machining)
- Areas of use: E.g. aerospace and energy industries and general mechanical engineering



Xtra·tec® XT M5130 shoulder milling cutter Fig.: M5130-032-B16-06-09

APPLICATION EXAMPLE

Exhaust manifold

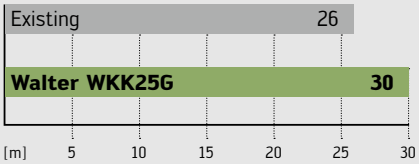


Material:	GGG40 (0.7040), ISO K
Tool:	M5012 / 063 /Z6
Indexable insert:	SNGX1205ZNN-F57
Cutting tool material:	WKK25G

Cutting data

	Existing	Walter WKK25G
v_c (m/min)	277	277
f_z (mm)	0.12	0.12
a_e (mm)	30–50	30–50
a_p (mm)	0.40	0.40
Cooling	Wet	Wet

Comparison: Tool life distance +15%



BENEFITS FOR YOU

- Highly reliable due to the perfect balance between wear resistance and toughness
- Long tool life due to unique PVD Al_2O_3 coating
- Universal application even under difficult conditions
- High productivity due to using optimised cutting tool materials
- Best wear detection due to the gold-coloured top layer

Face milling – cost-effective and universal.

NEW

THE TOOL

- Xtra·tec® XT M5011 face milling cutter
- 75° approach angle
- Dia. 50–160 mm; Depth of cut 8 mm
- Two tooth pitches with insert size SN.X1205...
- Version with carbide shim

THE APPLICATION

- Steel and cast iron materials, stainless steels and materials with difficult cutting properties
- Face milling: Rough and finishing with wiper insert
- Face milling with larger depth of cut
- Can also be used on less powerful machines thanks to the positive, soft cutting action

System insert – for various approach angles

NEW

Xtra·tec® XT M5011 face milling cutter

Fig.: M5011-063-B22-05-08-AP

Xtra·tec® XT M5009 face milling cutter

Fig.: M5009-100-B32-09-05

THE INDEXABLE INSERTS

System insert can be used in:

- SN.X0904… can be used in the Xtra·tec® XT M5009 and M5012 face milling cutters
- SN.X1205… can be used in the Xtra·tec® XT M5009, M5011 and M5012 face milling cutters

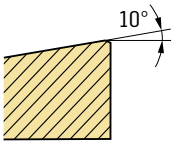
Roughing insert:

- Double-sided indexable inserts with eight cutting edges
- Easy-cutting geometries
- Version with fully ground circumference (SNGX…, SNHX…) for maximum precision
- Sintered version (SNMX…) for maximum cost-efficiency

Wiper insert:

- Double-sided indexable inserts with two cutting edges (XNGX0904… and XNGX1205…)
- System-specific indexable inserts with secondary cutting edge

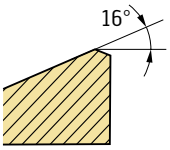
D27 – The special one



P	M	K	N	S	H	O
●		●●				

- For machining cast iron materials
- For sand inclusions or cast skin
- Maximum process reliability

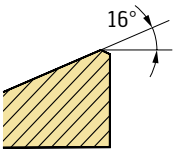
F27 – The stable one



P	M	K	N	S	H	O
●●	●	●●		●		

- For unfavourable machining conditions
- Maximum cutting edge stability
- High feeds

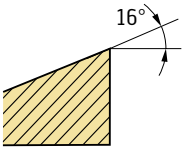
F57 – The universal one



P	M	K	N	S	H	O
●●	●●	●●		●●		

- For medium machining conditions
- Can be used universally for most materials

F67 – The easy-cutting one



P	M	K	N	S	H	O
●●	●●	●●		●●		

- For good machining conditions
- Low cutting forces
- Moderate feeds

Xtra·tec® XT M5012 face milling cutter

Fig.: M5012-063-B22-05-10-AP

BENEFITS FOR YOU

- High level of stability in variable conditions
- Highly reliable due to strong, double-sided indexable inserts and carbide shim
- Very good handling due to easily accessible clamping screw (prevents typical installation mistakes)
- Cost-effective thanks to low cutting tool material costs

Six times as cost-efficient, 90° approach angle.

EXPANSION OF THE RANGE

NEW ADDITION TO THE PRODUCT RANGE

G27 geometry for universal applications

– Sintered version
– Insert sizes: TNMU11T3… and TNMU1604…

Tools with diameters in inches

– Dia. 1–4"
– With bore adaption and Weldon shank
– Depths of cut $a_{p\ max}$ = 5 or 8 mm

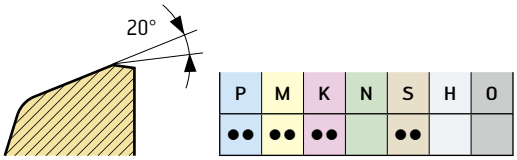
THE TOOL

– Shoulder milling cutter with triangular, double-sided indexable inserts
– Two pitches for different applications
– 90° approach angle
– Interfaces: Weldon shank and bore adaption
– Dia. 25–100 mm or 1–4"
– Two depths of cut $a_{p\ max}$ = 5 or 8 mm

THE INDEXABLE INSERTS

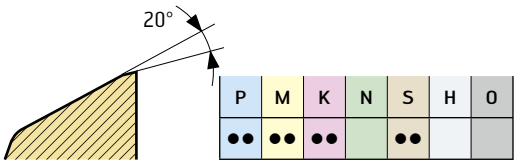
– Two indexable insert sizes:
  • TNMU11T304R for a 5 mm depth of cut
  • TNMU160508R for an 8 mm depth of cut
– Design with secondary cutting edge
– G57 – The easy-cutting one
– G27 – The universal one
– Sintered: For maximum cost-efficiency

G27 – The universal one

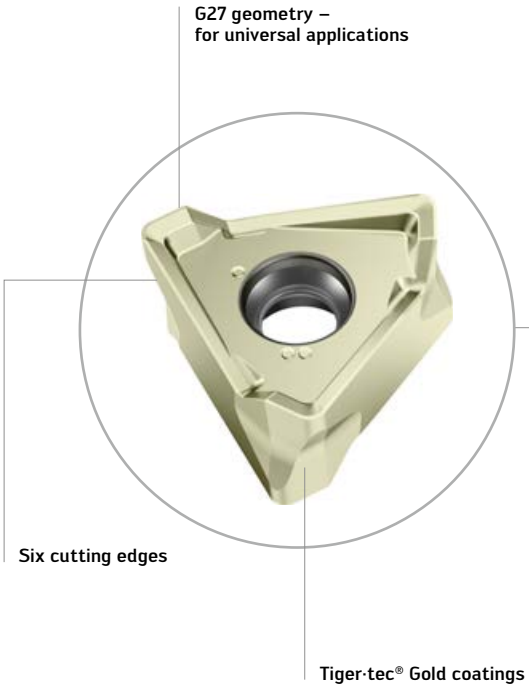


- For medium machining conditions
- Can be used universally for most materials

G57 – The easy-cutting one



- For good machining conditions
- Low cutting forces
- Moderate feeds



THE APPLICATION

- Can be used universally for steel, stainless steels, cast iron and materials with difficult cutting properties
- Face milling, shoulder milling, ramping, pocket milling and circular interpolation milling
- Areas of use: Energy industry, mould and die making, general mechanical engineering, among others

Double-sided indexable inserts

90° approach angle

Powered by
Tiger·tec® Silver
Tiger·tec® Gold

Xtra·tec® XT M5130 shoulder milling cutter

Fig.: M5137-063-B22-09-05
Fig.: TNMU160508R-G27 WSP45G

BENEFITS FOR YOU

- High process reliability due to strong, double-sided indexable inserts
- High level of cost-efficiency due to Tiger·tec® cutting tool materials and six cutting edges per indexable insert
- Simple tool selection and low cutting tool material costs

“WaveCut” – ultimate process reliability in titanium.

EXPANSION OF THE RANGE

NEW ADDITION TO THE PRODUCT RANGE

– “WaveCut” L65W geometry

THE TOOL

– Walter BLAXX M3255 helical milling cutter
– Full effective helical milling cutter with tangential indexable inserts
– Four cutting edges on the circumference, two cutting edges on the face insert
– High volume of carbide in the direction of the cutting force
– Reinforced core possible due to the tangential indexable insert system
– Superb chip removal due to targeted coolant supply and optimum chip clearance
– Precise 90° angle on the component

THE INDEXABLE INSERTS

– Two geometries: L65T and L65W

Face insert:

– One indexable insert size: XNHX1306...
– Two cutting edges
– Various corner radii (0.8–4.0 mm)
– Axial positioning via serration within the body

Leading insert:

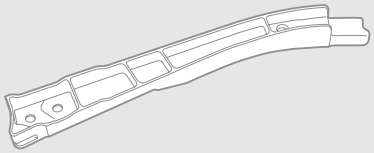
– One indexable insert size: LNHX120604R...
– Four cutting edges
– Helical cutting edge and positive rake angle

THE APPLICATION

– For slot, shoulder, contour and pocket milling in titanium alloys
– For roughing operations
– Ideally suited to structural components for the aeronautical industry

APPLICATION EXAMPLE

Flap track – roughing operation

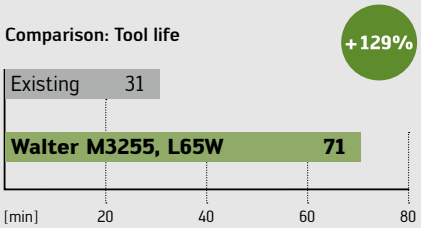


Material:	TiAl6V4, 3.7164
Tensile strength:	1250 N/mm²
Tool:	M3255 / Ø 50 / z5
Indexable inserts:	XNHX130640R-L65W WSM45X LNHX120604R-L65W WSM45X

Cutting data

	Existing	Walter M3255, L65W
v_c (m/min)	45	45
f_z (mm)	0.15	0.15
a_e (mm)	30	30
a_p (mm)	40	40
Cooling	Internal cooling, 100 bar	Internal cooling, 100 bar

Comparison: Tool life



Dia. 50–80 mm or 2–3"

Front insert with two cutting edges

“WaveCut” – wave-shaped cutting edge

Walter BLAXX M3255 helical milling cutter
“WaveCut” geometry for M3255

Fig.: M3255-063-B27-05-46
Fig.: XNHX130640R-L65W WSM45X

BENEFITS FOR YOU

– High level of process reliability due to excellent chip removal and stable design
– Precise coolant supply at each individual cutting edge, also suitable for high-pressure cooling
– High cost-efficiency due to four or two cutting edges per indexable insert
– Maximum metal removal rate due to maximum number of teeth
– Soft-cutting geometry due to helical cutting edges and positive rake angle

Productive problem-solvers in aluminium.

NEW

THE TOOL

- SDGW... with corner radius as system insert for M4000 milling cutters
- SDGW…AZR for the M4003 face milling cutter from the M4000 series

THE APPLICATION

- Non-ferrous metals (e.g. aluminium, Al-Si alloys, magnesium and magnesium-based alloys), as well as plastics and fibre-reinforced plastics
- Milling operations with the highest surface quality
- Face, shoulder and slot milling
- Can be used with emulsion or MQL
- Areas of use: Automotive industry, aerospace industry, general mechanical engineering

THE INDEXABLE INSERTS

- Indexable inserts with brazed PCD cutting edges

Positive rhombic:

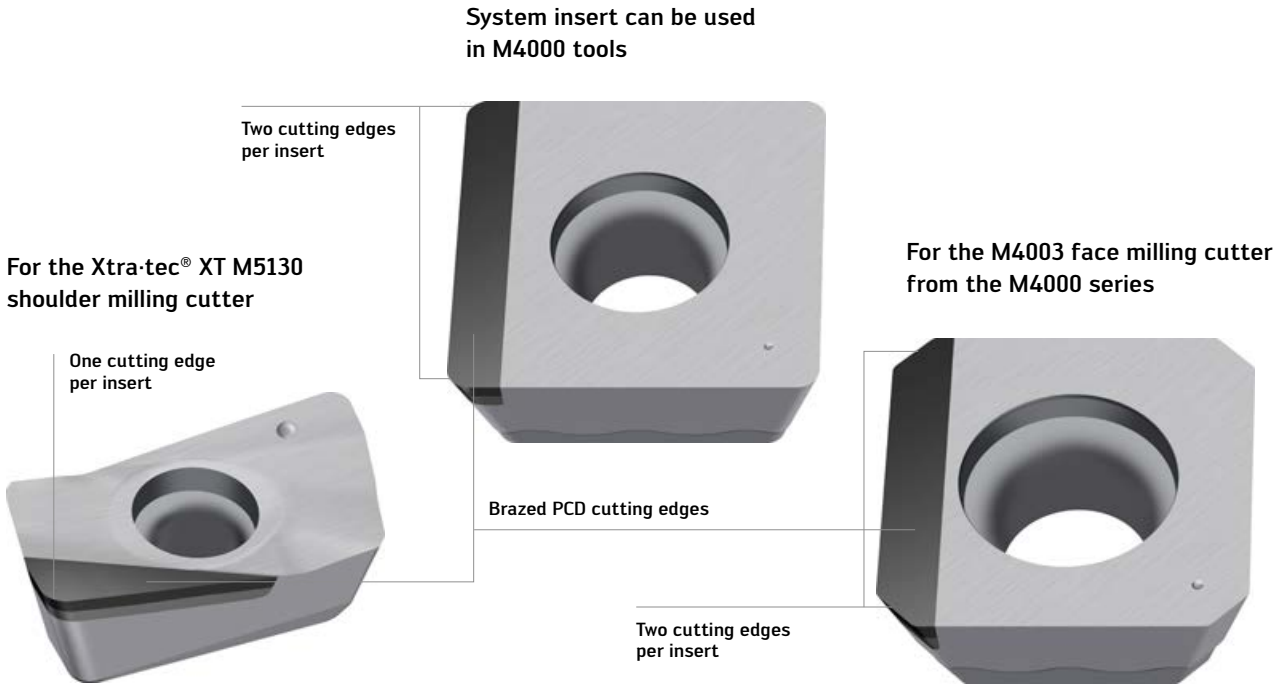
- BCGT090304R-B85 WDN20
- BCGT120408R-B85 WDN20
- For the Xtra·tec® XT M5130 shoulder milling cutter
- One cutting edge per insert

Positive square:

- SDGW09T304-A88 WDN20
- SDGW120408-A88 WDN20
- System inserts with corner radius for M4000 milling cutters
- Two cutting edges per insert

Positive square (only M4003):

- SDGW09T3AZR-A88 WDN20
- For the M4003 face milling cutter from the M4000 series



PCD indexable inserts

Fig.: BCGT120408R-B85 WDN20
Fig.: SDGW09T304-A88 WDN29
Fig.: SDGW09T3AZR-A88 WDN20

BENEFITS FOR YOU

- Cost-effective and precise machining
- Reduced cutting forces and minimal vibration tendency
- Excellent surfaces
- Shortest machining times due to high cutting speeds and a high number of teeth
- Low cutting tool material costs due to extremely long tool life

Ultra stable on long-chipping materials.

EXPANSION OF THE RANGE

NEW ADDITION TO THE PRODUCT RANGE

– Easy-cutting E57 geometry

THE INDEXABLE INSERTS

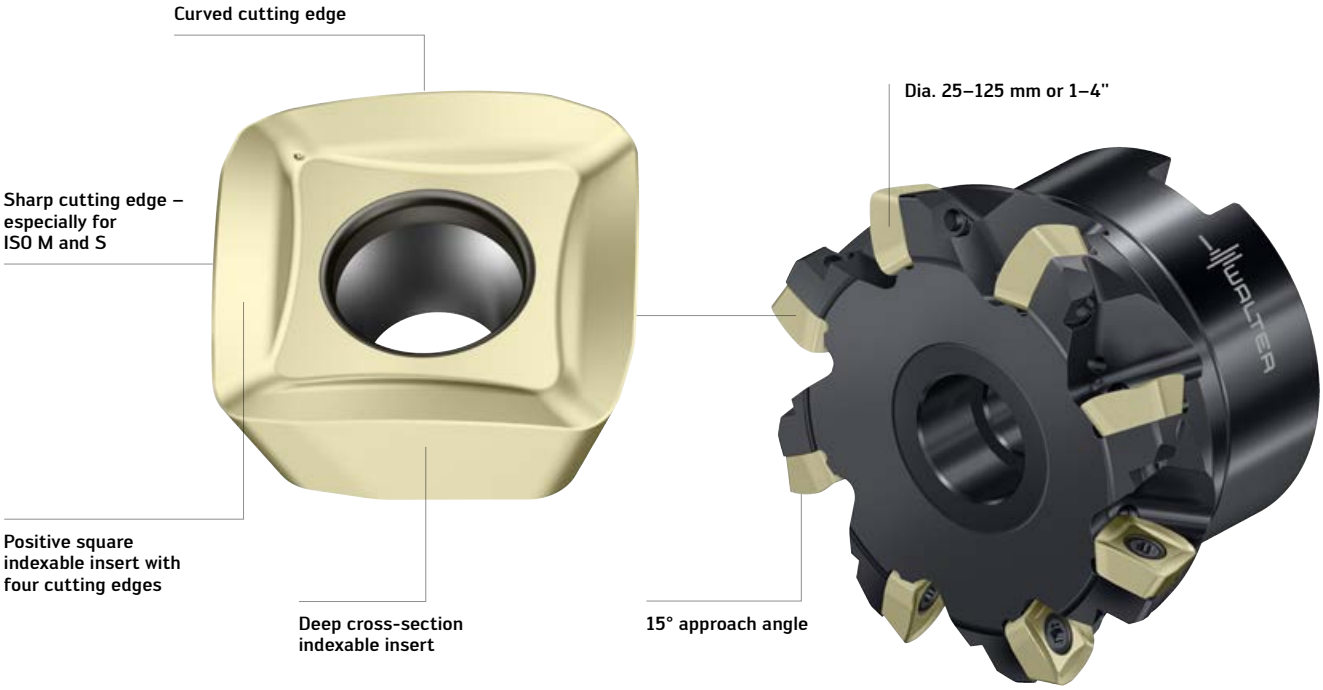
– SDMX indexable inserts with curved cutting edge
– Indexable insert sizes 09 and 12 with secondary cutting edge in the E27 and E57 geometries
– Use of the SDMX indexable insert in M4002 with depths of cut of 1.5 and 2 mm

THE TOOL

– Walter M4002 high-feed milling cutter
– Face milling cutter, 15° approach angle with four-edged system insert
– Depths of cut: 1.0/1.5/2.0 mm

THE APPLICATION

– High-feed milling in steel and cast iron, stainless steels, as well as materials with difficult cutting properties
– Applications using tools with long overhangs



New geometry for the M4002 high-feed milling cutter

Fig.: SDMX1205ZDR-E57 WSP45G

BENEFITS FOR YOU

– Low power requirement due to highly positive geometries
– Maximum cost-efficiency due to Tiger·tec® cutting tool materials, high number of teeth and low cutting tool material costs
– Cost-effective procurement and inventory due to universal use of system insert
– CO_2 emissions resulting from production are offset by our environmental protection projects
– Deep cross-section indexable insert – for maximum process reliability

Shape the future.

Aluminium is conquering a wide range of applications. In automotive and aerospace applications, it saves weight and CO_2. In mechanical engineering, it reduces the machining time. Walter offers the perfect tool range for aluminium: Available in standard versions or customised via Walter Xpress. Whether you are roughing with a high metal removal rate or finishing with superior quality, whether you are using “soft” materials or highly-abrasive AlSi alloys:
Walter tools for milling, turning, drilling and threading shape up aluminium components.

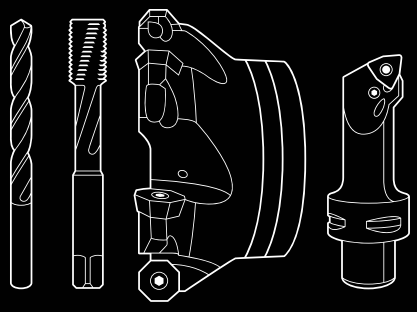
walter-tools.com

WALTER
Engineering Kompetenz

Walter AG

Derendinger Straße 53, 72072 Tübingen
Postfach 2049, 72010 Tübingen
Germany

walter-tools.com



Europe

Walter Austria GmbH
Wien, Österreich
+43 1 5127300-0, service.at@walter-tools.com

Walter Benelux N.V./S.A.
Zaventem, Belgique
(B) +32 (02) 7258500
(NL) +31 (0) 900 26585-22
service.benelux@walter-tools.com

Walter (Schweiz) AG
Solothurn, Schweiz
+41 (0) 32 617 40 72, service.ch@walter-tools.com

Walter CZ s.r.o
Kurim, Czech Republic
+420 (0) 541 423352, service.cz@walter-tools.com

Walter Deutschland GmbH
Frankfurt, Deutschland
+49 (0) 69 78902-100, service.de@walter-tools.com

Walter France
Soultz-sous-Forêts, France
+33 (0) 3 88 80 20 00, service.fr@walter-tools.com

Walter Hungária Kft.
Budapest, Magyarország
+36 1 464 7160, service.hu@walter-tools.com

Walter Tools Ibérica S.A.U.
El Prat de Llobregat, España
+34 934 796760, service.iberica@walter-tools.com

Walter Italia s.r.l.
Via Volta, s.n.c., 22071 Cadorago - CO, Italia
+39 031 926-111, service.it@walter-tools.com

Walter Norden AB
Halmstad, Sweden
+46 (0) 35 16 53 00, service.norden@walter-tools.com

Walter Polska Sp. z o.o.
Warszawa, Polska
+48 (0) 22 8520495, service.pl@walter-tools.com

Walter Tools SRL
Timisoara, România
+40 (0) 256 406218, service.ro@walter-tools.com

ООО „Вальтер“
г. Санкт-Петербург
+7 (812) 334 54 56, service.ru@walter-tools.com

Walter Tools d.o.o.
Maribor, Slovenija
+386 (2) 629 01 30, service.si@walter-tools.com

Walter Slovakia, s.r.o.
Nitra, Slovakia
+421 (0) 37 3260 910, service.sk@walter-tools.com

Walter Kesici Takımlar Sanayi ve Ticaret Ltd. Şti.
Bursa, Türkiye
+90 (0) 224 909 5000 Pbx, service.tr@walter-tools.com

Walter GB Ltd.
Bromsgrove, England
+44 (1527) 839 450, service.uk@walter-tools.com

Asia

Walter Wuxi Co. Ltd.
Wuxi, Jiangsu, P.R. China
+86 (510) 853 72199, service.cn@walter-tools.com

Walter Wuxi Co. Ltd.
中国江苏省无锡市新区新畅南路 3 号
电话：+86-510-8537 2199 邮编：214028
客服热线：400 1510 510
邮箱：service.cn@walter-tools.com

Walter Tools India Pvt. Ltd.
Pune, India
+91 (20) 6773 7300, service.in@walter-tools.com

Walter Japan K.K.
Nagoya, Japan
+81 (52) 533 6135, service.jp@walter-tools.com

ワルタージャパン株式会社
名古屋市中村区名駅二丁目 45 番 7 号
+81 (0) 52 533 6135, service.jp@walter-tools.com

Walter Korea Ltd.
Anyang-si Gyeonggi-do, Korea
+82 (31) 337 6100, service.wkr@walter-tools.com

한국발터(주)
경기도 안양시 동안구 학의로 282
금강펜테리움 106호 14056
+82 (0) 31 337 6100, service.wkr@walter-tools.com

Walter Malaysia Sdn. Bhd.
Selangor D.E., Malaysia
+60(3)-5624 4265, service.my@walter-tools.com

Walter AG Singapore Pte. Ltd.
+65 6773 6180, service.sg@walter-tools.com

Walter (Thailand) Co., Ltd.
Bangkok, 10120, Thailand

America

Walter do Brasil Ltda.
Sorocaba – SP, Brasil
+55 15 32245700, service.br@walter-tools.com

Walter Canada
Mississauga, Canada
service.ca@walter-tools.com

Walter Tools S.A. de C.V.
El Marqués, Querétaro, México
+52 (442) 478-3500, service.mx@walter-tools.com

Walter USA, LLC
Waukesha WI, USA
+1 800-945-5554, service.us@walter-tools.com