WALTER
Engineering Kompetenz

Turning, holemaking,
threading, milling

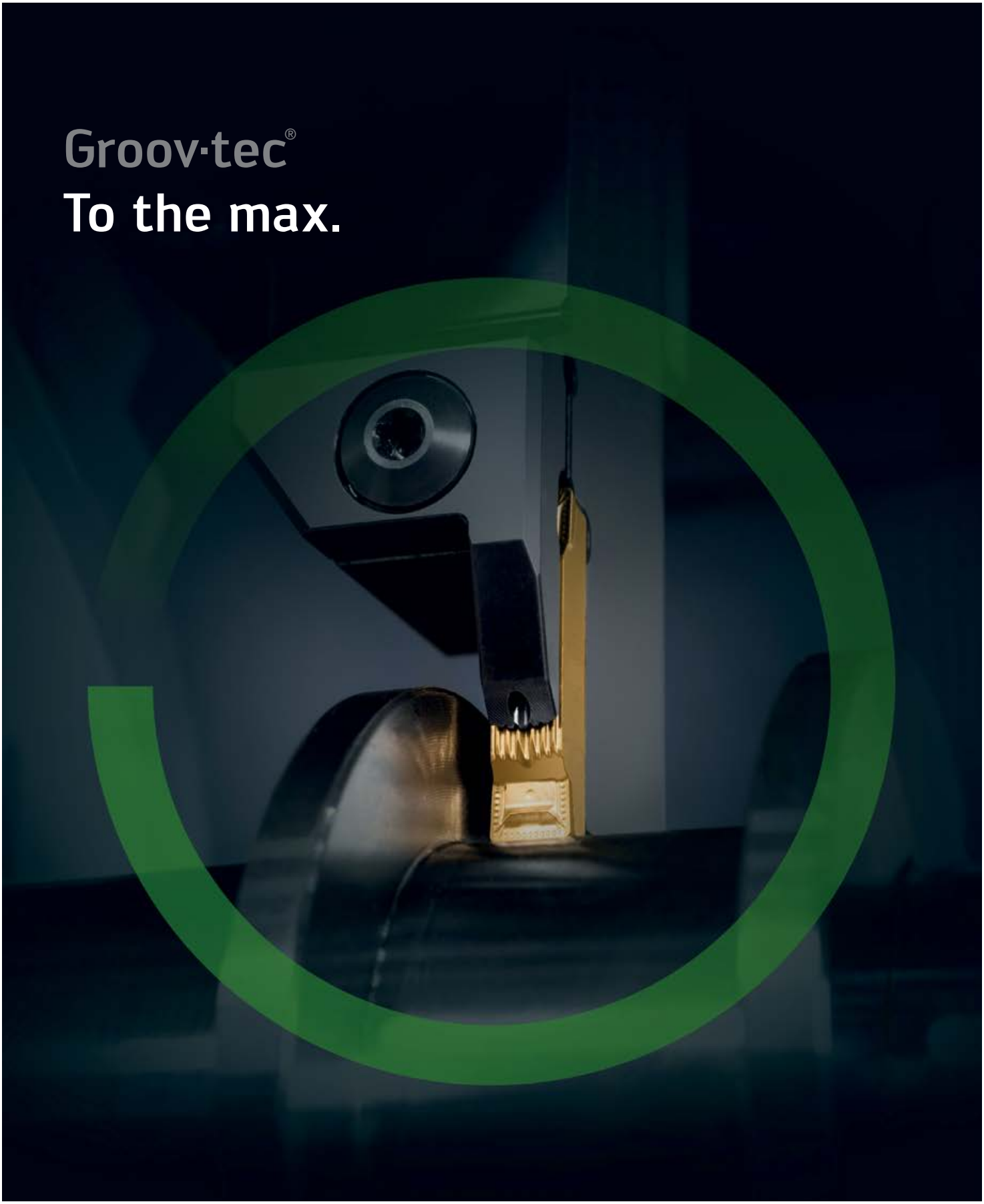
Product highlights
Edition 2026-1

_PRODUCT HIGHLIGHTS

A passion to win.

Groov·tec®

To the max.



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WALTER
Engineering Kompetenz

Stable in stainless-steel – tough in steel.

NEW

THE GRADE

- Tiger·tec® Gold: innovative, highly textured MT-TiCN CVD coating - developed for maximum wear resistance
- Double post-treatment of the rake face for more stable cutting edges, reduced friction and built-up on the cutting edge
- New gradient substrate with higher toughness at the cutting edge to protect against chip impact

THE GEOMETRY

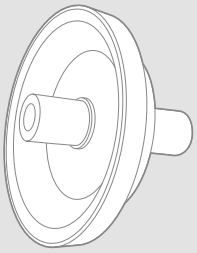
- Negative basic form: FM5, MS3, MM5, MU5, MW5, RM5, RM7, HU5
- Positive basic form: FM2, FM4, FM6, MM4, RM4
- WL copy turning system: FM4, MM4

New Tiger·tec® Gold ISO M grades

Fig.: DCMT11T302-FM4 WMP20G
CNMG160612-RM5 WMP20G

APPLICATION EXAMPLE

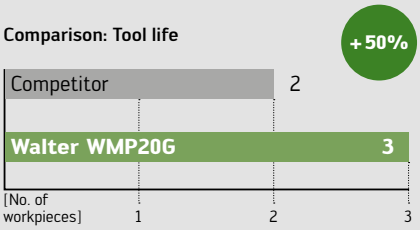
Bearing hub



Material:	1.4462	DIN X2CrNiMo12-5-3	AISI 318LN (duplex material)
Tool:	C6-DCMNN-00090-16
Reversible indexable insert:	CNMG160612-RM7 WMP20G

Cutting data	Competitor ISO M20	**Walter WMP20G Tiger·tec® Gold**
v_c (m/min)	110	110
a_p (mm)	1.0 –4.0	1.0 –4.0
f (mm)	0.40	0.40
Cooling	emulsion, 40 bar	emulsion, 40 bar
Tool life (units)	2	3

Comparison: Tool life



THE APPLICATION

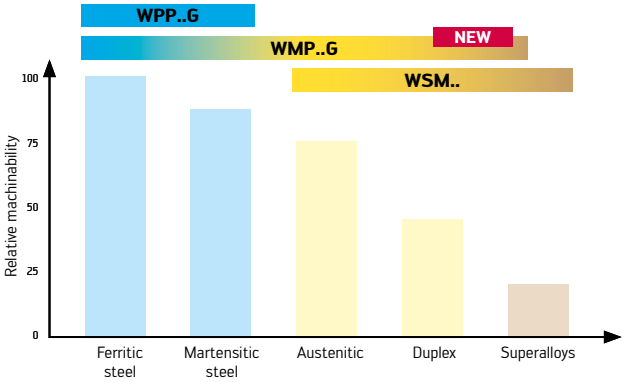
WMP20G

- First choice for austenitic, duplex and ferritic/martensitic stainless materials
- Universal one for medium and high cutting speeds
- Problem solver on steel (where standard steel turning grades tend to fracture)
- Primary application: Stainless steel (ISO M); steel (ISO P); Secondary application: difficult-to-machine materials (ISO S)

WMP30G

- Austenitic, duplex and ferritic/martensitic stainless materials
- Out-of-round or difficult to machine components (e.g. weld seams, armor plate)
- Large workpieces or single part manufacture
- Can be used at medium and low cutting speeds
- Primary applications: Stainless steel (ISO M); steel (ISO P); Secondary application: difficult-to-machine materials (ISO S)

Machinability of stainless materials and grade recommendation



Ferritic and Martensitic stainless steels contain a lot of chromium (12-30 %) and are machined with the wear-resistant grades WPP..G or WMP..G. They are similar to ISO P materials.

Austenitic and Duplex steels have a high chromium (12-28 %) and nickel content (4-35 %). They require positive chip formers and high toughness - properties of the grades WMP..G and WSM.

POTENTIAL BENEFITS

- Increased tool life and reliability thanks to Tiger·tec® Gold coating for ISO M
- Reduction of grades due to flexible use of inserts on ISO M and ISO P materials
- Fewer fractures and built-up edges thanks to wear-resistant, tough grades that reduce chip impact

Maximum stability when turning demanding stainless-steel workpieces.

NEW

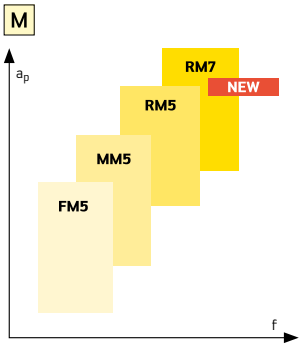
THE GEOMETRY

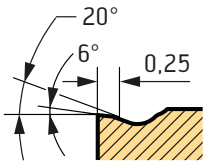
- For the roughing operation of stainless materials
- Cutting edge design to prevent fractures caused by chip impact
- Alternative in roughing to RM5 geometry (if it is prone to fractures)
- Available basic forms: CNMG, DNMG, SNMG, TNMG, WNMG

THE APPLICATION

- Roughing operation against the shoulder
- Interrupted cuts; components that are out of round or difficult to machine (e.g. with weld seam)
- Stainless materials (where the stability of MM5 and RM5 geometry is not sufficient)
- Task parameters: f 0.25-0.85 mm, a_p 1.0-8.0 mm

Geometry overview: Negative basic shape – ISO M

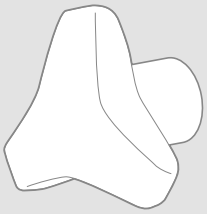




Stable one: cutting edge with 0.25 × 6° protective bevels and 20° rake angle – ideal combination for stability and soft cutting in ISO M

APPLICATION EXAMPLE

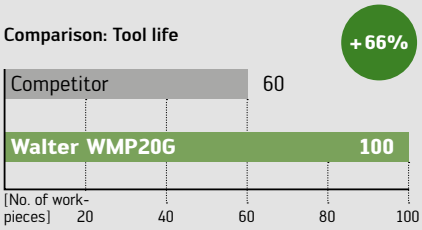
Three-star handle



Material:	1.4404 | DIN X2CrNiMo17-12-2 | AISI 316L (austenitic stainless steel)
Tool:	PCLNR2525M12
Reversible indexable insert:	CNMG120408-RM7 WMP20G

Cutting data	Competitor ISO M20	**Walter WMP20G Tiger·tec® Gold**
v_c (m/min)	180	180
a_p (mm)	4.0	4.0
f (mm)	0.25	0.25
Cooling	emulsion, 6%	emulsion, 6%
Tool life (units)	60	100

Comparison: Tool life



Enlarged contact surface for more stability

Coolant jet guide geometry for improved cooling

Stable RM7 roughing geometry

Fig.: CNMG190612-RM7 WMP20G

POTENTIAL BENEFITS

- Stable cutting edge for reliable production and less downtime
- Longer tool life for stainless components with long cutting times (especially with Tiger·tec® Gold CVD grades WMP20G and WMP30G)
- Wear-resistant and tough against chip impact

Easy to operate from the side.

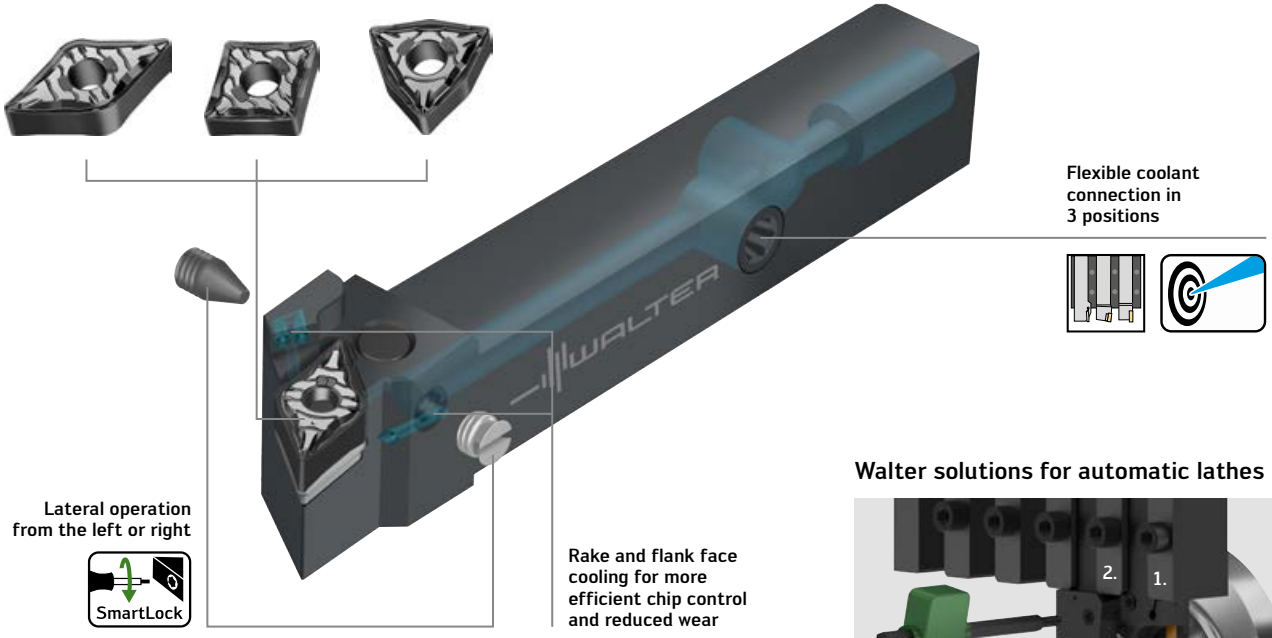
NEW

THE TOOL

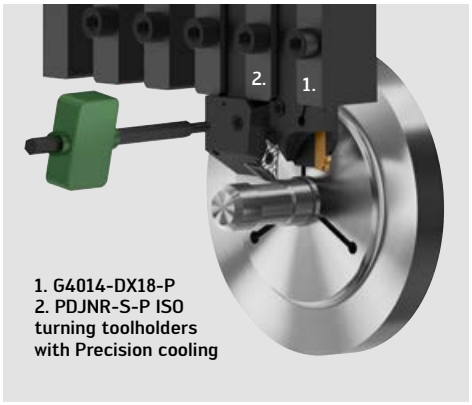
- Indexable inserts: CN12..., DN11... and WN06...
- Long turning holder for negative indexable inserts with toggle clamp
- Long turning holder with rake and flank face cooling
- Shank dimensions: 12×12 and 16×16 mm
- Short head dimension - for short clamping and high stability

THE APPLICATION

- Swiss-type and multi-spindle machines having up to 150 bar/2175 psi of coolant pressure
- Longitudinal, face and copy turning of components with small diameters
- Precision turned parts with high accuracy



Walter solutions for automatic lathes



1. G4014-DX18-P
2. PDJNR-S-P ISO turning toolholders with Precision cooling

POTENTIAL BENEFITS

- Highly economical thanks to negative indexable insert
- Less downtime due to chip buildup thanks to targeted rake face cooling
- Long tool life even with heat-resistant materials thanks to Precision cooled cutting edge (up to 150 bar / 2,175 psi coolant pressure)
- Optimal handling and easy access to tool changes thanks to side-operated toggle clamp

Maximum precision for the smallest components.

NEW

THE TOOL

WB solid carbide mini boring bar

- Precision-ground - for maximum repeatability and positioning accuracy
- Chip former geometries available
- Turning from D_{min} Ø0.3 mm
- Ø - adaptor-side: 4, 5, 6, 7, 8 and 10 mm

Adaptors: W4280 / W4291

- Round shank with 2-4 clamping surfaces; Ø 10-25 mm and 0.5-1.0 inch
- Stable one with "WB-Collet Line"
- Positioning via parallel pin for maximum repeat accuracy
- Walter Capto™ tools available

THE GRADE

WSM23X:

- Primary application: Steel ISO P25, stainless steel ISO M25, materials with difficult cutting properties ISO S25
- Secondary application: Non-ferrous metals ISO N25
- Universal PVD grade for parting off/grooving and turning with moderate to low v_c and a_p
- PVD multi-layer TiAlN and TiN top layer

WSM13X

- Primary application: Steel ISO P15, stainless steel ISO M15, materials with difficult cutting properties ISO S15, NF metals ISO N15
- Higher wear resistance (compared to WSM23X) for stable machining conditions
- PVD multi-layer TiAlN

WB-Collet Line

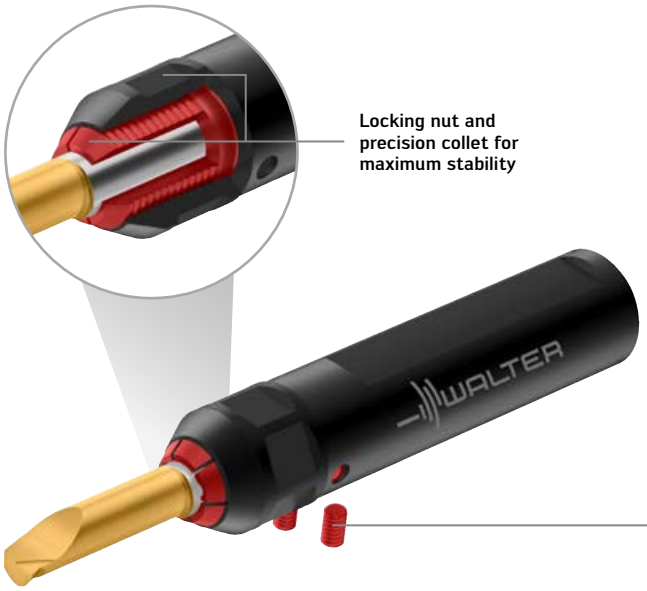


Fig.: WB07-T7225-098R20 WSM23X
W4291-A16-WB07

Adjustability for optimum cooling

WB-Uni Line

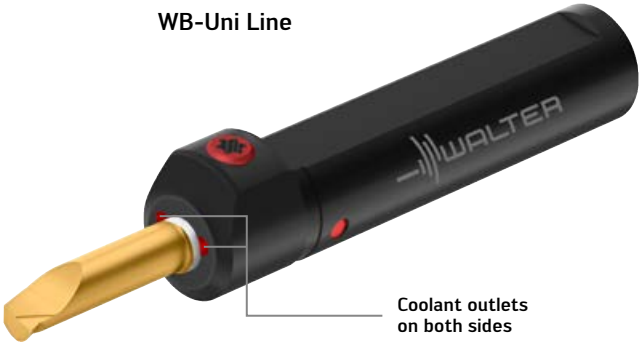


Fig.: WB07-T7225-098R20 WSM23X
W4280-A16-WB07

THE APPLICATION

- Production of small parts on large or small lathes
- Internal turning, copy turning, reverse turning, grooving, axial grooving, thread turning

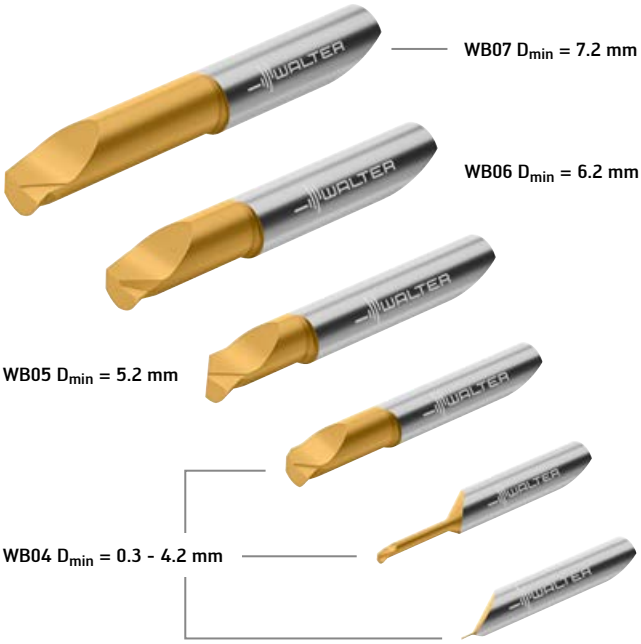
WB solid carbide mini boring bar

- Turning from min. Ø 0.3 mm
- Axial Grooving from min. Ø 6.2 mm

Adaptors: W4280 / W4291

- Can be used on both sides thanks to coolant outlets on both sides

Boring bar range



Chip geometries available

WB-T..F (laser-generated chip breaker)

Full chip control for every machining operation

WB-T..X (Ground chip breaker)

Chip control at maximum depth of cut

POTENTIAL BENEFITS

- Highest surface quality due to sharp cutting edge for low cutting force
- Full chip control even in demanding materials thanks to "X" and "F" chip former geometries
- Full flexibility with adaptor and tool
- High stability and accuracy thanks to optimized clamping with "WB Collet Line"

Better, longer and more stable copy turning – with PCD.

NEW

THE GEOMETRY

- PCD finishing insert with fully ground circumference in G tolerance
- Best chip control thanks to lasered chip breaker geometry (FSM3)

WL25-VCGW..FS-3 – The Stable One

- Universal PCD indexable insert with 0° rake angle
- Highest repeat accuracy

WL25-VCGT..FS-3 – The soft-cutting one

- Lowest cutting forces due to 7°-10° rake angle
- Very high surface quality and low vibration tendency

WL25-VCGT..FSM3 – The process-reliable

- For finishing to medium machining

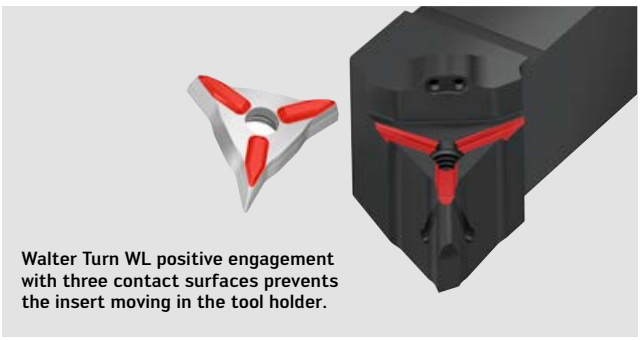
WL25-RCGT..FSM3 – The smart alternative

- Stable alternative to full radius grooving inserts
- Can be used with small and large feeds

THE APPLICATION

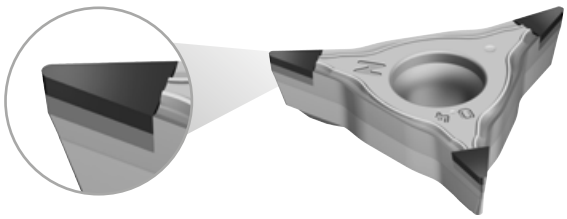
- Primary application: Aluminium (ISO N); Secondary applications: Plastic (ISO O), Titanium (ISO S)
- Finishing and fine finishing - in interrupted and finish cuts
- Parameter range f: 0.03-0.38 mm; a_p: 0.1-3.0 mm

THE TECHNOLOGY

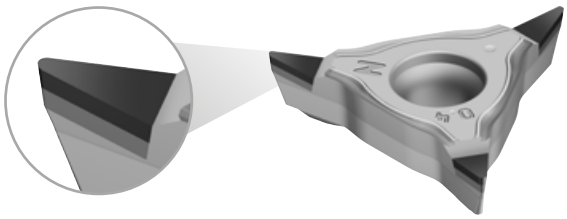


Walter Turn WL positive engagement with three contact surfaces prevents the insert moving in the tool holder.

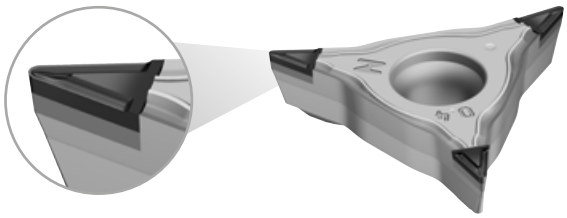
WL25-VCGW..FS-3



WL25-VCGT..FS-3



WL25-VCGT..FSM3



WL25-RCGT..FSM3

POTENTIAL BENEFITS

- Best surfaces thanks to stable clamping via 3 prisms on the underside of the indexable inserts
- Maximum productivity and cost-efficiency thanks to extremely wear-resistant PCD cutting tool material
- Maximum repeat accuracy when changing inserts thanks to precision circumferential laser-cut cutting inserts

Double the serration – double the reliability.

EXPANSION OF THE RANGE

NEW ADDITION TO THE PRODUCT RANGE

– Grooving tools G5011 for GD26 cutting inserts with 8 mm width

THE TOOL

– Groov·tec® GD cutting tools G5011/G5011-P/G5011-C-P; without and with Precision cooling
– Indexable insert clamping can be operated from both sides
– Four cutting depths (T12, T21, T26, T33) for parting-off diameters up to 65 mm
– Shank sizes: 12×12, 16×16, 20×20, 25×25, 32×32 mm; Inch: 5/8", 3/4" and 1"
– Walter Capto™ sizes: C3-C6

THE INDEXABLE INSERTS

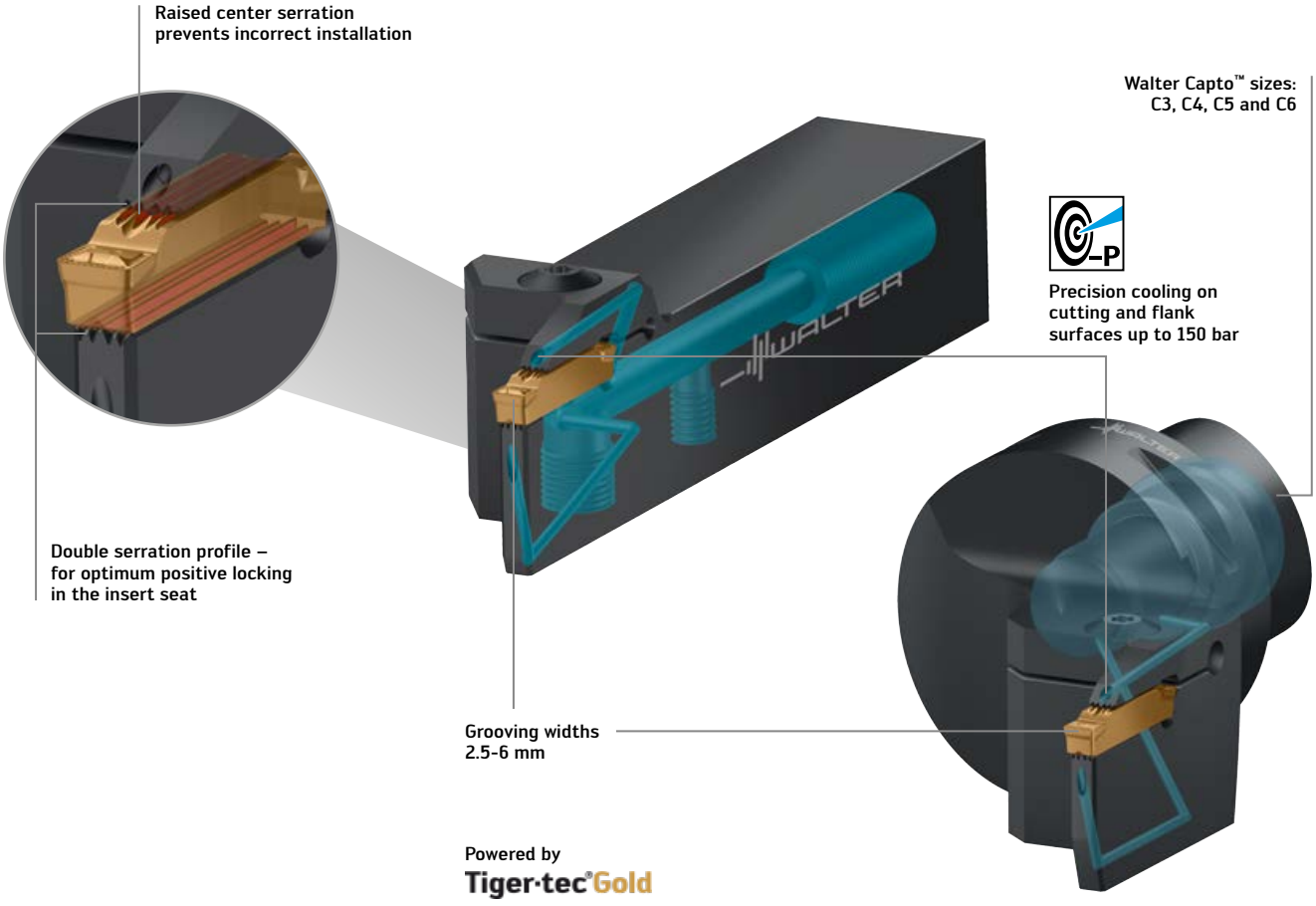
– Patent-pending, double-edged GD26 cutting inserts with double serration clamping profile
– Insert widths: 2.5 / 3.0 / 4.0 / 5.0 / 6.0 / 8.0 mm

THE GEOMETRY

– Grooving: CE4, CF5, CF6, GD6, GD3, CK8
– Groove turning: UA4, UD4, UE6, UF4 and UF8
– With full radius: RD4, RE6 and RF8

THE GRADE

– 4 Tiger·tec® Gold PVD grades: WSM13G, WSM23G, WSM33G and WSM43G
– For steel, stainless steels and difficult-to-machine materials
– 3 Tiger·tec® Gold CVD grades: WKP13G, WKP23G and WKP33G
– For steel and cast iron machining



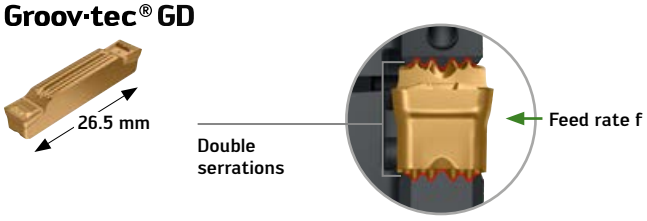
Groov·tec® GD grooving system

Fig.: G5011-2525R-5T21GD26-P
Fig.: G5011-C5R-5T21GD26-P

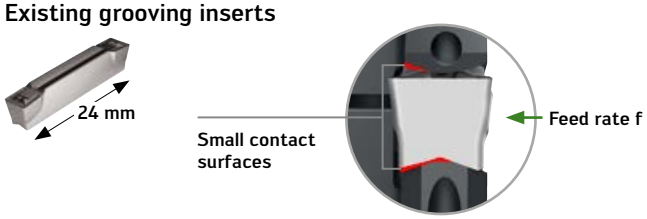
THE TECHNOLOGY

- New insert design with double serration profile. The GD26 cutting insert and tool body (insert seat) are optimally interlocked. The positive fit absorbs lateral forces better during longitudinal and copy turning
- Conventional systems (e.g. without double serrations) are significantly less stable in comparison.

Groov·tec® GD



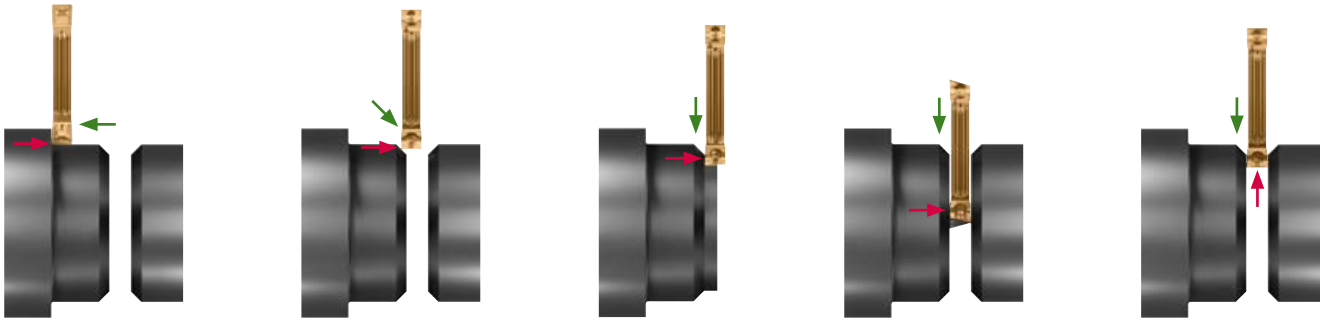
Existing grooving inserts



THE APPLICATION

- Radial grooving and parting off, recess turning and copy turning up to 26 mm grooving depth
- Universal use on lathes of all kinds

Greater stability in all applications – with Groov·tec® GD



Turning | Chamfers | Offset grooving | Parting off – inclined cutting insert | Parting off – straight cutting insert

→ Feed rate (f)
→ F_{axial}

POTENTIAL BENEFITS

- Increased stability and process reliability thanks to Groov·tec® GD serration profile
- Increased cutting parameters thanks to new serration profile and precision cooling
- Maximum productivity and service life thanks to wear-resistant Tiger·tec® Gold grades

To the max. – output & process reliability.

NEW

THE TOOL

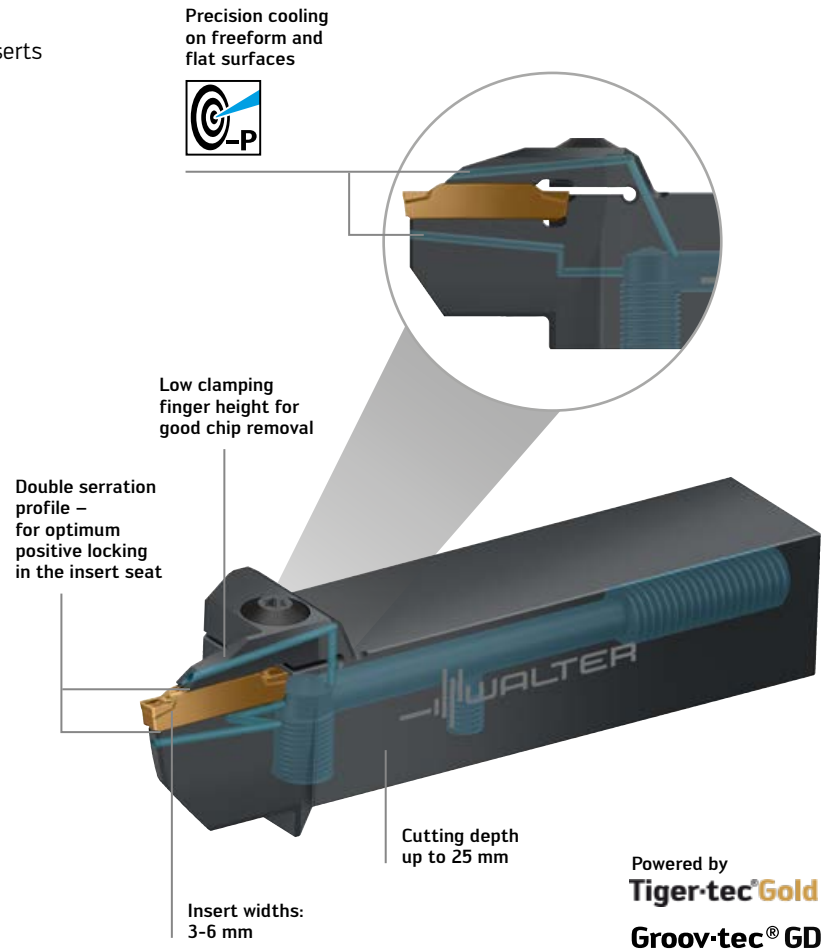
- Groov·tec® GD axial grooving tool G5111-P
- Precision cooling on rake and flank surfaces of the axial groove
- Indexable insert clamping can be operated from both sides
- 3 Cutting depths: T12, T21 and T25 mm
- Axial grooving diameter ranges: 34-500 mm
- Shank sizes: 25×25 mm and 1 inch

THE INDEXABLE INSERTS

- Patent-pending, double-edged GD26 cutting inserts with double serration clamping profile
- Insert widths: 3.0 / 4.0 / 5.0 / 6.0 mm

THE APPLICATION

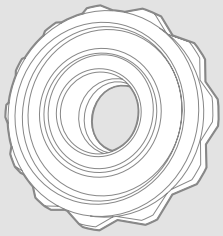
- Axial Grooving, Groove turning and Copy turning
- Universal use on lathes of all kinds
- Precision cooling: can be used from 10 bar, up to 160 bar maximum coolant pressure



Axial grooving tool with Precision cooling — Fig.: G5111-2525R5T21-040GD26P

APPLICATION EXAMPLE

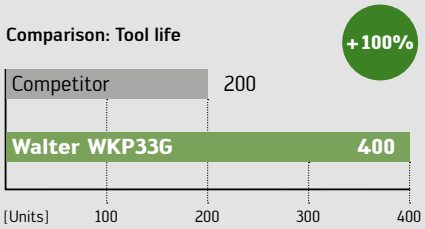
Coupling flange – axial grooving D_{min} 40 mm



Material:	C45 (1.0503)
Tensile strength:	630–780 N/mm²
Tool:	G5111-2525L-5T12-040GD26
Indexable insert:	GD26-5E500N08-UD4 WKP23G

Cutting data	Competitor ISO P20	Walter WKP23G Tiger·tec® Gold
s (mm)	5	5
v_c (m/min)	150	150
f (mm)	0.2	0.2
T (mm)	5	5
Tool life (units)	200	400

Comparison: Tool life



POTENTIAL BENEFITS

- Maximum process reliability and service life thanks to stable Groov·tec® GD serration profile
- Increased cutting parameters thanks to double serration profile
- Perfect chip control thanks to Precision cooling on rake and flank surfaces

To the max. – internal grooving with ease.

NEW

THE TOOL

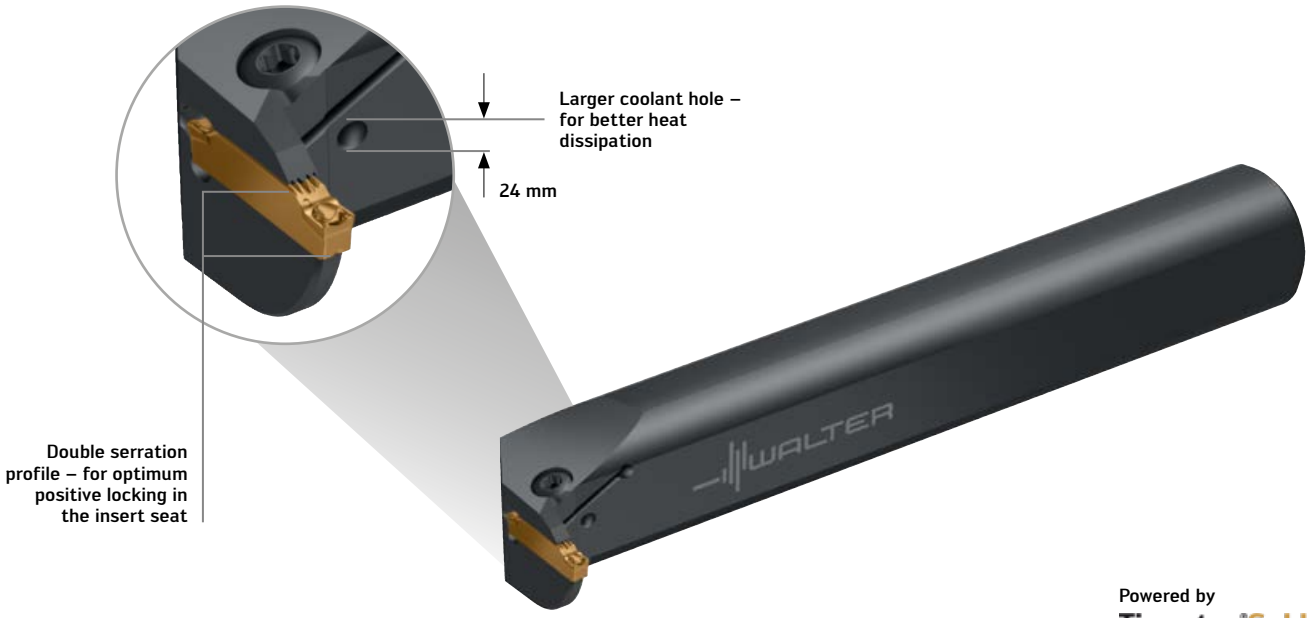
- Internal recesses from D_{min} = Ø44 mm
- Grooving up to T_{max} = 12 mm
- Shank sizes: Ø 32 / 40 mm and 1 ½ inches
- Two clamping surfaces
- Stable one without taper for less vibration during internal machining

THE APPLICATION

- Internal grooving and groove turning
- Universal use on lathes of all kinds

THE INDEXABLE INSERTS

- Patent-pending, double-edged GD26 cutting inserts with double serration clamping profile
- Insert widths: 3.0 / 4.0 / 5.0 mm



Powered by
Tiger·tec® Gold
Groov·tec® GD

Fig.: G5221-32SR-4T12-GD26

POTENTIAL BENEFITS

- Maximum process reliability thanks to reinforced Tool body and Groov·tec® GD double serration
- High stability and tool life as well as less vibration thanks to reinforced design with screw clamping
- Perfect chip control thanks to internal coolant with good flushing effect

Grooving – maximum process reliability & universal.

NEW

THE TOOL

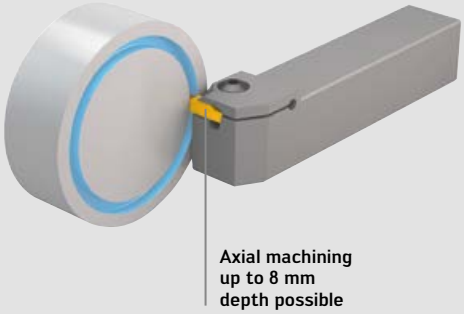
- Shank sizes: 20×20, 25×25 mm and 3/4, 1.0 inch
- Indexable insert clamping can be operated from both sides
- Radial and axial grooving due to tool design without under insert support

THE INDEXABLE INSERTS

- Patent-pending, double-edged GD26 cutting inserts with double serration clamping profile
- Grooving widths: 2.5 / 3.0 / 4.0 / 5.0 / 6.0 mm

THE APPLICATION

- Radial and axial grooving, groove turning and copy turning
- Universal use on lathes of all kinds



Axial machining up to 8 mm depth possible

Double serration profile – for optimum positive locking in the insert seat

Efficient and versatile – radial and axial grooving with 8 mm depth

More options: all GD Indexable inserts can be used in one toolholder

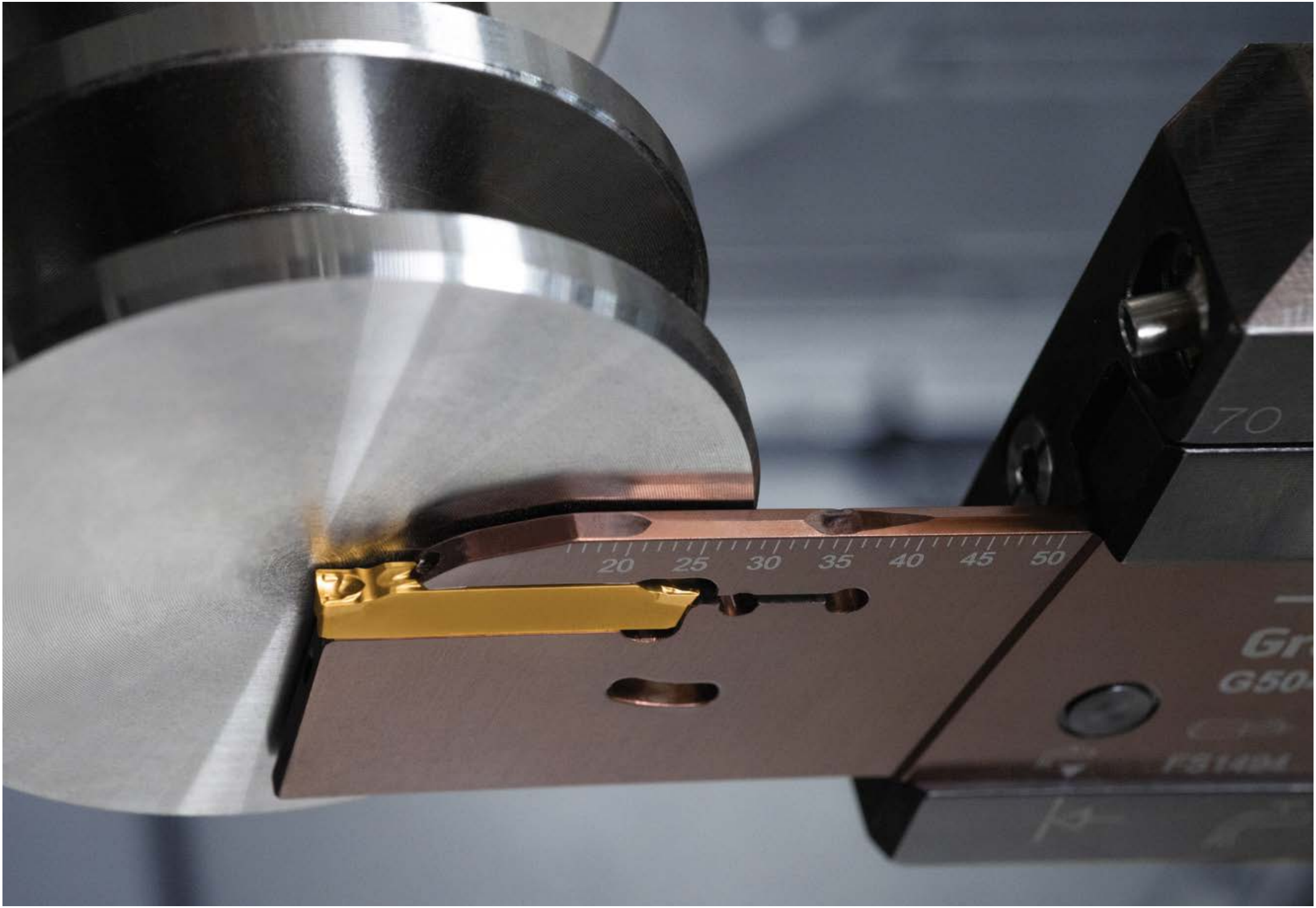
Powered by Tiger·tec® Gold Groov·tec® GD

Universal grooving tools G55xx

Fig.: G5511-2525R-T8GD26
Fig.: G5521-2525R-T8GD26
Fig.: G5551-2525R-T8GD26

POTENTIAL BENEFITS

- Maximum process reliability and service life thanks to stable Groov·tec® GD serration profile
- Versatile use due to different insert widths in the same tool
- Maximum productivity and service life thanks to wear-resistant Tiger·tec® Gold grades


20
25
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50
70

Maximum sharpness for ultimate precision.

EXPANSION OF THE RANGE

NEW ADDITION TO THE PRODUCT RANGE

– W2011-P tools with Precision cooling

THE TOOL

– From a workpiece diameter of 1 mm – for automatic lathes and multi-spindle machines
– Precision-ground indexable inserts and toolholders
– Indexable insert screw can be accessed from both sides for simple insert indexing

W2011

– Shank sizes: 10 × 10, 12 × 12 and 16 × 16 mm

W2011-P

– Shank sizes: 12 × 12, 16 × 16 and 20 × 20 mm

THE INDEXABLE INSERTS

– Tangentially installed WT26 indexable inserts for machining precision turned parts
– Sharp cutting edges for optimum machining results at low feeds
– Precision-ground cutting edge and chip breaker groove for ultimate precision

THE GRADE

WSM23X

– Universal PVD grade for parting off/grooving and turning with moderate to low v_c and a_p
– Primary application: Steel ISO P25, stainless steel ISO M25, materials with difficult cutting properties ISO S25, non-ferrous metals ISO N25

WN23

– Uncoated carbide grade, extremely tough and abrasion-resistant for ISO N
– Primary application: ISO N20; secondary application ISO P, S and O

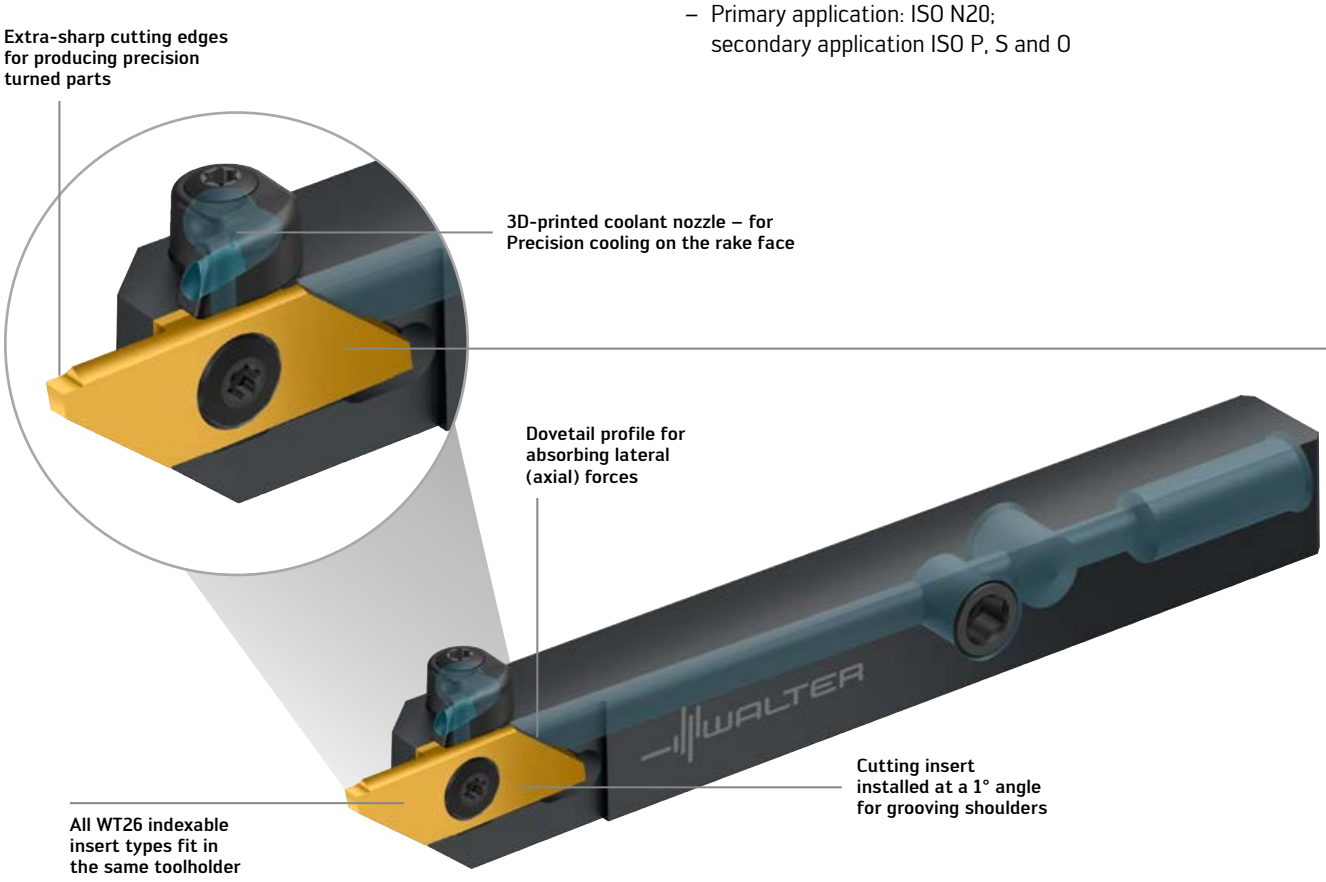
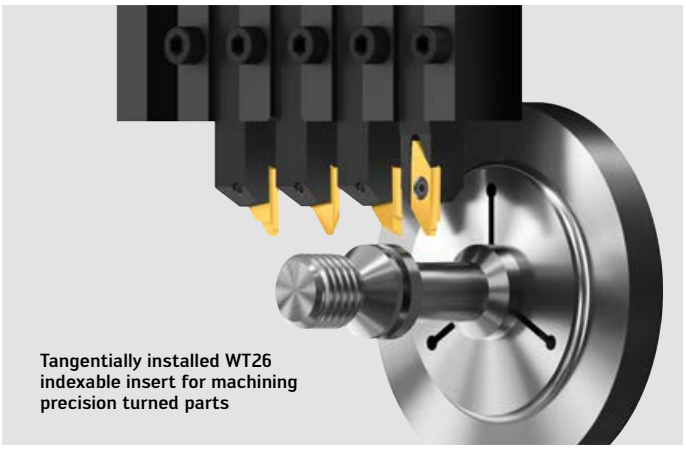


Fig.: W2011-1212R-WT26-P

THE APPLICATION

- Parting off and grooving, forward and reverse turning; thread turning on sliding-head (Swiss turning) lathes and multi-spindle machines
- Grooving along close shoulders thanks to installation of the cutting insert at a 1° angle
- High-precision components

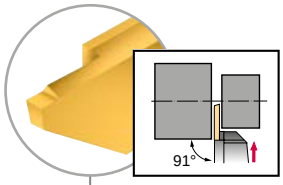
Walter solutions for automatic lathes



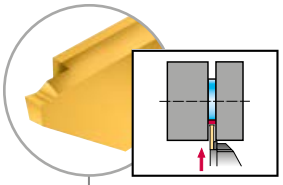
Tangentially installed WT26 indexable insert for machining precision turned parts

THE GEOMETRIES

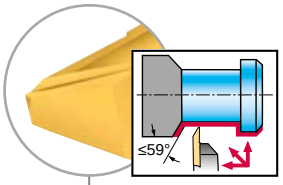
CD8 chip breaker geometry for parting off



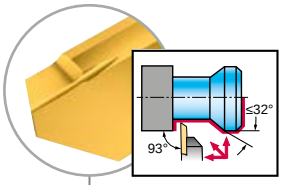
GD8 chip breaker geometry for grooving



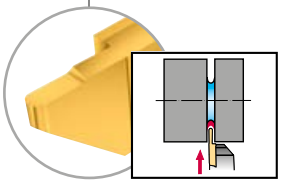
VG8 chip breaker geometry for reverse turning and copy turning



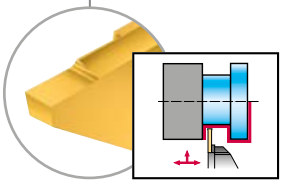
DG8 chip breaker geometry for forward turning



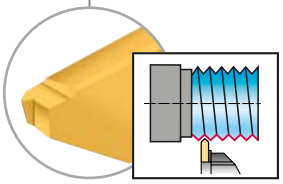
RA8 chip breaker geometry for radius grooving



UA8 chip breaker geometry for grooving and longitudinal turning



ISO full-profile thread geometry



POTENTIAL BENEFITS

- High level of flexibility: All WT26 indexable insert types can be inserted in the same toolholder
- User-friendly due to tangential screw clamping which can be operated from both sides
- Maximum precision and tool life due to precision-ground, sharp indexable inserts

Top in terms of productivity.

EXPANSION OF THE RANGE

NEW ADDITION TO THE PRODUCT RANGE

– Drion·tec® E-Peak available as a special via Walter Xpress

THE TOOL

– Drion·tec® E-Peak exchangeable head drill D5150
– Ø 9-17.99 mm (0.354-0.705")
– Drilling depths: 3, 5 and 8 × D_C
– Optimized Flute geometry with Internal coolant for best chip removal and bore quality
– Several exchangeable head dimensions can be used per body

The exchangeable head

– Exchangeable head DS50
– High carbide volume for maximum feed rates
– No pilot drilling required

THE GEOMETRY

– Universal geometry M
– Can be used on almost all ISO materials
– Very good output with a wide range of cutting data

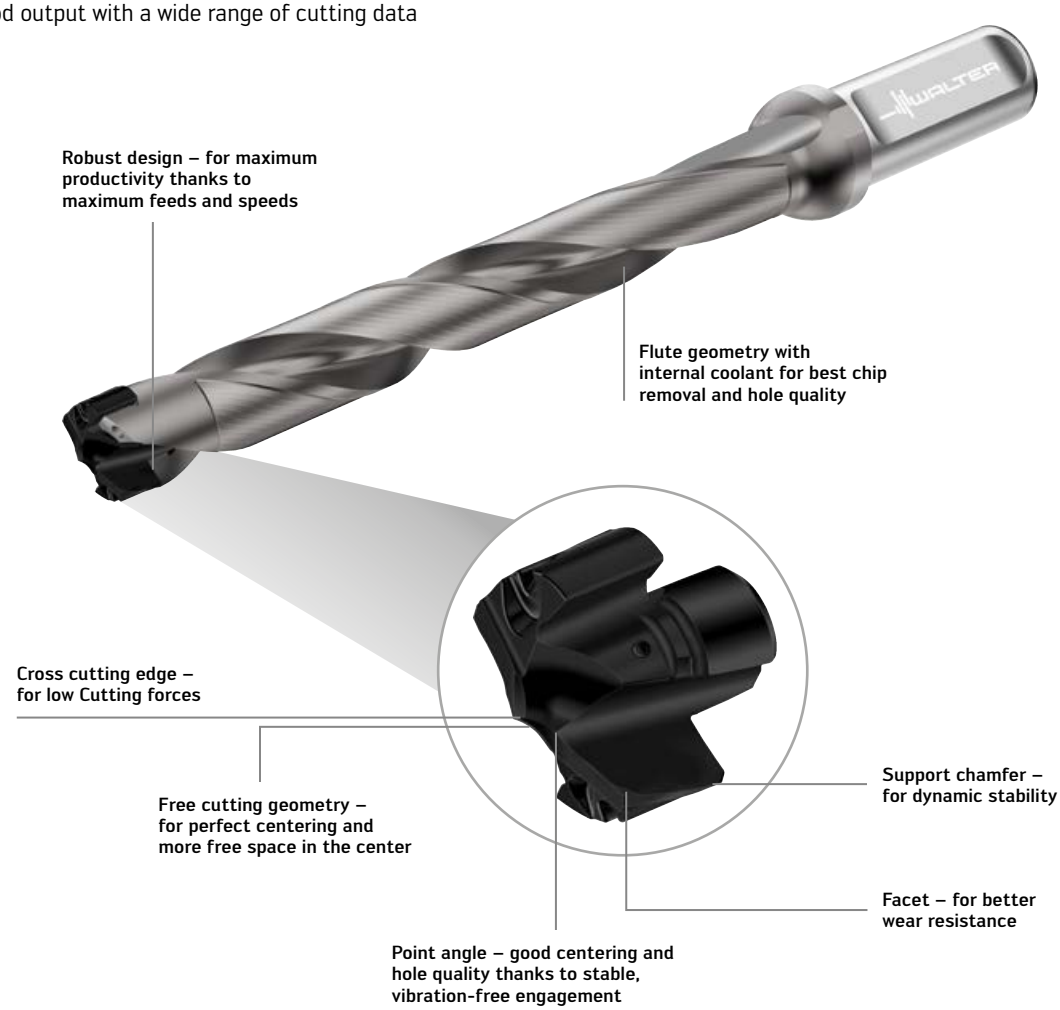
THE GRADE

WPP35

– Resistant PVD coating in combination with fine-grained, tough carbide substrate
– Improved cutting edge stability against fractures and built-up edges
– Primary application: ISO P; Secondary application: ISO M, K, N, S and H

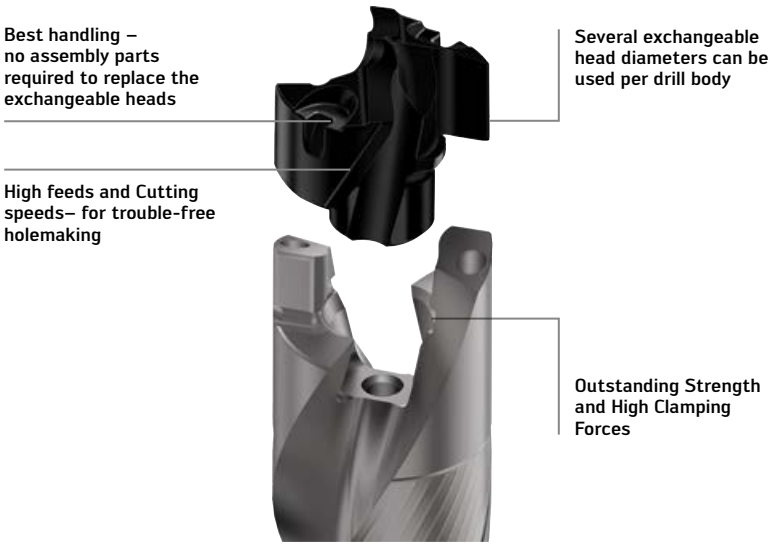
WMS35

– Thin PVD coating in combination with fine-grained, tough carbide substrate
– Resistant to chipping and flaking on the bevelled edge
– Primary application: ISO M and S; Secondary application: ISO P, K, N and H



THE INTERFACE

- Patented, robust interface design between exchangeable head and body
- For maximum release torque
- Stable overall torque - even after many installations
- Increasing the holemaking service life
- Quick and easy assembly; no additional assembly parts

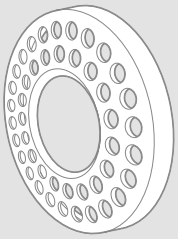


THE APPLICATION

- High-volume production for cross-industry applications
- Large cutting data window with high cutting parameters
- Primary application: ISO P, M and S; Secondary application: ISO K, N and H
- Hole tolerance H9/H10
- All common drilling operations (e.g. inclined entry and exit, cross and stack drilling, etc.)

APPLICATION EXAMPLE

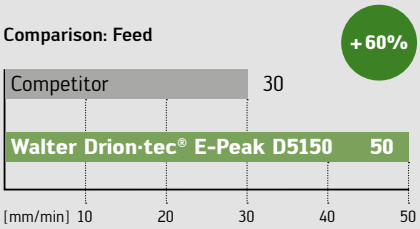
Module holder



Material:	Hastelloy C-32	ISO S
Strength:	approx. 690 N/mm²
Tool:	D5150 / Ø 17 mm / 3×D_c
Interchangeable head:	DS50 / Ø 17 mm / M geometry / WMS35

Cutting data	Competitor	**Walter Drion·tec® E-Peak D5150**
v_c (m/min)	26.7	26.7
Spindle speed (rpm)	500	500
f_n (mm)	0.06	0.1
v_f (mm/min)	30	50
Drilling depth (mm)	11	11
Tool life (number of holes)	432	540
Tool life (m)	4.7	5.4

Comparison: Feed



POTENTIAL BENEFITS

- Highest productivity and low costs per hole thanks to high Feed rate
- Maximum process reliability thanks to durable interface design
- Minimized warehousing and purchasing costs thanks to universal geometry
- Reduced machining time, as no Pilot drilling is required
- Maximum tool life due to solid drill body with reinforced contact surfaces

Also available as

Walter Xpress

Reliable and fast – with power performance.

EXPANSION OF THE RANGE

NEW ADDITION TO THE PRODUCT RANGE

- 1,5 × D: MJ, UNJC, UNJF, NPT, NPTF
- 2,0 × D: M, MF, UNC, UNF, G

THE TOOL

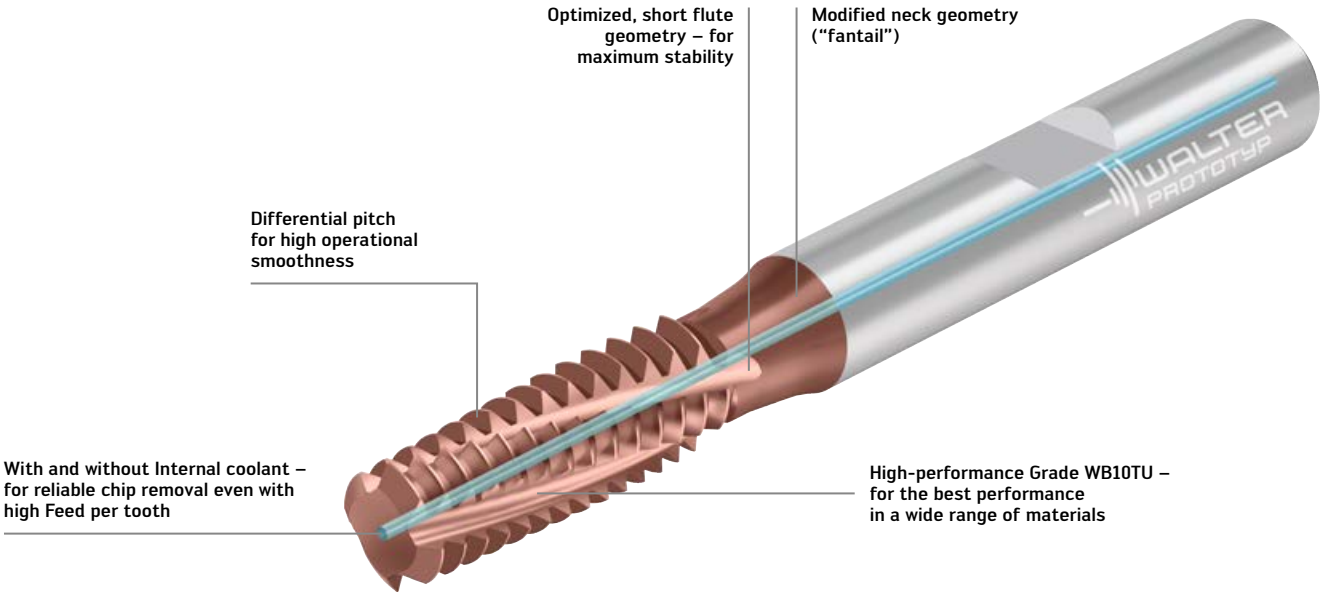
- Universal One - TD610 Supreme full-effective thread milling cutter
- With and without internal cooling
- Shank in accordance with DIN 6535 HB

The program

- M4-M20
- M4×0.5-M20×2
- MJ 4 - MJ 12
- UNC8-UNC7/8
- UNJC 10 - UNJC 7/16
- UNF8-UNF3/4
- UNJF 10 - UNJF 7/16
- G1/16-G1
- NPT 1/16 - NPT 1
- NPTF 1/16 - NPTF 1

THE APPLICATION

- Blind-hole and through-hole threads
- ISO materials P, M, K, N and S up to 48 HRC
- Thread depth ≤ 2 × D_N
- Ideal for strict requirements on process reliability (e.g. for expensive components)

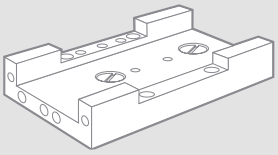


Solid carbide full effective thread milling cutter

Fig.: TD610-M10-W1D-WB10TU

APPLICATION EXAMPLE

Sledge



Material: X6CrNiMoTi17-12-2 | 316Ti | 1.4571

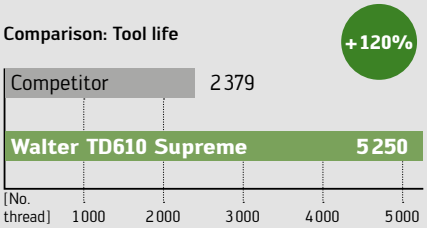
Strength: 775 N/mm²

Tool: TD610-M6-W1D-WB10TU

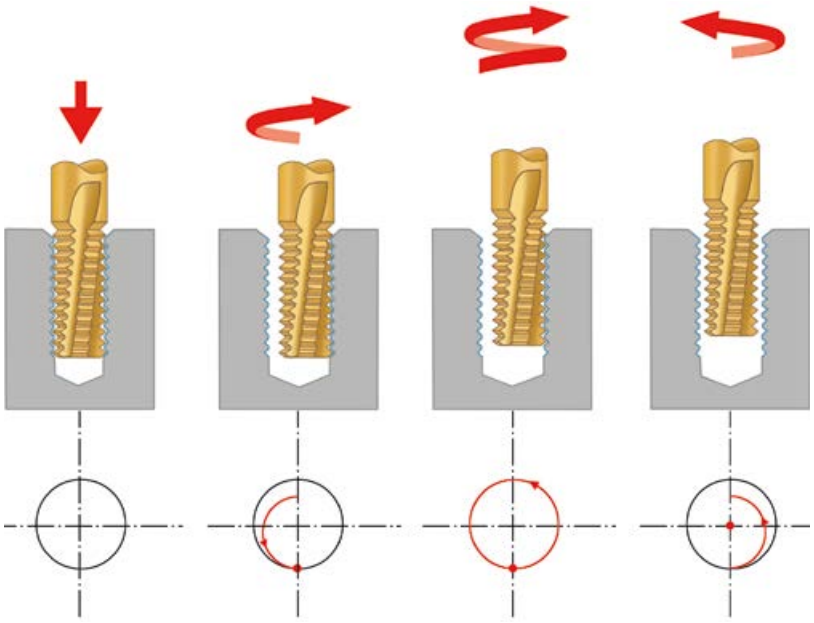
Thread size/depth: M6 / 12 mm

Cutting data	Competitor	Walter TD610 Supreme
v_c (m/min)	50	60
f_z (mm)	0.036	0.05
Number of radial cutting edges (85%/15%)	2	2
Machining time per thread (s)	10	7.5
Tool life No. of threads	2379	5250

Comparison: Tool life



THE STRATEGY



Plunging after positioning over the core hole

Entry loop

Creating the thread using the 360° helix

Exit loop followed by resetting to start position

POTENTIAL BENEFITS

- Reliable chip removal even at high Feed per tooth thanks to Internal coolant
- Short machining times and high Tool life quantities with few Radius corrections
- Excellent thread quality
- Universal One - due to very large product offering

WALTER
Reconditioning Service
Original Walter Quality

Flexible with a long tool life – especially in ISO H.

NEW

THE TOOL

- Ball nose end mill MD480 Advance
- Orbital plunge mill MD780 Advance
- Circle segment milling cutter MD880 Advance

MD480 Advance

- Ø 0.4-16 mm
- z2 and z4
- Large selection of neck and shank variants

MD780 Advance

- Ø 2.5-16 mm
- z4

MD880 Advance

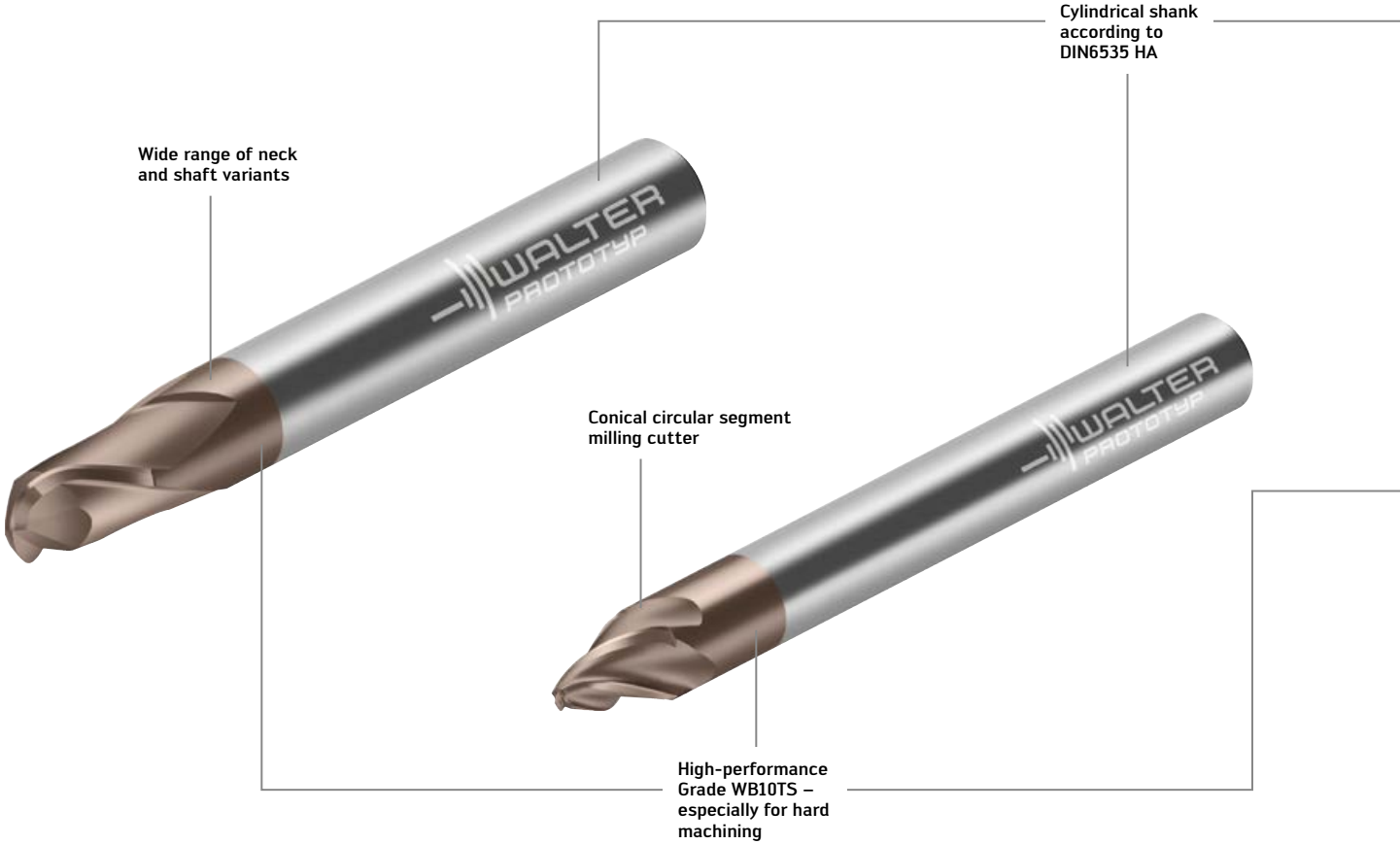
- Ø 6-16 mm
- z4 and z8
- Conical design

THE GRADE

- High-performance Grade WB10TS – especially for hard machining

THE GEOMETRY

- Specially developed for hard machining
- Large selection of neck and shaft variants
- Optimized micro-geometry of the cutting edge



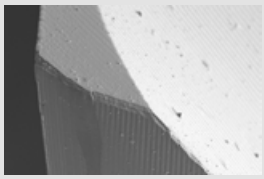
Solid carbide ball nose end mill MD480 Advance

Fig.: MD480-05.0A2BD-WB10TS

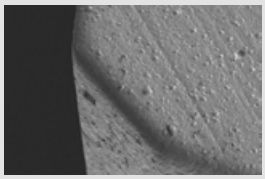
Solid carbide circle segment milling cutter MD880 Advance

Fig.: MD880-12A4P200500-WB10TS

Cutting edge comparison



Cutting edge ISO H – old



Cutting edge ISO H – new

Micro-geometry of the cutting edge wears more evenly – resulting in significantly longer tool life

THE APPLICATION

– Primary application: ISO H materials from 48 to 65 HRC; Secondary application: ISO P

MD480 Advance

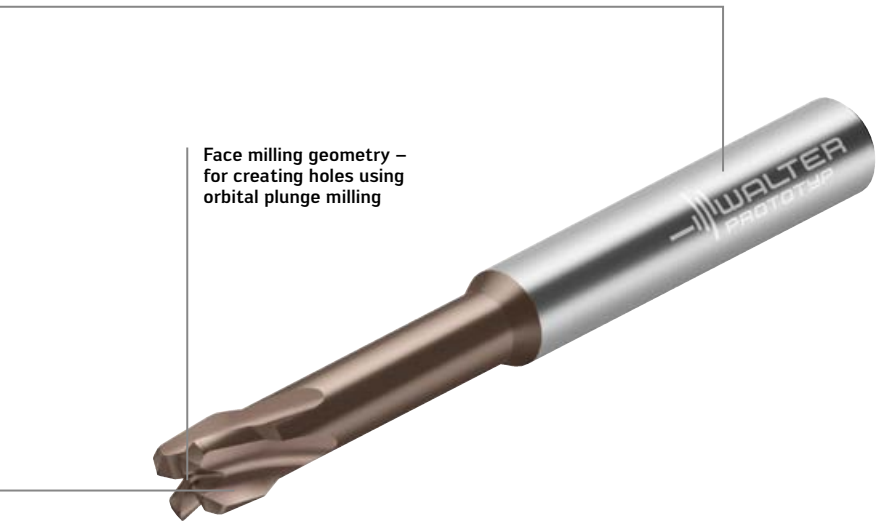
– Finishing operation of 3D contours with radius copy milling cutters

MD780 Advance

– Fast hole production with orbital plunge milling

MD880 Advance

– Fast finishing operation of 3D contours with circle segment milling cutters
– Areas of application: tool and mold making, general mechanical engineering



Solid carbide orbital drill cutter MD780 Advance

Fig.: MD780-12.0A4PC-WB10TS

POTENTIAL BENEFITS

– Economical; ideally suited for hardened materials from 48-65 HRC (ISO H)
– Universal one due to broad program
– High metal removal rates thanks to special geometries for hard machining
– Long tool life thanks to new WB10TS grade

WALTER
Reconditioning Service
Original Walter Quality

Universal one – made for the aviation industry.

NEW

THE TOOL

- Xill·tec® Aero solid carbide cutters
- MC331 Advance - without Chip breaker
- MC333 Advance - with chip breaker

The program

- Ø 6-25 mm
- z5 and z7
- Cutting edge lengths (L_c): 2-5 × D_c
- With or without chip breaker

THE GRADE

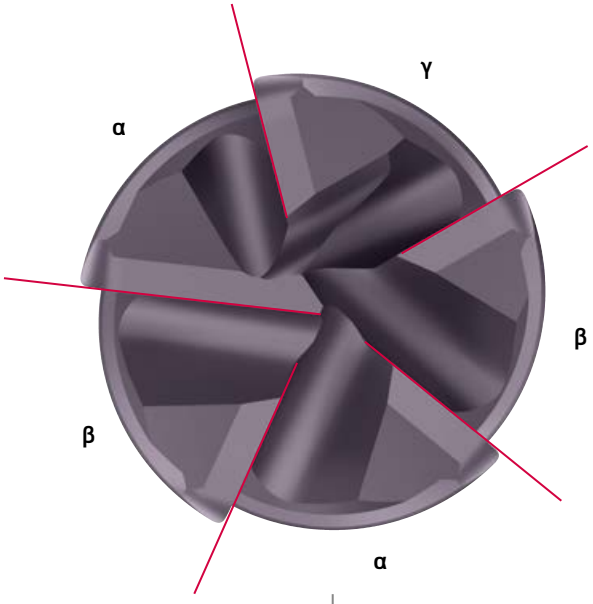
- High-performance, universal one: Grade WK40EA (with focus on ISO M / ISO S)

Solid carbide cutter Xill·tec® Aero MC331 Advance

Fig.: MC331-12.0A7B100C-WK40EA
Fig.: MC331-12.0A5B100C-WK40EA

THE APPLICATION

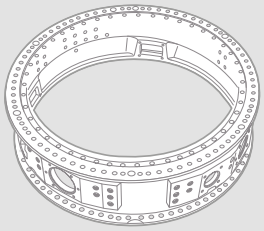
- Primary applications: ISO M / ISO S
- Secondary applications: ISO P / ISO K / ISO N
- z5: Roughing/Finishing
- z7: Dynamic Milling and Finishing
- Areas of application: General mechanical engineering, aerospace, energy and automotive industry



Differential pitch for high operational smoothness

APPLICATION EXAMPLE

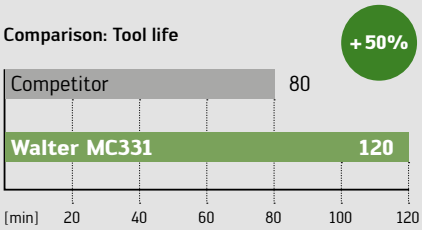
Turbine housing – Contour milling



Material:	TA6V I 3.7164 I Titanium Grade 5
Strength:	1,114 N/mm²
Tool:	MC331-16.0W5B100C-WK40EA
Diameter Ø:	16 mm
Radius (r):	1 mm
Number of teeth (z):	5

Cutting data	Competitor	Walter MC331
a_p (mm)	32.0	32.0
a_e (mm)	1	1
v_c (m/min)	60	60
f_z (mm)	0.13	0.13
Cooling	externally	externally
Tool life (min)	80	120

Comparison: Tool life



POTENTIAL BENEFITS

- Universal one; focus on stainless steels and titanium
- Large areas of application thanks to extensive product range
- Long tool life - especially with ISO M / ISO S materials
- Optimum operational smoothness thanks to adapted geometry

Reconditioning Service
Original Walter Quality

Steel specialist with strong standing and smooth running.

EXPANSION OF THE RANGE

THE TOOL

- Solid carbide cutter MC341 Supreme
- Developed for the machining of ISO P materials

The program

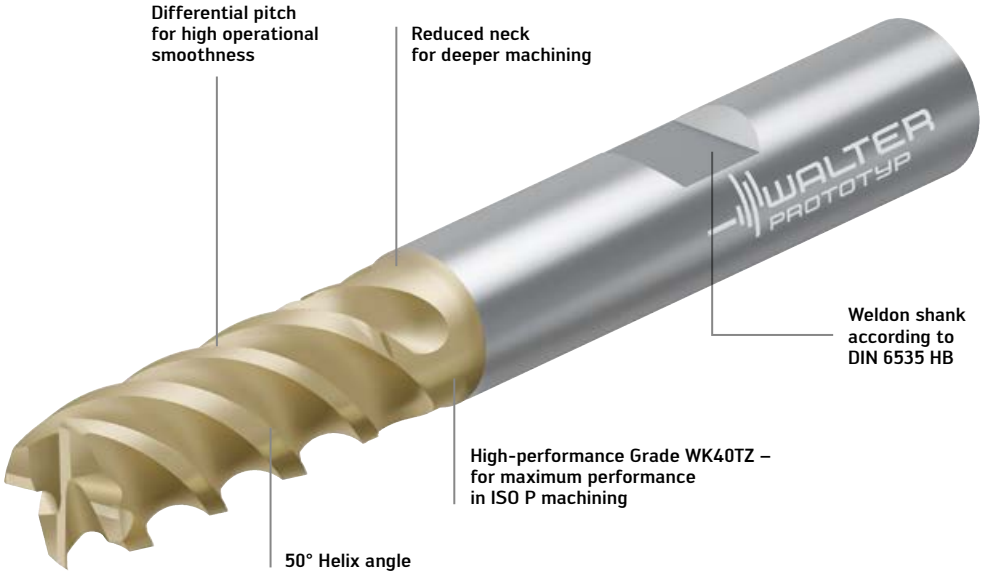
- Ø 6-16 mm
- z4 and z5
- With Weldon shank
- With or without corner radius
- With or without neck

THE GRADE

- High-performance grade WK40TZ – Focus: steel applications

THE APPLICATION

- Primary application: ISO P
- Secondary application: ISO M
- Roughing/Finishing
- Slot and pocket milling as well as circular interpolation milling
- Areas of application: General mechanical engineering, energy and automotive industry



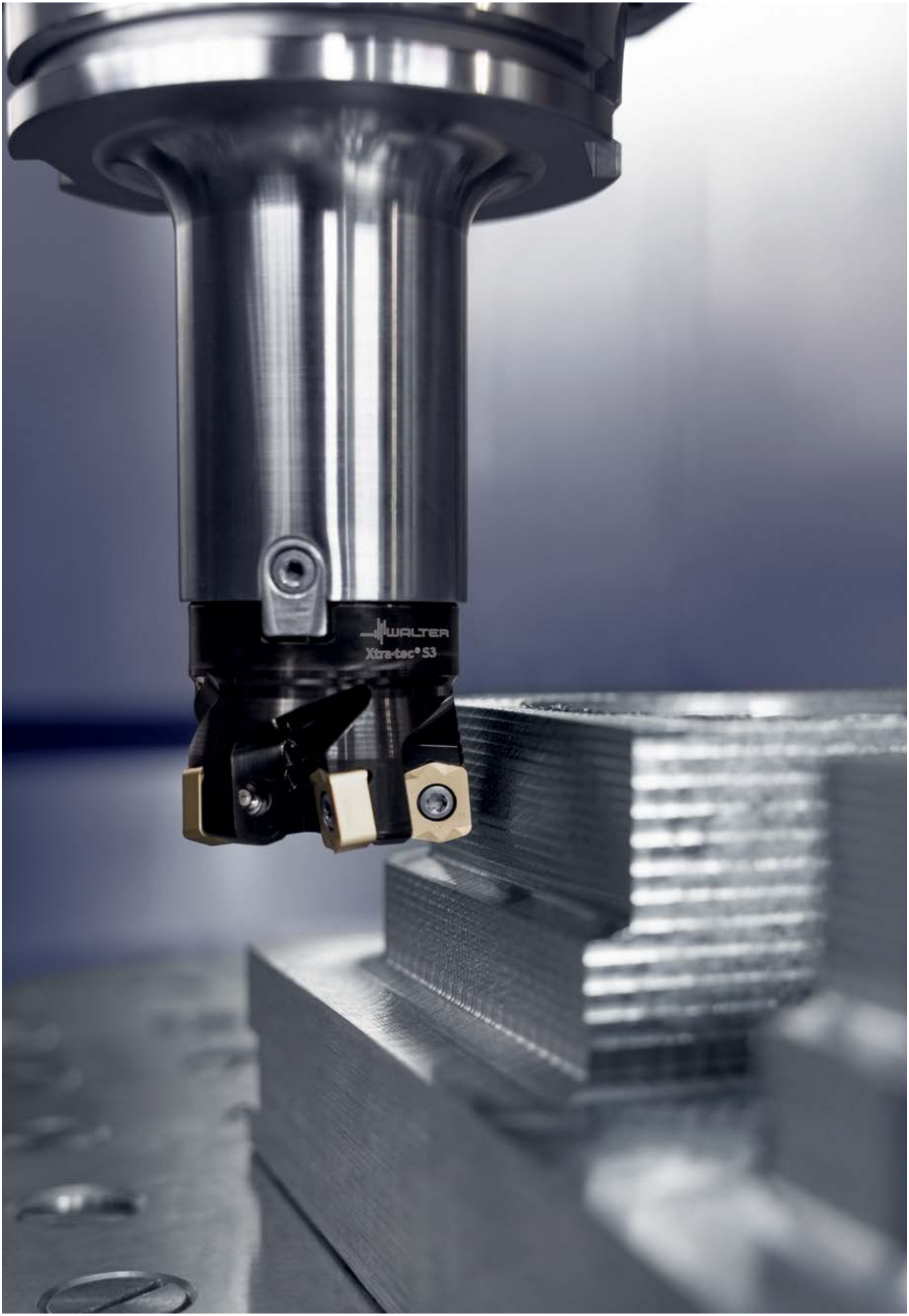
Solid carbide cutter MC341 Supreme

Fig.: MC341-08.0W4B050C-WK40TZ

WALTER Reconditioning Service
Original Walter Quality

POTENTIAL BENEFITS

- Maximum tool life, especially in ISO P thanks to the high-performance grade WK40TZ
- Optimum operational smoothness thanks to adapted macro and micro geometry


WALTER
Xtra-tec® S3

Performance that cuts deep.

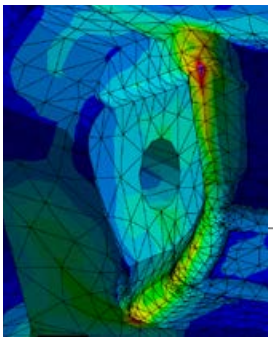
NEW

THE TOOL

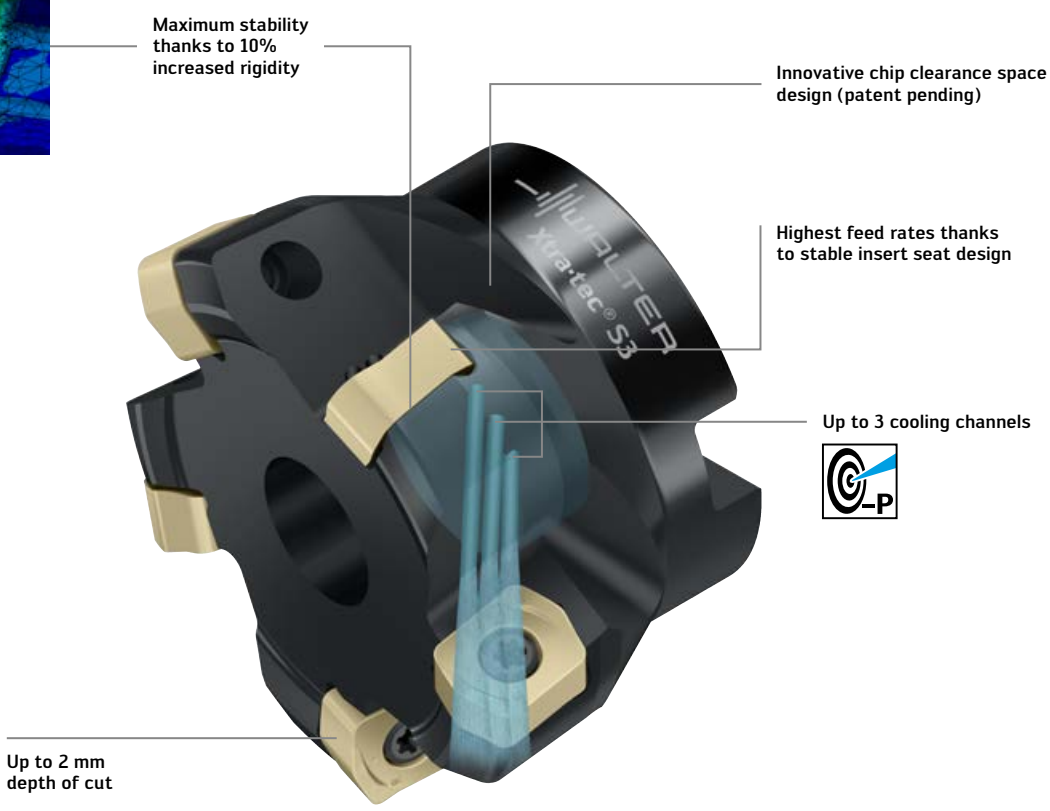
- Indexable insert milling cutter line Xtra·tec® S3
- High-feed milling cutter M6420
- Innovative chip clearance space design
- Up to 3 cooling channels per cutting edge
- 20° approach angle
- Depth of cut up to 2 mm
- 2 pitches for different requirements
- Ø 40-100 mm (or 2-4")

THE INDEXABLE INSERTS

- Double-sided indexable insert with 4 cutting edges
- Feed per tooth up to 3 mm possible thanks to special insert design
- Stable insert seat design due to large contact and support surfaces
- Combines stability with easy-cutting geometries
- Tiger·tec® Gold cutting tool materials for maximum cutting data and tool life



FEM analysis: improved stability through reduced deformation under load



Xtra·tec® S3

Xtra·tec® S3 High-feed milling cutter M6420

Fig.: M6420-063-B22-05-02

THE GEOMETRY

L5
– Easy-cutting geometry
– Very good chip formation
– First choice for stainless steel and difficult-to-machine materials (e.g. Inconel)

M5
– Universal geometry
– First choice for slot milling
– For machining all ISO material groups

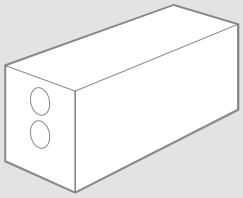
R5
– Stable geometry
– For maximum feed rates
– First choice for face milling in steel or cast iron

ENMX – Indexable inserts for high-feed milling cutter M6420

Fig.: ENMX110616R-L5 WSP45G
Fig.: ENMX110616R-M5 WSP45G
Fig.: ENMX110616R-R5 WSP45G

APPLICATION EXAMPLE

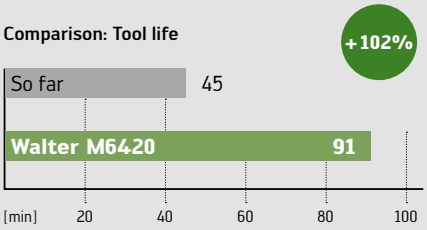
Block



Material:	32niCrMo12-5 | 1.6655 | ASTM A723
Strength:	980 N/mm²
Tool:	M6420-080-B27-08-02
Reversible indexable insert:	ENMX110616R-R5 WSP45G

Cutting data	So far	**Walter M6420**
D_c (mm)	80	80
z	6	8
v_c (m/min)	120	100
f_z (mm)	1.5	1.0
a_p (mm)	0.8	1.6
a_e (mm)	60	60
Q (cm)³/min)	192	266
Life (min)	45	91

Comparison: Tool life



THE APPLICATION

– Versatile: from steel to materials that are difficult to machine (e.g. Inconel)
– Face, slot and pocket milling, ramping, plunging and circular interpolation milling
– Areas of application: general mechanical engineering, aerospace, energy industry, etc.

POTENTIAL BENEFITS

– Highest productivity and short machining times thanks to high feed per tooth
– Maximum efficiency thanks to 4 cutting edges
– Optimized stability for precise machining and long tool life
– Patented chip clearance space design for safe chip removal
– Best tool life and cooling thanks to up to 3 cooling channels per insert seat

Effective shoulder milling cutters – flexibility meets top performance.

EXPANSION OF THE RANGE

NEW ADDITION TO THE PRODUCT RANGE

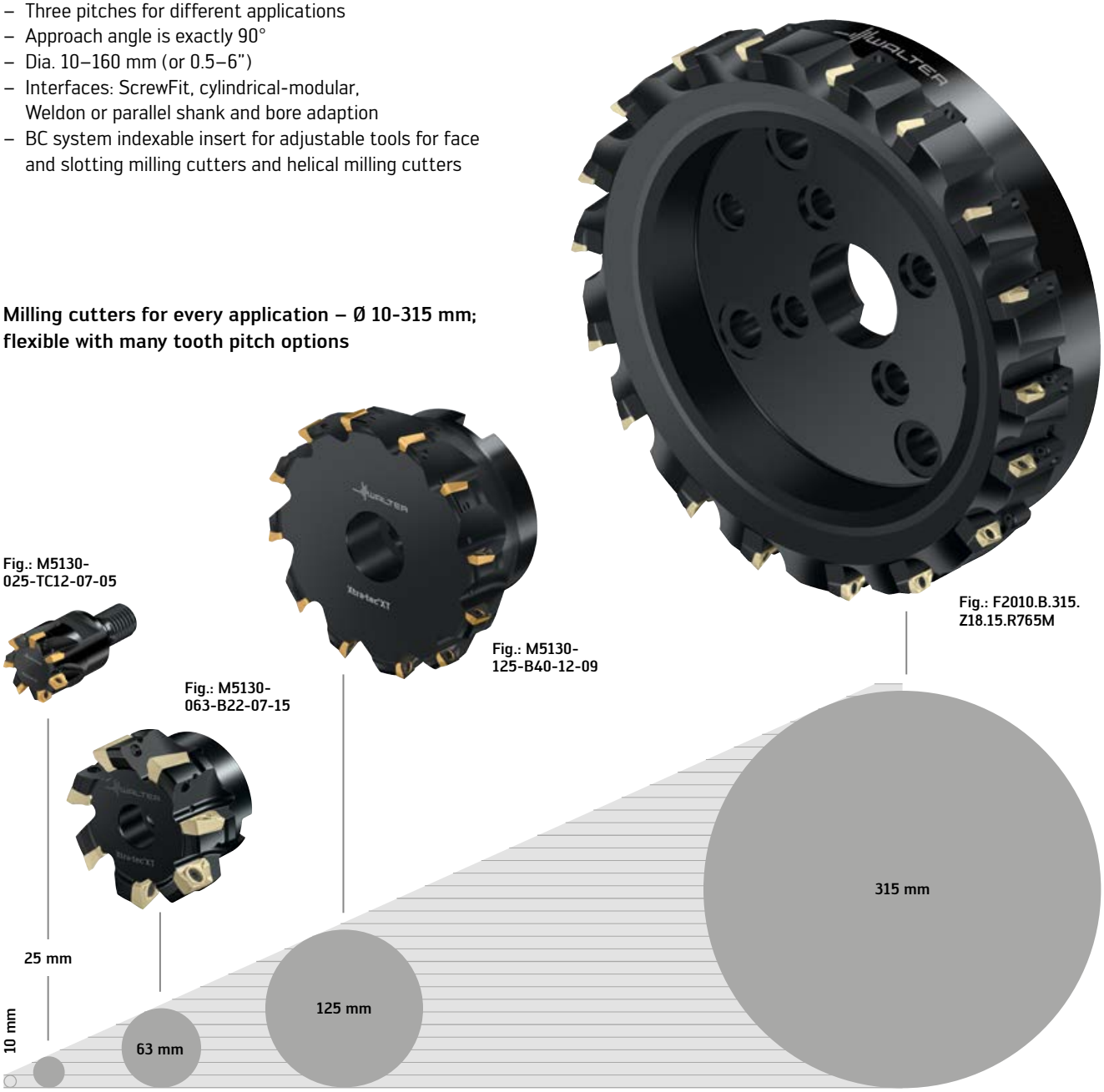
Diameter range for small depths of cut:

- Ø: 80, 100 and 125 mm with Indexable insert BC..09...
- Ø: 100, 125 and 160 mm with indexable insert BC...12...

THE TOOL

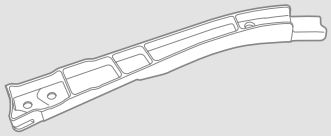
- Xtra·tec® XT M5130 shoulder milling cutter
- Stable insert cross-section and reinforced insert pocket
- Three pitches for different applications
- Approach angle is exactly 90°
- Dia. 10–160 mm (or 0.5–6")
- Interfaces: ScrewFit, cylindrical-modular, Weldon or parallel shank and bore adaption
- BC system indexable insert for adjustable tools for face and slotting milling cutters and helical milling cutters

Milling cutters for every application – Ø 10-315 mm; flexible with many tooth pitch options



APPLICATION EXAMPLE

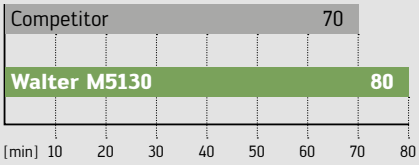
Flap track



Material:	Ti6Al4V (3.7164)	ISO S
Strength:	1100 N/mm²
Tool:	M5130-080-B27-08-15
Indexable insert:	BCMT160508R-G55W WSM45X

Cutting data	Competitor	**Walter M5130**
D_c (mm)	80	80
z	8	8
v_c (m/min)	40	40
f_z (mm)	0.1	0.1
v_f (mm/min)	127	127
a_p (mm)	7.0	7.0
a_e (mm)	up to 100%	up to 100%
Cooling	internal & external	internal & external
Tool life (min)	70	80

Comparison: Tool life **+15%**



THE INDEXABLE INSERTS

- Positive rhombic
- Two cutting edges per insert
- Stable cross-sections due to reduced clearance angle
- 4 Indexable insert sizes with $a_{p\ max}$: 5, 9, 12 and 15 mm
- Corner radii: 0.4-6.0 mm
- Fully ground circumference indexable inserts for maximum precision
- Fully sintered circumference indexable inserts for high efficiency

Indexable inserts for material-specific applications:

- Indexable inserts with brazed PCD inserts (one cutting edge)
- WaveCut indexable inserts for the machining of ISO S

THE APPLICATION

- Universal application in ISO P, K, M, N and H
- Face milling, shoulder milling, ramping, pocket milling and circular interpolation milling
- Oversize milling cutter for machining operations on deep shoulders
- Areas of application: General mechanical engineering, aerospace, medical, electronics and precision mechanical industries

The right depth of cut, geometry and grade for every application

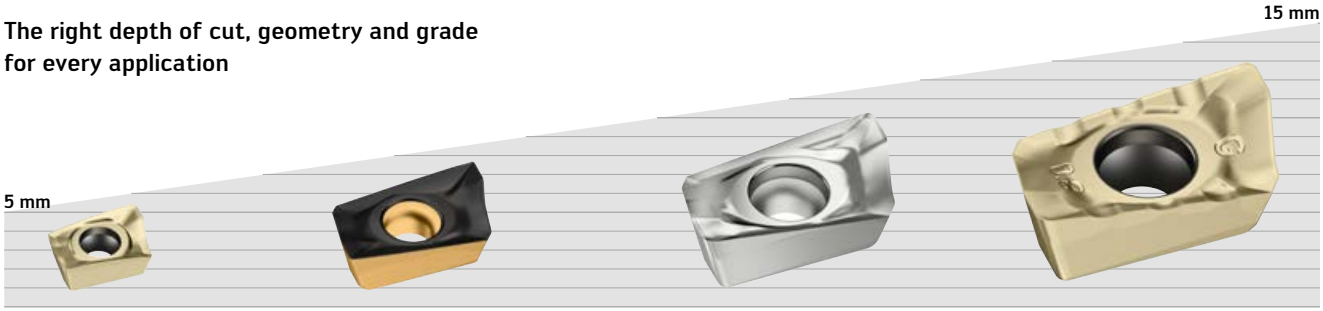


Fig.: ACMT060204R-K55 WSP45G

Fig.: BCMT090302R-G55 WPP35G

Fig.: BCHT120408R-K85 WK10

Fig.: BCMT160508R-G55W WSP45G

POTENTIAL BENEFITS

- Maximum process reliability thanks to high stability
- Optimum cutting data and tool life for maximum productivity
- Perfectly tailored to the machining operation due to extensive product range
- Lower tool costs and minimised effort thanks to universal usability

Universal one with collets – the ConeFit solution.

EXPANSION OF THE RANGE

NEW ADDITION TO THE PRODUCT RANGE

- ER16 with E10
- ER20 with E10 and E12
- ER25 with E10, E12 and E16
- ER32 with E10, E12, E16, E20 and E25

THE TOOL

- ER Collet with ConeFit
- Can be used in all standard ER Collet adaptors
- Exchangeable heads with ConeFit interface
- Suitable for exchangeable heads with and without internal coolant
- Short design

THE APPLICATION

- Universal one for all Walter tools with ConeFit interface
- Areas of application: tool and mold making, aerospace, general mechanical engineering, automotive and energy industry

ER Collet with ConeFit

Fig.: AB771-ER25_P_01

POTENTIAL BENEFITS

- Safe process thanks to short and stable design
- Universally applicable
- Increased productivity thanks to fast tool changes in the machine

Drion·tec® E-Peak

The Peak of Productivity

Walter AG

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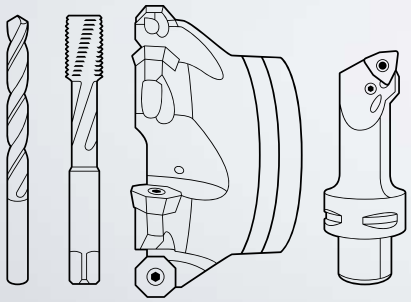

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