

_ INFORMATION AND ORDER DATA

Walter Turn WL

Copy turning system



**Edition
2025**

How to find and order your tool solution:



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 Hybrid catalogues and brochures

show the entire standard range under the Walter, Walter Titex, Walter Prototyp and Walter Multiply competence brands – in print or in digital format – with product range overviews, product data, cutting data recommendations and much more. Including links to our machining navigator, Walter GPS, or the Walter TOOLSHOP with the chance to order directly.

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The benefit for you: Direct access from any device, displayed in an optimised form, at any time.

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Tool-specific search

You can find products in the Walter online catalogue using the familiar structure of our product catalogue 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 Innotime®



Component-based search

With Walter Innotime®, you can find the most cost-effective machining solution for your component, including all the tools, machining steps and machining parameters required for this. Simply by uploading your 3D model.

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.

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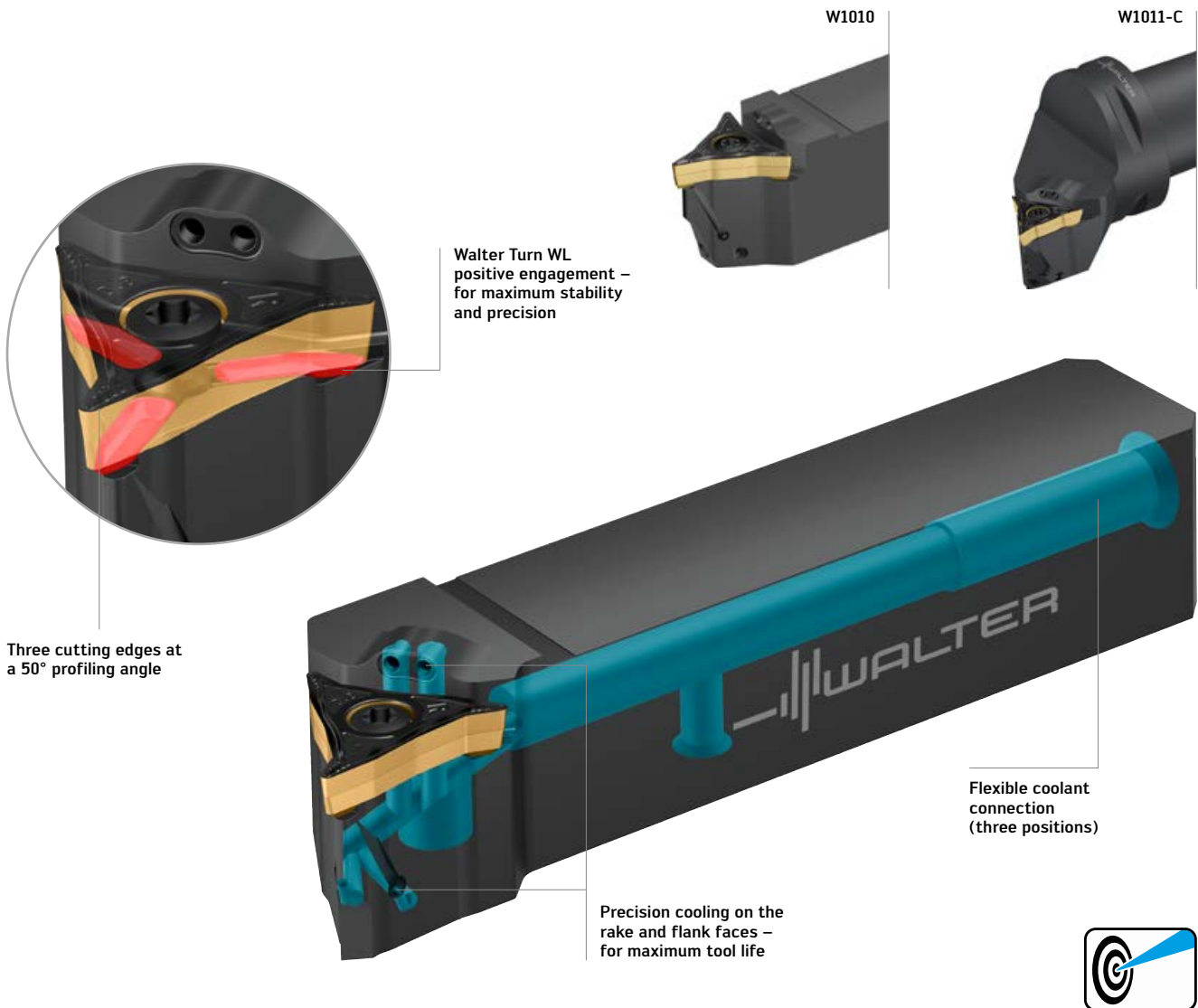
Maximum stability – outstanding cost-efficiency.

THE TOOL

- WL positive engagement on toolholder and insert
- W1010 = neutral version
- W1011 = right-hand/left-hand version
- Tools available with or without precision cooling (-P)
- Square shank: 16 × 16, 20 × 20 and 25 × 25 mm
- Walter Capto™ C4–C6

THE APPLICATION

- Copy turning of recesses up to 30°, 50° (W1011) and 72.5° (W1010)
- Dynamic turning
- High-precision components
- Replacement for ISO VBMT, VCMT, DCMT indexable inserts (with just two cutting edges and lower stability)



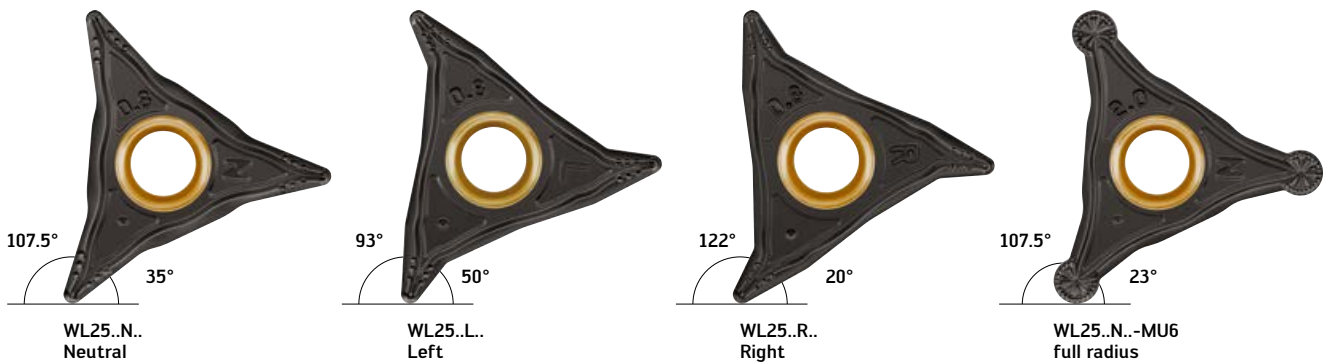
Walter Turn copy turning system

Fig.: W1011-2525R-WL25-P

THE INDEXABLE INSERTS

- Three-edge, positive indexable inserts with WL positive engagement
- Neutral, left-hand and right-hand versions fit into the same tool
- FP4, MP4, FM4 and MM4 geometry with 35° point angle
- MU6 geometry, full-radius indexable inserts
- Grades: WKP01G, WPP10G, WPP20G, WMP20S, WSM01, WSM10S, WSM20S, WSM30S and WBH20C

Four indexable insert types and applications

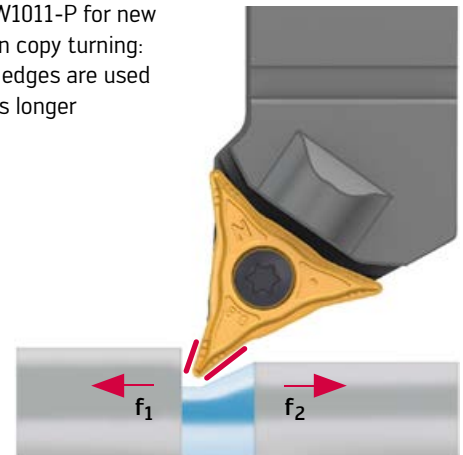


THE TECHNOLOGY

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



Walter Turn W1011-P for new possibilities in copy turning: Both cutting edges are used and tool life is longer



POTENTIAL BENEFITS

- High level of dimensional stability thanks to positive-locking, robust WL connection
- Cost-effective: Lower tool costs thanks to three cutting edges
- Longer tool life when copy turning
- High level of flexibility: Four indexable insert types fit in the same tool
- 50% higher indexing accuracy compared to ISO indexable inserts

Stable internal machining with exceptional cost-efficiency.

THE TOOL

- Copy turning system with WL positive engagement on boring bar and indexable insert
- Boring bar diameters: 12–40 mm and 0.5–1.25"
- Walter QuadFit Q32–Q50

THE INDEXABLE INSERTS

- Three-edge, positive indexable inserts with WL positive engagement
- Neutral, left-hand, right-hand and full-radius versions fit into the same tool

THE APPLICATION

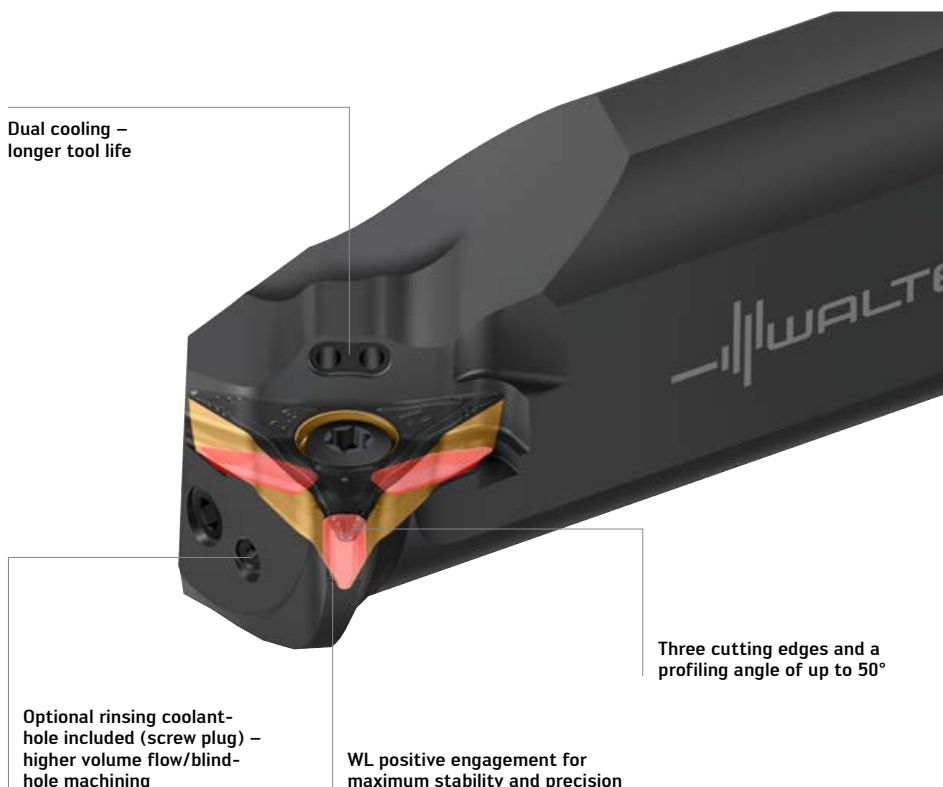
- Copy turning of recesses up to 30° or 50°
- Replacement for ISO VBMT, VCMT, DCMT indexable inserts (with just two cutting edges and lower stability)
- High-precision components

W1210

- Profiling angle of up to 72.5°
- Can be used universally due to its neutral design

W1211

- Profiling angle of up to 50°



Walter Turn copy turning system – Internal machining

Fig.: W1211-32TR-WL25

Indexable insert types and applications



Left-hand indexable insert:
50° profiling



Right-hand indexable insert:
Facing, axial grooves



Neutral full-radius
indexable insert

THE GEOMETRY

- A complete range of WL geometries is available for steel, stainless materials, cast iron and high-temperature alloys, right up to hard machining.



MU6 geometry

Full-radius geometry for copy turning and dynamic turning



TM geometry

CBN indexable inserts in WBH20C for hard machining



FP4 and FM4 geometries

Finishing geometry for minimal depths of cut



MP4 and MM4 geometries

Medium machining – with a large application

POTENTIAL BENEFITS

- High level of dimensional stability and indexing accuracy due to positive-locking, robust WL connection
- Long tool life when copy turning
- Cost-effective: Lower tool costs thanks to three cutting edges
- Highly cost-efficient thanks to lower tool costs due to three cutting edges
- Maximum flexibility: Four indexable insert types fit in one tool

Small – with excellent stability and cost-efficiency.

NEW ADDITION TO THE PRODUCT RANGE

WL17 indexable inserts

- Neutral, right-hand and left-hand versions

Tools for WL17

- W1011-S-P external turning toolholders for automatic lathes; shank sizes: 12–16 mm; 0.5–0.75"
- W1210/W1211 – boring bar diameter: 12–20 mm; 0.5–0.75"

THE TOOL

- Copy turning system with WL positive engagement on toolholder and indexable insert
- 50% higher indexing accuracy (compared to ISO indexable inserts)
- Neutral, right-hand and left-hand inserts can be used in the same tool

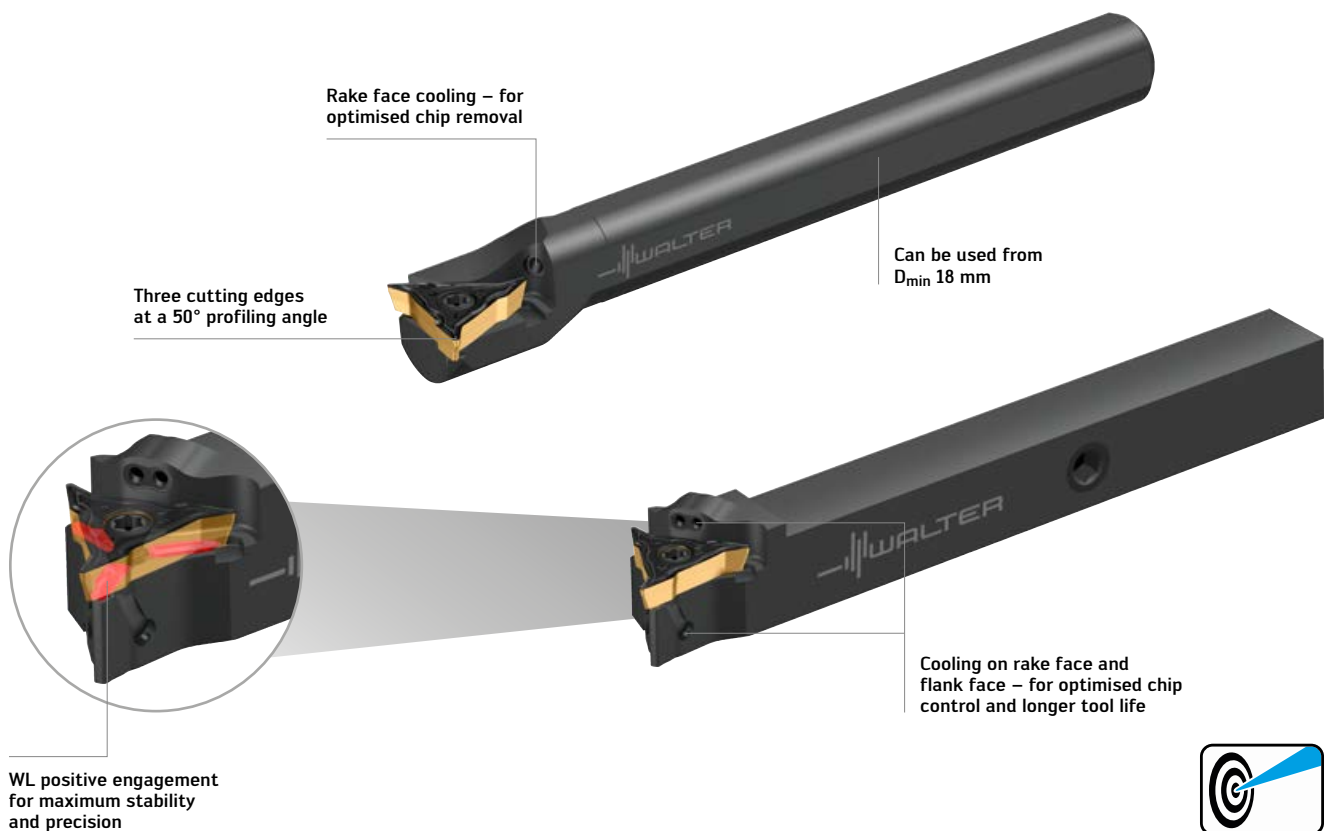


Fig.: W1211-12MR-WL17
Fig.: W1011-1212R-WL17-P

POTENTIAL BENEFITS

- High level of dimensional stability thanks to positive-locking, robust WL connection
- Maximum tool life thanks to the option of forward and reverse turning
- Cost-effective: Lower tool costs thanks to three cutting edges

THE INDEXABLE INSERTS

- Three-edge, positive indexable inserts with WL positive engagement
- Neutral, left-hand and right-hand versions fit into the same tool

THE APPLICATION

- Copy turning of recesses up to 30° or 50°
- Forward and reverse turning operations
- High-precision components
- Replacement for ISO VBMT, VCMT, DCMT indexable inserts (with just two cutting edges and lower stability)

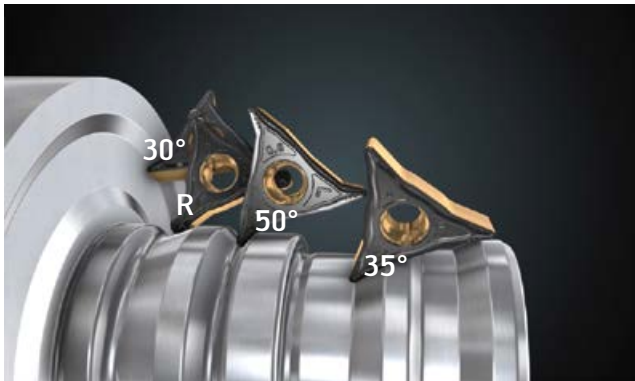
W1011-S-P

- Automatic lathe and multi-spindle machines having up to 150 bar of coolant pressure

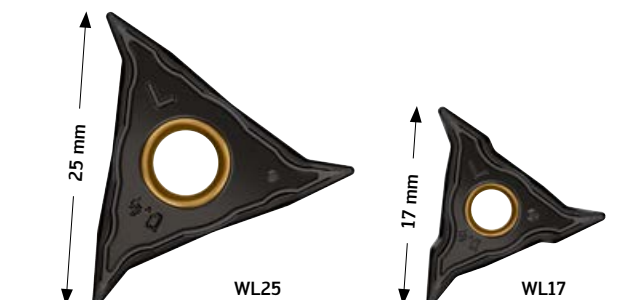
W1210/W1211

- Internal copying turning, facing and axial grooving

Indexable insert types and applications



Size comparison of insert types



THE TECHNOLOGY













Walter Turn W1011-P copy turning tool for forward and reverse turning, uses two cutting edges and makes higher feeds possible.



Walter Turn WL positive engagement with three contact surfaces



Inserts copy turning system – WL

Machining	Finishing operation			Medium machining	
					
Geometry	FM4	FP4	MM4	MP4	MU6
Indexable inserts basic shape	WL	WL	WL	WL	WL
P Steel	●	●●	●	●●	●●
M Stainless steel	●●	●	●●	●	●●
K Cast iron		●	●	●	●●
N NF metals					
S Materials with difficult cutting properties	●●	●	●●	●	●●
H Hard materials					●
O Other					
a_p [mm]	0,1–2,0	0,1–2,0	0,1–2,5	0,1–2,5	0,5–2,5
f [mm]	0,04–0,25	0,04–0,25	0,05–0,40	0,05–0,40	0,12–0,45
Page in catalogue	12	12	12	12	14
QR code					
www.walter-tools.com/woc/	FM4	FP4	MM4	MP4	MU6

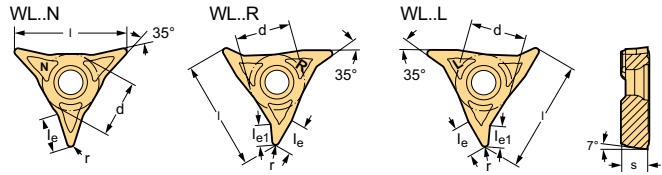
Indexable inserts for copy turning system – WL CBN inserts

Machining	Medium machining	
		
Geometry	TM	
Indexable inserts basic shape	WL	
P Steel		
M Stainless steel		
K Cast iron		
N NF metals		
S Materials with difficult cutting properties		
H Hard materials	●●	
O Other		
a_p [mm]	0,1–2,5	
f [mm]	0,02–0,50	
Page in catalogue	15	
QR code		
www.walter-tools.com/woc/	TM	

Indexable inserts copy turning system

WL...-VC...

Tiger-tec® Gold



Indexable inserts

Designation	r mm	l mm	le mm	le1 mm	f mm	ap mm	P				M				K		S	
							HC				HC				HC		HC	
							WKP01G	WPP10G	WPP20G	WMP20S	WSM01	WSM10S	WMP20S	WSM20S	WKP01G	WSM01	WSM10S	WSM20S
WL17-VC0502N-FM4	0,2	17	4,6		0,04-0,15	0,1-1,2												
WL17-VC0504N-FM4	0,4	17	5		0,05-0,20	0,1-1,8												
WL17-VC0508N-FM4	0,8	17	5,7		0,08-0,25	0,2-1,8												
WL25-VC0702N-FM4	0,2	25	6		0,04-0,15	0,1-2,0												
WL25-VC0704N-FM4	0,4	25	6,3		0,05-0,20	0,1-2,0												
WL25-VC0708N-FM4	0,8	25	7,1		0,08-0,25	0,2-2,0												
WL17-VC0502R-FM4	0,2	17	4,3	2,5	0,04-0,15	0,1-1,2												
WL17-VC0504R-FM4	0,4	17	4,6	3,1	0,05-0,20	0,1-1,8												
WL17-VC0508R-FM4	0,8	17	5	3,6	0,08-0,25	0,2-1,8												
WL25-VC0702R-FM4	0,2	25	5,5	3,4	0,04-0,15	0,1-2,0												
WL25-VC0704R-FM4	0,4	25	6,2	3,9	0,05-0,20	0,1-2,0												
WL25-VC0708R-FM4	0,8	25	6,6	4,6	0,08-0,25	0,2-2,0												
WL17-VC0502L-FM4	0,2	17	4,3	2,5	0,04-0,15	0,1-1,2												
WL17-VC0504L-FM4	0,4	17	4,6	3,1	0,05-0,20	0,1-1,8												
WL17-VC0508L-FM4	0,8	17	5	3,6	0,08-0,25	0,2-1,8												
WL25-VC0702L-FM4	0,2	25	5,5	3,4	0,04-0,15	0,1-2,0												
WL25-VC0704L-FM4	0,4	25	6,2	3,9	0,05-0,20	0,1-2,0												
WL25-VC0708L-FM4	0,8	25	6,6	4,6	0,08-0,25	0,2-2,0												
WL17-VC0504N-FP4	0,4	17	5		0,05-0,20	0,1-1,8												
WL17-VC0508N-FP4	0,8	17	5,7		0,08-0,25	0,2-1,8												
WL25-VC0704N-FP4	0,4	25	6,3		0,05-0,20	0,1-2,0												
WL25-VC0708N-FP4	0,8	25	7,1		0,08-0,25	0,2-2,0												
WL17-VC0502R-FP4	0,2	17	4,3	2,5	0,04-0,15	0,1-1,2												
WL17-VC0504R-FP4	0,4	17	4,6	3,1	0,05-0,20	0,1-1,8												
WL17-VC0508R-FP4	0,8	17	5	3,6	0,08-0,25	0,2-1,8												
WL25-VC0704R-FP4	0,4	25	6,2	3,9	0,05-0,20	0,1-2,0												
WL25-VC0708R-FP4	0,8	25	6,6	4,6	0,08-0,25	0,2-2,0												
WL17-VC0502L-FP4	0,2	17	4,3	2,5	0,04-0,15	0,1-1,2												
WL17-VC0504L-FP4	0,4	17	4,6	3,1	0,05-0,20	0,1-1,8												
WL17-VC0508L-FP4	0,8	17	5	3,6	0,08-0,25	0,2-1,8												
WL25-VC0704L-FP4	0,4	25	6,2	3,9	0,05-0,20	0,1-2,0												
WL25-VC0708L-FP4	0,8	25	6,6	4,6	0,08-0,25	0,2-2,0												
WL17-VC0504N-MM4	0,4	17	5		0,08-0,25	0,4-2,0												
WL17-VC0508N-MM4	0,8	17	5,7		0,12-0,30	0,5-2,0												
WL25-VC0704N-MM4	0,4	25	6,3		0,08-0,25	0,4-2,5												
WL25-VC0708N-MM4	0,8	25	7,1		0,12-0,32	0,5-2,5												
WL25-VC0712N-MM4	1,2	25	7,4		0,12-0,35	0,5-2,5												
WL25-VC0716N-MM4	1,6	25	8,7		0,12-0,40	0,5-2,5												
WL17-VC0504R-MM4	0,4	17	4,6	3,1	0,05-0,20	0,1-1,8												
WL17-VC0508R-MM4	0,8	17	5	3,6	0,08-0,25	0,2-1,8												
WL25-VC0704R-MM4	0,4	25	6,2	3,9	0,08-0,25	0,4-2,5												
WL25-VC0708R-MM4	0,8	25	6,6	4,6	0,12-0,32	0,5-2,5												
WL17-VC0504L-MM4	0,4	17	4,6	3,1	0,05-0,20	0,1-1,8												
WL17-VC0508L-MM4	0,8	17	5	3,6	0,08-0,25	0,2-1,8												
WL25-VC0704L-MM4	0,4	25	6,2	3,9	0,08-0,25	0,4-2,5												
WL25-VC0708L-MM4	0,8	25	6,6	4,6	0,12-0,32	0,5-2,5												

Ordering example for the grade WSM10S: WL17-VC0502N-FM4 WSM10S

HC = Coated carbide

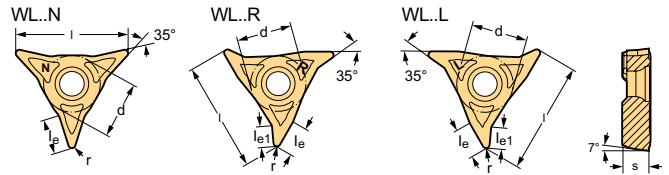
WALTER SELECT

Optimum indexable insert for → Good = ☺ → Average = ☹ → Poor = ☹ machining conditions

Indexable inserts copy turning system

WL...-VC...

Tiger-tec® Gold



Indexable inserts

Designation	r mm	l mm	le mm	le1 mm	f mm	ap mm	P				M				K	S
							HC				HC				HC	HC
							WKP01G	WPP10G	WPP20G	WMP20S	WSM01	WSM10S	WMP20S	WSM20S	WKP01G	WSM01
	WL17-VC0504N-MP4	0,4	17	5		0,08-0,25	0,4-2,0			☺						
	WL17-VC0508N-MP4	0,8	17	5,7		0,12-0,30	0,5-2,0			☺						
	WL25-VC0704N-MP4	0,4	25	6,3		0,08-0,25	0,4-2,5		☺	☺						
	WL25-VC0708N-MP4	0,8	25	7,1		0,12-0,32	0,5-2,5		☺	☺						
	WL25-VC0712N-MP4	1,2	25	7,4		0,12-0,35	0,5-2,5		☺	☺						
WL25-VC0716N-MP4	1,6	25	8,7		0,12-0,40	0,5-2,5		☺	☺							
	WL17-VC0504R-MP4	0,4	17	4,6	3,1	0,05-0,20	0,1-1,8			☺						
	WL17-VC0508R-MP4	0,8	17	5	3,6	0,08-0,25	0,2-1,8			☺						
	WL25-VC0704R-MP4	0,4	25	6,2	3,9	0,08-0,25	0,4-2,5		☺	☺						
WL25-VC0708R-MP4	0,8	25	6,6	4,6	0,12-0,32	0,5-2,5		☺	☺							
	WL17-VC0504L-MP4	0,4	17	4,6	3,1	0,05-0,20	0,1-1,8			☺						
	WL17-VC0508L-MP4	0,8	17	5	3,6	0,08-0,25	0,2-1,8			☺						
	WL25-VC0704L-MP4	0,4	25	6,2	3,9	0,08-0,25	0,4-2,5		☺	☺						
	WL25-VC0708L-MP4	0,8	25	6,6	4,6	0,12-0,32	0,5-2,5		☺	☺						

Ordering example for the grade WSM10S: WL17-VC0502N-FM4 WSM10S

HC = Coated carbide

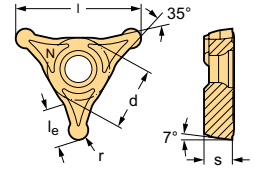
WALTER SELECT Optimum indexable insert for → Good = ☺ → Average = ☹ → Poor = ☹ machining conditions

☺ ☹ ☹ / ★ = New addition to the product range


Indexable inserts copy turning system

WL...-RC...

Tiger-tec® Gold



Indexable inserts

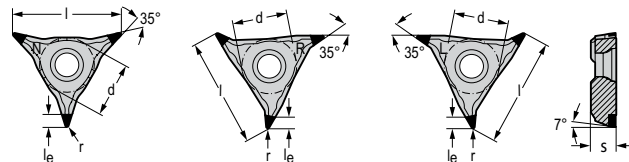
Designation	r mm	l mm	le mm	f mm	ap mm	P		M		S	
						HC	WPP20G	HC	WSM20S	HC	WSM30S
 WL25-RC0420N-MU6 WL25-RC0525N-MU6	2	25	7,2	0,12-0,40	0,5-2,0	☑	☑	☑	☑	☑	☑
	2,5	25	6,9	0,12-0,45	0,5-2,5	☑	☑	☑	☑	☑	☑

Ordering example for the grade WPP20G: WL25-RC0420N-MU6 WPP20G


HC = Coated carbide

CBN – Indexable inserts copy turning system

WL...-VC...



Indexable inserts

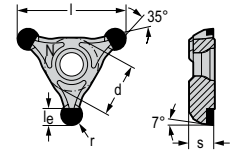
Designation	Number of cutting edges	r mm	l mm	l _e mm	f mm	a _p mm	H	
							BC	WBH20C
 WL25-VC0704NTM-3 WL25-VC0708NTM-3	3	0,4	25	3	0,05–0,20	0,1–0,5	BC	WBH20C
	3	0,8	25	3	0,05–0,25	0,1–0,5	BC	WBH20C
 WL25-VC0704RTM-3 WL25-VC0708RTM-3	3	0,4	25	3	0,05–0,20	0,1–0,5	BC	WBH20C
	3	0,8	25	3	0,05–0,25	0,1–0,5	BC	WBH20C
 WL25-VC0704LTM-3 WL25-VC0708LTM-3	3	0,4	25	3	0,05–0,20	0,1–0,5	BC	WBH20C
	3	0,8	25	3	0,05–0,25	0,1–0,5	BC	WBH20C

Ordering example for the grade WBH20C: WL25-VC0704NTM-3 WBH20C


BC = coated CBN

WALTER SELECT Optimum indexable insert for → Good = 😊 → Average = 😐 → Poor = ☹️ machining conditions

CBN – Indexable inserts copy turning system WL...-RC...

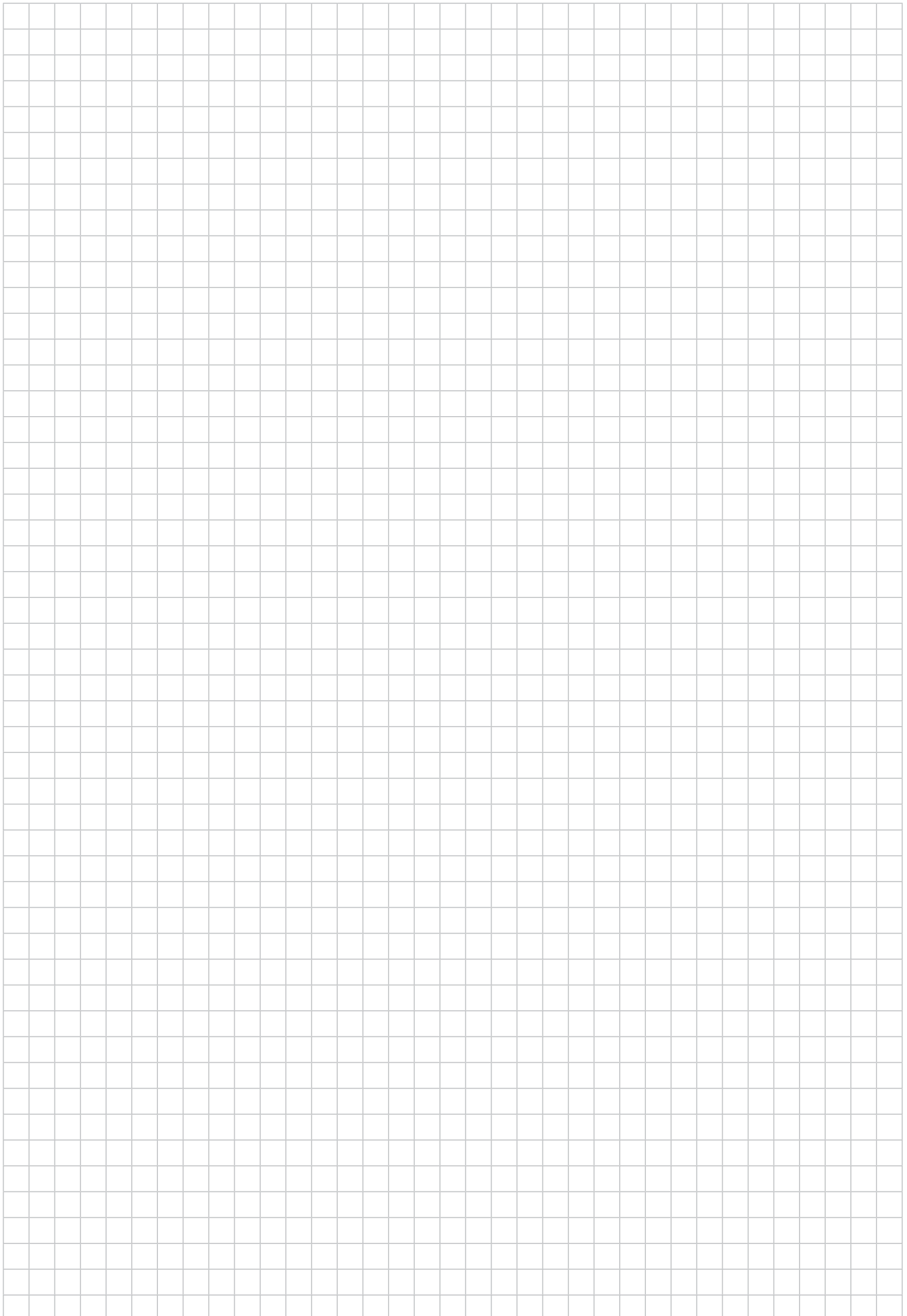


Indexable inserts

Designation	Number of cutting edges	r mm	l mm	l _e mm	f mm	a _p mm	H
							BC
 WL25-RC0420NTM-3 WL25-RC0525NTM-3	3	2	25	3,2	0,02–0,50	0,1–2,0	WBH20C
	3	2,5	25	5	0,02–0,50	0,1–2,5	WBH20C

Ordering example for the grade WBH20C: WL25-RC0420NTM-3 WBH20C

BC = coated CBN

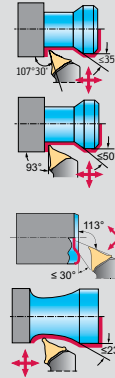


Shank tool – WL Copy turning system

Type



Machining



Designation	W1011	W1011...-P	W1011...-S-P
Approach angle	107,5°	107,5°	107,5°
Clamping system	null _x_	null _x_	null _x_
Coolant supply	External	Precision cooling	Precision cooling
Shank size h [mm]	16–32	16–32	12–16
Shank size h [Inch]		0,750–1,000	0,500–0,625
Insert size l [mm]			
Page in catalogue	21	22	24

QR code


www.walter-tools.com/woc/

W1011

W1011-P

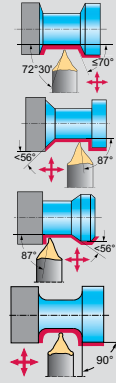
W1011-S-P

Shank tool – WL Copy turning system

Type



Machining



Designation	W1010...-P
Approach angle	72,5°
Clamping system	null _x_
Coolant supply	Precision cooling
Shank size h [mm]	16–25
Shank size h [Inch]	0,750–1,000
Insert size l [mm]	
Page in catalogue	26

QR code



www.walter-tools.com/woc/

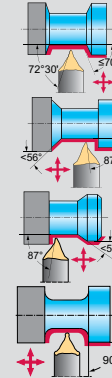
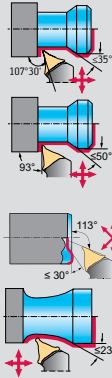
W1010-P



Walter Capto™ – WL copy turn system

Type



Machining



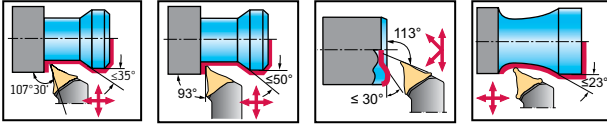
Designation	W1011-C...-P	W1010-C...-P
Approach angle	107,5°	72,5°
Clamping system	null_x_	null_x_
Coolant supply	Precision cooling	Precision cooling
Walter Capto™ size	C3–C6	C4–C6
Insert size l [mm]		
Page in catalogue	28	29
QR code		
www.walter-tools.com/woc/	W1011-C-P	W1010-C-P

Shank tool – Copy turning system

W1011

Walter Turn

– With WL form-fit system



Tool			h = h ₁ mm	b mm	f mm	l ₁ mm	l ₄ mm	γ	λ _s	Type
	Designation									
	W1011-1616R-WL25	25	16	16	20	100	33,5	0°	0°	WL25..
	W1011-2020R-WL25	25	20	20	25	125	33,5	0°	0°	
	W1011-2525R-WL25	25	25	25	32	150	33,5	0°	0°	
	W1011-3232R-WL25	25	32	32	40	170	30,2	0°	0°	
	W1011-1616L-WL25	25	16	16	20	100	33,5	0°	0°	WL25..
	W1011-2020L-WL25	25	20	20	25	125	33,5	0°	0°	
	W1011-2525L-WL25	25	25	25	32	150	33,5	0°	0°	
W1011-3232L-WL25	25	32	32	40	170	30,2	0°	0°		

Square shank

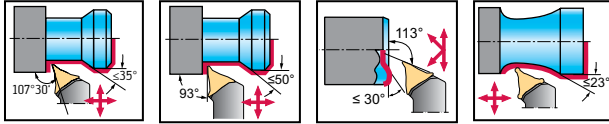
Assembly parts		
Type	WL25..	
	Clamping screw for indexable insert Tightening torque	FS1495 (T20IP) 5 Nm
	Allen key	FS1464 (T20IP)

Shank tool – Copy turning system

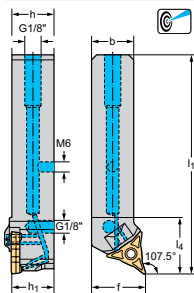
W1011...-P

Walter Turn

- Precision cooling
- With WL form-fit system



Tool



Square shank

Designation		h = h ₁ mm	b mm	f mm	l ₁ mm	l ₄ mm	γ	λ _s	Type
W1011-2020R-WL17-P		17	20	25	125	25	0°	0°	WL17..
W1011-2525R-WL17-P		17	25	32	125	25	0°	0°	
W1011-1616R-WL25-P		25	16	20	115	30	0°	0°	WL25..
W1011-2020R-WL25-P		25	20	25	115	33,5	0°	0°	
W1011-2525R-WL25-P		25	25	32	130	33,5	0°	0°	
W1011-3225R-WL25-P		25	32	32	140	36,5	0°	0°	
W1011-2020L-WL17-P		17	20	25	125	25	0°	0°	WL17..
W1011-2525L-WL17-P		17	25	32	125	25	0°	0°	
W1011-1616L-WL25-P		25	16	20	115	30	0°	0°	WL25..
W1011-2020L-WL25-P		25	20	25	115	33,5	0°	0°	
W1011-2525L-WL25-P		25	25	32	130	33,5	0°	0°	
W1011-3225L-WL25-P		25	32	32	140	36,5	0°	0°	

Assembly parts

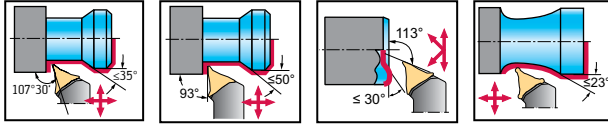
Type	WL17..	WL25..
Clamping screw for indexable insert Tightening torque	FS1457 (T9IP) 2 Nm	FS1495 (T20IP) 5 Nm
G 1/8" threaded plug	FS2258 (SW 2)	FS2258 (SW 2)
M6 threaded plug	FS2288 (SW 3)	FS2288 (SW 3)
Allen key		FS1464 (T20IP)
Torx key	FS1466 (T9IP)	

Shank tool – Copy turning system

W1011...-P inch

Walter Turn

- Precision cooling
- With WL form-fit system



Tool	Designation		h = h ₁ inch	b inch	f inch	l ₁ inch	l ₄ inch	γ	λ _s	Type
										WL25..
	W1011.12R-WL25-P	25	0,750	0,750	1,000	4,500	1,319	0°	0°	WL25..
	W1011.16R-WL25-P	25	1,000	1,000	1,250	6,000	1,319	0°	0°	WL25..
	W1011.12L-WL25-P	25	0,750	0,750	1,000	4,500	1,319	0°	0°	WL25..
	W1011.16L-WL25-P	25	1,000	1,000	1,250	6,000	1,319	0°	0°	WL25..

Square shank

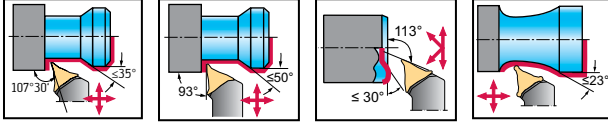
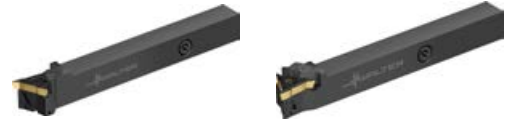
Assembly parts		Type	WL25..
	Clamping screw for indexable insert Tightening torque		FS1495 (T20IP) 3,688 lbs
	G 1/8" threaded plug		FS2258 (SW 2)
	M6 threaded plug		FS2288 (SW 3)
	Allen key		FS1464 (T20IP)

Shank tool – Copy turning system

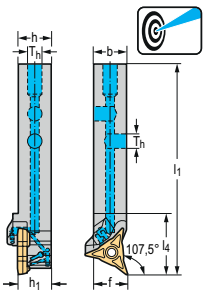
W1011...-S-P

Walter Turn

- Precision cooling
- For Swiss Machining



Tool



Square shank

Designation		h = h ₁ mm	b mm	f mm	h ₁ mm	l ₄ mm	γ	λ _s	T _h	Type
W1011-1212R-WL17-S-P		17	12	12	110	22	0°	0°	M8X1	WL17..
W1011-1616R-WL17-S-P		17	16	16	110	22	0°	0°	G1/8"	
W1011-1212L-WL17-S-P		17	12	12	110	22	0°	0°	M8X1	WL17..
W1011-1616L-WL17-S-P		17	16	16	110	22	0°	0°	G1/8"	

Assembly parts

Type	WL17..
Clamping screw for indexable insert Tightening torque	FS1457 (T9IP) 2 Nm
G 1/8" threaded plug	FS2258 (SW 2)
M8X1 threaded plug	FS2587 (SW 4)
Torx key	FS1466 (T9IP)

Accessories

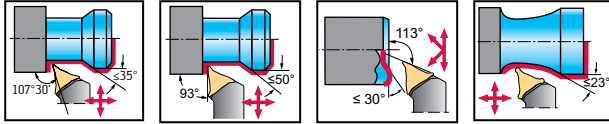
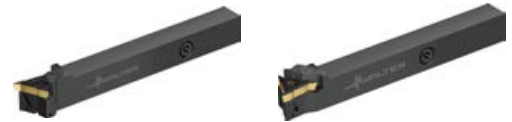
Type	WL17..
M8x1 angle connection	FS2596
M8x1 connection element	FS2597
Copper gasket	FS2598

Shank tool – Copy turning system

W1011...-S-P inch

Walter Turn

- Precision cooling
- For Swiss Machining



Tool	Designation		h = h ₁ inch	b inch	f inch	l ₁ inch	l ₄ inch	γ	λ _s	T _h	Type
<p>Square shank</p>	W1011.08R-WL17-S-P		17	0,500	0,500	4,331	0,866	0°	0°	UNF 5/16"-24	WL17..
	W1011.10R-WL17-S-P		17	0,625	0,625	4,724	0,866	0°	0°	G1/8"	
	W1011.08L-WL17-S-P		17	0,500	0,500	4,331	0,866	0°	0°	UNF 5/16"-24	WL17..
	W1011.10L-WL17-S-P		17	0,625	0,625	4,724	0,866	0°	0°	G1/8"	

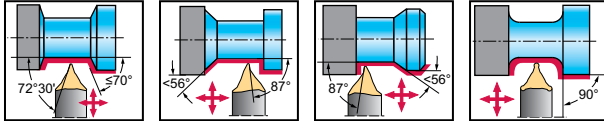
Assembly parts		
Type	WL17..	
	Clamping screw for indexable insert Tightening torque	FS1457 (T9IP) 1,475 lbs
	G 1/8" threaded plug	FS2258 (SW 2)
	UNF 5/16-24 threaded plug	FS2593 (SW 4)
	Torx key	FS1466 (T9IP)

Shank tool – Copy turning system

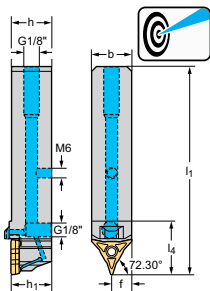
W1010...-P

Walter Turn

- Precision cooling
- With WL form-fit system



Tool



Square shank

Designation		h = h ₁ mm	b mm	f mm	l ₁ mm	l ₄ mm	γ	λ_s	Type
W1010-1616N-WL17-P		16	16			22	0°	0°	WL17..
W1010-2020N-WL25-P		20	20			33,5	0°	0°	WL25..
W1010-2525N-WL25-P		25	25			33,5	0°	0°	WL25..

Assembly parts

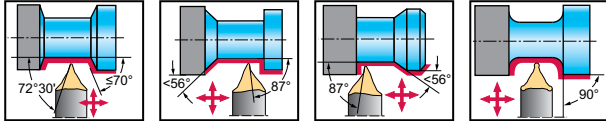
Type	WL17..	WL25..
Clamping screw for indexable insert Tightening torque	FS1457 (T9IP) 2 Nm	FS1495 (T20IP) 5 Nm
G 1/8" threaded plug	FS2258 (SW 2)	FS2258 (SW 2)
M6 threaded plug		FS2288 (SW 3)
Torx key	FS1466 (T9IP)	
Allen key		FS1464 (T20IP)

Shank tool – Copy turning system

W1010...-P inch

Walter Turn

- Precision cooling
- With WL form-fit system



Tool			h = h ₁ inch	b inch	f inch	l ₁ inch	l ₄ inch	γ	λ_s	Type
	Designation		0,750	0,750			1,319	0°	0°	WL25..
			1,000	1,000			1,319	0°	0°	

Square shank

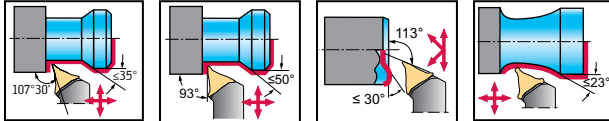
Assembly parts		
	Type	WL25..
	Clamping screw for indexable insert Tightening torque	FS1495 (T20IP) 3,688 lbs
	G 1/8" threaded plug	FS2258 (SW 2)
	M6 threaded plug	FS2288 (SW 3)
	Allen key	FS1464 (T20IP)

Turning tools – Copy turning system

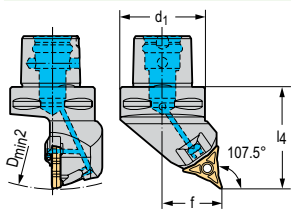
W1011-C...-P

Walter Turn

- Precision cooling
- Walter Capto™



Tool



Walter Capto™ in acc. with ISO 26623

Designation		d_1	D_{min} mm	f mm	l_4 mm	D_{min2} mm	γ	λ_s	Type	
W1011-C3R-WL17-P		17	C3	120	22	40	120	0°	0°	WL17..
W1011-C4R-WL17-P		17	C4	200	27	50	200	0°	0°	WL17..
W1011-C4R-WL25-P		25	C4	200	27	50	200	0°	0°	WL25..
W1011-C5R-WL25-P		25	C5	200	35	60	200	0°	0°	WL25..
W1011-C6R-WL25-P		25	C6	200	45	65	200	0°	0°	WL25..
W1011-C3L-WL17-P		17	C3	120	22	40	120	0°	0°	WL17..
W1011-C4L-WL17-P		17	C4	200	27	50	200	0°	0°	WL17..
W1011-C4L-WL25-P		25	C4	200	27	50	200	0°	0°	WL25..
W1011-C5L-WL25-P		25	C5	200	35	60	200	0°	0°	WL25..
W1011-C6L-WL25-P		25	C6	200	45	65	200	0°	0°	WL25..

Assembly parts

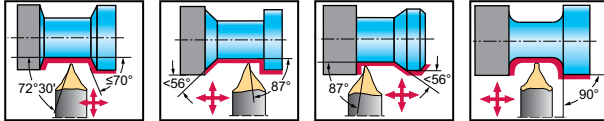
Type	WL17..	WL25..
 Clamping screw for indexable insert Tightening torque	FS1457 (T9IP) 2 Nm	FS1495 (T20IP) 5 Nm
 Allen key		FS1464 (T20IP)
 Torx key	FS1466 (T9IP)	

Turning tools – Copy turning system

W1010-C...-P

Walter Turn

- Precision cooling
- Walter Capto™



Tool		Designation		f mm	l ₄ mm	D _{min2} mm	γ	λ _s	Type
		W1010-C4N-WL25-P	C4				0°	0°	WL25..
		W1010-C5N-WL25-P	C5				0°	0°	
		W1010-C6N-WL25-P	C6				0°	0°	

Walter Capto™ in acc. with ISO 26623

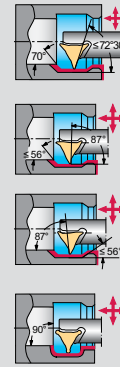
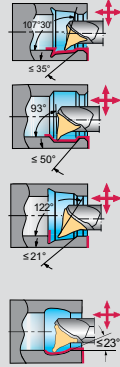
Assembly parts		Type	WL25..
	Clamping screw for indexable insert Tightening torque		FS1495 (T20IP) 5 Nm
	Allen key		FS1464 (T20IP)

Boring bars – WL Copy turning system

Type



Machining



Designation	W1211	W1210
Approach angle	107,5°	72,5°
Clamping system	Screw	Screw
Coolant supply	axial	axial
Boring bar Ø d ₁ [mm]	12–40	12–40
Boring bar Ø d ₁ [inch]	1,000–1,250	
Insert size l [mm]	17–25	17–25
Page in catalogue	32	35

QR code


www.walter-tools.com/woc/

W1211

W1210

QuadFit exchangeable head – WL copy turning system

Type



Machining



Designation	W1211-Q...
Approach angle	107,5°
Clamping system	Screw
Coolant supply	Precision cooling
Shank size h [mm]	Q32-Q50
Shank size h [Inch]	
Insert size l [mm]	25
Page in catalogue	37

QR code



www.walter-tools.com/woc/

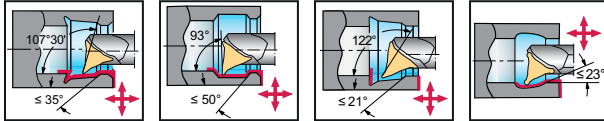
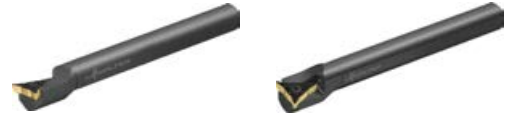
W1211-Q

Boring bar – Copy turning system

W1211

Walter Turn

- Double internal coolant supply
- With WL form-fit system



Tool

Designation		d ₁ mm	D _{min} mm	f mm	h mm	l ₁ mm	l ₄ mm	X ₁ mm	γ	λ _s	Type	
												Type
W1211-12MR-WL17		17	12	18	10	11,5	150	23	4	-3,2°	-7,5°	WL17..
W1211-16RR-WL17		17	16	20	11	15	200	23	3	-3,2°	-7,5°	WL17..
W1211-20SR-WL17		17	20	25	14	18,5	250	28	4	-2,7°	-7,6°	WL17..
W1211-12ML-WL17		17	12	18	10	11,5	150	23	4	-3,2°	7,5°	WL17..
W1211-16RL-WL17		17	16	20	11	15	200	23	3	-3,2°	-7,5°	WL17..
W1211-20SL-WL17		17	20	25	14	18,5	250	28	4	-2,7°	-7,6°	WL17..

Parallel shank with clamping surface

Dimensional drawing shows right-hand version. | Measured with master insert: WL17-VC050804N-FM4 | The maximum recommended coolant pressure is 80 bar (1160 psi) | Refer to the Walter online catalogue for more product information: www.walter-tools.com | Bodies and assembly parts are included in the scope of delivery

Assembly parts

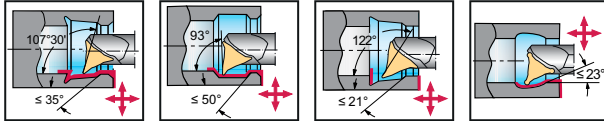
Type	d ₁ [mm]	WL17.. 12–20
	Clamping screw for indexable insert Tightening torque	FS1457 (T9IP) 2 Nm
	Torx key	FS1466 (T9IP)

Boring bar – Copy turning system

W1211

Walter Turn

- Double internal coolant supply
- Additional coolant hole for blind hole machining



Tool	Designation		d ₁ mm	D _{min} mm	f mm	h mm	l ₁ mm	l ₄ mm	X ₁ mm	γ	λ _s	Type	
	W1211-25TR-WL25		25	32	17	23	300	35	4,5	-1,3°	-7,5°	WL25..	
	W1211-32TR-WL25		25	32	40	23	300	45	7	-1,3°	-7,5°	WL25..	
	W1211-40TR-WL25		25	40	50	27,5	300	54	7,5	-1,3°	-7,5°	WL25..	
	W1211-25TL-WL25		25	25	32	17	23	300	35	4,5	-1,3°	-7,5°	WL25..
	W1211-32TL-WL25		25	32	40	23	300	45	7	-1,3°	-7,5°	WL25..	
	W1211-40TL-WL25		25	40	50	27,5	300	54	7,5	-1,3°	-7,5°	WL25..	

Parallel shank with clamping surface

Dimensional drawing shows right-hand version. | Measured with master insert: WL25-VC0708N-MM4 | The maximum recommended coolant pressure is 80 bar (1160 psi) | Refer to the Walter online catalogue for more product information: www.walter-tools.com | Bodies and assembly parts are included in the scope of delivery

Assembly parts		Type	WL25.. 25-40
	Clamping screw for indexable insert Tightening torque		FS1495 (T20IP) 5 Nm
	Threaded plug		FS2082 (T6IP)
	Allen key		FS1464 (T20IP)

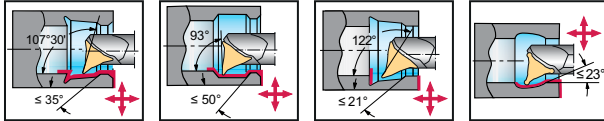
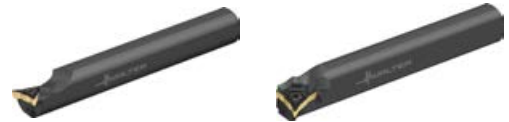
Accessories	Type	WL25..			
		d ₁ [mm]	25	32	40
	Coolant sealing adapter		CN3000-25-8.5	CN3000-32-8.5	CN3000-40-11.5

Boring bar – Copy turning system

W1211 inch

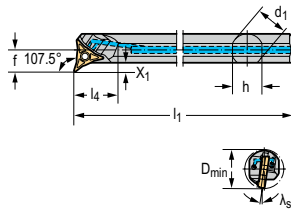
Walter Turn

- Double internal coolant supply
- Additional coolant hole for blind hole machining



Tool

Designation		d ₁ inch	D _{min} inch	f inch	h inch	l ₁ inch	l ₄ inch	X ₁ inch	γ	λ _s	Type	
												Type
W1211.16TR-WL25		25	1,000	1,260	0,669	0,906	12,049	1,378	0,169	-1,3°	-7,5°	WL25..
W1211.20TR-WL25		25	1,250	1,575	0,906	1,181	12,049	1,772	0,281	-1,3°	-7,5°	WL25..
W1211.16TL-WL25		25	1,000	1,260	0,669	0,906	12,049	1,378	0,169	-1,3°	-7,5°	WL25..
W1211.20TL-WL25		25	1,250	1,575	0,906	1,181	12,049	1,772	0,281	-1,3°	-7,5°	WL25..



Parallel shank with clamping surface

Dimensional drawing shows right-hand version. | Measured with master insert: WL25-VC0708N-MM4 | The maximum recommended coolant pressure is 80 bar (1160 psi) | Refer to the Walter online catalogue for more product information: www.walter-tools.com | Bodies and assembly parts are included in the scope of delivery

Assembly parts

	Type d ₁ [inch]	WL25.. 1-1,25
	Clamping screw for indexable insert Tightening torque	FS1495 (T20IP) 3,688 lbs
	Threaded plug	FS2082 (T6IP)
	Allen key	FS1464 (T20IP)

Accessories

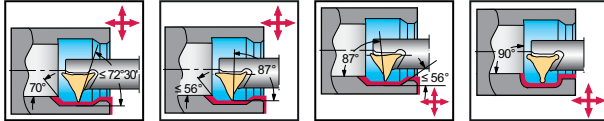
	Type d ₁ [inch]	WL25.. 1	WL25.. 1,25
	Coolant sealing adapter	CN3000-25-8.5	CN3000-32-8.5

Boring bar – Copy turning system

W1210

Walter Turn

- Double internal coolant supply
- With WL form-fit system



Tool	Designation		D _{min} mm	d ₁ mm	f mm	h mm	l ₁ mm	l ₄ mm	l ₂₀ mm	X ₁ mm	γ	λ _s	Type	
	W1210-12MR-WL17		17	19	12	11	157	21	157	6	-2,4°	-7,6°	WL17..	
	W1210-16RR-WL17		17	22	16	15	207	23	207	5	-2,4°	-7,6°		
	W1210-20SR-WL17		17	26	20	18	257	26	257	5	-2,4°	-7,6°		
	W1210-12ML-WL17		17	19	12	12	11	157	21	157	6	-2,4°	-7,6°	WL17..
	W1210-16RL-WL17		17	22	16	13	15	207	23	207	5	-2,4°	-7,6°	
	W1210-20SL-WL17		17	26	20	15	18	257	26	257	5	-2,4°	-7,6°	

Parallel shank with clamping surface

Dimensional drawing shows right-hand version. | Measured with master insert: WL17-VC050804N-FM4 | The maximum recommended coolant pressure is 80 bar (1160 psi) | Refer to the Walter online catalogue for more product information: www.walter-tools.com | Bodies and assembly parts are included in the scope of delivery

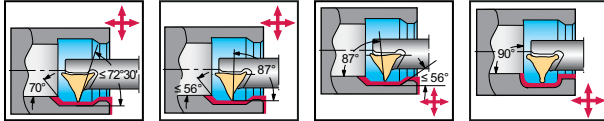
Assembly parts		Type	WL17..
	Clamping screw for indexable insert Tightening torque		FS1457 (T9IP) 2 Nm
	Torx key		FS1466 (T9IP)

Boring bar – Copy turning system

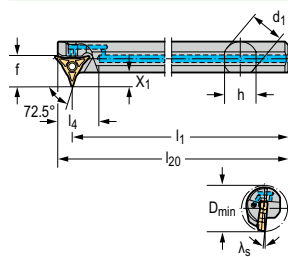
W1210

Walter Turn

- Double internal coolant supply
- Additional coolant hole for blind hole machining



Tool



Designation		D_{min} mm	d_1 mm	f mm	h mm	l_1 mm	l_4 mm	l_{20} mm	X_1 mm	γ	λ_s	Type	
W1210-25TR-WL25		25	34	25	20	23	300	30	310	7,5	-1,5°	-4,8°	WL25..
W1210-32TR-WL25		25	44	32	27	30	300	31	310	11	-1,5°	-4,8°	WL25..
W1210-40TR-WL25		25	52	40	31	37	300	35	310	11	-1,5°	-4,8°	WL25..
W1210-25TL-WL25		25	34	25	20	23	300	30	310	7,5	-1,5°	-4,8°	WL25..
W1210-32TL-WL25		25	44	32	27	30	300	31	310	11	-1,5°	-4,8°	WL25..
W1210-40TL-WL25		25	52	40	31	37	300	35	310	11	-1,5°	-4,8°	WL25..

Parallel shank with clamping surface

Dimensional drawing shows right-hand version. | Measured with master insert: WL25-VC0708N-MM4 | The maximum recommended coolant pressure is 80 bar (1160 psi) | Refer to the Walter online catalogue for more product information: www.walter-tools.com | Bodies and assembly parts are included in the scope of delivery

Assembly parts

	Type	WL25..
	Clamping screw for indexable insert Tightening torque	FS1495 (T20IP) 5 Nm
	Threaded plug	FS2082 (T6IP)
	Allen key	FS1464 (T20IP)

Accessories

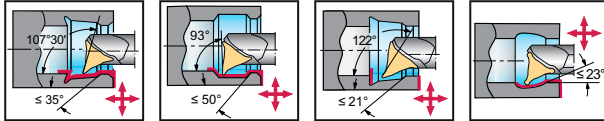
	Type	WL25..
	Coolant sealing adapter	CN3000-25-8.5

Replaceable head – Copy turning system

W1211-Q...

Walter Turn

- Double internal coolant supply
- Additional coolant hole for blind hole machining



Tool	Designation		d ₁	D _{min} mm	f mm	l ₄ mm	γ	λ _s	Type
	W1211-Q32R-WL25	25	Q32	40	24	35	-1,8°	-3,7°	WL25..
	W1211-Q40R-WL25	25	Q40	50	29	35	-1,8°	-3,7°	
	W1211-Q50R-WL25	25	Q50	63	34	35	-1,8°	-3,7°	
	W1211-Q32L-WL25	25	Q32	40	24	35	-1,8°	-3,7°	WL25..
	W1211-Q40L-WL25	25	Q40	50	29	35	-1,8°	-3,7°	
	W1211-Q50L-WL25	25	Q50	63	34	35	-1,8°	-3,7°	

QuadFit

Dimensional drawing shows right-hand version. | Measured with master insert: WL25-VC0708N-MM4 | The maximum recommended coolant pressure is 80 bar (1160 psi) | Refer to the Walter online catalogue for more product information: www.walter-tools.com | Bodies and assembly parts are included in the scope of delivery

Assembly parts	Type d ₁	WL25.. Q32-Q50
	Clamping screw for indexable insert Tightening torque	FS1495 (T20IP) 5 Nm
	Allen key	FS1464 (T20IP)

How to use Walter GPS

As the market's leading software solution for finding tools and calculating cutting data, Walter GPS offers you many functions that will help you in your day-to-day work: For production on the machine, as good starting values for programming, for process and component planning and much more – the journey from component to production couldn't be quicker. The reason?

➤ **With the GPS cutting data, you can start production immediately!**

SEARCH PRODUCT-RELATED

Would you like to use a specific tool or an existing tool? Do you know the application and material, but don't know what cutting data you should work with? Or do you want to know whether your tool can do this?

Walter GPS gives you the answer in just a few clicks: In the form of cutting data, data models and much more.



Enter specific **tool**

SEARCH APPLICATION-RELATED

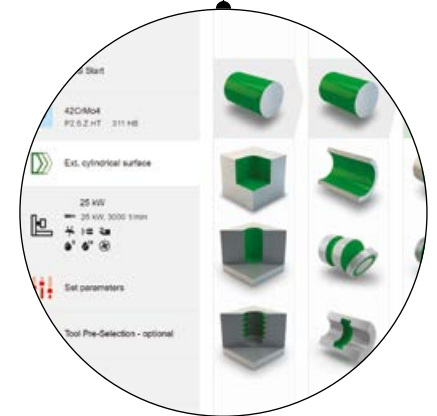
Do you know your application and your material, but don't know which tool solution is best for it?

Walter GPS suggests one or more solutions – and you choose the best one for you. And that's not all – this also works for indexable insert tools; Walter GPS even puts together different combinations of body and inserts for these!



Select **material** and ...

Select **material** and ...



... **application**

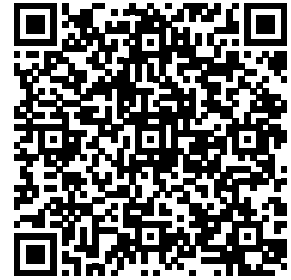
... **application**

HOW WALTER GPS BENEFITS YOU

- Find the right tool solution for your machining task – quickly and based on your machining objective (e.g. maximum cost-efficiency).
- Get reliable cutting data for your tool – calculated according to your specifications: For your tool, your application and your material.
- Ideal for calculating profitability – this allows you to determine the estimated costs in the shortest possible time.
- Benefit from helpful additional information – e.g. in the form of 2D and 3D models which you can use directly for your machine programming.
- CO₂ values for your application – divided according to machining operation and machine basic load.

Launch Walter GPS now

Your navigation system for the best machining solution



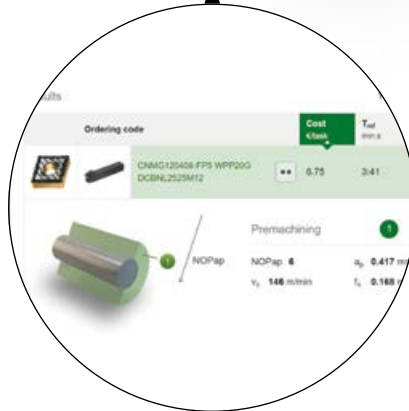
www.walter-tools.com/gps

RESULT



Enter application parameters

Tool selection



Enter application parameters

Tool selection

Walter offers you one or more possible tool solutions to choose from. In the default settings, the most cost-efficient solution is displayed. If you have a different priority (e.g. the most productive solution, the best surface quality, etc.), you can define it in advance and the tool selection will be adapted accordingly!

Walter offers you the ideal cutting data for your tool, your application and your material! So precise that you can use it immediately for your application or programming! And, of course, you can find out whether your tool is suitable for the application. If it isn't, use the "Application-related search" to immediately find a suitable alternative – in no time at all and with the option to order it directly!



Geometry overview for system indexable inserts: WL

Finishing / Medium machining

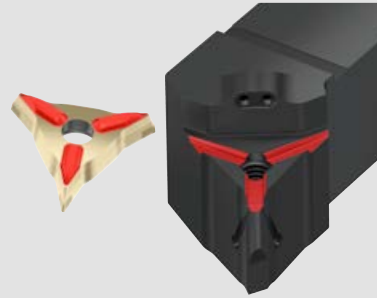
Geometry	Notes / Field of application	Material groups							Cutting edge Main cutting edge	Cutting edge Corner radius	a _p [mm]	f [mm]
		P	M	K	N	S	H	O				
	FM4 – Finishing geometry for small Depth of cut – Very good chip control – Specially developed for Copy turning	●	●●			●●					0,1–2,0	0,05–0,25
	FP4 – Finishing geometry for small Depth of cut – Very good chip control – Specially developed for Copy turning	●●	●			●				0,1–2,0	0,05–0,25	
	MM4 – Medium machining - with a large basic usage area – Machining for long-chipping materials – Specially developed for Copy turning	●	●●	●		●●				0,4–2,5	0,08–0,35	
	MP4 – Medium machining - with a large basic usage area – Machining for long-chipping materials – Specially developed for Copy turning	●●	●	●		●				0,4–2,5	0,08–0,35	
	MU6 – Full radius geometry for Copy turning – Soft-cutting one with very good chip breaking – Chip breaking in all feed directions	●●	●●	●●		●●	●			0,4–2,5	0,1–0,40	

●● Primary application
 ● Further application

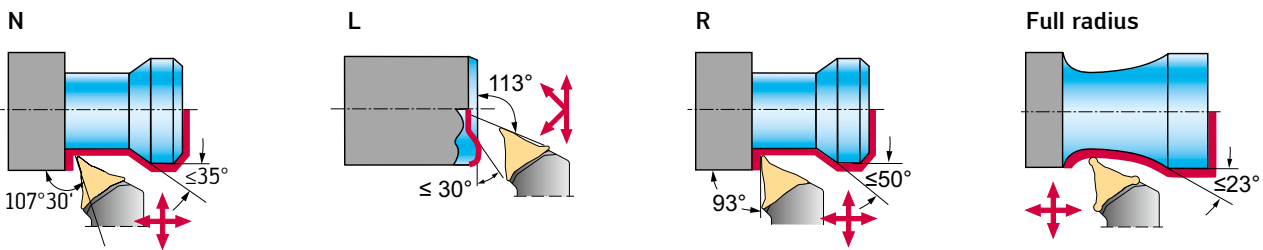
Remark: Sectional views show WL25-VC0708 . . resp. WL25-RC0420 . .

Application information: W1011/W1010 Walter Turn copy turning system – External machining

On copy turning tools, four different indexable insert types can be fitted in the same tool.
This means that different profiling angles/approach angles can be achieved with the same tool.

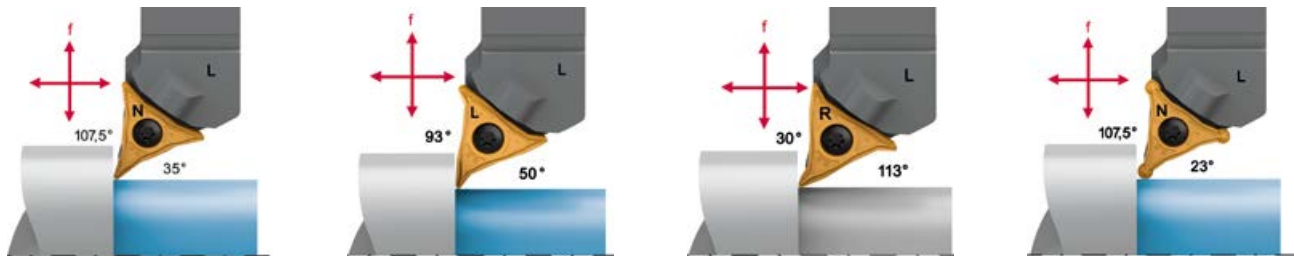


1.1 Application area and profiling angle W1011



1.2 Insert options and approach angle W1011

Four different indexable inserts can be fitted in the same tool.
The approach angles are formed by fitting the different indexable inserts.
The point angle of the WL25-VC... is 35°, as on a VBMT indexable insert.



Example:
Left-hand tool:
W1011-2525L-WL25-P
Neutral indexable insert:
WL25-VC0708N-MP4 WPP20G

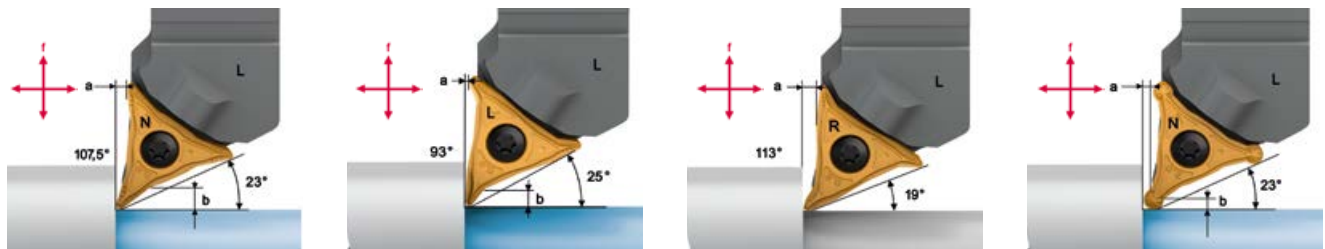
Example:
Left-hand tool:
W1011-2525L-WL25-P
Left-hand indexable insert:
WL25-VC0708L-MP4 WPP20G

Example:
Left-hand tool:
W1011-2525L-WL25-P
Right-hand indexable insert:
WL25-VC0708R-MP4 WPP20G

Example:
Left-hand tool:
W1011-2525L-WL25-P
Neutral indexable insert:
WL25-RC0420N-MU6 WPP20G

1.3 Maximum feed WL17/WL25 indexable inserts W1011

Example – left-hand tool



	Neutral insert	
	WL17	WL25
a [mm]	1,2	1,8
b [mm]	2,7	3,5

	Left-hand insert	
	WL17	WL25
a [mm]	0,6	0,9
b [mm]	2,1	2,7

	Right-hand insert	
	WL17	WL25
a [mm]	1,4	2,5
b [mm]		

	Full-radius insert	
	WL17	WL25
a [mm]		1,6
b [mm]		$r_e \times 0,9$

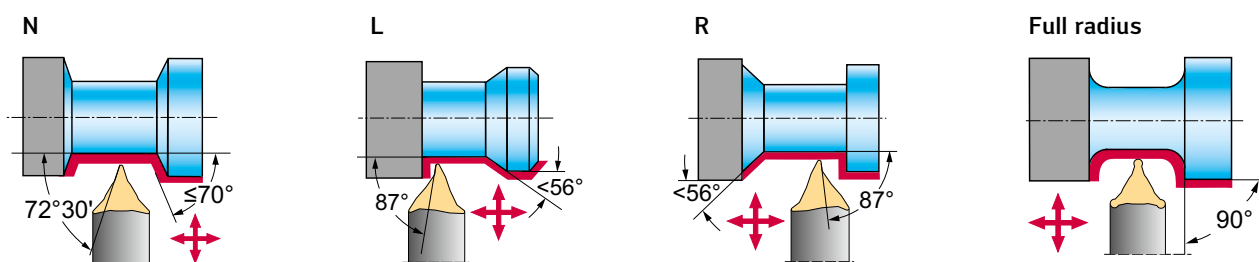
a = free against shoulder/b = cutting edge length

Measured with: WL25-VC0708..., WL25-RC0525N..., WL17-VC0504...

Application information: W1011/W1010 Walter Turn copy turning system – External machining (continued)

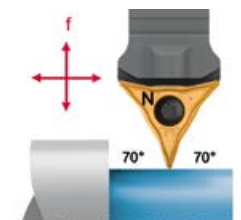


2.1 Application area and profiling angle W1010

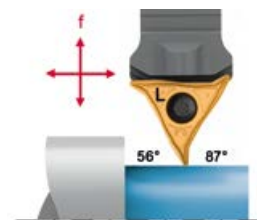


2.2 Insert options and approach angle W1010

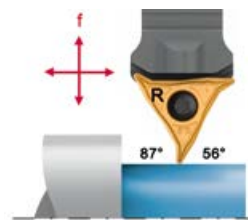
Four different indexable inserts can be fitted in the same tool.
The approach angles are formed by fitting the different indexable inserts.
The point angle of the WL25-VC... is 35°, as on a VBM indexable insert.



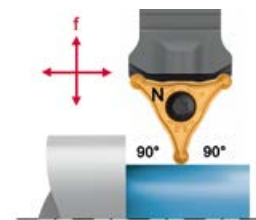
Example:
Neutral tool:
W1010-2525N-WL25-P
Neutral indexable insert:
WL25-VC0708N-MP4 WPP20G



Example:
Neutral tool:
W1010-2525N-WL25-P
Left-hand indexable insert:
WL25-VC0708L-MP4 WPP20G



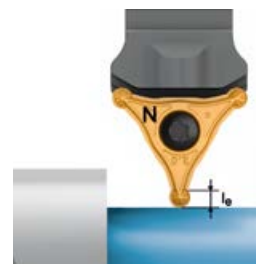
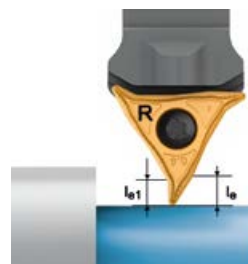
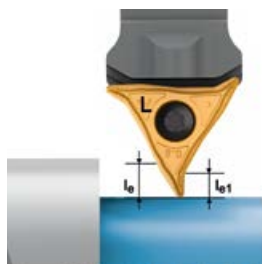
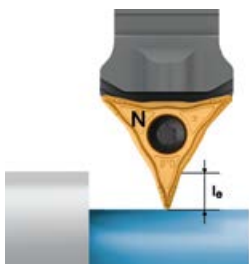
Example:
Neutral tool:
W1010-2525N-WL25-P
Right-hand indexable insert:
WL25-VC0708R-MP4 WPP20G



Example:
Neutral tool:
W1010-2525N-WL25-P
Neutral indexable insert:
WL25-RC0420N-MU6 WPP20G

2.3 Maximum feed WL17/WL25 indexable inserts W1010

Example – neutral tool



Neutral insert	
	WL25
l_e [mm]	5,7
l_{e1} [mm]	

Left-hand insert	
	WL25
l_e [mm]	5,0
l_{e1} [mm]	3,5

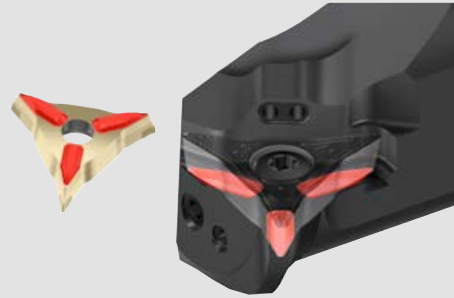
Right-hand insert	
	WL25
l_e [mm]	5,0
l_{e1} [mm]	3,5

Full-radius insert	
	WL25
l_e [mm]	$r_e \times 1,5$
l_{e1} [mm]	

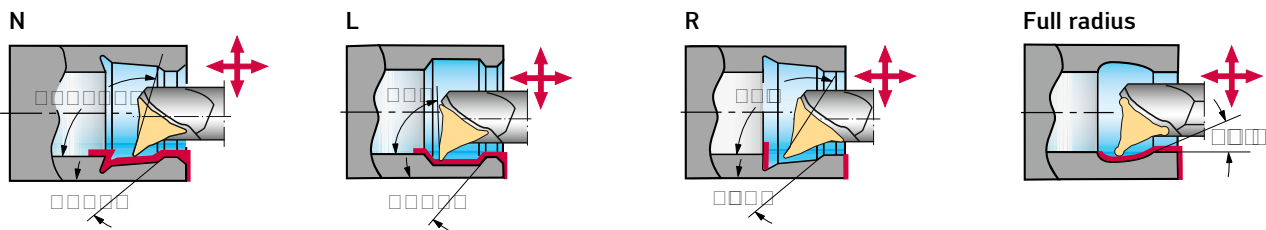
Measured with: WL25-VC0708..., WL25-RC0525N..., WL17-VC0504...

Application information: W1211/W1210 Walter Turn copy turning system – Internal machining

On copy turning tools, four different indexable insert types can be fitted in the same tool.
This means that different profiling angles/approach angles can be achieved with the same tool.

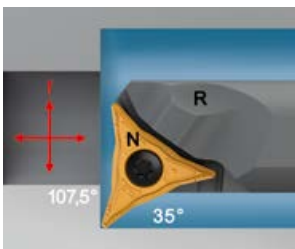


1.1 Application area and profiling angle W1211

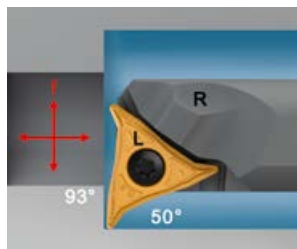


1.2 Insert options and approach angle W1211

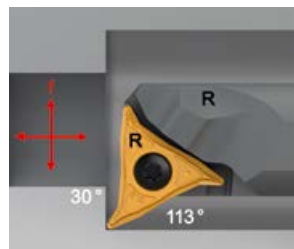
Four different indexable inserts can be fitted in the same tool.
The approach angles are formed by fitting the different indexable inserts.
The point angle of the WL25-VC... is 35°, as on a VBMT indexable insert.



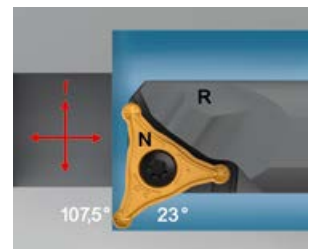
Example:
Right-hand tool:
W1211-25TR-WL25
Neutral indexable insert:
WL25-VC0708N-MP4 WPP20G



Example:
Right-hand tool:
W1211-25TR-WL25
Left-hand indexable insert:
WL25-VC0708L-MP4 WPP20G



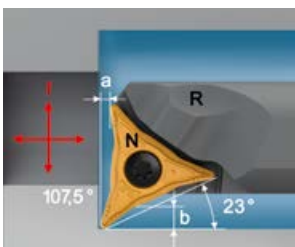
Example:
Right-hand tool:
W1211-25TR-WL25
Right-hand indexable insert:
WL25-VC0708R-MP4 WPP20G



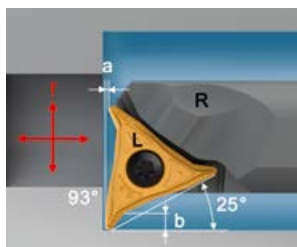
Example:
Right-hand tool:
W1211-25TR-WL25
Neutral full-radius insert:
WL25-RC0420N-MU6 WPP20G

1.3 Maximum feed WL17/WL25 indexable inserts W1211

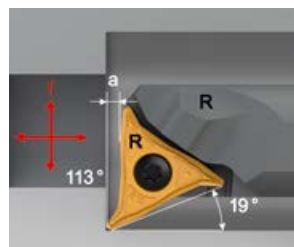
Example – right-hand tool



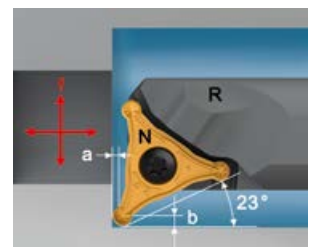
	Neutral insert	
	WL17	WL25
a [mm]	1,2	1,8
b [mm]	2,7	3,5



	Left-hand insert	
	WL17	WL25
a [mm]	0,6	0,9
b [mm]	2,1	2,7



	Right-hand insert	
	WL17	WL25
a [mm]	1,4	2,5
b [mm]		



	Full-radius insert	
	WL17	WL25
a [mm]		1,6
b [mm]		$r_e \times 0,9$

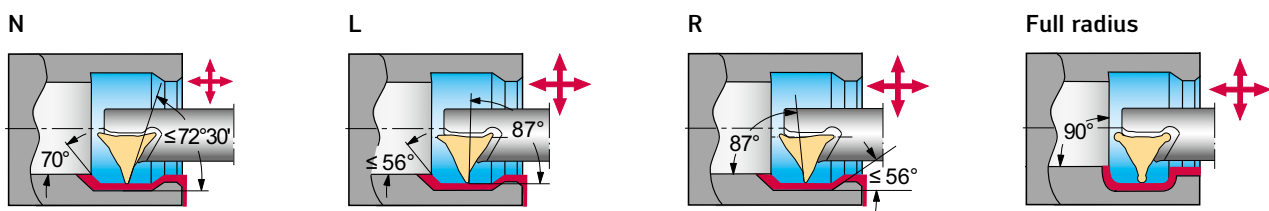
a = free against shoulder/b = cutting edge length

Measured with: WL25-VC0708..., WL25-RC0525N..., WL17-VC0504...

Application information: W1211/W1210 Walter Turn copy turning system – Internal machining (continued)

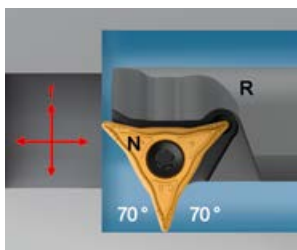


2.1 Application area and profiling angle W1210

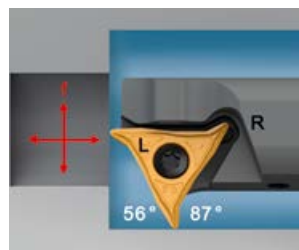


2.2 Insert options and approach angle W1210

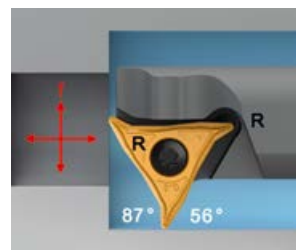
Four different indexable inserts can be fitted in the same tool.
The approach angles are formed by fitting the different indexable inserts.
The point angle of the WL25-VC... is 35°, as on a VBMT indexable insert.



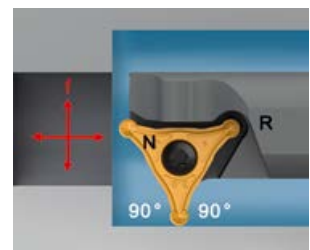
Example:
Right-hand tool, neutral positioning:
W1210-25TR-WL25
Neutral indexable insert:
WL25-VC0708N-MP4 WPP20G



Example:
Right-hand tool, neutral positioning:
W1210-25TR-WL25
Left-hand indexable insert:
WL25-VC0708L-MP4 WPP20G



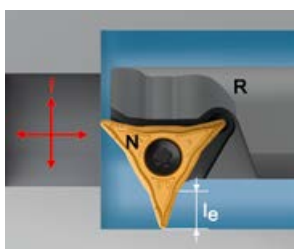
Example:
Right-hand tool, neutral positioning:
W1210-25TR-WL25
Right-hand indexable insert:
WL25-VC0708R-MP4 WPP20G



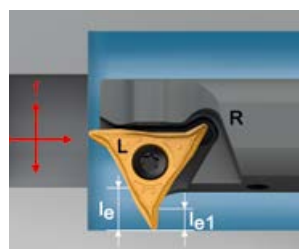
Example:
Right-hand tool, neutral positioning:
W1210-25TR-WL25
Neutral indexable insert:
WL25-RC0420N-MU6 WPP20G

2.3 Maximum feed WL17/WL25 indexable inserts W1210

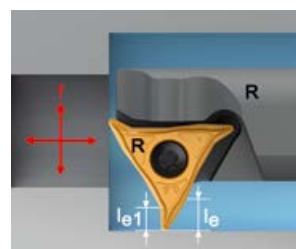
Example – right-hand tool



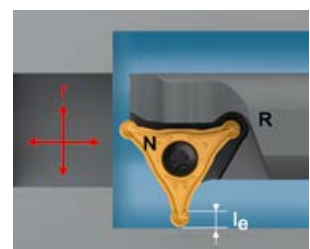
Neutral insert	
	WL25
l_e [mm]	5,7
l_{e1} [mm]	



Left-hand insert	
	WL25
l_e [mm]	5,0
l_{e1} [mm]	3,5



Right-hand insert	
	WL25
l_e [mm]	5,0
l_{e1} [mm]	3,5



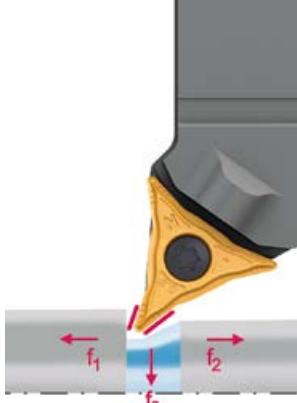
Full-radius insert	
	WL25
l_e [mm]	$r_e \times 1,5$

Measured with: WL25-VC0708..., WL25-RC0525N..., WL17-VC0504...

Application information: Walter Turn copy turning system

3. Cutting data

WL25



f_1 = feed approach angle 93° – 113°
 f_2 = feed approach angle 31° – 72.5°
 f_3 = plunging
 A feed of $f = 0.2$ mm is recommended for plunging into the workpiece (-X).

These values correspond to the depths of cut and feed rates on the catalogue ordering page.

Geometry/corner radius	WL25... FM4/FP4 – R0,2				
	f_2			f_1	
Approach angle	35°	50°	72.5°	93°	107.5°
$a_{p\min}$ [mm]	0,1	0,1	0,1	0,1	0,1
$a_{p\max}$ [mm]	1,1	1,5	1,9	2,0	1,9
f_{\min} [mm]	0,07	0,05	0,04	0,05	0,04
f_{\max} [mm]	0,26	0,20	0,16	0,15	0,16

Geometry/corner radius	WL25... FM4/FP4 – R0,4				
	f_2			f_1	
Approach angle	35°	50°	72.5°	93°	107.5°
$a_{p\min}$ [mm]	0,1	0,1	0,1	0,1	0,1
$a_{p\max}$ [mm]	1,1	1,5	1,9	2,0	1,9
f_{\min} [mm]	0,09	0,07	0,05	0,05	0,05
f_{\max} [mm]	0,35	0,26	0,21	0,20	0,21

Geometry/corner radius	WL25... FM4/FP4 – R0,8				
	f_2			f_1	
Approach angle	35°	50°	72.5°	93°	107.5°
$a_{p\min}$ [mm]	0,1	0,1	0,1	0,1	0,1
$a_{p\max}$ [mm]	1,1	1,5	1,9	2,0	1,9
f_{\min} [mm]	0,14	0,10	0,08	0,08	0,08
f_{\max} [mm]	0,44	0,33	0,26	0,25	0,26

Geometry/corner radius	WL25... MM4/MP4 – R0,4				
	f_2			f_1	
Approach angle	$31^\circ/35^\circ$	50°	72.5°	93°	$107.5^\circ/113^\circ$
$a_{p\min}$ [mm]	0,2	0,3	0,4	0,4	0,4
$a_{p\max}$ [mm]	1,4	1,9	2,4	2,5	2,4
f_{\min} [mm]	0,14	0,10	0,08	0,08	0,08
f_{\max} [mm]	0,40	0,33	0,26	0,25	0,26

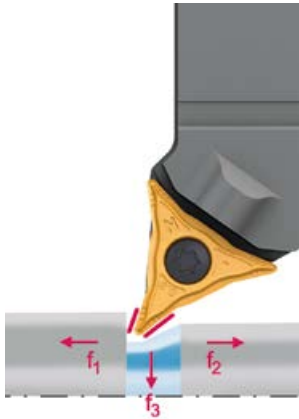
Geometry/corner radius	WL25... MM4/MP4 – R0,8				
	f_2			f_1	
Approach angle	$31^\circ/35^\circ$	50°	72.5°	93°	$107.5^\circ/113^\circ$
$a_{p\min}$ [mm]	0,3	0,4	0,5	0,5	0,5
$a_{p\max}$ [mm]	1,4	1,9	2,4	2,5	2,4
f_{\min} [mm]	0,21	0,16	0,13	0,12	0,13
f_{\max} [mm]	0,50	0,42	0,34	0,32	0,34

Geometry/corner radius	WL25... MM4/MP4 – R1,2				
	f_2			f_1	
Approach angle	35°	50°	72.5°	93°	107.5°
$a_{p\min}$ [mm]	0,3	0,4	0,5	0,5	0,5
$a_{p\max}$ [mm]	1,4	1,9	2,4	2,5	2,4
f_{\min} [mm]	0,21	0,16	0,13	0,12	0,13
f_{\max} [mm]	0,60	0,46	0,37	0,35	0,37

Geometry/corner radius	WL25... MM4/MP4 – R1,6				
	f_2			f_1	
Approach angle	35°	50°	72.5°	93°	107.5°
$a_{p\min}$ [mm]	0,3	0,4	0,5	0,5	0,5
$a_{p\max}$ [mm]	1,4	1,9	2,4	2,5	2,4
f_{\min} [mm]	0,21	0,16	0,13	0,12	0,13
f_{\max} [mm]	0,65	0,52	0,42	0,40	0,42

Application information: Walter Turn copy turning system (continued)

3. Cutting data



f_1 = feed approach angle 93° – 113°
 f_2 = feed approach angle 31° – 72.5°
 f_3 = plunging
 A feed of $f = 0.2$ mm is recommended for plunging into the workpiece (-X).

These values correspond to the depths of cut and feed rates on the catalogue ordering page.

WL25

Geometry/corner radius	WL25... MU6 – R2,0				
	f_2			f_1	
Approach angle	$31^\circ/35^\circ$	50°	72.5°	93°	$107.5^\circ/113^\circ$
$a_{p\min}$ [mm]	0,3	0,4	0,5	0,5	0,5
$a_{p\max}$ [mm]	1,1	1,5	1,9	2,0	1,9
f_{\min} [mm]	0,21	0,16	0,13	0,12	0,13
f_{\max} [mm]	0,60	0,52	0,42	0,40	0,42

Geometry/corner radius	WL25... MU6 – R2,5				
	f_2			f_1	
Approach angle	35°	50°	72.5°	93°	107.5°
$a_{p\min}$ [mm]	0,3	0,4	0,5	0,5	0,5
$a_{p\max}$ [mm]	1,4	1,9	2,4	2,5	2,4
f_{\min} [mm]	0,21	0,16	0,13	0,12	0,13
f_{\max} [mm]	0,65	0,59	0,47	0,45	0,47

WL17

Geometry/corner radius	WL17... FM4 / FP4 – R0,2				
	f_2			f_1	
Approach angle	35°	50°	72.5°	93°	107.5°
$a_{p\min}$ [mm]	0,1	0,1	0,1	0,1	0,1
$a_{p\max}$ [mm]	0,7	0,9	1,1	1,2	1,1
f_{\min} [mm]	0,06	0,04	0,03	0,04	0,03
f_{\max} [mm]	0,26	0,20	0,16	0,15	0,16

Geometry/corner radius	WL17... FM4 / FP4 – R0,4				
	f_2			f_1	
Approach angle	35°	50°	72.5°	93°	107.5°
$a_{p\min}$ [mm]	0,1	0,1	0,1	0,1	0,1
$a_{p\max}$ [mm]	1,0	1,3	1,7	1,8	1,7
f_{\min} [mm]	0,09	0,07	0,05	0,05	0,05
f_{\max} [mm]	0,35	0,26	0,21	0,20	0,21

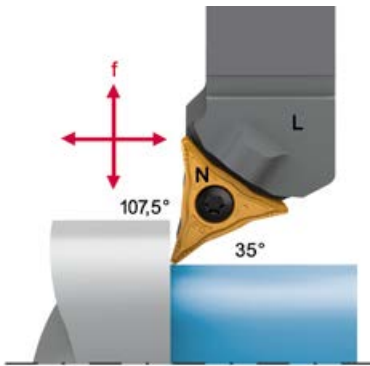
Geometry/corner radius	WL17... FM4 / FP4 – R0,8				
	f_2			f_1	
Approach angle	35°	50°	72.5°	93°	107.5°
$a_{p\min}$ [mm]	0,2	0,2	0,2	0,2	0,2
$a_{p\max}$ [mm]	1	1,3	1,7	1,8	1,7
f_{\min} [mm]	0,14	0,10	0,08	0,08	0,08
f_{\max} [mm]	0,44	0,33	0,26	0,25	0,26

Geometry/corner radius	WL17... MM4 / MP4 – R0,4				
	f_2			f_1	
Approach angle	$31^\circ/35^\circ$	50°	72.5°	93°	$107.5^\circ/113^\circ$
$a_{p\min}$ [mm]	0,2	0,3	0,4	0,4	0,4
$a_{p\max}$ [mm]	1,1	1,5	1,9	2,0	1,9
f_{\min} [mm]	0,14	0,10	0,08	0,08	0,08
f_{\max} [mm]	0,4	0,33	0,26	0,25	0,26

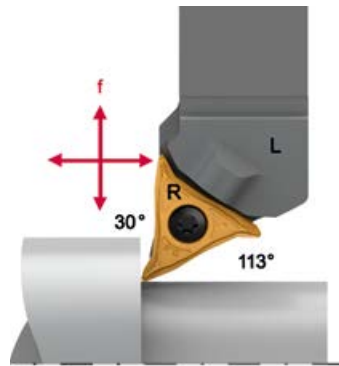
Geometry/corner radius	WL17... MM4 / MP4 – R0,8				
	f_2			f_1	
Approach angle	$31^\circ/35^\circ$	50°	72.5°	93°	$107.5^\circ/113^\circ$
$a_{p\min}$ [mm]	0,3	0,4	0,5	0,5	0,5
$a_{p\max}$ [mm]	1,1	1,5	1,9	2,0	1,9
f_{\min} [mm]	0,21	0,16	0,13	0,12	0,13
f_{\max} [mm]	0,47	0,39	0,32	0,30	0,32

Walter Turn W1011 copy turning system – Axial relief grooves

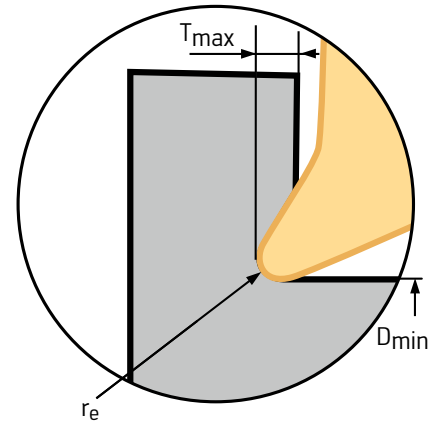
W1011 tools can be used in the following combinations for axial relief grooves:



Example:
Left-hand tool:
 W1011-2525L-WL25-P
Neutral indexable insert:
 WL25-VC0708N-MP4 WPP20G



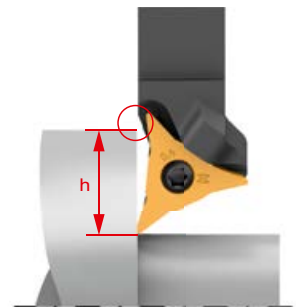
Example:
Left-hand tool:
 W1011-2525L-WL25-P
Right-hand indexable insert:
 WL25-VC0708R-MP4 WPP20G



WL25	Toolholder	Indexable insert	r_e	T_{max} [mm]	D_{min} [mm]
	W1011-...L-WL25(-P)	WL25-VC0704R-...	0.4	1.5	50
	W1011-...L-WL25(-P)	WL25-VC0708R-...	0.8	1.7	50
	W1011-...R-WL25(-P)	WL25-VC0704L-...	0.4	1.5	50
	W1011-...R-WL25(-P)	WL25-VC0708L-...	0.8	1.7	50
	W1011-...L/R-WL25(-P)	WL25-VC0702N-...	0.2	0.8	27
	W1011-...L/R-WL25(-P)	WL25-VC0704N-...	0.4	0.8	27
	W1011-...L/R-WL25(-P)	WL25-VC0708N-...	0.8	1.0	27
	W1011-...L/R-WL25(-P)	WL25-VC0712N-...	1.2	1.2	25
	W1011-...L/R-WL25(-P)	WL25-VC0716N-...	1.6	1.4	25

WL17	Toolholder	Indexable insert	r_e	T_{max} [mm]	D_{min} [mm]
	W1011-...L-WL17(-S-P)	WL17-VC0502R-...	0.2	1.1	66
	W1011-...L-WL17(-S-P)	WL17-VC0504R-...	0.4	1.2	
	W1011-...L-WL17(-S-P)	WL17-VC0508R-...	0.8	1.2	36
	W1011-...L/R-WL17(-S-P)	WL17-VC0502N-...	0.2	0.8	
	W1011-...L/R-WL17(-S-P)	WL17-VC0504N-...	0.4	0.9	37
	W1011-...L/R--WL17(-S-P)	WL17-VC0508N-...	0.8	1.0	

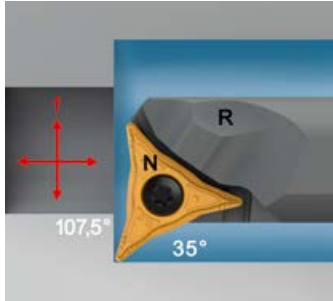
For -S-P tools, T_{max} applies up to a shoulder height with a 1212 shank of $h = 13.7$ mm and with a 1616 shank of $h = 21.1$ mm.



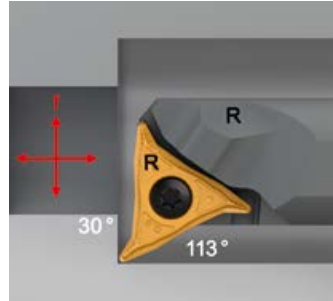
Example:
Left-hand tool:
 W1011-1212L-WL17-S-P
Neutral indexable insert:
 WL17-VC0508N-MP4 WPP20G

Walter Turn W1211 copy turning system – Axial relief grooves

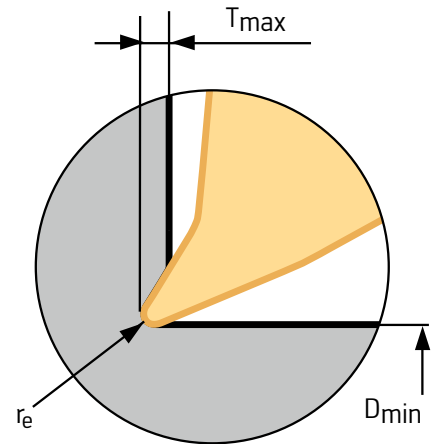
W1211 tools can be used in the following combinations for axial relief grooves:



Example:
Right-hand tool:
 W1211-25TR-WL25
Neutral indexable insert:
 WL25-VC0708N-MP4 WPP20G



Example:
Right-hand tool:
 W1211-25TR-WL25
Right-hand indexable insert:
 WL25-VC0708R-MP4 WPP20G

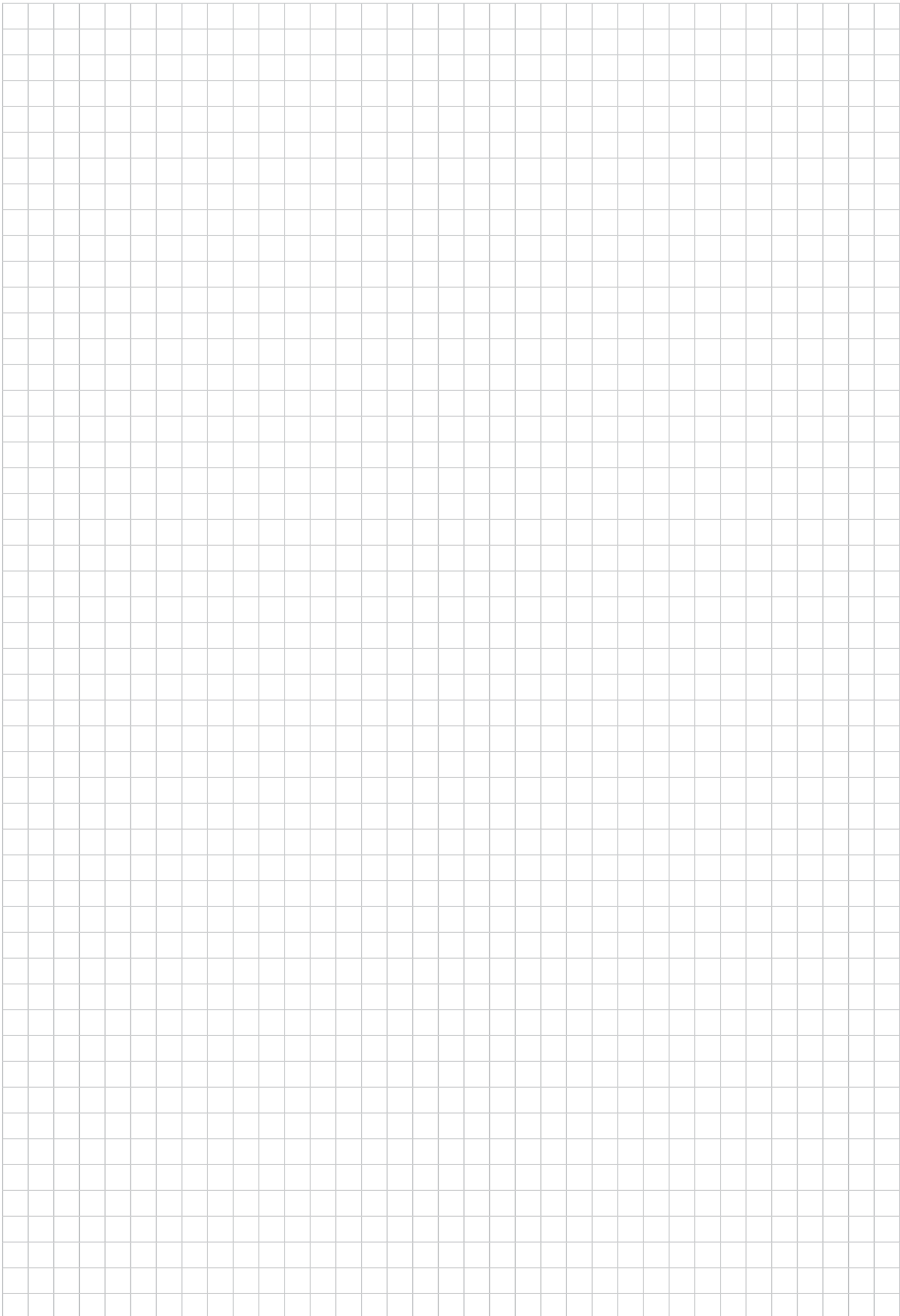


WL25	Toolholder	Indexable insert	r_e	T_{max} [mm]	D_{min} [mm]
	W1211-...R-WL25	WL25-VC0704R-...	0.4	1.8	27
	W1211-...R-WL25	WL25-VC0708R-...	0.8	2.0	27
	W1211-...L-WL25	WL25-VC0704L-...	0.4	1.8	27
	W1211-...L-WL25	WL25-VC0708L-...	0.8	2.0	27
	W1211-...R/L-WL25	WL25-VC0702N-...	0.2	1.7	27
	W1211-...R/L-WL25	WL25-VC0704N-...	0.4	1.7	27
	W1211-...R/L-WL25	WL25-VC0708N-...	0.8	1.7	27
	W1211-...R/L-WL25	WL25-VC0712N-...	1.2	1.8	25
	W1211-...R/L-WL25	WL25-VC0716N-...	1.6	2.1	27

WL17	Toolholder	Indexable insert	r_e	T_{max} [mm]	D_{min} [mm]
	W1211-...R-WL17	WL17-VC0502R-...	0.2	1.2	26
	W1211-...R-WL17	WL17-VC0504R-...	0.4	1.3	26
	W1211-...R-WL17	WL17-VC0508R-...	0.8	1.3	102*
	W1211-...L/R-WL17	WL17-VC0502N-...	0.2	0.9	16
	W1211-...L/R-WL17	WL17-VC0504N-...	0.4	1.0	27
	W1211-...L/R-WL17	WL17-VC0508N-...	0.8	1.1	34

Please take the D_{min} of the boring bar used into account.

* Large D_{min} for right-hand and left-hand indexable inserts due to the large radius.



Sustainable action in all Business divisions

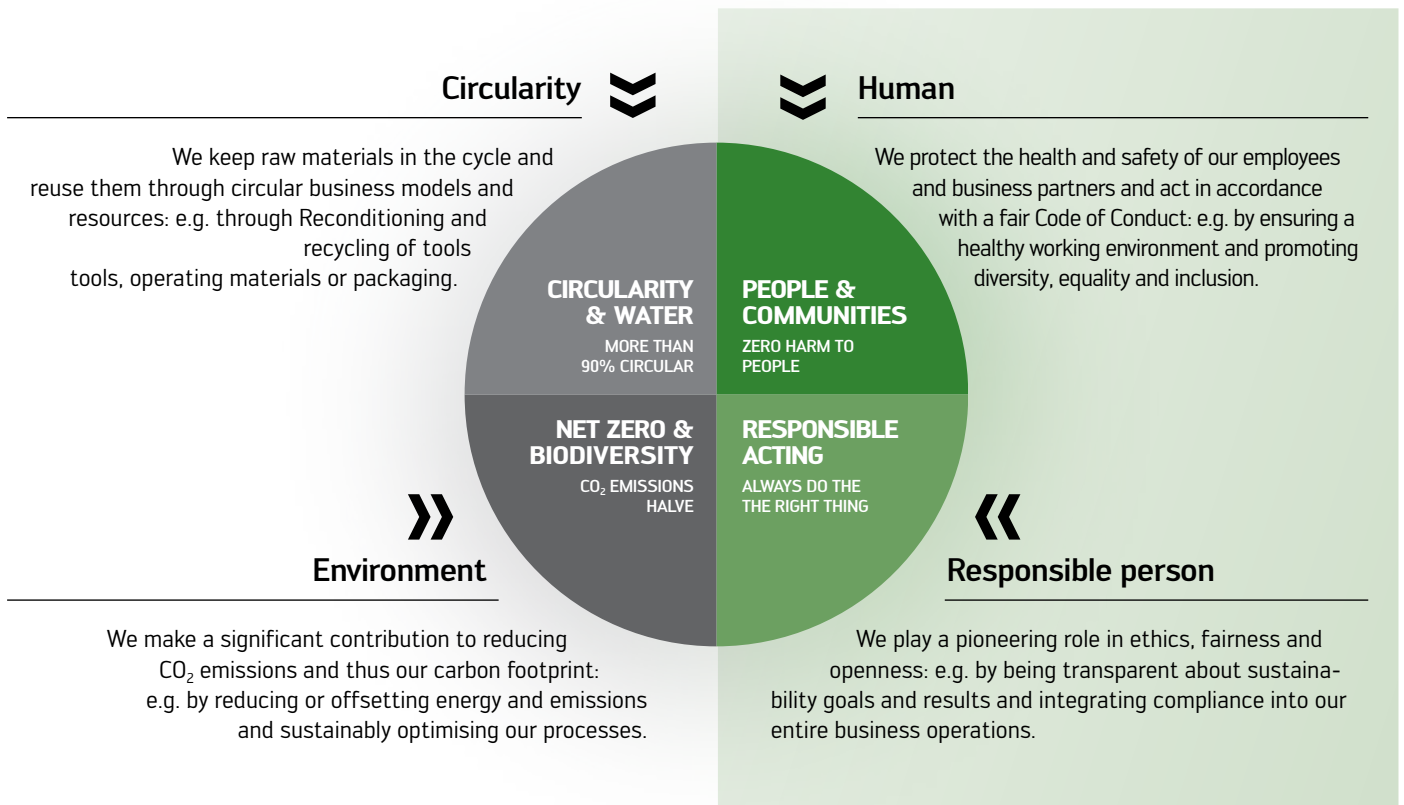
Create
the
Change

Sustainability is an essential Requirement for Walter to be successful as a company on the market in the long term. It is therefore a key component of our corporate strategy. Our responsible person for sustainability encompasses all areas: from product recycling, sustainable packaging, energy efficiency and the reduction of CO₂ emissions to our commitment to health and safety and responsible behaviour towards our business partners.



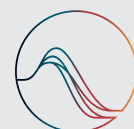
Visit our website:
www.walter-tools.com/en-gb/company/sustainable-company

THE WALTER SUSTAINABILITY GOALS BY 2030



PROVEN TO BE MANUFACTURED TO HIGH STANDARDS

All processes, procedures, methods and resources that we use are audited and evaluated by an independent body according to Hardness criteria: Occupational health and safety, Quality assurance and environmentally friendly behaviour are examples of this. Our social commitment shows that Walter takes his responsibility much further.

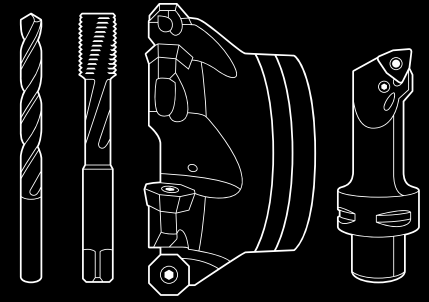


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