



Walter Cut MX – Grooving

Edition 2020

_WALTER CUT MX

Multiply your success – with four cutting edges



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THE INDEXABLE INSERTS

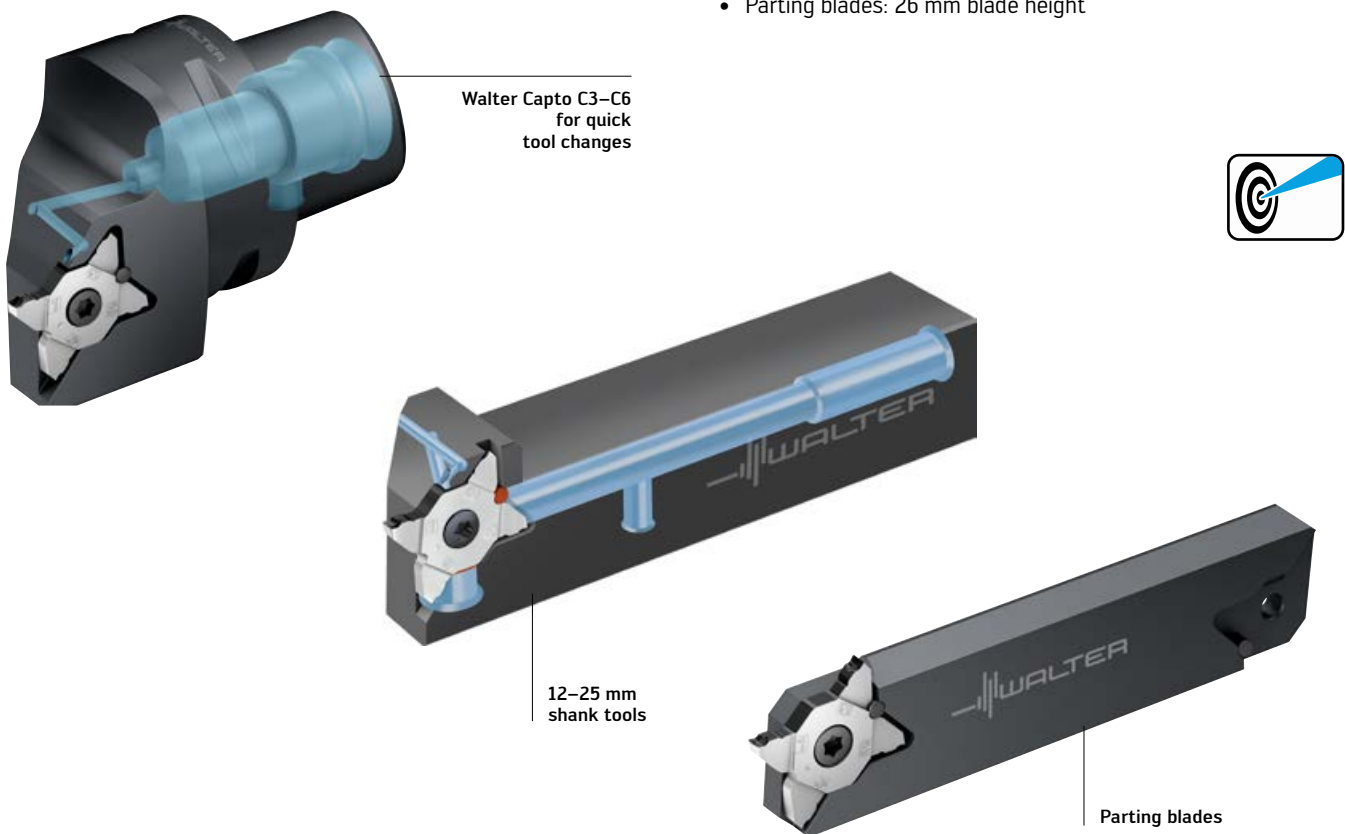
- Four precision-ground cutting edges ± 0.02 mm
- Insert widths from 0.50–5.65 mm
- Cutting depth up to 6 mm
- Four chip formation geometries: GD8, CF5, RF5 and AG
- One cutting insert for left and right tool holders

THE APPLICATION

- Grooving, parting off, profiling, recessing and thread turning
- Where a high degree of precision and small diameters matter
- Areas of use: CNC lathe and multi-spindle machines, automatic lathes, machines with Walter Capto™ interface

THE TOOLS

- Grooving and parting off tool with precision cooling
- Stable, self-aligning, tangential insert clamping
- Available tools:
 - Shank sizes: 10 × 10, 12 × 12, 16 × 16, 20 × 20, 25 × 25 mm
 - Walter Capto™: C3, C4, C5 and C6
 - Parting blades: 26 mm blade height



Walter Cut MX system

Fig.: G3011-C-P, G3011-P, G3041



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

BENEFITS FOR YOU

- Very user-friendly thanks to self-aligning tangential screw clamping
- High level of flexibility: All cutting edge variants can be inserted in the same toolholder
- Maximum tool life thanks to the latest Tiger-tec® Silver PVD cutting tool materials

THE GEOMETRIES

Grooving and parting off

GD8:

- Grooving operations
- Straight cutting edge for flat groove base



CF5:

- Grooving and parting off operations
- Excellent chip control



Profiling and thread turning

RF5:

- Full-radius grooving operations
- Contour turning with small machining allowances



A60/AG60..:

- Thread turning operations where space is limited
- Thread turning with the same basic holder

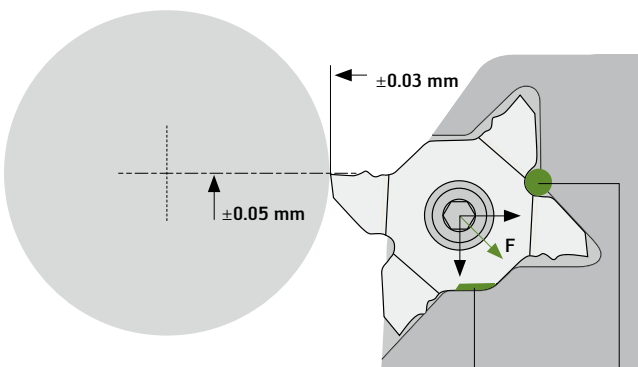


Other special profiles available from:

Walter Xpress

THE TECHNOLOGY

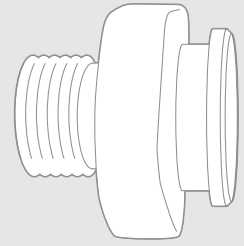
Maximum indexing accuracy and user-friendliness



Tightening the screw pulls the insert against the contact surfaces and dowel pin

APPLICATION EXAMPLE

Grooving in stainless steel – connector

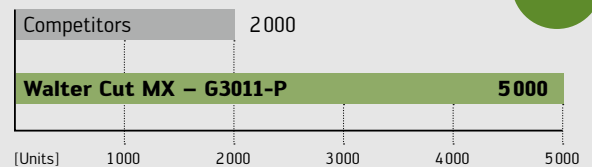


Material: X2CrNiMo17-12-2 (1.4404)
Tool: G3011-C3R-MX22-2-P
Indexable insert: MX22-2E200N02-CF5
Grade: WSM23S

Cutting data:

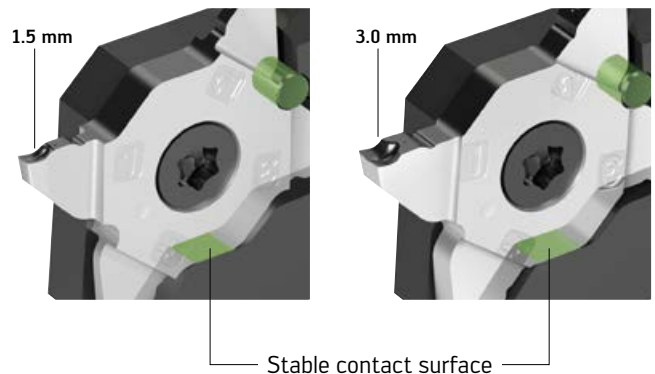
	Competitors Five-edged grooving insert	Walter Four-edged grooving insert
v_c (m/min)	144	144
f (mm)	0.05	0.05
Cutting depth (mm)	1.5	1.5
Tool life (units)	2000	5000

Comparison: Tool life quantity [units]



Maximum stability and precision

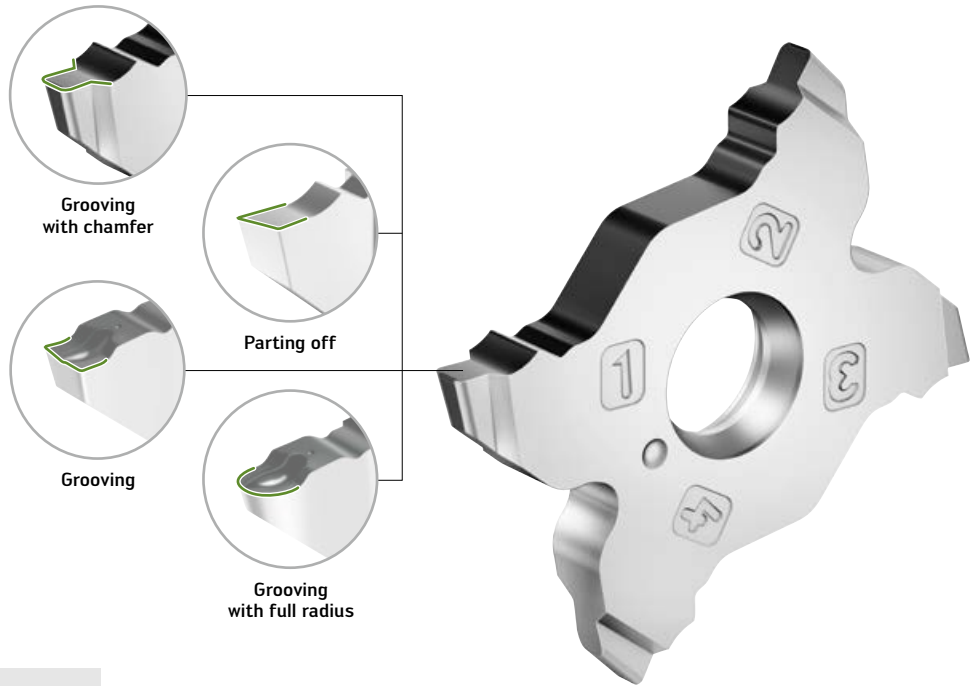
Stable, wide contact surface in the toolholder, regardless of cutting width



Walter Xpress – special profiles delivered within four weeks.

THE INDEXABLE INSERT

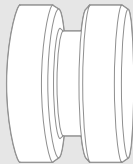
- Insert widths from 0.5–5.5 mm
- Cutting depths up to 6 mm
- Radii from 0.05–5.4 mm
- Parting off approach angles from 3–20°
- 30–60° chamfer angle



Walter Xpress

APPLICATION EXAMPLE

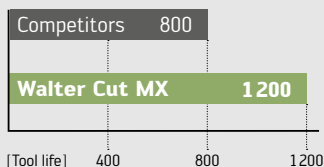
Recess with chamfer – shaft



Material: 42CrMo4 (1.7225)
Tool: G3011-C4R-MX22-2-P
Cutting insert: Xpress 2.2 mm with 0.2 × 45° chamfer

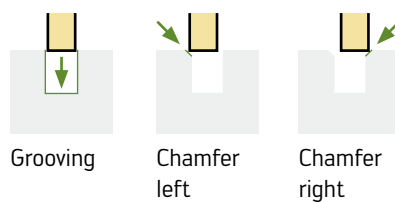
	Competitors Three-edged grooving insert	Walter Four-edged grooving insert
v_c (m/min)	140	140
f (mm)	0.12	0.12
T (mm)	1.1	1.1
Tool life (recesses)	800	1200
Increase in productivity		+40%

Comparison: Recesses



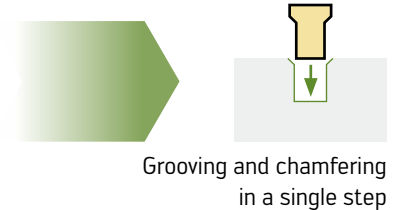
THE APPLICATION

Existing:



Chamfering and grooving with corner radii
 Disadvantages: Longer runtime and higher peripheral cutting edge wear

New with Xpress special insert:



Chamfering and grooving with Xpress special insert:
 Shorter runtime, lower peripheral cutting edge wear (distributed across the entire cutting edge) and higher tool life quantity

BENEFITS FOR YOU

- Same-day grooving insert calculation including creation of drawing
- Grooving inserts in a four-week delivery time
- Special widths and radii with CF5/GD8 chip formation geometry
- Reduction of cost per part by reducing travel distances and multiple grooving

Grooving shoulders in a systematic way.

NEW ADDITION TO THE PRODUCT RANGE

- G3051-P with MX22-L/R...-GD8 indexable inserts for shoulder machining
- New shank sizes: 12 × 12, 16 × 16, 20 × 20, 25 × 25 mm

THE INDEXABLE INSERTS

- Four precision-ground cutting edges ±0.02 mm
- 3° installation position in the groove turning holder
- MX22-2L/R; insert widths from 1.50–3.00 mm; GD8 geometry
- MX22-2L/R; insert width of 2.80 mm; VG8 geometry

THE APPLICATION

- Grooving and parting off – shoulders and large diameters without interference contour; small dia. with high accuracy
- Can be used on CNC lathe and multi-spindle machines, automatic lathes

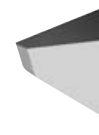
THE GEOMETRIES

GD8:



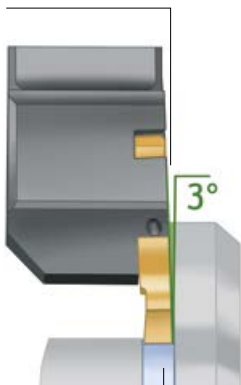
- For precision grooving
- Extremely soft cutting action
- Light to moderate feeds

VG8:



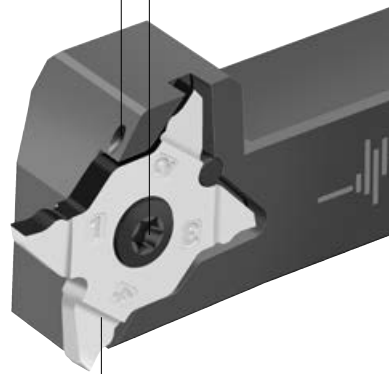
- For finishing operations on the rear face of a component
- Enormous savings on material compared to standard ISO indexable inserts

Installation position for grooving along a "shoulder"



Flat groove base

Precision cooling
Stable, self-aligning, tangential insert clamping



Cutting depth up to 6 mm



Walter Cut MX 3° – for shoulder machining

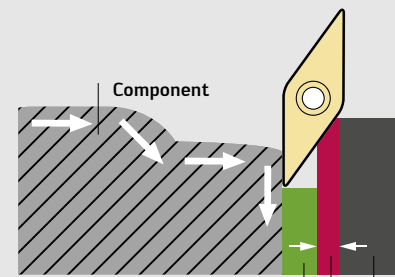
Fig.: G3051-2525R-MX22-2-P

BENEFITS FOR YOU

- Tangential arrangement for outstanding flatness and surface quality
- User-friendly thanks to self-aligning screw clamping
- Enormous savings on material in mass production thanks to VG8 geometry
- Maximum tool life thanks to the latest Tiger-tec® Silver PVD cutting tool materials

Material saved due to smaller space requirements

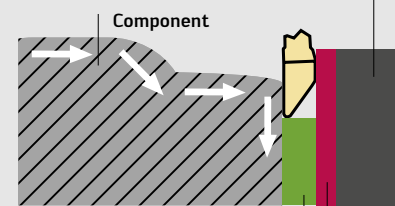
Existing: VCMT160408 ISO indexable insert (35°)



Component
Parting-off surface
VCMT... indexable insert causes interference contour

Bar material

New: MX22-2R280R01-VG8 WSM23S

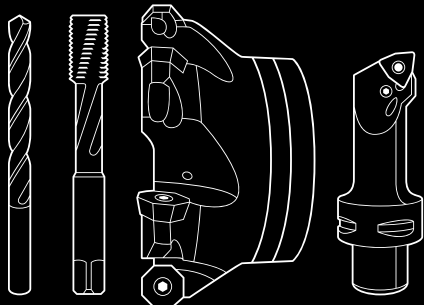


Component
Parting-off surface
3 mm of material saved with the VG8

Walter AG

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

walter-tools.com



Walter GB Ltd.

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

Walter Kesici Takımlar Sanayi ve Ticaret Ltd. Şti.

Istanbul, Türkiye
+90 (0) 216 528 1900 Pbx, service.tr@walter-tools.com

Walter Wuxi Co. Ltd.

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

Walter AG Singapore Pte. Ltd.

+65 6773 6180, service.sg@walter-tools.com

Walter Korea Ltd.

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

Walter Tools India Pvt. Ltd.

Pune, India
+91 (20) 3045 7300, service.in@walter-tools.com

Walter (Thailand) Co., Ltd.

Bangkok, 10120, Thailand
+66 2 687 0388, service.th@walter-tools.com

Walter Malaysia Sdn. Bhd.

Selangor D.E., Malaysia
+60 (3) 8023 7748, service.my@walter-tools.com

Walter Japan K.K.

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

Walter USA, LLC

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

Walter Canada

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