WALTER
Engineering Kompetenz

Turning, holemaking,
threading, milling

Product highlights
Edition 2020-2

_PRODUCT HIGHLIGHTS

Seeing opportunities in solutions.

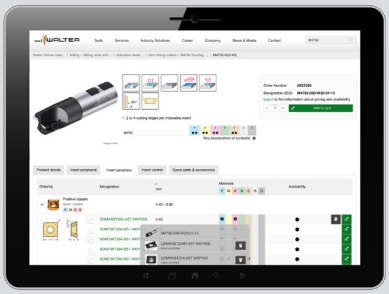
How to find and order your standard tools:

Personal – worldwide
You can contact us by phone, fax or e-mail. The contact details for your local contact can be found on our website at: **walter-tools.com**

The Walter General Catalog 2018
contains the entire standard range of our competence brands Walter, Walter Titex and Walter Prototyp. It is supplemented regularly with the latest Product Innovations catalogues.

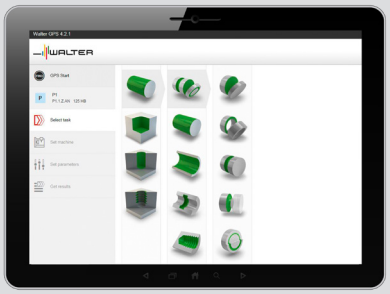
At walter-tools.com, you can access and order your Walter products quickly and conveniently online – via smartphone, tablet or PC. The benefit for you: Direct access from any device, displayed in an optimised form, at any time.

Walter online catalog



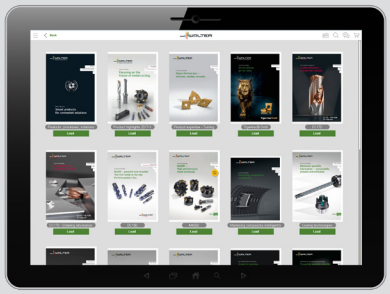
Tool-specific search
You can find products in the Walter online catalogue using the familiar structure of our product catalog as well as filter and search functions. Other features:
A shopping function and links to drawings and models.

Walter GPS



Application-based search
With Walter GPS, it takes just a few steps to find the optimum machining solution for your component, online and offline – and the solution can be transferred directly to the Walter TOOLSHOP if required.

Walter eLibrary



Document-based search
The Walter eLibrary app provides you with all the information you need on your mobile devices within a matter of seconds:
E.g. brochures and catalogs – online and offline, in 17 languages.

Digital ordering methods

TOOLSHOP

EDI B2B

Walter TOOLSHOP & EDI
The Walter TOOLSHOP offers customers opportunities to find information and place orders quickly.
EDI (electronic data interchange) also makes it possible to exchange documents (e.g. orders) – even special tools can be ordered.

Walter highlight flyer

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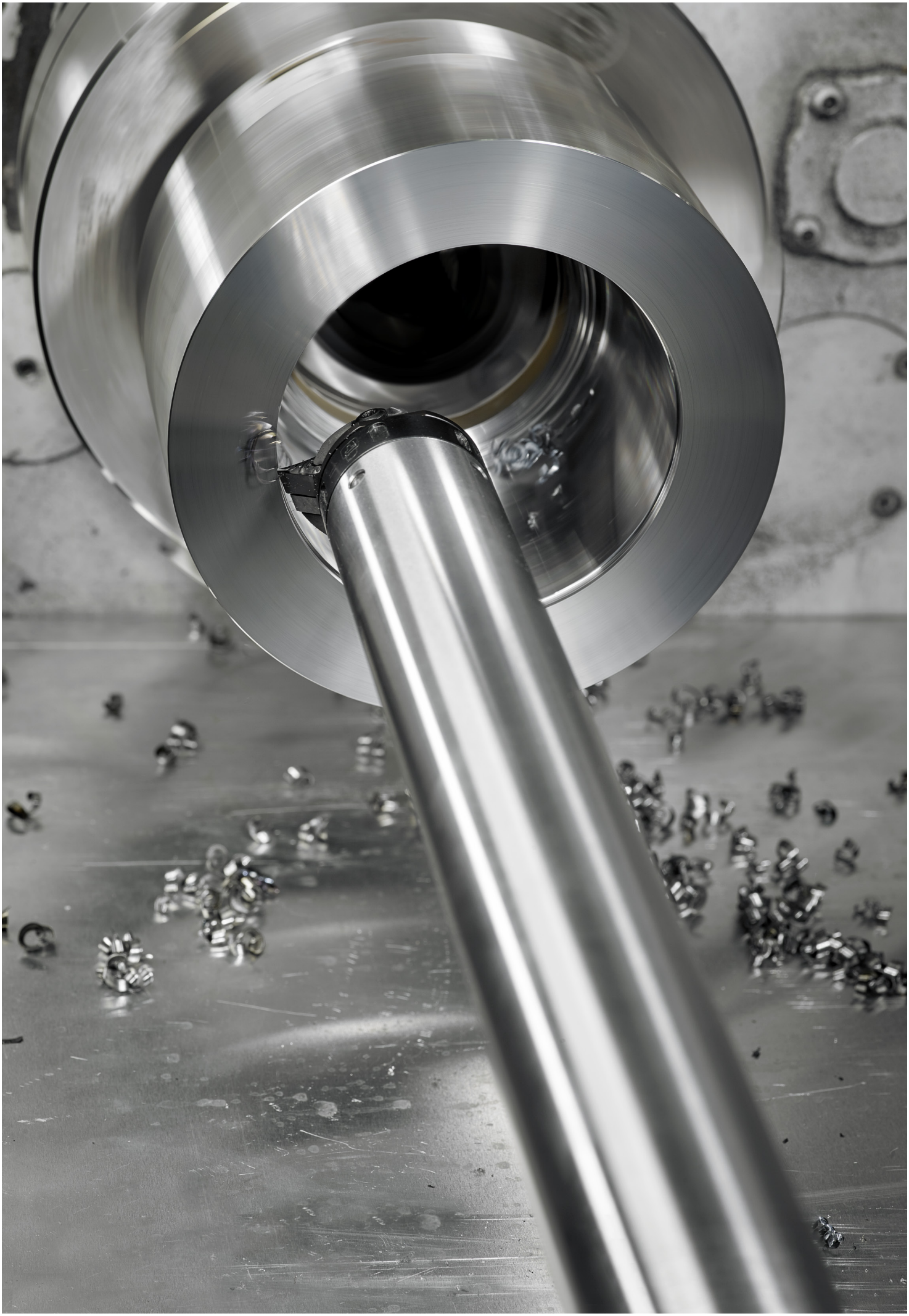
A – Turning



Combines maximum stability with cost-efficiency.

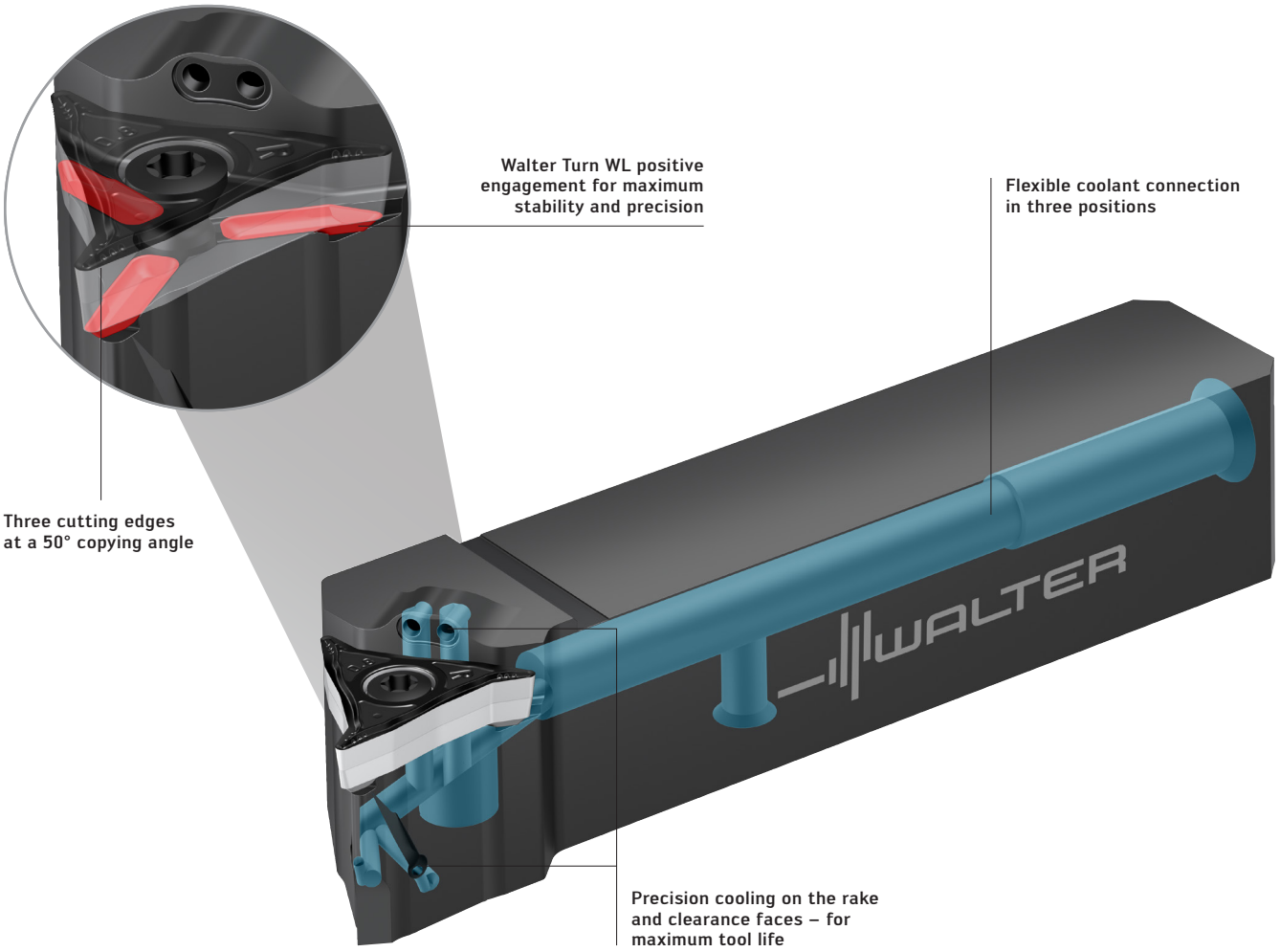
NEW

THE TOOL

- Positive-locking Walter Turn WL connection prevents the insert moving in the pocket of the tool holder
- 50% higher indexing accuracy (compared to ISO indexable inserts)
- Precision cooling on the rake and clearance faces
- Neutral, right-hand, left-hand and full-radius inserts can be held in the same tool
- Shank sizes: 20 × 20 and 25 × 25 mm; ¾" and 1"

THE APPLICATION

- Copy turning of recesses up to 30° or 50°
- Dynamic Turning
- High-precision components
- V or D-style cutting inserts with just two cutting edges and lower stability (ISO VBMT, VCMT, DCMT) are replaced wtih W-style cutting inserts with 3 cutting edges and high stability

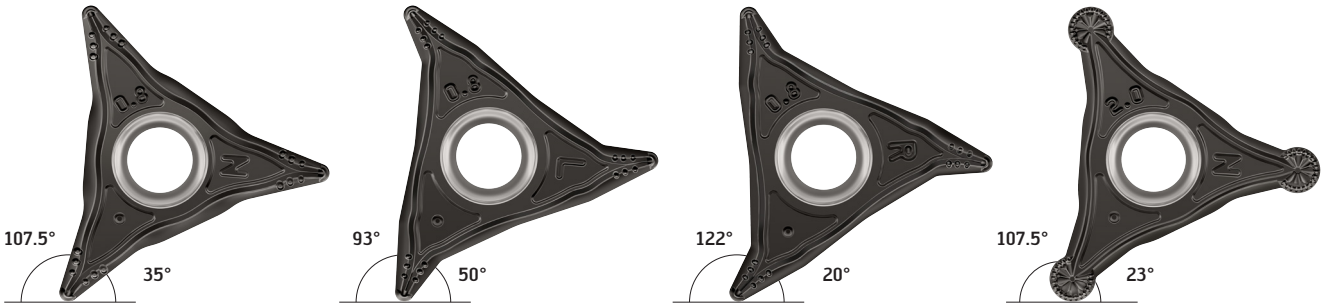


Walter Turn copy turning system **Fig.:** W1011-2525R-WL25-P

THE INDEXABLE INSERTS

- Three-edge, positive indexable inserts with WL positive engagement
- Neutral, left-hand and right-hand versions
- MP4, MM4 geometry with 35° point angle
- MU6 geometry, full-radius indexable inserts
- Grades: WPP10S, WPP20S, WMP20S, WSM20S, WSM30S

Four indexable insert types and applications



WL25..N..
Neutral

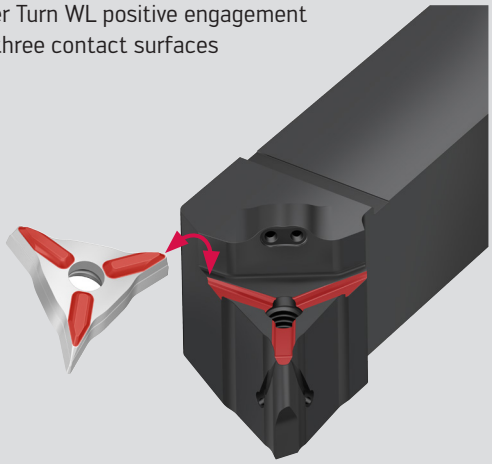
WL25..L..
Left

WL25..R..
Right

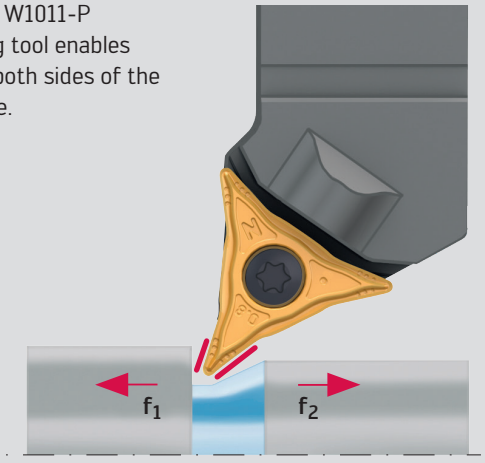
WL25..N..-MU6
Full radius

THE TECHNOLOGY

Walter Turn WL positive engagement with three contact surfaces



Walter Turn W1011-P copy turning tool enables the use ob both sides of the cutting edge.



BENEFITS FOR YOU

- High level of dimensional stability due to positive-locking, robust Walter Turn connection
- Cost-effective: Lower tool costs thanks to three cutting edges
- Maximum tool life in copy turning operations
- High level of flexibility: Four indexable insert types fit in the same tool

Accure·tec – the best results for long components.

NEW TO THE RANGE

NEW ADDITION TO THE PRODUCT RANGE

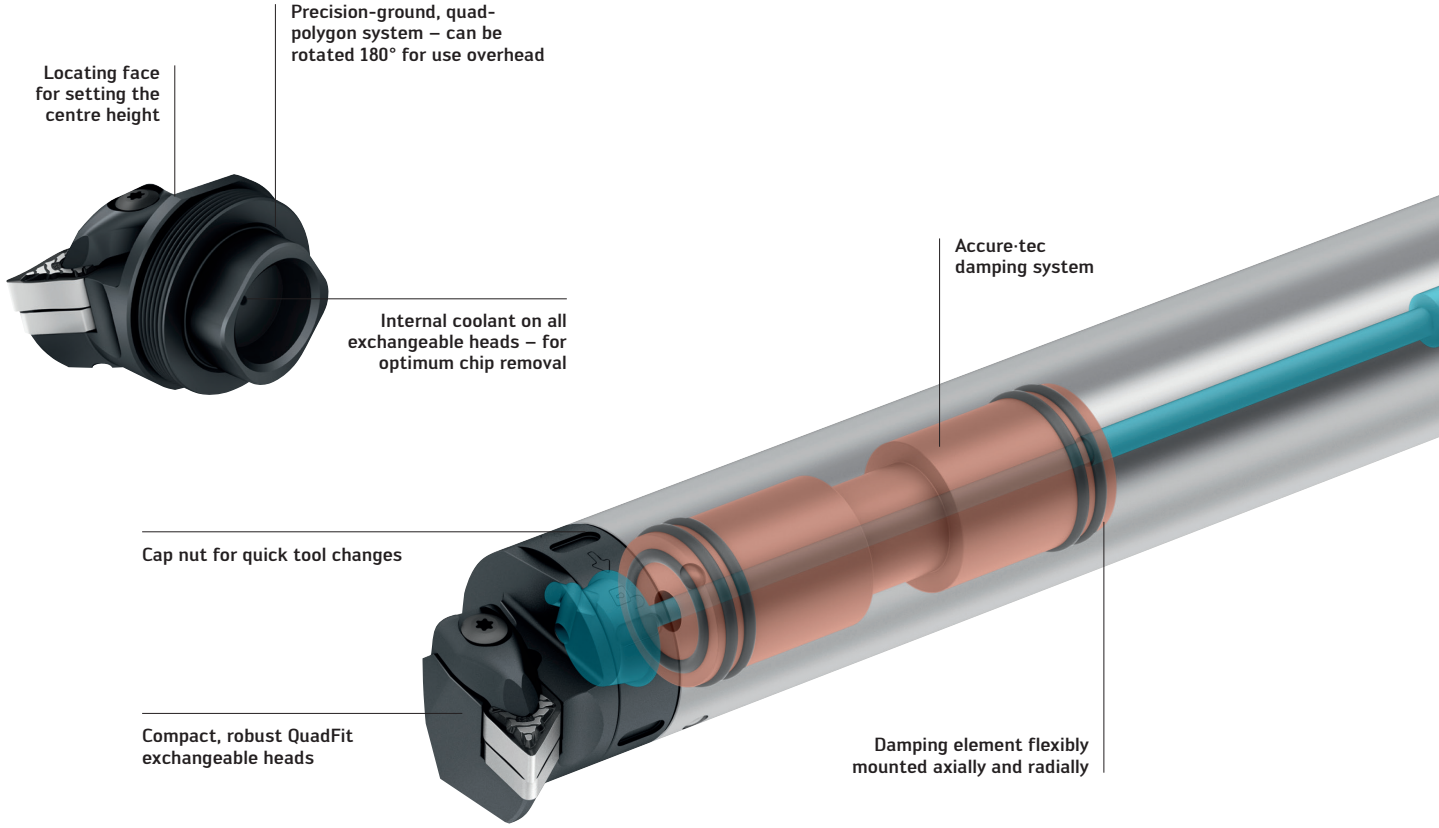
- Accure·tec A3000, dia. 25 mm
- 1", 1.25", 25mm, 32, 10xD_c cylindrical shank, carbide
- Walter Capto™ C4/C5
- HSK-T 63
- QuadFit: Thread turning; additional sizes

THE APPLICATION

- From 6 × D to 10 × D
- Counterboring and internal copy turning of long bores
- Areas of use: Aerospace industry (e.g. engines), oil and gas industries (e.g. pumps) and general mechanical engineering

THE TOOL

- Vibration-damped, preset boring bar adaptor
- QuadFit Large intermediate adaptor
- Lengths: 6 × D, 8 × D, 10 × D
- Boring bar diameters: 25–50 mm; 1–2" (other dimensions available on request)
- Interface to the machine:
  - Cylindrical shank 1-2", 25–50 mm
  - Walter Capto™ C4–C8
  - HSK-T 63–100

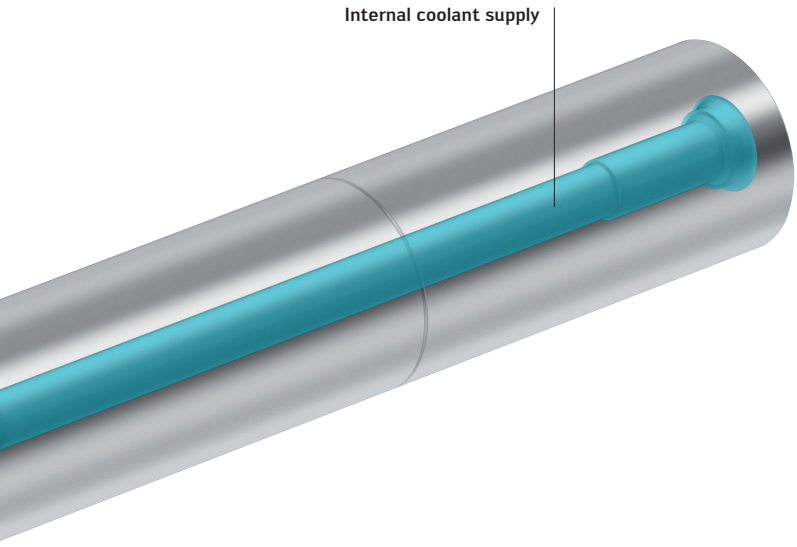


Accure·tec

Vibration-damped boring bar from 6 × D to 10 × D **Fig.:** A3000-40-Q40-208

THE INTERFACE

- QuadFit quick-change heads; 0.00008" (0.002 mm) indexing accuracy
- Only one cap nut for clamping the exchangeable head
- No loose "assembly parts" (e.g. screws)
- Precision-ground, quad-polygon system – can be rotated 180° for use overhead
- Internal coolant for all exchangeable heads



QuadFit exchangeable heads

ISO turning
- Rigid clamping
- Negative indexable inserts
- CNMG4/5, DNMG3/4, WNMG3/4 (CNMG12/16, DNMG11/15, WNMG06/08)

ISO turning
- Screw clamping
- Positive indexable inserts
- CCMT3/4, DCMT3, TCMT3, VBMT3 (CCMT09/12, DCMT11, TCMT16, VBMT16)

NEW

Thread turning
- Precision cooling
- NTS-IR16, NTS-IR22

BENEFITS FOR YOU

Accure·tec boring bars
- Broad scope of applications for machining expensive components safely and quickly
- Low-vibration bore machining – for optimum productivity and surface quality
- Maximum damping thanks to damping element flexibly mounted axially and radially
- Vibration damping "preset/pre-tuned" at the factory – ready for immediate use, no time lost tuning

QuadFit exchangeable heads
- Quick and precise tool change ±0.00008" (0.002 mm)
- Less non-productive time due to fast tool changes
- Broad range of products with different machine interfaces allows for versatility

The next generation of universal wiper geometries.

NEW

THE GEOMETRIES

- Wiper geometry for universal use
- Circumference-sintered indexable insert
- New: With short and long wiper curved cutting edge
- Basic shapes:

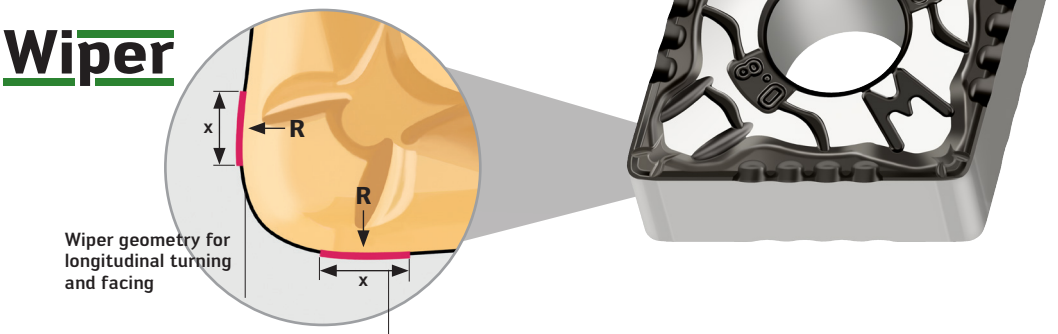
FW5
- CNMG4 (CNMG12)
- DNMG3 (DNMG11), DNMG4 (DNMG15)
- TNMG3 (TNMG16)
- WNMG3 (WNMG06), WNMG4 (WNMG08)

MW5
- CNMG4 (CNMG12)
- DNMG3 (DNMG11), DNMG4 (DNMG15)
- TNMG3 (TNMG16)
- WNMG3 (WNMG06), WNMG4 (WNMG08)

THE APPLICATION

FW5
- Finishing with excellent surfaces at high feeds
- Reduced cutting pressure (e.g. for thin shafts and internal machining)
- a_p: 0.012–0.118 in (0.3–3.0 mm); f: 0.004–0.022 in (0.10–0.55 mm)

MW5
- Medium machining with excellent surfaces at maximum feeds
- Increase in productivity through maximum feeds
- a_p: 0.031–0.197 in (0.8–5.0 mm); f: 0.006–0.028 in (0.15–0.70 mm)



Wiper geometry for longitudinal turning and facing

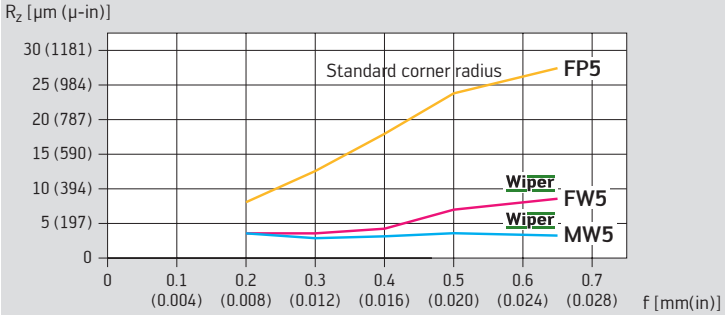
FW5 with V chip formation for short chips

New wiper curved cutting edge – for consistently good surfaces

MW5 with longer wiper curved cutting edge – for the highest feeds

Fig.: CNMG-FW5; DNMG-MW5

Achievable surface qualities



Material:	AISI4140 (42CrMo4)
Indexable inserts:	CNMG432-FP5 WPP20S CNMG432-FW5 WPP20S CNMG432-MW5 WPP20S
Cutting data:	v_c: 755 sfm; a_p: 0.079 in

The surface finish values are available in R_z (not R_a)

There is no direct conversion from R_z to R_a possible

BENEFITS FOR YOU

- Consistently good surfaces throughout the entire tool life
- FW5 wiper geometries can also be used on components with long overhangs thanks to the reduced cutting pressure
- Reduced machining time by increasing the feed by up to 300% with the same surface quality

Best quality and tool life in unstable conditions.

NEW

THE GRADE

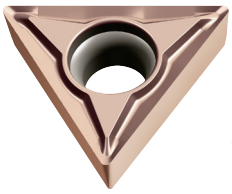
- New cermet micrograin grade WEP10C
- PVD TiCN TiAlN coating

THE INDEXABLE INSERT

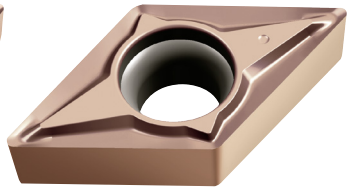
- Chip formation FP2
- Fully ground circumference; sharp cutting edge
- Basic shapes:
  - CPGT1.8..; CCGT2..; CCGT3..; (CPGT05…; CCGT06…; CCGT09…)
  - DCGT2..; DCGT3.. (DCGT07…; DCGT11…)
  - TCGT1.2..; TCGT1.8..; TCGT2..; (TCGT06…; TCGT09…; TCGT11…)
  - VCGT11…; VCGT16…
- Radius minus tolerance for exact radius machining on the component:
  - 005M = radius 0.0012 in (0.03 mm)
  - 01M = radius 0.0028 in (0.07 mm)
  - 02M = radius 0.0067 in (0.17 mm)
  - 04M = radius 0.0146 in (0.37 mm)
  - 08M = radius 0.0303 in (0.77 mm)

THE APPLICATION

- Finishing of components with small diameters, long components, components with unstable clamping, and thin-walled components
- a_p: 0.005–0.177 in (0.12–4.5 mm); f: 0.001–0.018 in (0.02–0.45 mm)

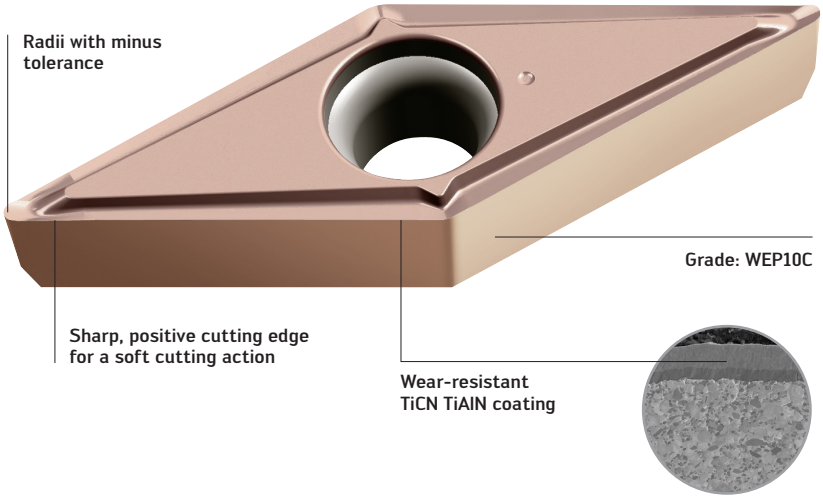


TCGT



DCGT

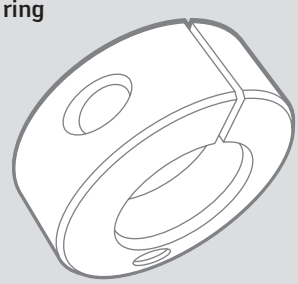
CCGT



FP2 cermet indexable insert **Fig.:** VCGT331-FP2 WEP10C

APPLICATION EXAMPLE

Clamping ring

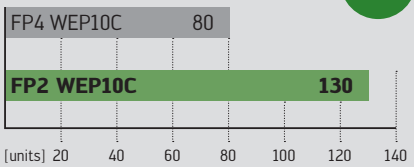


Material: AISI1045, (C45), low-stress annealed

Cutting data:

	DCMT3(2.5)1-FP4 WEP10C	**DCGT3(2.5)1-FP2 WEP10C**
v_c (sfm)	656	656
f (in)	0.004	0.004
a_p (in)	0.016	0.016
Inside dia.	44H7 $R_{z\,max}$ 10 µm	44H7 $R_{z\,max}$ 10 µm
Tool life quantity (parts per cutting edge)	80	130

Comparison: Tool life quantity **+62 %**



BENEFITS FOR YOU

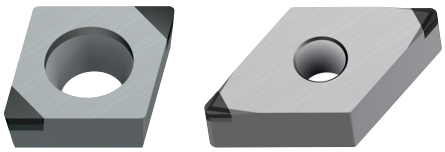
- Consistently long tool life throughout the entire duration of use
- Reduced vibration tendency with thin-walled components
- Excellent surface quality and high level of dimensional stability
- Low cutting pressure thanks to positive FP2 geometry and cutting edge preparation

The ideal CBN insert – for any application.

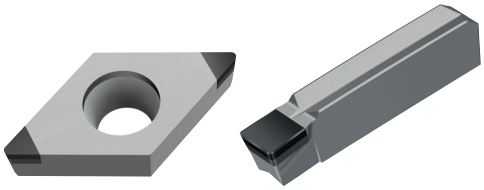
NEW TO THE RANGE

NEW ADDITION TO THE PRODUCT RANGE

– Complete range of CBN grades:
WBH10C, WBH10, WBH20, WBS10, WBK20 and WBK30



WBH10
– Finish cut
– Wiper geometry available
– Chip formation available

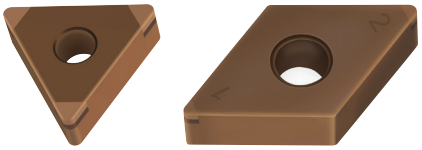


WBH20
– Finish cuts and slightly interrupted cuts
– Average cutting speeds

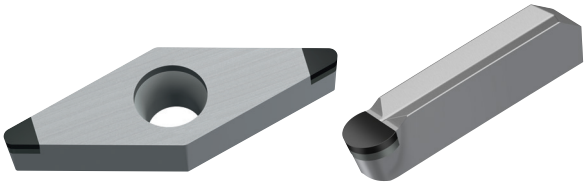
WBK20
– Finishing of grey cast iron and other ISO K materials
– Roughing and finishing of sintered materials
– Finishing of hardened steel with heavily interrupted cuts

THE APPLICATION

– For all applications in ISO turning and groove turning (incl. wiper geometries and chip breaker)
– Application-specific special inserts within four to six weeks



WBH10C
– Finish cut
– Optimal cutting parameters with TiAlSiN coating
– Wiper geometry available



WBS10
– Finishing of nickel/cobalt-based high-temperature alloys
– Interrupted cuts and finish cuts

WBK30
– Roughing of cast irons (ISO K) materials, even in poor conditions (e.g. cast skin)
– Roughing of sintered materials
– Large depths of cut and heavily interrupted cuts in hardened steel

ISO material groups

Grades	P Steel	M Stainless steel	K Cast iron	N NF metals	S Materials with difficult cutting properties	H Hard materials
WBH10C						●●
WBH10						●●
WBH20						●●
WBS10			●		●●	
WBK20			●●			●
WBK30			●●			●

●● Primary application ● Additional application

BENEFITS FOR YOU

– The right CBN indexable insert grade and geometry for any application
– Resistant to abrasive wear in cast iron and sintered steel (WBK20/WBK30)
– Dimensionally stable and protected and fractures in case-hardened steels (WBH10C/WBH10)
– High level of toughness against fractures in bearing steel (WBH20)
– High cutting speeds of 820-980 sfm with Inconel (WBS10)

Specialist for electromobility: Two tools in one – ultra efficient.

SPECIAL TOOLS

THE TOOL

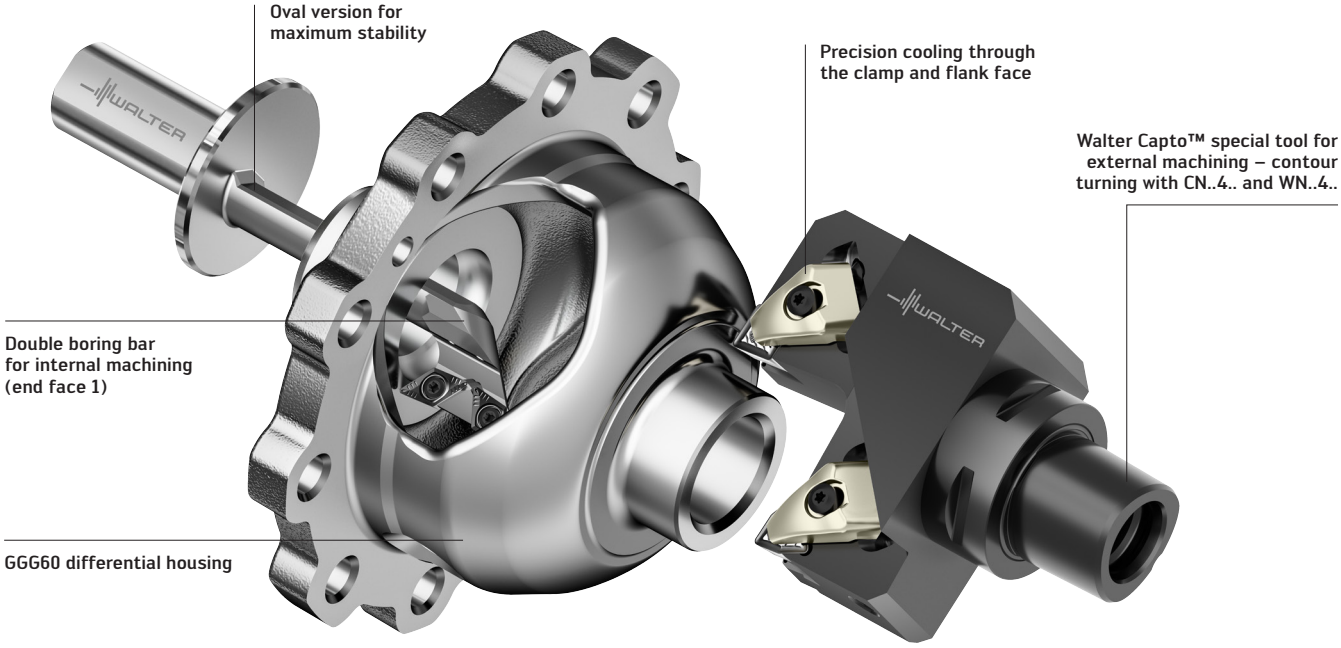
- Special tools for facing and longitudinal turning with two insert seats on a single tool
- Precision cooling on the rake and flank faces
- Oval boring bars, tough – and adapted to the component

THE INDEXABLE INSERTS

- DCM.3(2.5)./DCG.3(2.5) (DCM..11T3../DCG..11T3..) for internal machining with low cutting pressure
- CN..43. (CN..1204..) with eight cutting edges (incl. fully usable cutting edge) for longitudinal and contour turning
- WN..43. (WN..0804..) with six cutting edges for facing and longitudinal turning
- Can be combined with MX, DX and GX grooving inserts as well as other ISO indexable inserts

THE APPLICATION

- Internal facing and longitudinal turning, external facing and longitudinal turning (and a combination of the two)
- Machining operations with a focus on time savings, easy handling and component precision
- Typical components: Differential housing, wheel bearing, stator housing (e.g. for hybrid and electric vehicles), etc.



Double toolholder for external and internal machining **Fig.:** D21PS; D61NP

BENEFITS FOR YOU

- More components per hour: With the twin turning tools and boring bars we can increase the indexing interval of the inserts by 100%
- High level of stability thanks to tailored solution
- Excellent accuracy, fewer tools in use (and therefore fewer clamping operations)
- Huge time savings compared to standard tools, as multiple machining operations are possible with a single tool

Grooving and groove turning – fast and universal.

NEW

THE TOOL

Walter Cut G4011.../G4011-P monoblock shank tools

- Universal tool for grooving and groove turning
- 1 x 1 in, and 25 × 25 mm: With and without precision cooling
- Insert widths: 0.079/0.098/0.118 in (2.0/2.5/3.0 mm)
- Cutting depths: 0.394 in (10 mm) (for groove turning, grooving and parting off without diameter limit), 0.689 in (17.5 mm) (with reinforced support)

Walter Cut G4041..R/L-P parting blades with reinforced shank

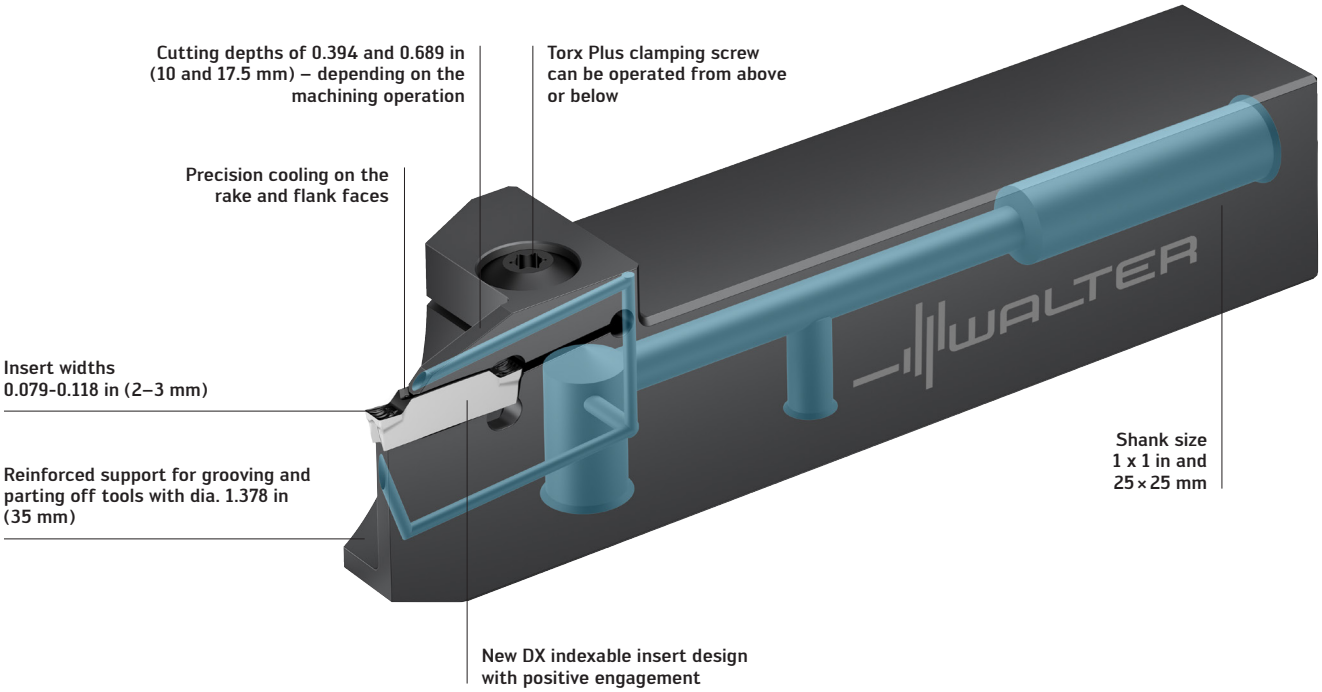
- Reinforced parting blades for parting off and grooving with and without precision cooling
- Available in right-hand, left-hand and contra versions
- Blade height: 26–32 mm

THE INDEXABLE INSERT

- Double-edged DX18 cutting inserts with positive engagement
- Insert widths: 0.059/0.079/0.098/0.118 in (1.5/2.0/2.5/3.0 mm)
- PVD grades: WSM13S, WSM23S, WSM33S, WSM43S
- MT CVD grades: WKP13S, WKP23S, WKP33S

THE GEOMETRIES

- Parting off: CE4, CF5, CF6
- Grooving and parting off for a straight groove base: GD6, GD3
- Universal grooving and groove turning: UA4, UD4, UF4
- Copy turning: RD4/RF7



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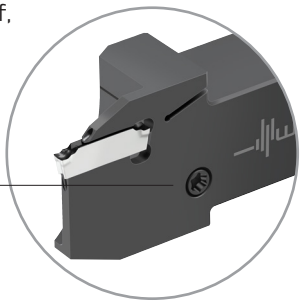
Walter Cut G4011-P/DX18 monoblock shank holder

Fig.: G4011-2525R-3T17DX18-P

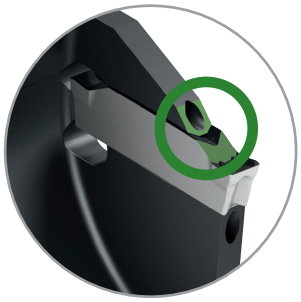
THE APPLICATION

– Radial grooving and parting off, groove turning, copy turning

Shank sizes 0.5-0.75 in and 10–20 mm G4014 with lateral "SmartLock" clamping screw

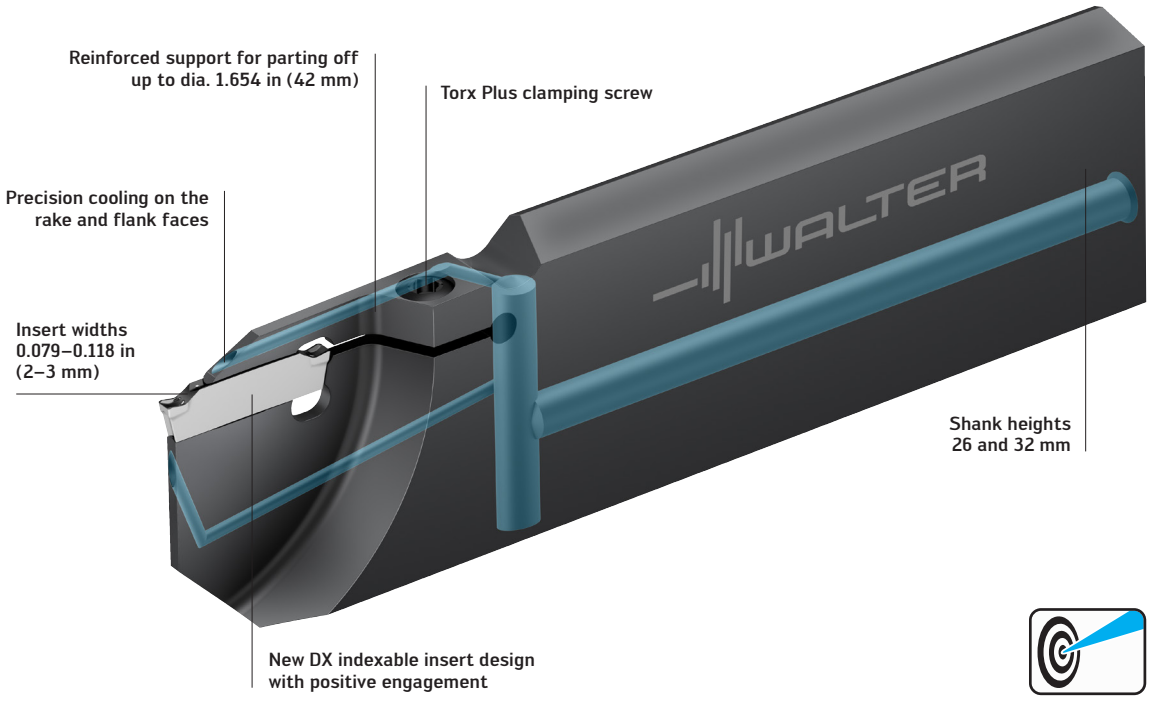


THE TECHNOLOGY



Raised insert design – protects the top clamp and produces short chips

The unique DX positive engagement in the insert seat prevents the inserts from being incorrectly fitted



Walter Cut G4041-P/DX18 reinforced parting blade

Fig.: G4041-26R-2T17DX18C-P

BENEFITS FOR YOU

– Reliable thanks to unique DX positive engagement design (no incorrect fitting of the cutting insert)
– G4011: High degree of flexibility – universal tool for all machining operations
– G4014: Tool change time reduced by 70% thanks to SmartLock and simple insert changeover in the machine
– G4041: Greater stability and lower vibration thanks to reinforced parting blades with screw clamping

Universal geometry for copy turning with a soft cutting action.

NEW

NEW ADDITION TO THE PRODUCT RANGE

- RF7 geometry can be used universally for copy and relief turning
- Sharp cutting edge (reduces the cutting forces)
- Positive primary chamfer (stabilises the cutting edge)
- 230° machining angle (enables undercuts)

THE INDEXABLE INSERT

- Cutting edge widths: 0.079/0.118/0.157/0.197 in (2, 3, 4 and 5 mm)
- Variants – single-edged: "F"; double-edged: "E"
- Precision-sintered cutting inserts: DX18 and GX24

THE APPLICATION

- Stainless steels/ISO M (e.g. turbochargers) and super alloys/ISO S (e.g. turbine discs)
- Finishing of steels/ISO P materials (e.g. ball joints)
- Radial and axial machining with a high surface quality
- Copy turning of fragile components
- Areas of use: Aerospace and automotive industries, etc.

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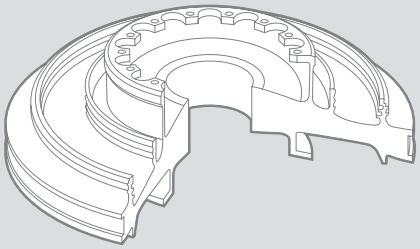
APPLICATION EXAMPLE

Turbine ring – finishing

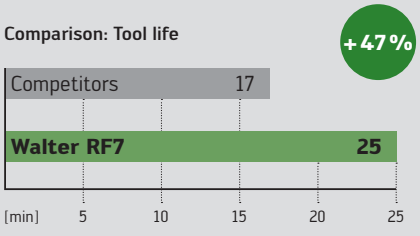


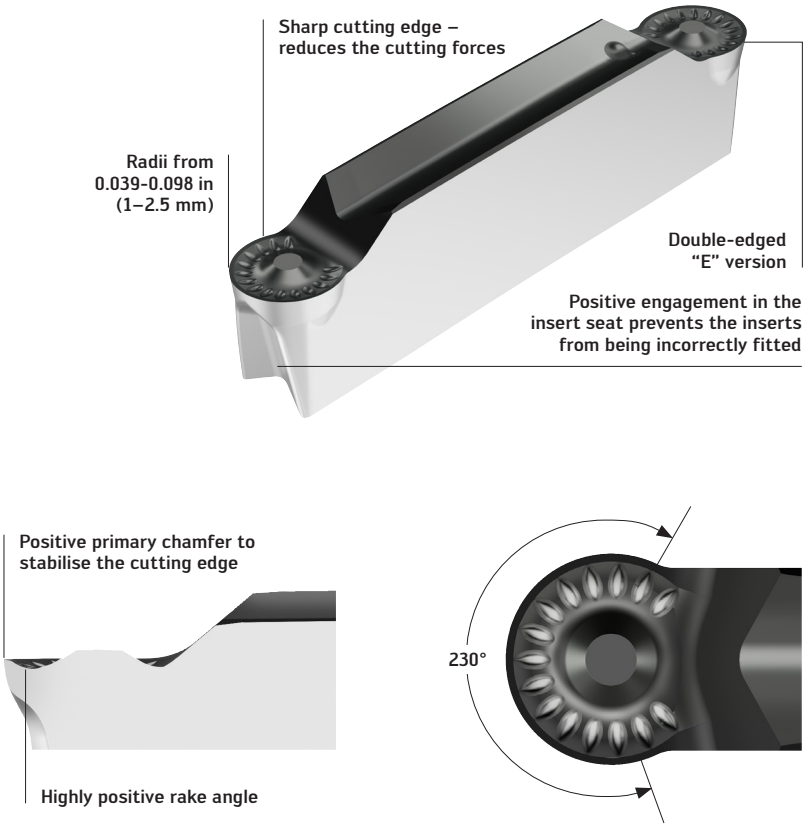
Material: Inconel 718 (DIN 2.4668)

Cutting data:

	Competitors	Walter GX24-2E300N15-RF7 WSM13S
v_c (sfm)	147	147
f (in)	0.005	0.005
a_p (in)	0.012	0.012
Tool life (min)	17	25

Comparison: Tool life





Walter Cut RF7 copy turning geometry **Fig.:** DX18-3E300N15-RF7 WSM13S

BENEFITS FOR YOU

- Maximum cost-efficiency in ISO M and ISO S materials
- Excellent surface quality thanks to positive cutting edge and stabilising primary chamfer
- Production of undercuts thanks to machining angle > 180°

Turning insert geometry MS3; CBN grades WBH10, WBH10C, WBH20 and WBK30.

Low cutting pressure, long tool life.

Turning insert geometry MS3

NEW ADDITION TO THE PRODUCT RANGE

- CNMG432–MS3 (CNMG120412-MS3)
- CNMG643–MS3 (CNMG190612-MS3)
- DNMG332–MS3 (DNMG110408-MS3)
- WNMG432–MS3 (WNMG080408-MS3)
- Grades: WSM01, WSM10S, WSM20S, WMP20S, WPP20S

THE APPLICATION

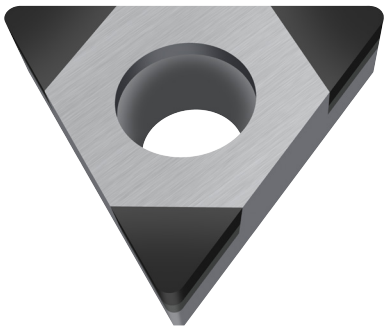
- Medium machining ISO S, M and P

BENEFITS FOR YOU

- Ideal with Accure·tec A3000 vibration-damped boring bars
- Low cutting forces thanks to sharp cutting edge
- Longest tool life in Inconel and titanium

Effective in hardened steel.

CBN grades WBH10, WBH10C, WBH20 and WBK30



NEW ADDITION TO THE PRODUCT RANGE

- CNGN432TM-S (CNGN120408TM-S)
- TCGW1.2(1.2)0.5TM-1 (TCGW06T102TM-1)
- TCGT1.2(1.2)1TM-1 (TCGW06T104TM-1)
- TCGW2(1.5)1TM-1 (TCGW110204TM-3)
- TCGW2(1.5)2TM-1 (TCGW110208TM-3)
- VBGW221TM-1 (VBGW110304TM-2)
- VBGW3(3)0.5TM-1 (VBGW160402TM-2)
- Grades: WBH10, WBH10C, WBH20, WBK30

THE APPLICATION

- For hardened steel and cast iron

BENEFITS FOR YOU

- Longest tool life in the machining of hardened steel (WBH10/WBH20)
- For finish-boring and internal turning of small components made from hardened steel (TCGW06)
- Best performance with high material removal rates in hardened steel (WBK30)

B – Holemaking

Drilling from solid

Boring and precision boring

Tiger·tec® Gold is pushing the boundaries.

NEW

THE GRADE

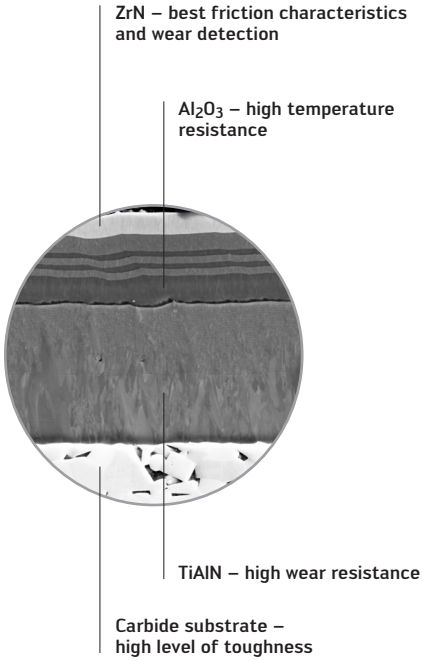
- Tiger·tec® Gold PVD-coated drilling grade WSP45G
- Unique PVD Al_2O_3 coating technology
- ZrN top layer for the best wear detection
- Perfect balance between wear resistance and toughness

THE INDEXABLE INSERT

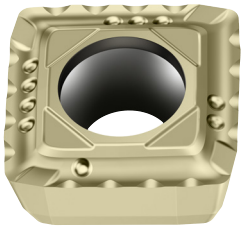
- P484. for D4120: Sizes 1–8
- P284. for D3120: Sizes 1–7
- LCMX for B321-DF and B321-U3F
- WOEX and WOMX for special tools

THE APPLICATION

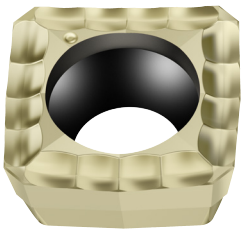
- Can be used universally on ISO materials P, M and S (such as high-alloy and austenitic stainless steels or titanium alloys)
- Unfavorable conditions such as interrupted cuts and long overhangs
- Areas of use: For example, aerospace and automotive industries or general mechanical engineering

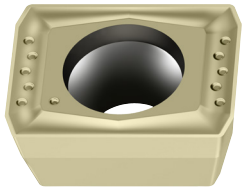


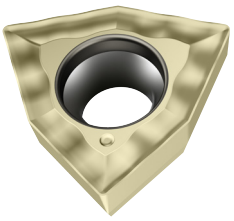
Indexable inserts with the only PVD Al_2O_3 coating of its kind in the world


P4840C-E67


P4840P-A57


P2840S-E67


LCMX-E57


WOEX-E57

Powered by
Tiger·tec® Gold

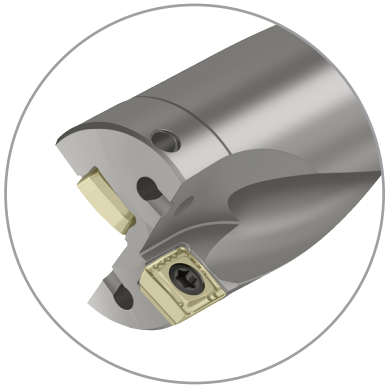
Tiger·tec® Gold PVD for drilling: WSP45G

Fig.: P4840, P2840, LCMX, WOEX

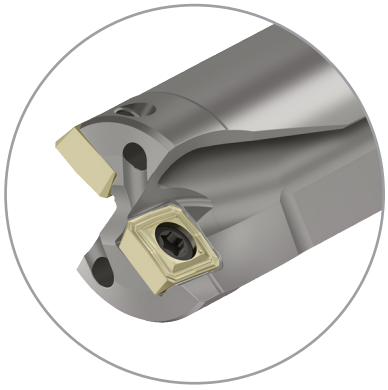
THE TOOL

Can be used in all Walter indexable insert drilling and boring tools:

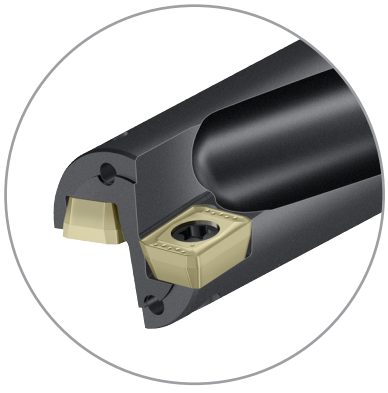
- D4120
- D3120
- B321*



D4120



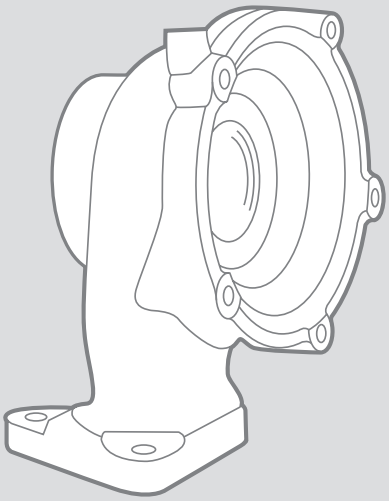
D3120



B3213

APPLICATION EXAMPLE

Turbocharger



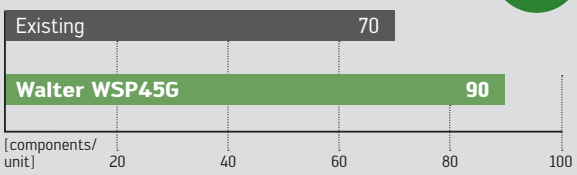
Material:	HK-Stainless steel, GX35CrNiSi 25 12, ISO M
Tool:	B3212.DF.13,7.Z01.27R
Indexable insert:	LCMX050203-E57
Grade:	WSP45G

Cutting data:

	Existing	**WSP45G**
v_c (sfm)	328	328
n (rpm)	2323	2323
f_n (in)	0.004	0.004
v_f (in/min)	9.1	9.1
Drilling depth (mm)	30	30
Cooling	12% emulsion	12% emulsion
Adaptor	HSK63 – hydraulic expansion	HSK63 – hydraulic expansion

Comparison: Number of components

+28 %



BENEFITS FOR YOU

- Maximum process reliability thanks to the combination of high wear resistance and optimal toughness
- Long tool life thanks to unique PVD Al_2O_3 coating
- Can be used universally, even in difficult conditions and for materials with difficult cutting properties
- Best wear detection thanks to the gold-coloured top layer

Perfect performance and precision.

NEW TO THE RANGE

NEW ADDITION TO THE PRODUCT RANGE

- D4120.02 ($2 \times D_C$) dia. 0.531–1.625"
- D4120.03 ($3 \times D_C$) dia. 0.531–1.625"
- D4120.04 ($4 \times D_C$) dia. 0.656–1.625"
- D4120.05 ($5 \times D_C$) dia. 0.656–1.625"

THE TOOL

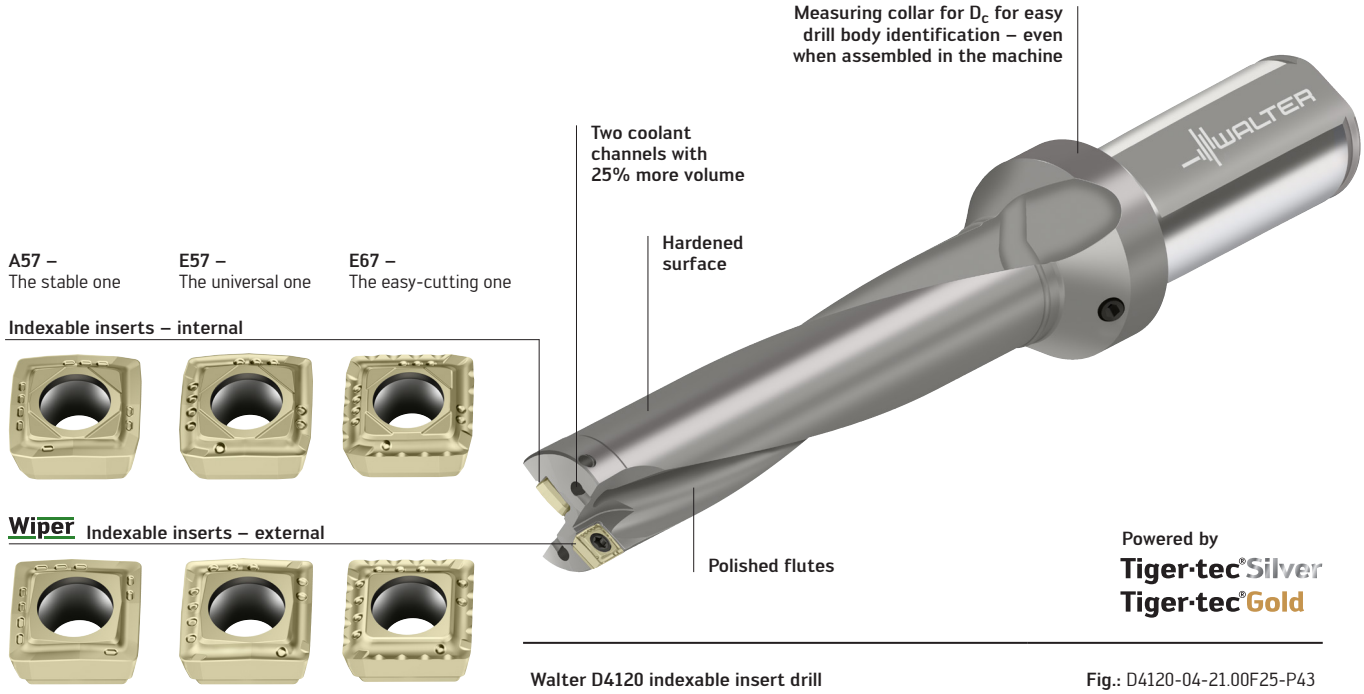
- Metric:
  - Dia. 13.5–59 mm ($2 \times D_C$ and $3 \times D_C$)
  - Dia. 17–59 mm ($4 \times D_C$ and $5 \times D_C$)
- Inch:
  - Dia. 0.531–1.625" ($2 \times D_C$ and $3 \times D_C$)
  - Dia. 0.656–1.625" ($4 \times D_C$ and $5 \times D_C$)

THE INDEXABLE INSERTS

- Four-edged, positive indexable insert
- Five grades: WKP25S, WKP35S, WSP45G, WSP45, WXP40
- Three geometries: A57, E57, E67
- Wiper cutting edge for P4840 design with fully ground circumference

THE APPLICATION

- Drilling from solid with constant bore dia.
- Difficult machining operations, such as cross holes, chain drilling, inclined inlet and exit
- ISO materials P, M, K, N, S
- Areas of use: General mechanical engineering, mould and die making, energy and automotive industries



Walter D4120 indexable insert drill **Fig.:** D4120-04-21.00F25-P43

BENEFITS FOR YOU

- High precision in bore diameter thanks to precise balancing of the cutting forces between the centre and outer insert
- Excellent surface quality due to wiper cutting edge
- Maximum process reliability thanks to easy chip removal
- Hardened and polished surfaces offer protection against friction
- Low cutting material costs due to four cutting edges

Also available from:
Walter Xpress

Flexible all-rounder for all depths of cut.

SPECIAL TOOLS

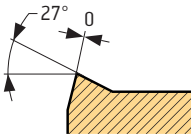
THE TOOL

- Special tool with tangentially/laterally arranged indexable inserts
- Milling and boring operations in one tool
- High number of teeth for small tool diameters
- Radially adjustable solutions are also possible

THE INDEXABLE INSERTS

- P4440-7879456
- Special indexable insert for tangential/lateral use

THE GEOMETRY



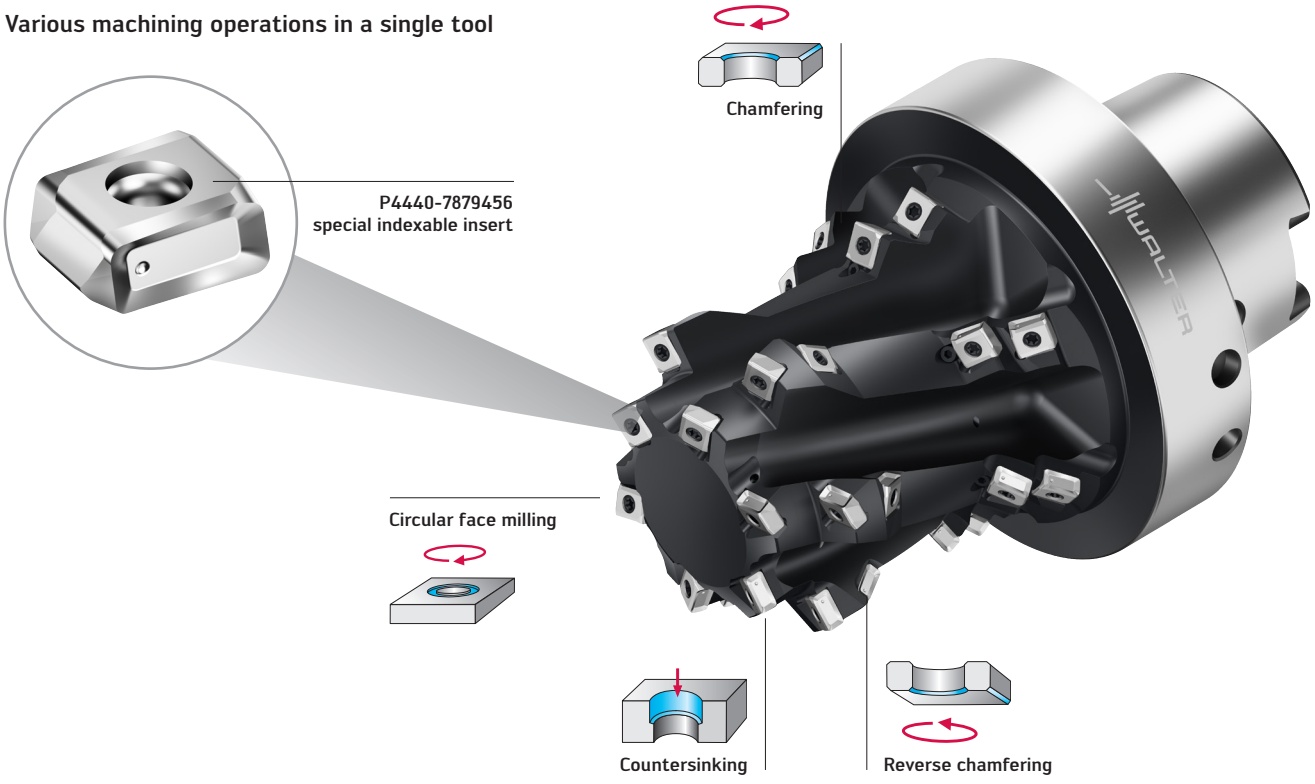
G88 – The sharp one

- Especially for machining aluminium

THE APPLICATION

- ISO N materials
- Boring (with and without interrupted cuts)
- Milling and chamfering
- Customer-specific components

Various machining operations in a single tool



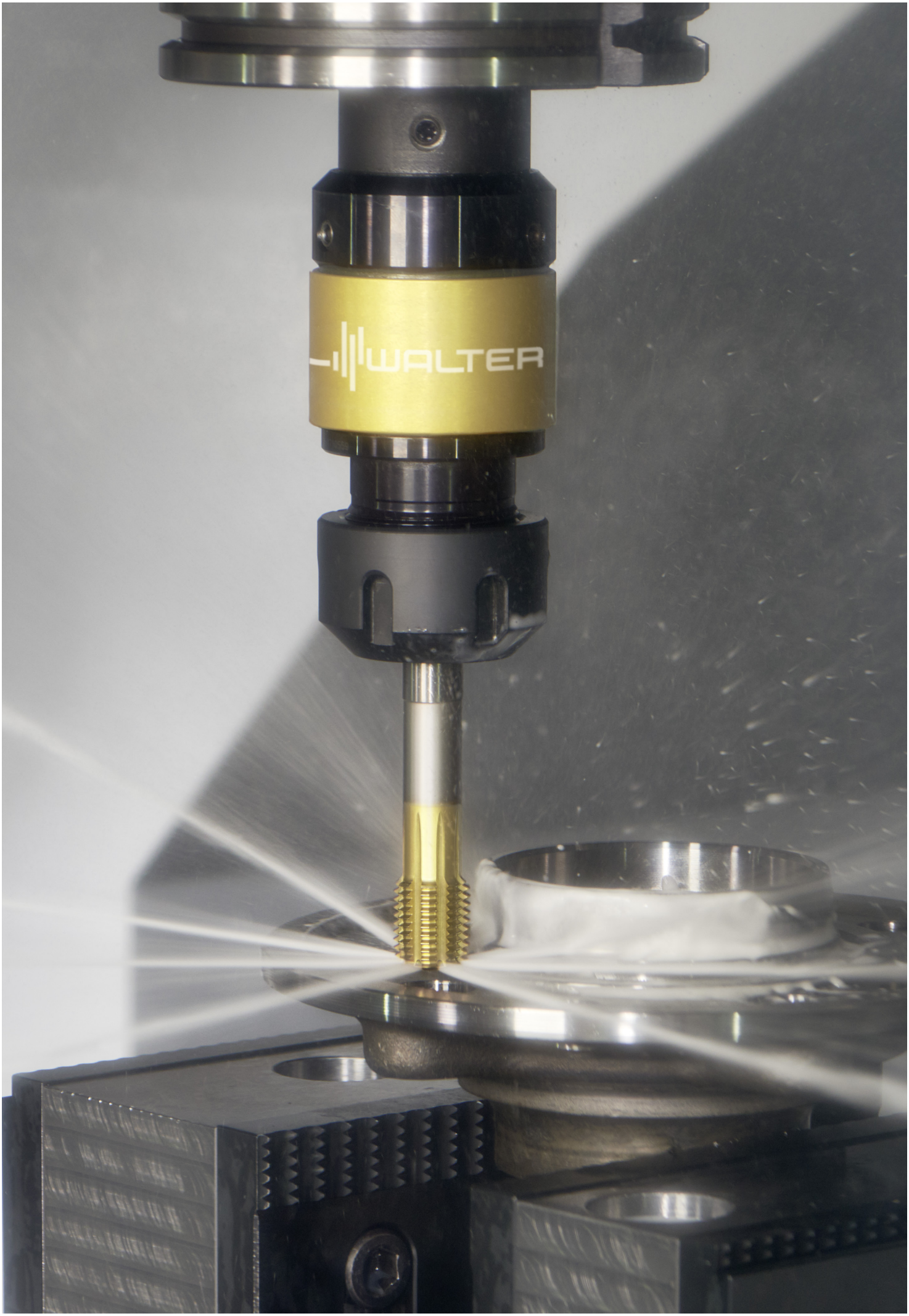
Special tool for boring

Fig.: B2074-7733613

BENEFITS FOR YOU

- Maximum productivity and shorter machining times due to higher feeds for each tooth and the combination of several machining operations in one tool
- Long tool life and flexible use thanks to customer-specific design
- High level of process reliability thanks to excellent chip breaking

B – Threading


WALTER

Superior performance – for universal use.

NEW TO THE RANGE

NEW ADDITION TO THE PRODUCT RANGE

Chamfer form E:
- With internal coolant (axial)
- M5–M16 with 6HX and 6GX tolerance
- Suitable for blind-hole threads

Metric – now up to M24 dimensions:
- With internal coolant (radial)
- Suitable for blind-hole and through-hole threads

THE TOOL

- HSS-E-PM thread former
- With and without lubrication grooves
- With and without internal coolant (axial/radial)
- Tolerances: 6HX and 6GX

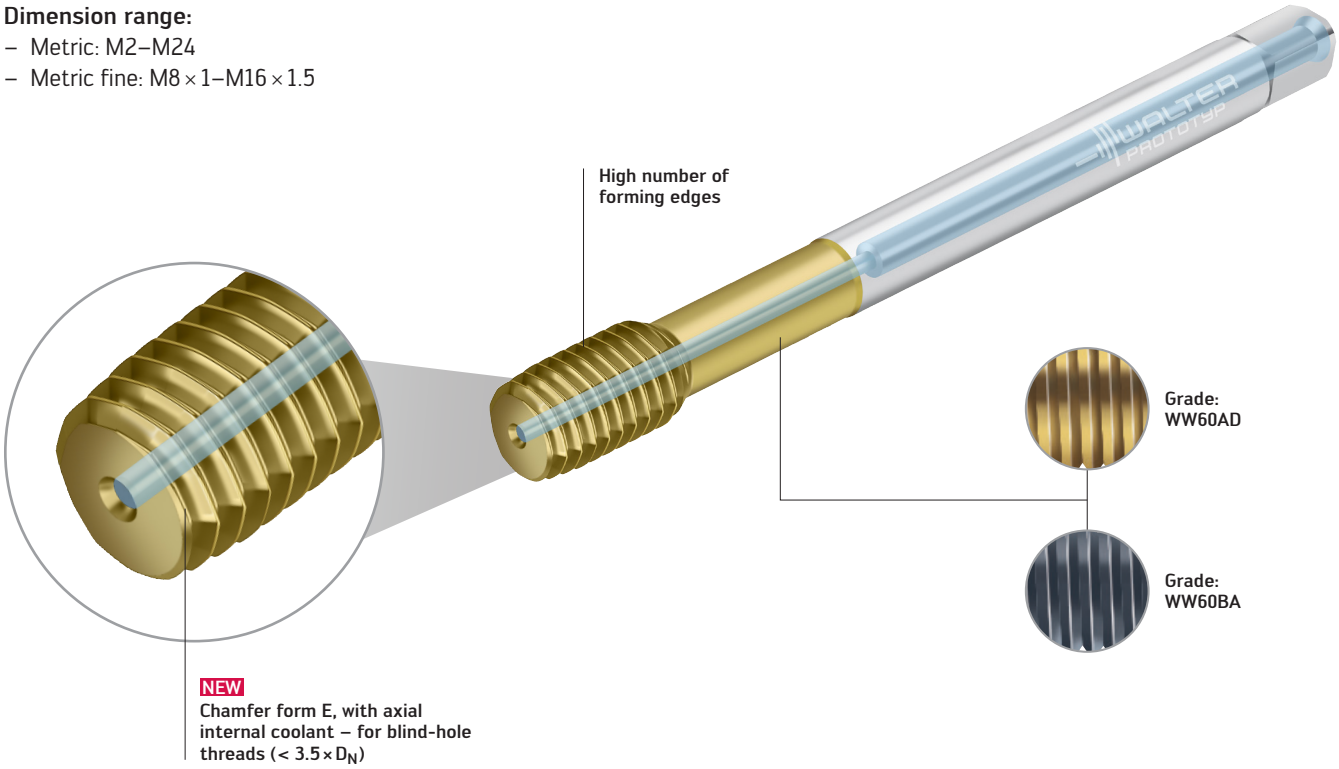
Dimension range:
- Metric: M2–M24
- Metric fine: M8 × 1–M16 × 1.5

THE GRADES

- WW60AD (HSS-E-PM + TiN)
- WW60BA (HSS-E-PM + TiCN)

THE APPLICATION

- Blind-hole and through-hole threads
- Thread depth up to $3.5 \times D_N$
- ISO materials P, M, K and N
- Areas of use: General mechanical engineering, automotive and energy industries, etc.



TC420 Supreme thread former **Fig.:** TC420

BENEFITS FOR YOU

- Can be used universally with all formable materials
- Up to 30% lower torque
- High cutting speeds possible
- Better surface finish than that achieved using thread cutting
- Up to 30% higher break-out resistance under dynamic load

Specialist in chip-free ISO P machining.

NEW TO THE RANGE

NEW ADDITION TO THE PRODUCT RANGE

– AlCrN coating (HIPIMS) – WW60EL now with:
  • Axial and radial internal coolant (metric and metric fine)
  • Without lubrication grooves (metric)

THE TOOL

– HSS-E-PM thread former
– With and without lubrication grooves
– With and without internal coolant (axial/radial)
– Tolerances: 6HX and 6GX

Dimension range:

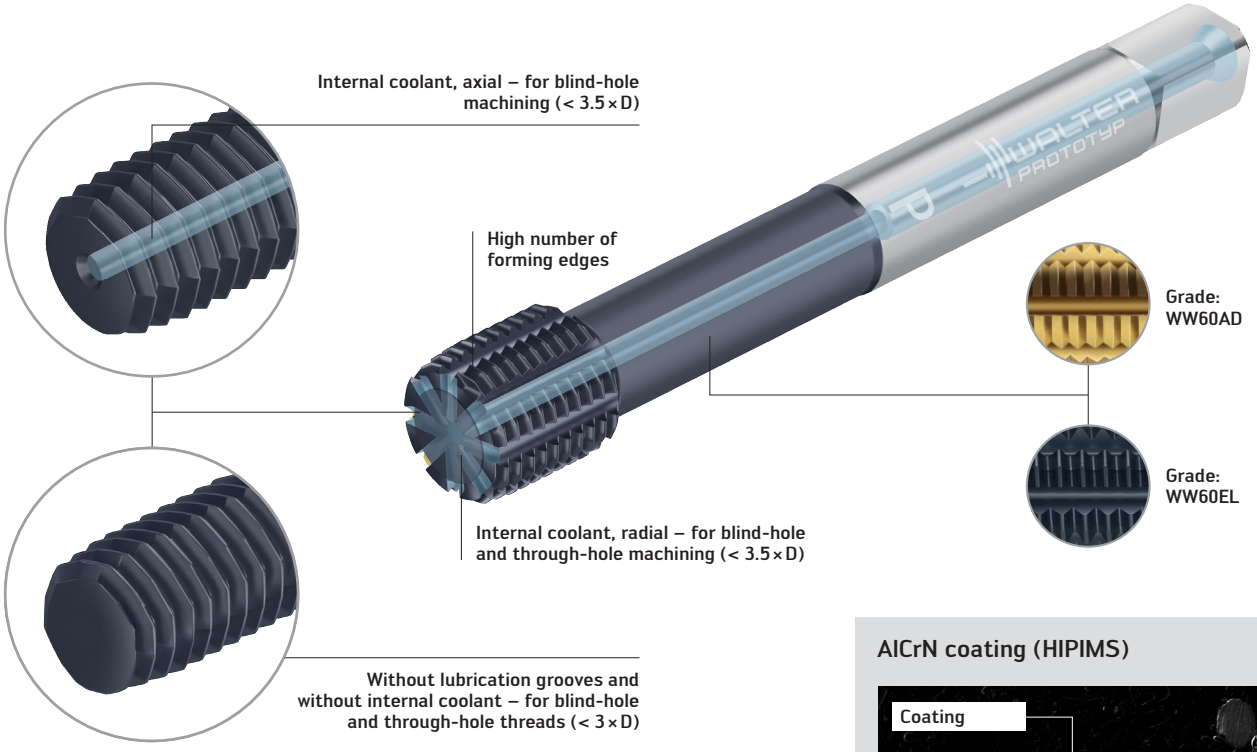
– Metric: M2–M20
– Metric fine: M8 × 1–M16 × 1.5

THE GRADES

– WW60AD (HSS-E-PM + TiN)
– WW60EL (HSS-E-PM + AlCrN)

THE APPLICATION

– Specialist for ISO P materials
– For blind-hole and through-hole threads
– Thread depth up to $3.5 \times D_N$
– Areas of use: General mechanical engineering, automotive and energy industries, etc.

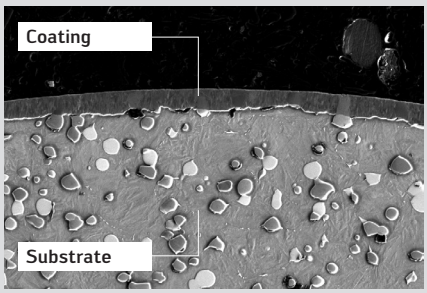


TC430 Supreme thread former **Fig.:** TC430

BENEFITS FOR YOU

– Maximum tool life in all formable steel materials
– High level of process reliability, as no chips are formed and the tool cross-section is stable
– High surface quality on the thread

AlCrN coating (HIPIMS)



The extremely smooth AlCrN coating (HIPIMS) minimises weld formations in materials with high adhesion.

The best for short threads.

NEW

THE TOOL

- Multiple-row indexable insert thread milling cutter
- Specialist for short threads
- Designed for high cutting speeds and high feeds per tooth

THE THREAD MILLING CUTTER INSERTS

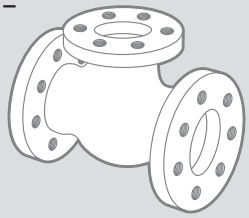
- Easy-cutting indexable insert with three cutting edges
- Defined corner radii for standard threads
- Wear-resistant, universal grade: WSM37S
- Version with anti-vibration land for unfavourable conditions

THE APPLICATION

- Threads with a nominal diameter from 20 mm
- Pitch range: 1.5–6 mm/18-6 TPI
- Up to 1.5 × D_N thread depth (ideal for oil and gas valves, for example)
- Can be used universally in steels, stainless steels, cast iron, non-ferrous metals, high-temperature alloys and hardened steels up to 55 HRC

APPLICATION EXAMPLE

Thread milling – UN 1 1/4–8

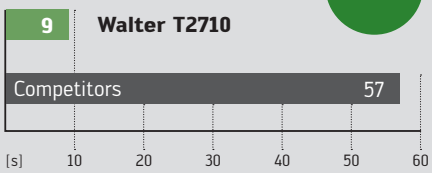


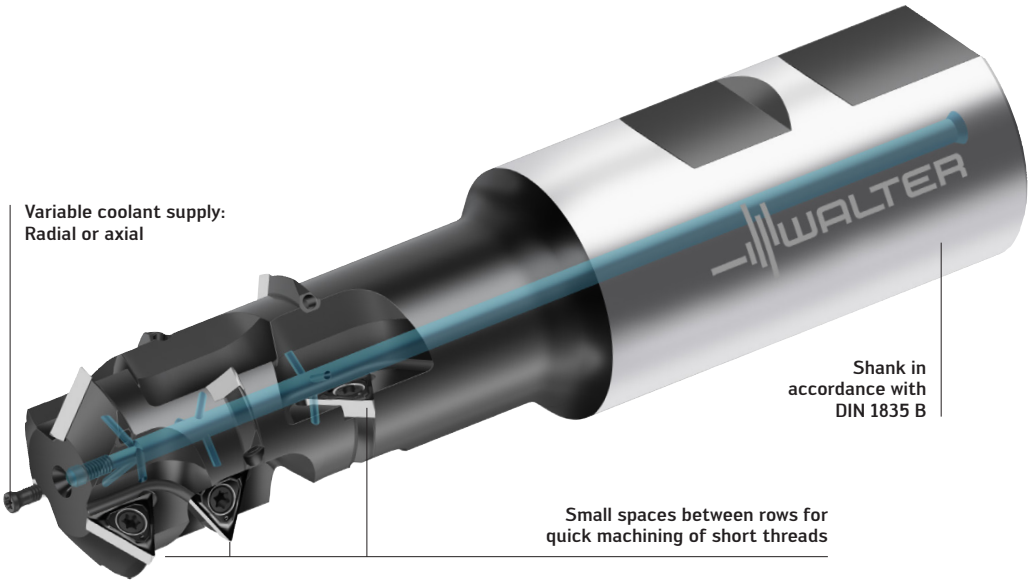
Material:	Low-alloy steel A387 grade 22 (Re = 655 N/mm²)
Thread depth:	38.1 mm
Strategy:	Synchronous milling

	Competitors	T2710-26-W25-3-09-3-12.7
Rows	1	3
Teeth	3	3
v_c (sfm)	410	820
f_z (in)	0.012	0.016
Machining time (s)	57	9

Comparison: Machining time per thread

-84 %





Thread milling cutter T2710

Fig.: T2710-29-W32-3-09-3-16

Powered by Tiger·tec® Silver

Also available from: Walter Xpress

BENEFITS FOR YOU

- **100% productivity:** Low costs per thread thanks to quick machining and high tool life quantity
- **100% process reliability:** Easy handling and few radius corrections
- **100% quality:** Outstanding thread quality thanks to superb operational smoothness – threads are free of chip residue

_TC620 SUPREME THREAD MILLING CUTTER

Specialist for the aerospace industry: Reduced cutting pressure, increased productivity.

SPECIAL TOOLS

THE TOOL

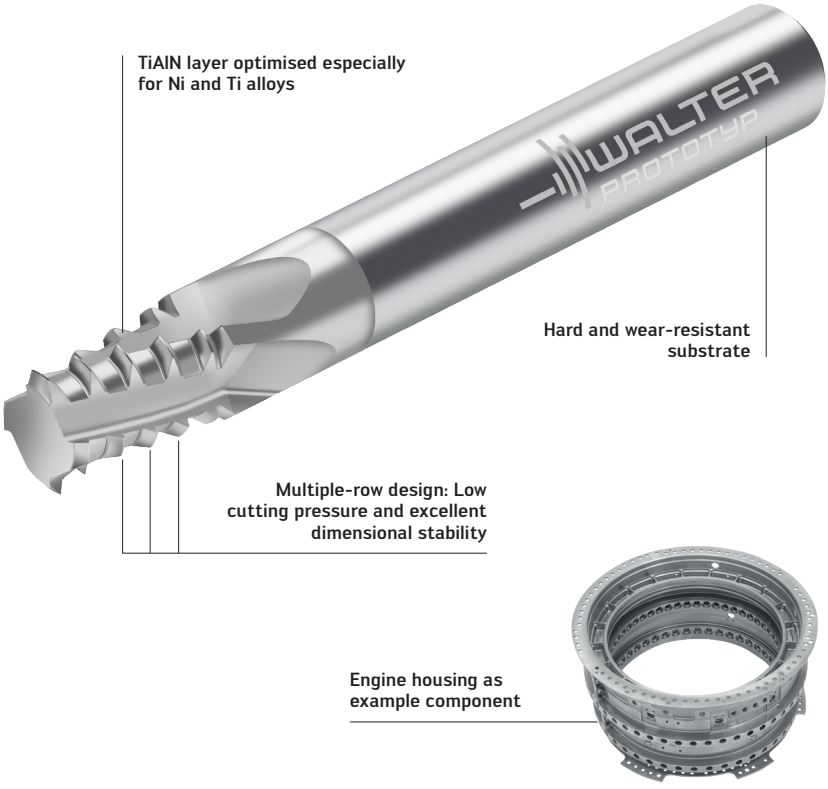
- Multiple-row solid carbide thread milling cutter
- Designed for high feeds
- Optimised for Ni- and Ti-based high-temperature alloys

THE APPLICATION

- STI UNF 1/4–28
- Waspaloy, Ti6Al4V
- Engine components (e.g. combustion chamber or compressor housing)

THE DESIGN

Thanks to reduced cutting forces, the multiple-row tool design enables higher feeds per tooth than on conventional thread milling cutters.
The result: Lower wear and therefore higher tool life quantities without radius corrections.

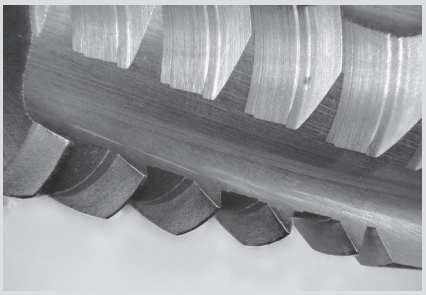


TC620 Supreme thread milling cutter

Fig.: Special tool

MACHINING EXAMPLES

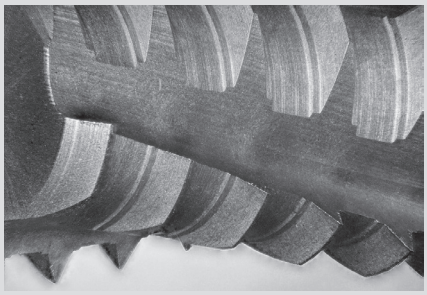
Material: Waspaloy 39–47 HRC
Thread: STI UNF ¼–28; 0.315 in deep
Machining time: 21 seconds per thread



After 150 threads

No radius correction, no end of tool life.

Material: Ti6Al4V
Thread: STI UNF ¼–28; 0.410 in deep
Machining time: 7 seconds per thread



After 900 threads

No radius correction, no end of tool life.

BENEFITS FOR YOU

- Greater process reliability compared to conventional thread milling cutters
- High tool life quantity without radius corrections
- Low cost per thread thanks to fast machining time and high tool life quantity

_NEW ADDITIONS TO THE PRODUCT RANGE – THREADING TOOLS

T2711 indexable insert thread milling cutter; TC115 and TC216 Perform HSS-E machine taps.

Now also for smaller dimensions.

T2711 indexable insert thread milling cutter

NEW ADDITION TO THE PRODUCT RANGE

- M20 and UNC7/8–9

THE TOOL

- Multiple-row indexable insert thread milling cutter

THE APPLICATION

- For high v_c and f_z
- Can be used universally with ISO P, M, K, N, S and H to 55 HRC

BENEFITS FOR YOU

- 100% productivity: Lower costs per thread
- 100% process reliability: Easy handling
- 100% quality: Excellent thread quality due to operational smoothness

---

Ideal for various different materials.

TC115 Perform HSS-E machine tap

NEW ADDITION TO THE PRODUCT RANGE

- UNF6–UNF 1/2
- TiN coating; grade: WY80AA

THE TOOL

- TC115 Perform tap
- Blind-hole threads up to $3 \times D_N$

THE APPLICATION

- ISO materials P, M and K (secondary application N)

BENEFITS FOR YOU

- Long tool life thanks to TiN coating
- Vaporised: Excellent chip control; minimises weld formations
- Extremely flexible thanks to wide range of applications
- High process reliability

Very good performance for all batch sizes.

TC216 Perform HSS-E machine tap

NEW ADDITION TO THE PRODUCT RANGE

- UNF6–UNF 1/2
- TiN coating; grade: WY80AA

THE TOOL

- TC216 Perform tap
- Through-hole threads up to $3.5 \times D_N$

THE APPLICATION

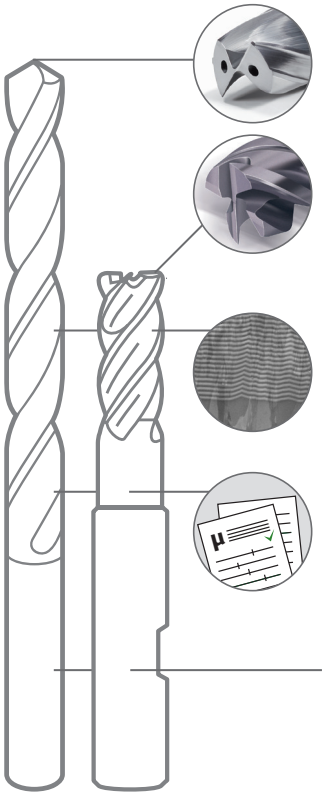
- ISO materials P, M, K and N

BENEFITS FOR YOU

- Long tool life thanks to TiN coating
- Vaporised: Excellent chip control; minimises weld formations
- Extremely flexible thanks to wide range of applications
- High process reliability

Reconditioning to the original manufacturer quality really pays off.

The Reconditioning Service from Walter Multiply makes a significant contribution towards lowering your production costs. This service can provide you with Walter Titex and Walter Prototyp tools that are as good as new, in the original manufacturer quality and all at an attractive price-performance ratio.



ORIGINAL GEOMETRIES
Cutting edge geometries are extremely complex. During reconditioning, Walter calls upon its extensive manufacturing experience to return them to their original condition.

ORIGINAL COATING
When it comes to tool performance, the coating is key. Only Walter uses the original coating process during reconditioning.

ORIGINAL TOLERANCES
These marks of quality are just as important when reconditioning as when Walter manufactures a completely new tool. To achieve this, we only use the most up-to-date measuring methods.

RECONDITIONING RANGE
Walter's solid carbide milling cutters and drills can be reconditioned as standard and special tools.

Reconditioning Service
Original Walter Quality

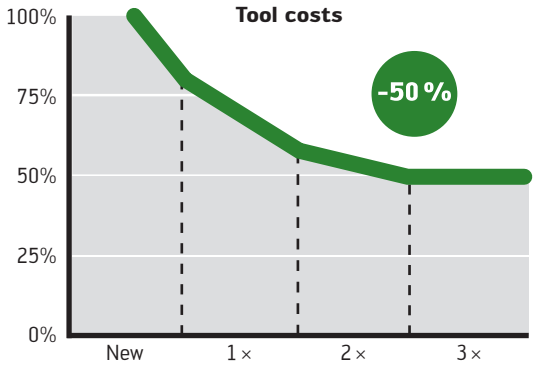
OUR MARK OF 100% QUALITY

Look out for the "Original Walter Quality" label. This label indicates that a tool has been reconditioned to original manufacturer quality. It even appears in the ordering documents, enabling you to see the tools for which we recommend our Reconditioning Service.

50% LOWER COSTS!

Tools are often disposed of far too early, even though Walter can restore the tool a number of times to original manufacturer quality. Benefit from reduced costs, reliable production processes and consistent tool life by having your tools reconditioned at our Reconditioning Centre, a service which is available worldwide. That's how you save up to 50% on your tool costs!

Find out more at: www.reconditioning.walter



Number of reconditioning operations

C – Milling

Finishing – up to 90% faster.

NEW

THE TOOLS

- Circle segment milling cutters in two versions
- Solid carbide milling tools with large radii in the cutting area

MD838 Supreme – conical version

- Effective radius R_W 250–1000 mm
- Corner radius 0.5–4 mm
- Dia. 6–16 mm
- z = 4–8

MD839 Supreme – tangential version

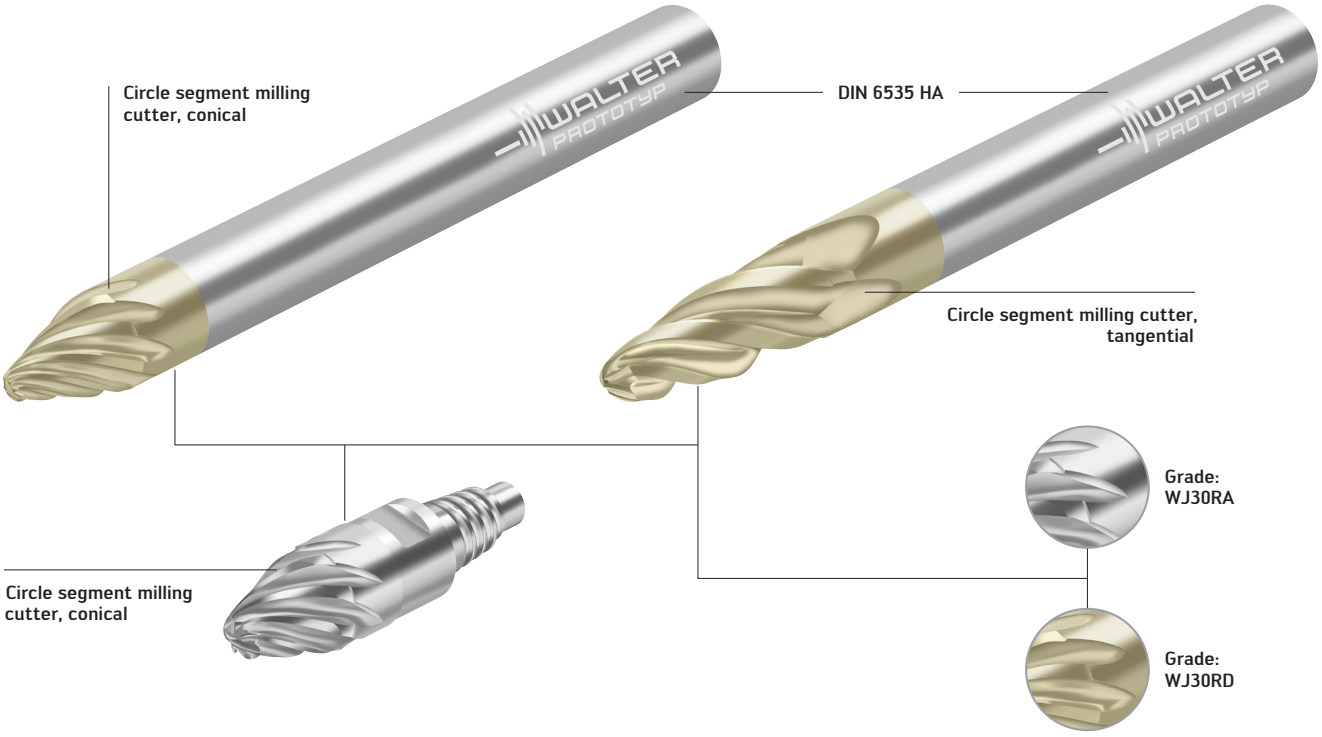
- Effective radius R_W 100 mm
- Corner radius 1–4 mm
- Dia. 6–16 mm
- z = 4

THE GRADES

- WJ30RD (for ISO materials P and K)
- WJ30RA (for ISO materials M, N and S)

THE APPLICATION

- Semi-finishing and finishing with large spaces between rows
- Finishing of freeform surfaces and additively manufactured components (for steep walls, deep cavities, prismatic surfaces and transition radii)
- Areas of use: Mold and die making, medical technology, general mechanical engineering, aerospace and energy industries

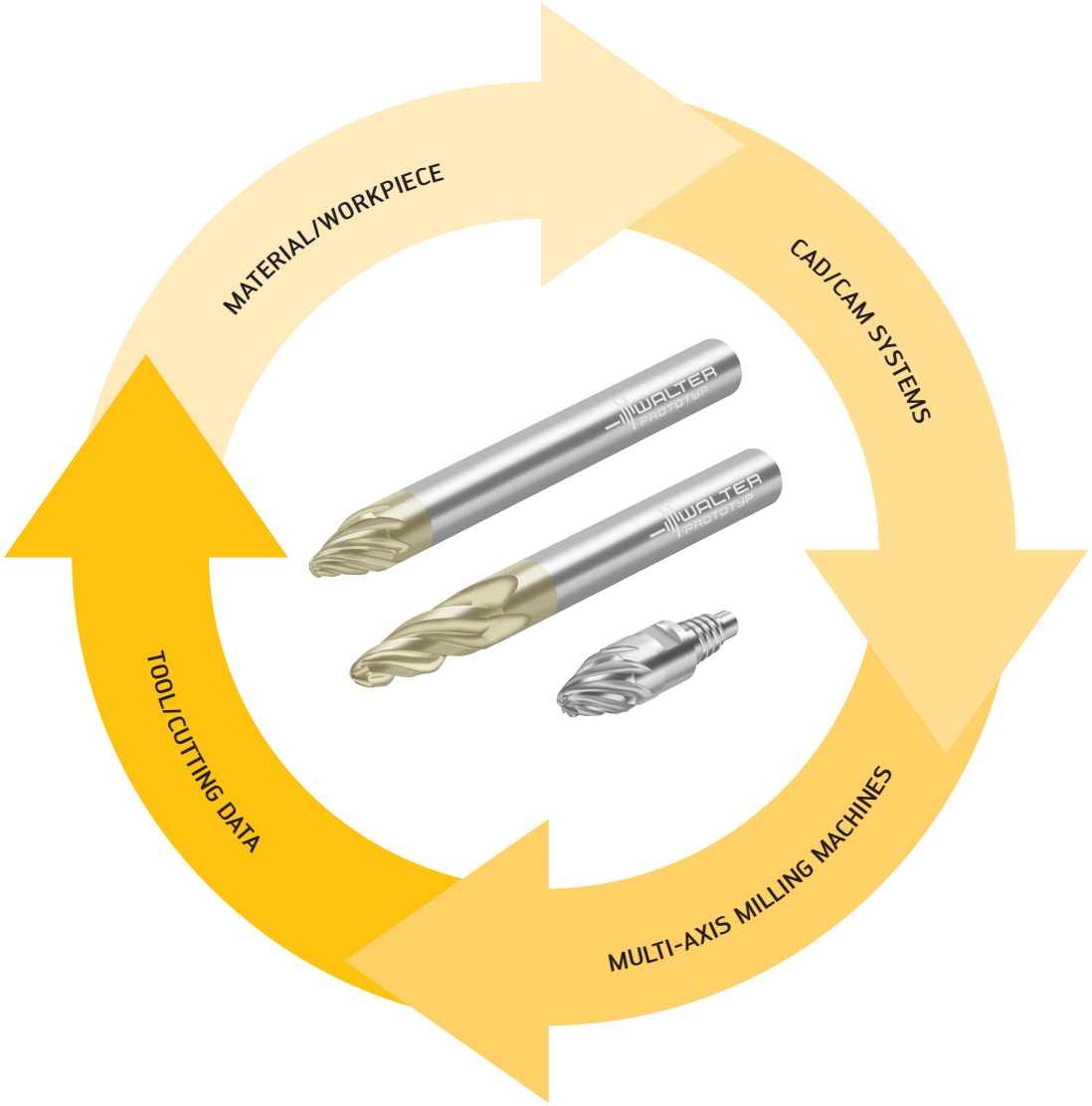


MD838 and MD839 Supreme solid carbide circle segment milling cutters

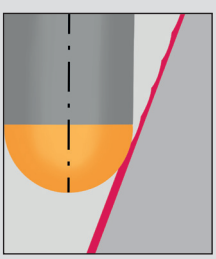
Fig.: MD838 Supreme, MD839 Supreme, MD838 ConeFit

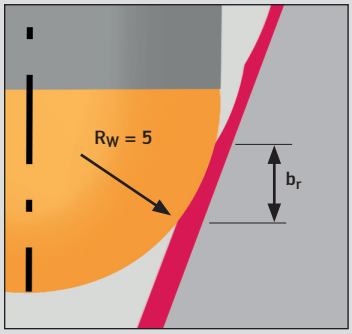
BENEFITS FOR YOU

- Cost-effective finishing (up to 90% faster than with ball-nose end mills)
- Higher productivity thanks to increased number of teeth
- Tough and reliable (even with long overhangs)
- High component precision

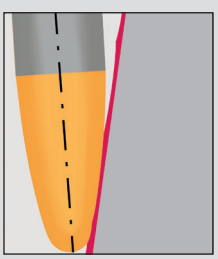


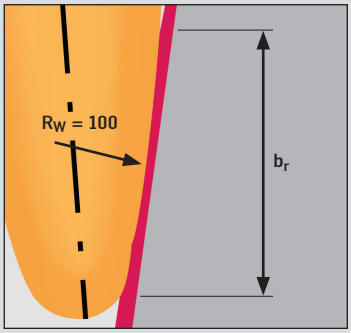
Conventional strategy – ball-nose end mill





Use – MD839 Supreme tangential circle segment milling cutter





Close pitch cutter for universal finishing.

NEW

THE TOOL

- MC128 Advance multi-tooth solid carbide finishing face milling cutter
- One version for universal use
- Cylindrical shank or ConeFit exchangeable head
- Large metric and inch range (from a cutting diameter of 2 mm)
- With protective chamfer and corner radii
- Dia. 2–25 mm / ¼–¾"
- z = 4–8

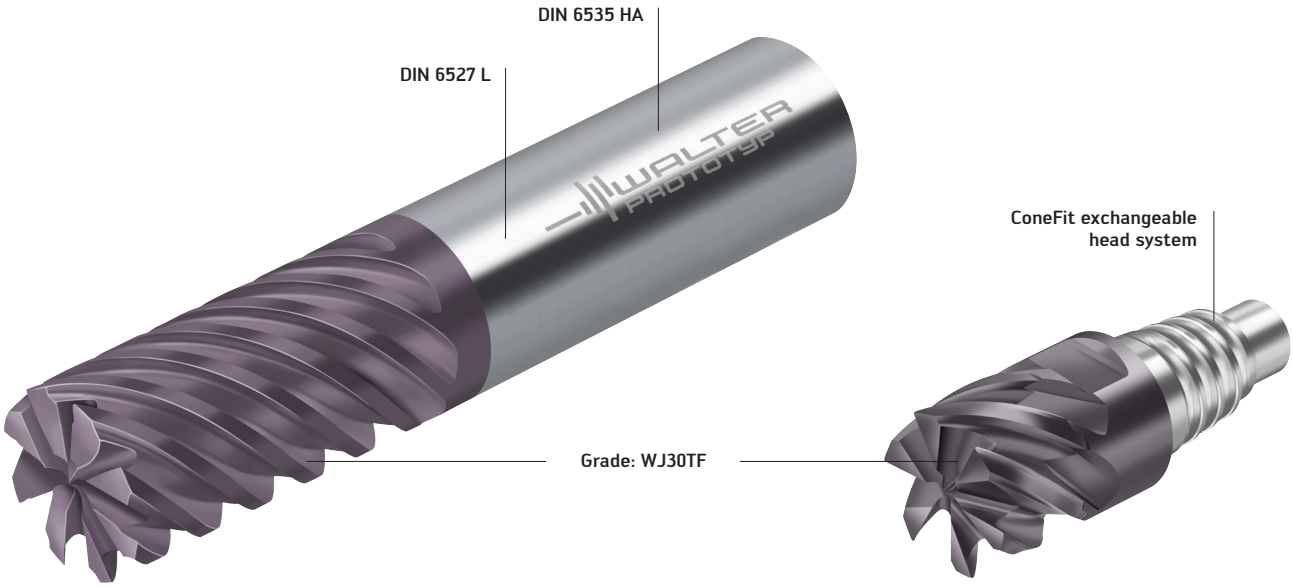
THE GRADE

- Universal milling grade with TiAlN coating
- WJ30TF for ISO materials P, M, K and S

THE APPLICATION

- Can be used universally for semi-finishing and finishing
- Secondary application: Dynamic milling
- Finishing of shoulders, pockets, walls and cavities
- Finishing of additively manufactured components
- Areas of use: General mechanical engineering, mould and die making, etc.

Also available from:
Walter Xpress



MC128 Advance solid carbide milling cutter **Fig.:** WJ30TF

BENEFITS FOR YOU

- Excellent surfaces
- Minimal burr formation on the component thanks to 50° helix
- Low inventory costs thanks to universal usability
- Wide selection thanks to large variety of products

Close pitch cutter with maximum productivity.

NEW

THE TOOL

- MD128 Supreme multi-tooth solid carbide finishing face milling cutter
- Two designs for different primary applications
- Cylindrical shank or ConeFit exchangeable head system
- With protective chamfer and corner radii
- Dia. 6–25 mm
- z = 6–8
- Long cutting edge:
  - Solid carbide milling cutter $L_c = 3 \times D_c$
  - ConeFit $L_c = 1.5 \times D_c$

THE GRADES

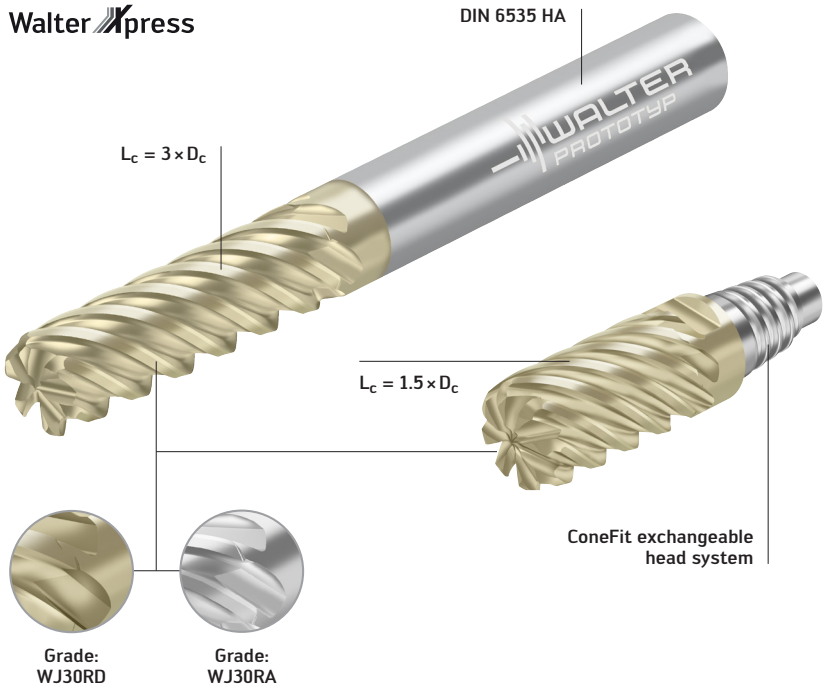
- Two high-performance grades (with AlTiN+ZrN or TiAlN+TiAl coating), adapted to the specific material group
- WJ30RD (for ISO materials P)
- WJ30RA (for ISO materials M and S)

THE APPLICATION

- Semi-finishing and finishing with optimal cutting data
- Secondary application: Dynamic milling
- Finishing of shoulders, pockets, walls and cavities
- Finishing of additively manufactured components
- Areas of use: Medical technology, aerospace and energy industries, and mould and die making

Also available from:

Walter Xpress



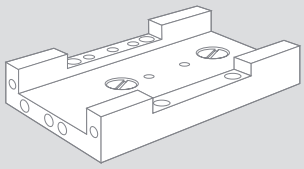
MD128 Supreme solid carbide milling cutter **Fig.:** WJ30RD

BENEFITS FOR YOU

- Excellent surfaces
- Minimal burr formation on the component thanks to 50° helix
- Finishing of dynamically roughed components up to $L_c = 3 \times D_c$
- Variable use in deep cavities thanks to ConeFit tools
- High productivity thanks to more teeth, a longer cutting edge length and material-specific grades

APPLICATION EXAMPLE

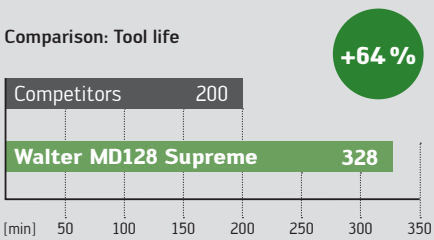
Spring leaf



Material:	6150; 1.8159 heat-treated
Tool:	MD128-20.0A8LJ-WJ30RD

	Competitors	**Walter**
D_c (in)	0.787	0.787
z	8	8
a_e (in)	0.0079	0.0079
a_p (in)	1.968	1.968
v_c (sfm)	312	656
f_z (in)	0.0026	0.0016
Cooling	Emulsion	Emulsion
Tool life (min)	200	328

Comparison: Tool life



Titanium milling cutter – also suitable for ISO M and P.

NEW

THE TOOL

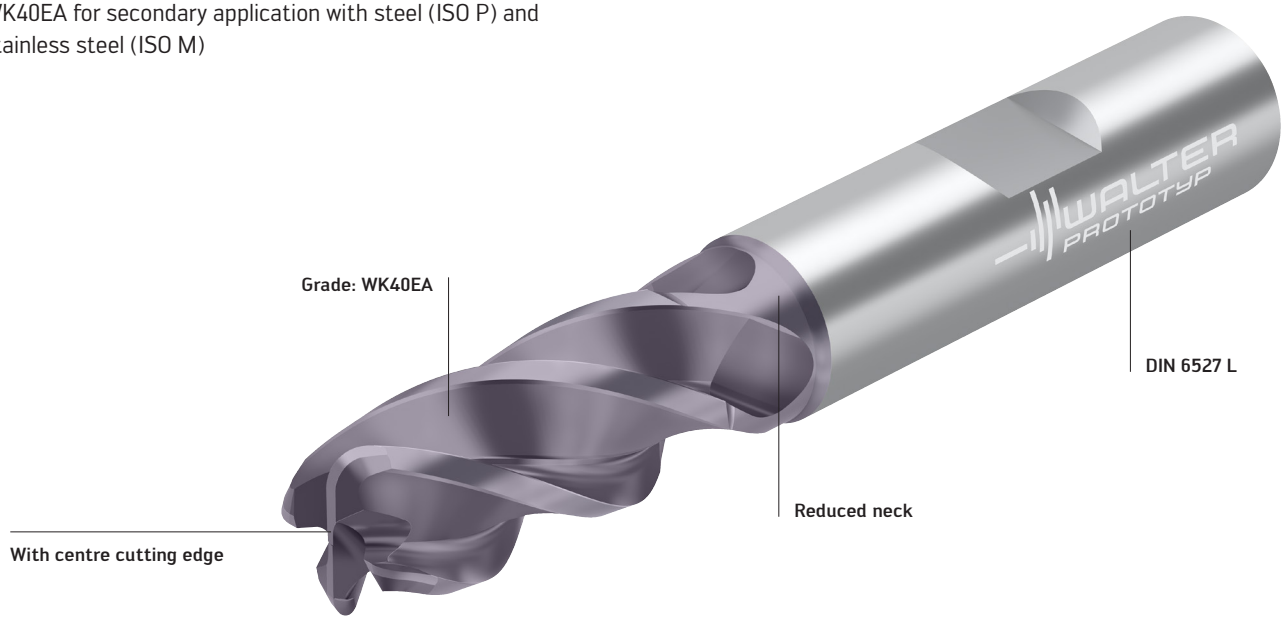
- MC377 Advance solid carbide milling cutter
- With protective chamfer, corner radii and centre cutting edge
- Dia. 2–25 mm [DIN 6535 HA]
- Dia. 16–25 mm [DIN 6535 HB]
- From dia. 16 mm with HB shank (for adaptor with pull-out protection)
- z = 4
- $L_c = 2 \times D_c$

THE GRADE

- Tough milling grade with AlCrN coating
- WK40EA for primary application with titanium (ISO S)
- WK40EA for secondary application with steel (ISO P) and stainless steel (ISO M)

THE APPLICATION

- First choice for universal use on titanium
- Roughing and finishing; full slotting up to $1 \times D$
- Long reach with cutting edges $L_c = 2 \times D_c$
- Ramping and plunging are possible
- Areas of use: Aerospace industry, medical technology, general mechanical engineering



Also available from: Walter Xpress

MC377 Advance solid carbide milling cutter **Fig.:** WK40EA

BENEFITS FOR YOU

- Can be used universally in ISO materials S, M and P
- Low inventory costs
- Extensive range with corner radii
- Suitable for flexible use
- Long tool life thanks to high-performance grade WK40EA
- Regrindable with performance guarantee in all Walter Reconditioning Centres worldwide

Superior specialist for titanium machining.

NEW

THE TOOL

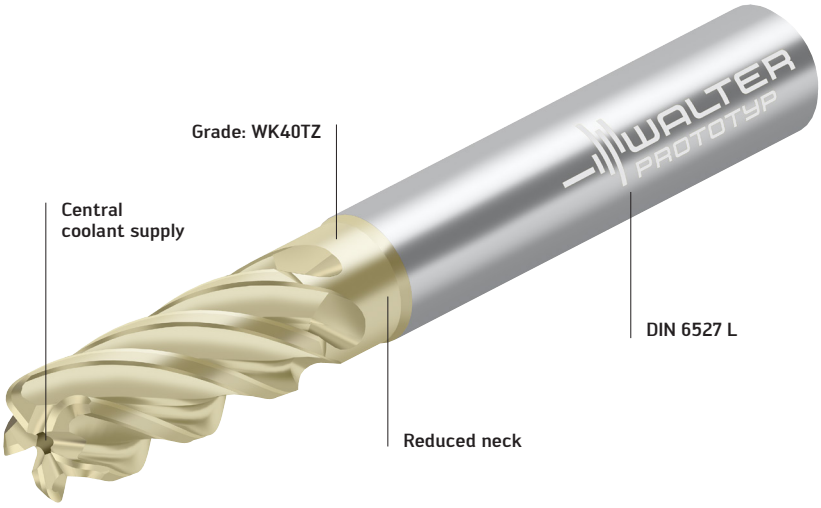
- Solid carbide milling cutter with corner radius and central internal coolant
- Proven titanium geometry; type HPC Ti40
- Dia. 6–25 mm [DIN 6535 HA]
- Dia. 16–25 mm [DIN 6535 HB]
- z = 5

THE GRADE

- WK40TZ for ISO S (and ISO M)
- AlTiN+ZrN-coated high-performance grade with the latest HIPIMS technology

THE APPLICATION

- Roughing, shoulder milling, semi-finishing and finishing
- Full slotting up to $1 \times D_C$
- Ramping is possible
- Ideal for dynamic milling
- Ideal for ISO S materials (e.g. for machining small parts, engine components or structural components, as well as additively manufactured components)
- Areas of use: Aerospace and energy industries, and medical technology



Also available from: Walter Xpress

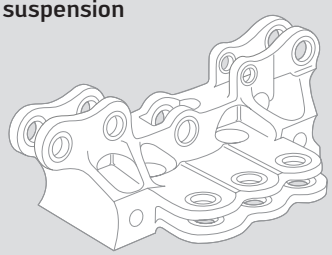
MD377 Supreme solid carbide milling cutter **Fig.:** WK40TZ

BENEFITS FOR YOU

- Latest HIPIMS coating for maximum tool life
- Maximum metal removal rate thanks to five cutting edges
- Optimal geometry for demanding titanium machining
- Lower vibration thanks to differential pitch
- High level of process reliability as the shank is designed to protect against being pulled out

APPLICATION EXAMPLE

Engine suspension

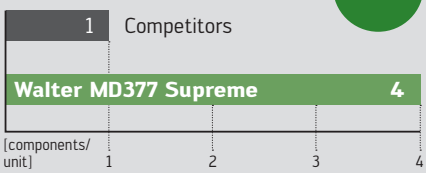


Material: TiAl6V4, ISO S

Tool: MD377-25.0W5B400C-WK40TZ

	Competitors	Walter
D_c (in)	0.984	0.984
z	4	5
a_e (in)	0.79–0.98	0.79–0.98
a_p (in)	0.59	0.59
v_c (sfm)	180	180
f_z (in)	0.004	0.004
v_f (in/min)	11.0	13.8
Tool life quantity (components/unit)	1	4

Comparison: Number of components +300 %



_WALTER MILLING GRADE WSP45G

Tiger·tec® Gold is pushing the boundaries.

NEW

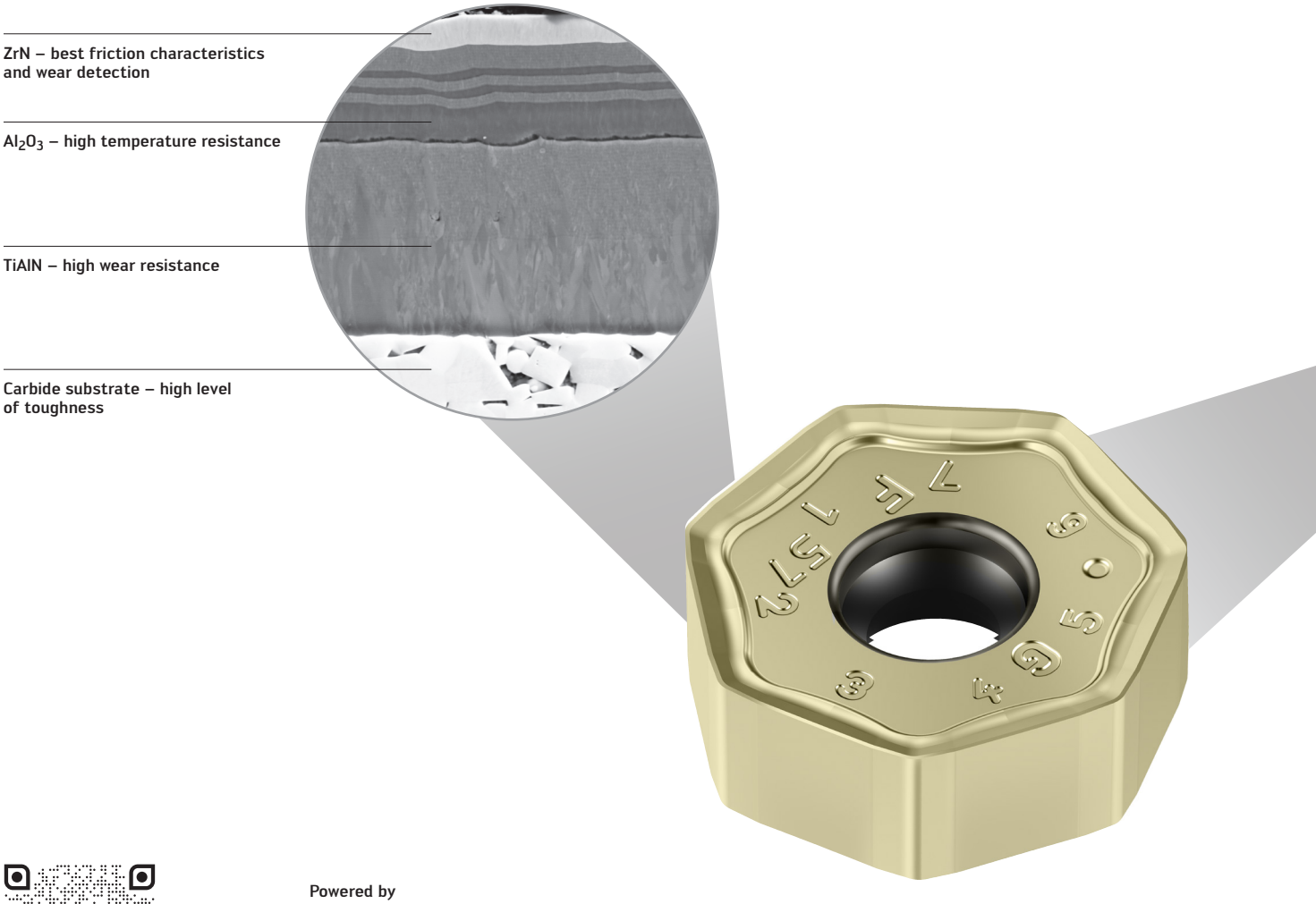
THE GRADE

- PVD-coated Tiger·tec® Gold milling grade WSP45G
- 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 TOOLS

Compatible for all standard milling cutters from the Walter range, such as:

- Xtra·tec® XT: M5130 and M5137 shoulder milling cutters, M5009 and M5012 face milling cutters, M5008 high-feed milling cutter
- M4000
- Walter BLAXX



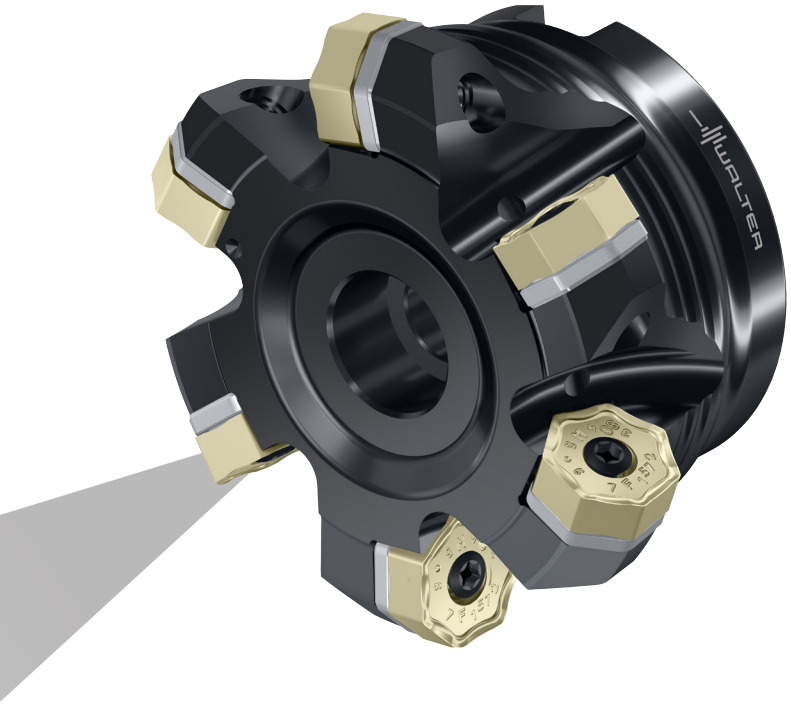
Powered by
Tiger·tec® Gold

Tiger·tec® Gold milling grade WSP45G

Fig.: Walter BLAXX M3024

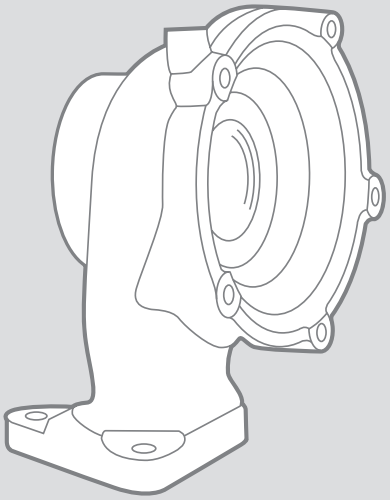
THE APPLICATION

- Can be used universally on materials from ISO groups P, M and S (e.g. austenitic stainless steel or titanium alloys)
- Ideal for unfavourable conditions such as long overhangs or for wet machining
- Areas of use: Aerospace and energy industries, general mechanical engineering, etc.



APPLICATION EXAMPLE

Turbocharger housings



Material: A297 grade HH (1.4837), ISO M

Tool: M3024 / dia. 100 / Z8

Indexable insert: XNMU0705ANN-F57

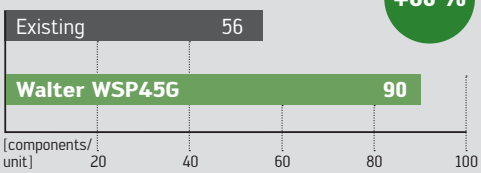
Cutting tool material: WSP45G

Cutting data:

	Existing	Walter WSP45G
v_c (sfm)	394	394
f_z (in)	0.0114	0.0114
a_e (in)	1.97–3.07	1.97–3.07
a_p (in)	0.118	0.118
Cooling	Dry	Dry

Comparison: Tool life quantity

+60 %



BENEFITS FOR YOU

- Maximum process reliability thanks to the combination of high wear resistance and optimal toughness
- Long tool life thanks to unique PVD Al_2O_3 coating
- Can be used universally, even in difficult conditions and for materials with difficult cutting properties
- Best wear detection thanks to the gold-coloured top layer

Performance and reliability extend your perspective.

NEW

THE TOOL

- Xtra·tec® XT M5130 shoulder milling cutter
- Stable cross-section due to modified installation position of the indexable inserts
- Two pitches for different applications
- Approach angle: Exactly 90°
- Oversize milling cutter for machining operations on deep shoulders
- Dia. 10–160 mm (or 0.5–6")
- Interfaces: ScrewFit, cylindrical-modular interface, Weldon or cylindrical shank and shell mill mount

THE INDEXABLE INSERTS

- Rhombic, positive indexable inserts
- Two cutting edges with positive basic shape
- Stabilised cross-section due to reduced clearance angle
- Four indexable insert sizes with different corner radii:
  - AC..0602..: r = 0.2–1.6 mm, $a_{p\ max}$ = 5 mm
  - BC..0903..: r = 0.2–2.0 mm, $a_{p\ max}$ = 9 mm
  - BC..1204..: r = 0.4–4.0 mm, $a_{p\ max}$ = 12 mm
  - BC..1605..: r = 0.8–6.0 mm, $a_{p\ max}$ = 15 mm
- Variants:
  - Fully sintered circumference (ACMT.., BCMT..)
  - Fully ground circumference (ACGT.., BCGT.. or ACHT.., BCHT..)

THE APPLICATION

- Face milling, shoulder milling, ramping, pocket milling and circular interpolation milling
- Small indexable inserts combined with a high number of teeth: Ideal for low material removal rates
- For steel, stainless steels, cast iron, non-ferrous metals and materials with difficult cutting properties
- Areas of use: Energy industry, mould and die making, general mechanical engineering, etc.

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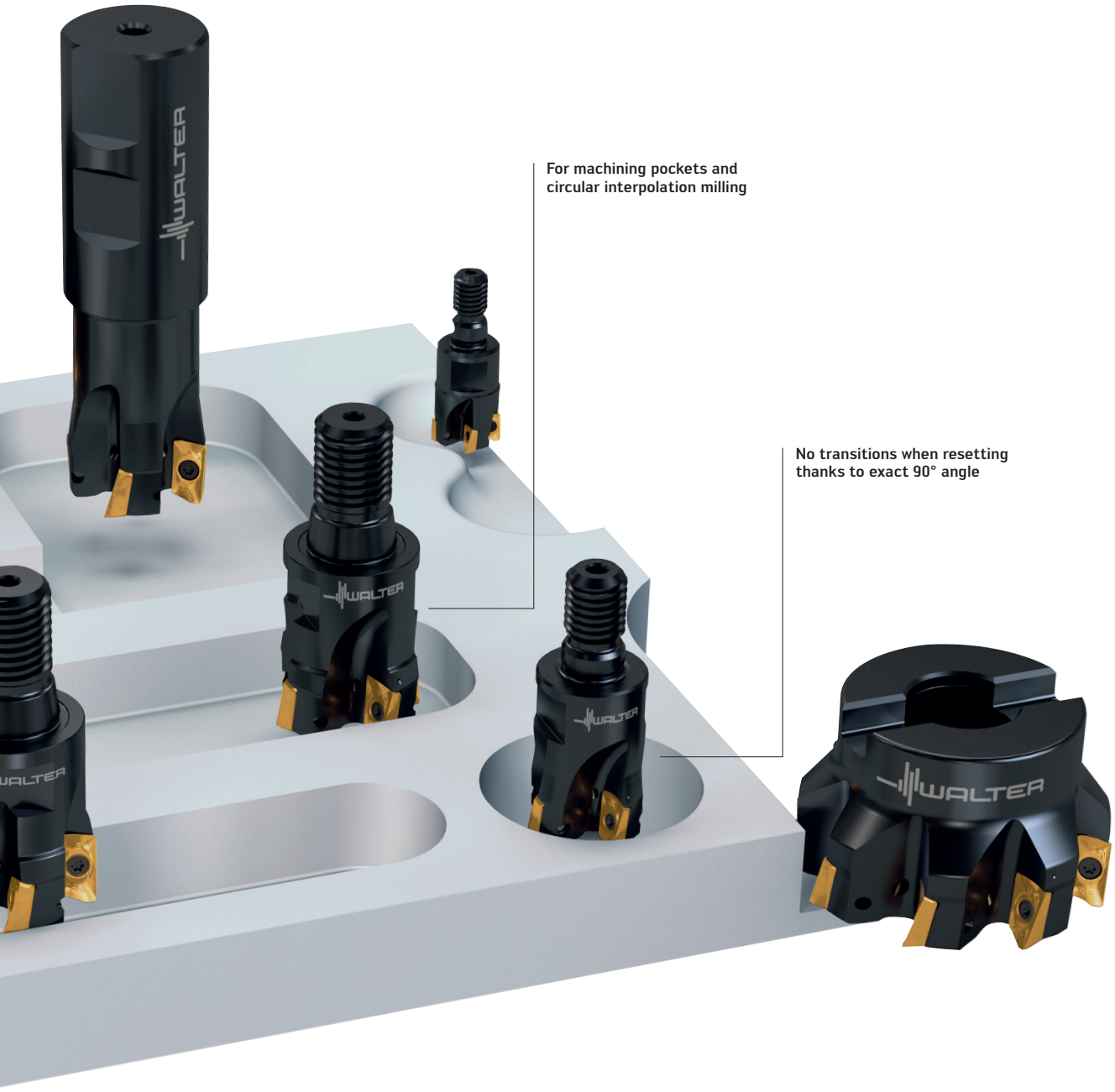
Tiger·tec® Silver
Tiger·tec® Gold



BENEFITS FOR YOU

- Optimum cutting data and tool life for maximum productivity
- Process reliability thanks to high level of stability
- Indexable insert sizes, corner radii and geometries perfectly adapted to the machining operation
- Lower tool costs and minimised effort thanks to universal usability
- No additional finishing operations thanks to exact 90° angle
- Excellent handling thanks to improved access to screws
- Maximum cost-efficiency thanks to Tiger·tec® cutting tool materials, high number of teeth and adapted indexable insert sizes

Plug & Play – the cylindrical-modular standard interface.

NEW TO THE RANGE

NEW ADDITION TO THE PRODUCT RANGE

- F2239 and F2239B copy milling cutters
- F2339 copy milling cutter

THE APPLICATION

- Ideal as an interface for smaller tools

THE INTERFACE

- Cylindrical-modular interface
- For milling tools with dia. 10–42 mm
- Tools can be centred on the cylindrical section of the adaptor

THE RANGE

Xtra·tec® XT M5008 high-feed milling cutter

M4574 chamfer milling cutter

NEW F2239 copy milling cutter

NEW F2339 copy milling cutter

Xtra·tec® XT M5130 shoulder milling cutter

M4132 shoulder milling cutter

M4002 high-feed milling cutter

NEW F2239B copy milling cutter

Milling tools with cylindrical-modular interface

BENEFITS FOR YOU

- Easy to change existing milling tools (no need to invest in new adaptors)
- Maximum flexibility through exchanging modular milling tools
- Easy to assemble and dismantle
- High level of process reliability and long tool life thanks to stability and good concentricity of tool interface

_WALTER MILLING GRADE WHH15X

Extra-long tool life when finishing and hard machining.

NEW

THE GRADE

- PVD-coated milling grade WHH15X
- HIPIMS technology for excellent coating adhesion and high degree of hardness
- AlTiN coating, optimised for hard machining
- Extremely smooth surface for the best chip removal and high surface quality
- Extremely wear-resistant carbide substrate

THE TOOLS

- Available for milling tools for copy milling and finish-milling, such as:
  - F2234 and F2231 round insert milling cutters
  - F2139 profile milling cutter
  - M5008 high-feed milling cutter
  - SDHX.., BCGX.. and LNHX.. wiper inserts

THE APPLICATION

- Can be used universally for finishing on ISO materials P, K and H
- Semi-finishing and finishing of hardened components up to 63 HRC
- Finish-milling of steel and cast iron workpieces when using wiper inserts
- Ideal for copy milling in mould and die making

Walter milling grade WHH15X **Fig.:** P3204

BENEFITS FOR YOU

- Extra-long tool life (especially with hardness > 58 HRC)
- Highest surface quality thanks to wear resistance and edge stability
- Cost savings thanks to less manual rework when copy forming
- Finish machining of a component is possible with just one cutting edge

APPLICATION EXAMPLE

Copy forming

Material: D2 (1.2379), ISO H (60 HRC)

Tool: F2139 / z2 / dia. 16 mm

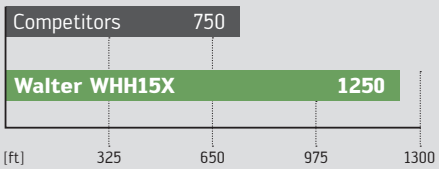
Indexable insert: P3204-D16 WHH15X

Cutting data:

	Competitors	**Walter WHH15X**
v_c (sfm)	394	394
f_z (in)	0.004	0.004
a_p (in)	0.020	0.020
a_e (in)	0.020	0.020
Cooling	Dry	Dry

+66 %

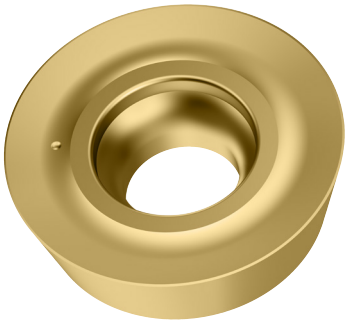
Comparison: Milling travel



RDGX, RDHX, RDMX indexable inserts; M4574 chamfer milling cutter.

Positive round inserts – compatible with F2234.

RDGX, RDHX, RDMX indexable inserts



NEW TO THE RANGE

- RDGX…-G88 WK10
- RDHX…-A57 WKP35S, WKP35G and WHH15X
- RDMX…-D57 WKP35S, WKP35G and WSP45G

In the following sizes:

- RD.X0501M0..
- RD.X07T1M0..
- RD.X0702M0..
- RD.X1003M0..
- RD.X12T3M0..
- RD.X1604M0..
- RD.X2006M0..

THE TOOL

- Compatible with the Walter F2234 copy milling cutter and industry-standard copy milling cutters

THE APPLICATION

- Milling of freeform surfaces
- Roughing and semi-finishing
- Areas of use: For example, mould and die making

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Tiger·tec® Gold

BENEFITS FOR YOU

- Complete product range for all material groups
- Can be used in Walter and industry-standard milling cutters
- Increase in productivity thanks to the latest Walter cutting tool materials
- Extra-long tool life when copy milling thanks to the new milling grade WHH15X

Always universal, always cost-effective: Now with 30° and 60° approach angle.

M4574 chamfer milling cutter

NEW TO THE RANGE

- M4574 chamfer milling cutter with 30° and 60° approach angle
- Dia. 8, 12, 16 and 20 mm/0.75 in
- With cylindrical shank

THE INDEXABLE INSERT

- SD..06T2.. and SD..09T3 system inserts with four cutting edges
- Circumference-sintered geometries for maximum cost-efficiency

THE APPLICATION

- For chamfering workpieces
- Can be used universally in all industries

Powered by
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Tiger·tec® Gold

BENEFITS FOR YOU

- Cost-effective and universal thanks to M4000 system inserts with four cutting edges
- High level of flexibility: Cylindrical shanks can be shortened as required
- Low power requirement thanks to highly positive geometries

Walter GPS

Your navigation system for the best machining solution.

Find the right tool with a click of the mouse.
In just four clicks, Walter GPS takes you from the definition of your target to the most cost-efficient tool and machining solution. Walter GPS is surprisingly comprehensive. Be it holemaking, threading, turning or milling: Full information on all tools from Walter, Walter Titex and Walter Prototyp can be displayed in an instant. Access essential usage data, such as accurate cutting data or precise cost-efficiency calculations, on your screen.

Walter GPS is now also available for smartphones and tablet PCs. This means that you are able to access all the required tool information at any time, wherever you are, even without a PC: In the workshop, at the machine or on the move.

walter-tools.com

WALTER
Engineering Kompetenz

Our solutions for components.

High-performance complete package from a single source

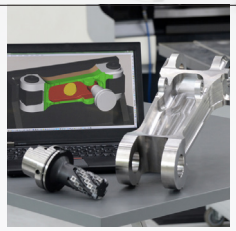
With Multiply Production Solutions, you benefit from efficient and smooth production processes that increase your competitiveness: From analysis and planning right up to implementation of a cost-effective machining strategy – all from a single source!

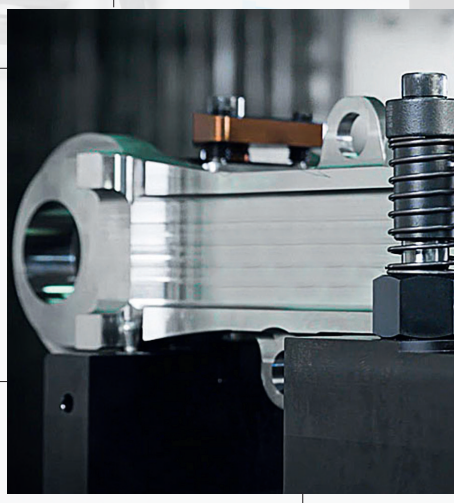
TOOLS

All process steps are determined by us, including the optimum tool selection for your application – plus suitable cutting data for the materials that users want to machine.

SOFTWARE SOLUTIONS

Various software solutions are used to evaluate existing processes for optimisation, such as Comara with iCut and sysCut modules.





INSTALLATION AT THE CUSTOMER'S PREMISES

Our process engineers also assist with installation and the start of series production in your production environment. Our role only ends once successful installation on your machine is complete. After successful installation, we hand over detailed documentation of the process steps.

FIXTURE CONSTRUCTION

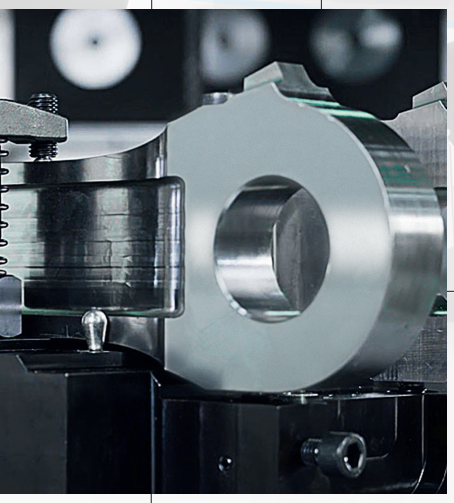
We help you with the planning, design and production of fixtures – right through to implementation in your production environment. And you can count on the support of experienced fixture designers and manufacturers.

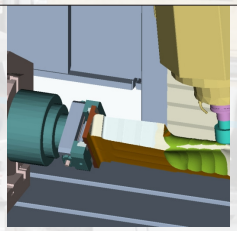
Our portfolio for you

- Project planning
- Planning new processes
- Complete optimisation of existing machining processes
- CAD/CAM programming and simulation
- Design and procurement of fixtures
- Running in and optimising machining processes
- Support up to the start of mass production

CNC PROGRAMS AND POST-PROCESSOR

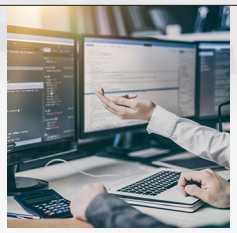
Whether it is parameter, multi-channel or structure programming, our programs are created in a wide range of different systems – such as Catia, Siemens NX, hyperMILL, RCS, MF and CrashGuard Studio. Post-processor adjustment takes place in Siemens NX. It can, however, also be implemented for other systems, machines and kinematics.





SIMULATION

We use VERICUT for collision and interference contour analysis to check the NC codes after the post-processor step. This enables us to model a wide range of different kinematics.



PLANNING

With Walter Multiply, customers benefit from sophisticated product solutions resulting from many years of experience and expertise. For efficient and smooth production processes: From analysis, to implementation, right through to the machining strategy.

PROTOTYPE PRODUCTION

Optimisation of the production process in ongoing operation is not feasible for many companies. In the Walter Technology Centre, we can analyse processes step by step and test improvements under realistic conditions.

Watch the video now!
www.youtube.com/waltertools

D – Adaptors


BEST
BEST
BEST

Accure·tec – vibration-free machining with long milling tools.

NEW TO THE RANGE

NEW ADDITION TO THE PRODUCT RANGE

– Accure·tec AC001 vibration-damped inch adaptors for milling with CAT-V-interface

THE TOOL

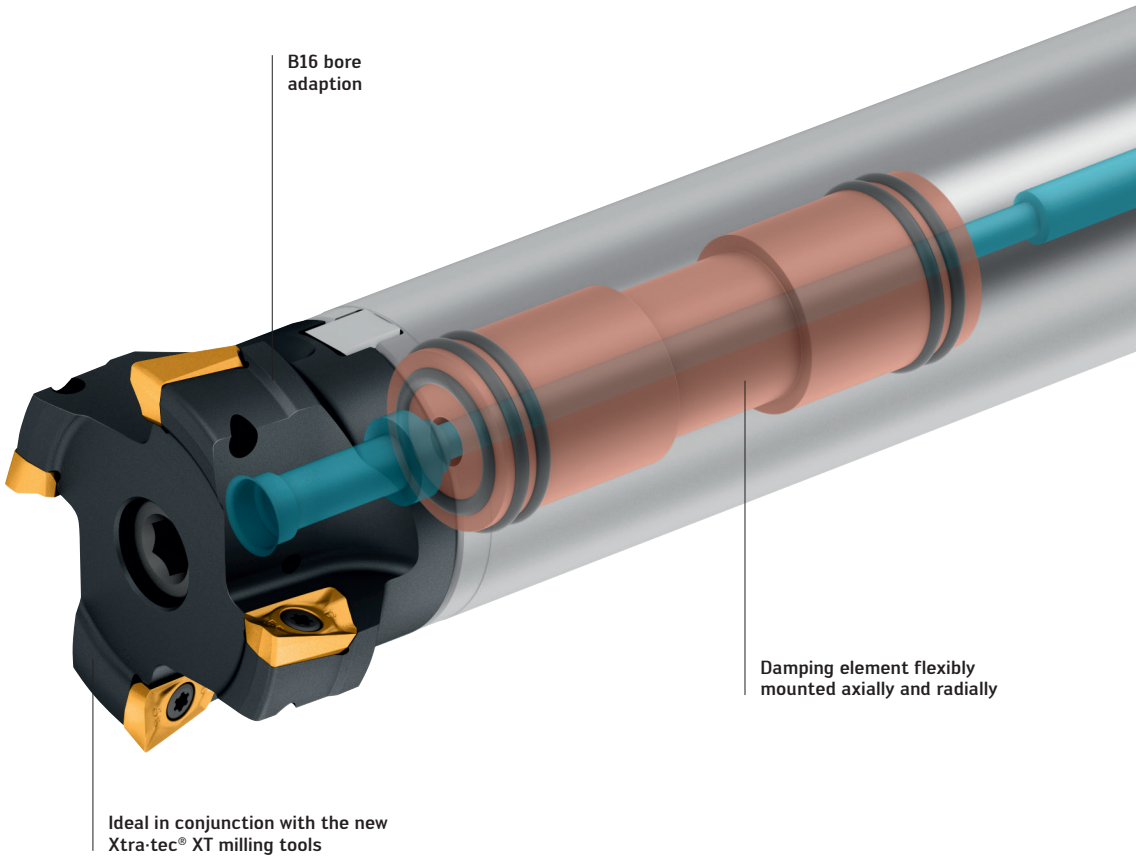
– Patented vibration damping
– For shell end milling cutters with tenon in accordance with DIN 138
– Cylindrical and conical versions
– High rigidity
– Internal coolant supply
– Concentricity < 5 µm

THE INTERFACES

– Walter Capto™
– HSK-A
– SK
– MAS-BT
– CAT-V

THE APPLICATION

– Machining deep pockets
– Machining complex one-piece workpieces
– Long overhangs of up to 5 × D are possible
– Areas of use: Mould and die making, aerospace, general mechanical engineering, automotive and energy industries

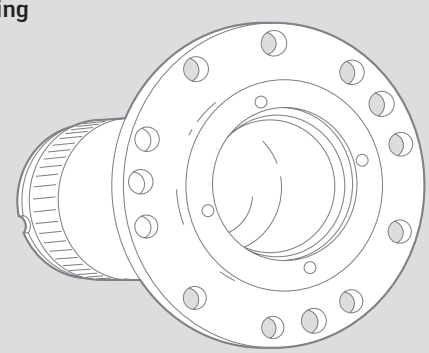


Accure·tec

Vibration-damped end mill adaptor **Fig.:** AC001-C6-B16-160

APPLICATION EXAMPLE

Shoulder milling

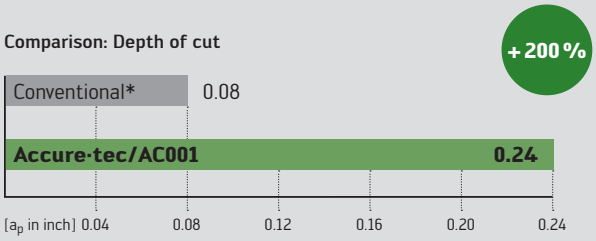


Material:	4140
Adaptor:	AC001-H100-B27-320
Tool:	M5130 | Ø63 | Z4
Projection length:	4 × D
Machine:	GROB G550

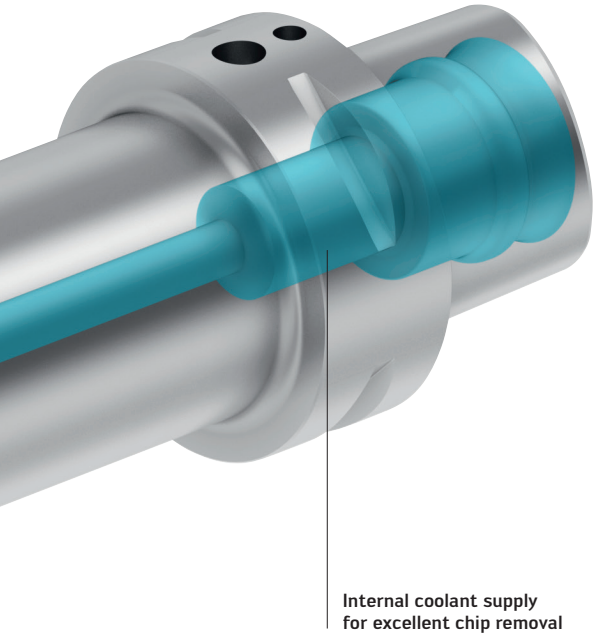
Cutting data:

	Conventional undamped adaptors	**Accure·tec/AC001 damped**
v_c (sfm)	395	395
n (rpm)	606	606
f_z (in)	0.008	0.008
v_f (in/min)	19.1	19.1
a_e (in)	0.984	0.984
a_p (in)	0.08	0.24
Q (in/min)	1.53	4.45
R_a (µin)	42.8	30

Comparison: Depth of cut



*no damping

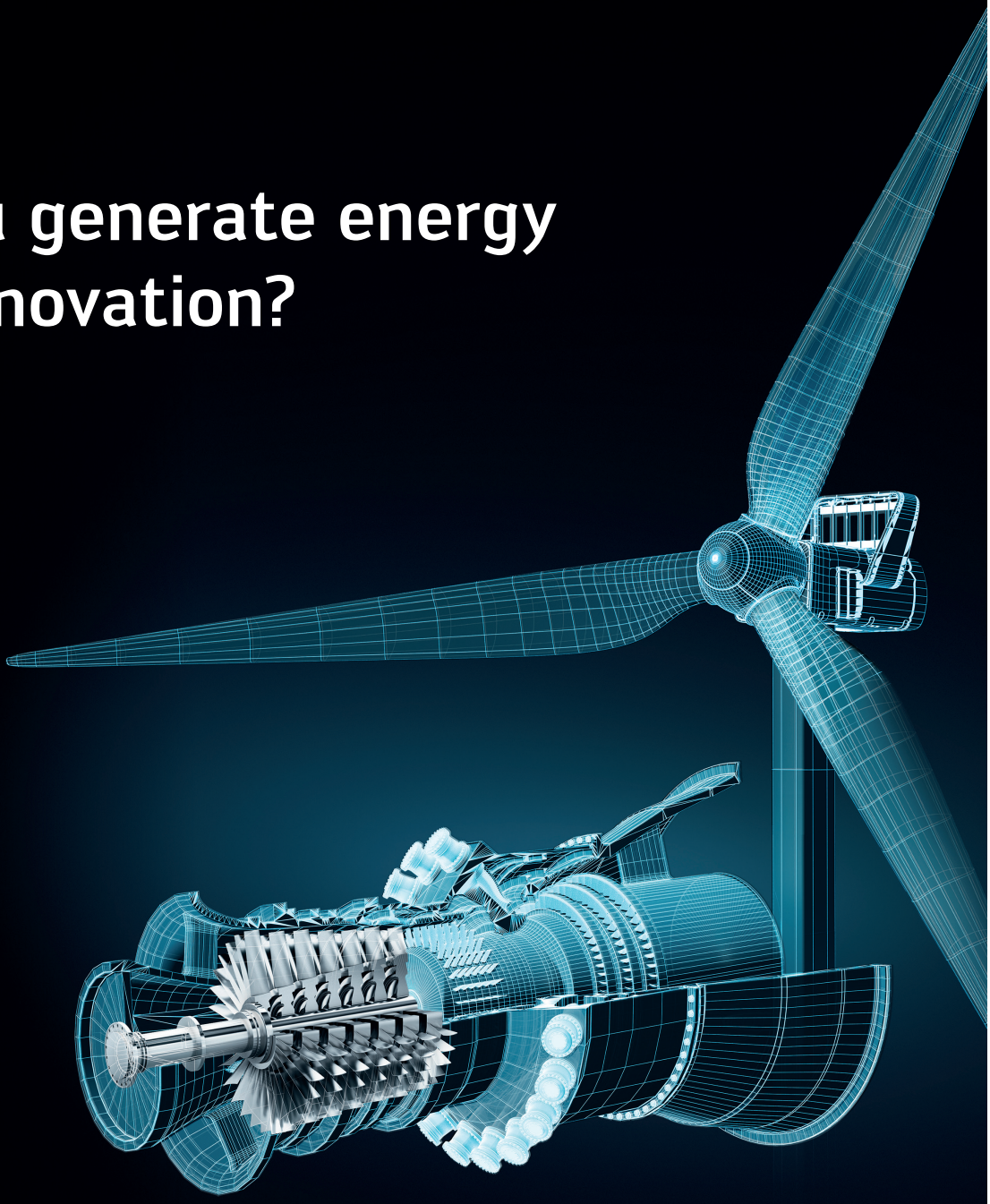


Internal coolant supply for excellent chip removal

BENEFITS FOR YOU

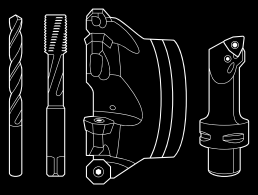
- High level of productivity, process reliability and surface quality
- Long tool life of tool and spindle
- Vibration damping preset at the factory (no time lost tuning)
- Stable process producing little noise
- Depth of cut up to three times higher (compared to conventional methods)
- Optimum chip removal thanks to internal coolant supply

Can you generate energy from innovation?



The world's population will reach over 8 billion by 2025, leading to the energy demand rising accordingly. Achieving optimum efficiency in energy generation has therefore never been more important. Components for the energy industry need to be optimised to fulfil their maximum potential, which requires the use of new machining techniques and technologies. Having a partner that provides reliable tool solutions and a dependable service is therefore crucial.

Harnessing energy for the future: Engineering Kompetenz from Walter.



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WALTER
Engineering Kompetenz

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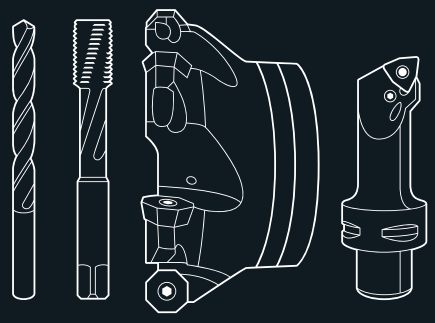

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