

Product expertise

Threading

EXPERTISE IN MACHINING

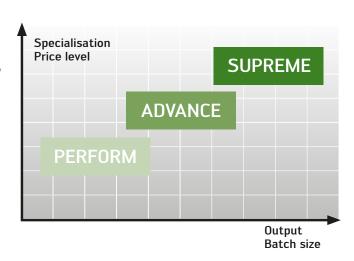
TC115/TC216 – The new standard for threading small and medium batch sizes.

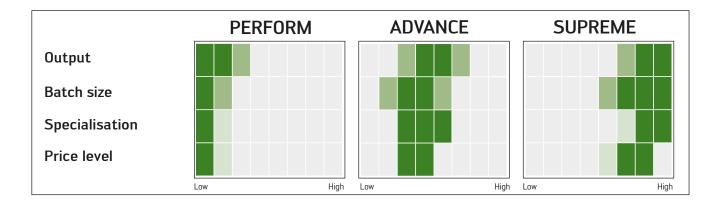




# The Walter product lines – Expertise to the power of three.

All Walter tools are distinguished by maximum precision and process reliability. Real added value is created when you find a range that exactly matches every requirement. Walter gives the right answer to what you're looking for – with three product lines in the premium segment.





## **SUPREME**

In the Supreme line, you will find tools with special qualifications in the high-end range. They are always the first choice when maximum cutting speeds and long tool life for high batch sizes are required. The Supreme tools are designed for machining very specific material groups and often outperform comparable tools by far.

#### **ADVANCE**

Are you looking for just the right balance between manufacturing products as cost effectively as possible and long tool life? The tools from the Advance line display their strengths to the full in series production of medium batch sizes. In addition to making a favourably priced investment, the decisive factors are excellent performance data and the comprehensive range.

#### **PERFORM**

The tools from the Perform line ensure that you enjoy a high level of cost efficiency and a wide range of applications. They are ideal for an extremely wide range of various materials, in situations involving smaller and medium batch sizes.

# TC115/TC216 – Cost efficient and just the right tools for the job.

What users with small and medium batch sizes are most looking for is a tool that provides flexibility of deployment and cost efficiency. For them, the new Walter TC115 and TC216 taps are the solution that perfectly meets their requirements. They can be used for the most diverse of materials, and are made precisely for producing threads of high quality, while still maintaining cost efficiency.

## TC115/TC216 - THE FIRST TAPS FROM THE PERFORM LINE

Threading demands reliable processes and tools that can be used as universally as possible, since conditions can vary widely according to material and workpiece. With geometries and coatings that are perfectly suited to the application, TC115 and TC216 taps cope easily with this challenge.



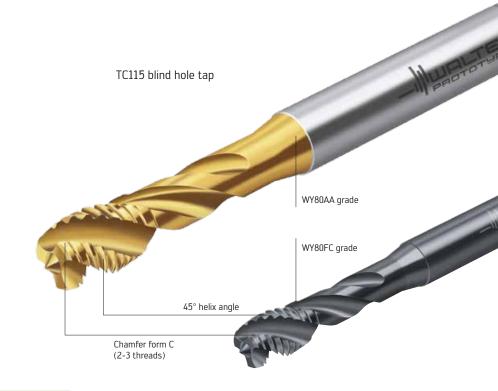
# TC115/TC216 – For the most diverse of materials.

## THE TOOL

- HSS-E machine tap
- TC115: For blind holes up to 3 x D $_{N}$
- TC216: For through holes up to 3.5 x  $\ensuremath{D_N}$
- ISO2/6H tolerances
- Two variants: TIN-coated or vaporised

## THE APPLICATION

- Blind- and through-hole threads
- Dimension range: M3-M20
- Primary application:
  - ISO-P: 300-1000 N/mm<sup>2</sup>
  - ISO-M: < 800 N/mm<sup>2</sup>
  - ISO-K: GJS (GGG)
  - ISO-N: Aluminium wrought alloy, AlSi < 4% silicon\*
    - \* Secondary application with TC115



## THE ADVANTAGES

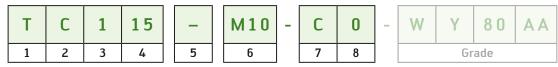
- TIN coating: Long tool life
- Vaporised: Excellent chip control minimises weld formation
- Flexibility thanks to a wide range of uses in a variety of materials
- High process reliability
- Most cost effective solution for small to medium batches

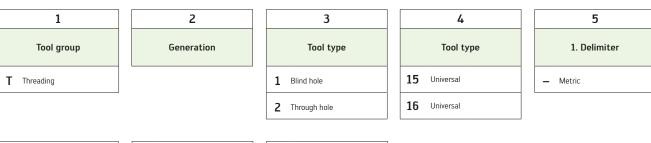




## Designation key for Walter Prototyp tapping tools

## Example



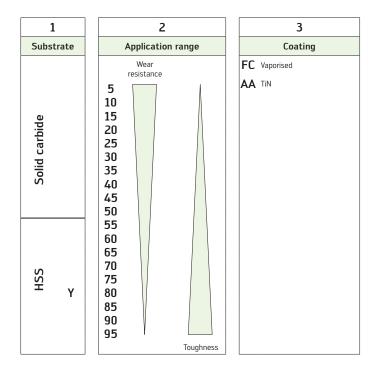


6	7	8
Thread dimensions	Shank type	Variant
	C Reinforced shank	<b>0</b> External cooling
	L Passing through shank	

## Grade designation key for solid carbide and HSS cutting materials

## Example

W	Υ	80	AA
Walter	1	2	3







## Machine tap Perform TC115



## $≤3xD_N$



- HSS-E
  Chamfer form C = 2-3 thread
  45° helix angle
  Materials from 350 to 1000 N/mm² or 32 HRC
- For long-chipping materials

## **DIN 13**

	Р	М	K	N	S	Н	0
WY80FC	••	••	••	•			
WY80AA	••	••	••	•			

Tool	Designation	P mm	l <sub>1</sub> js16 mm	L <sub>C</sub>	I <sub>3</sub> ±1 mm	d <sub>1</sub> h <sub>9</sub> mm	□ h12 mm	l <sub>g</sub> mm	N	WY80FC	WY80AA
DIN 371 ISO2/6H	TC115-M3-C0-	0,5	56	6	18	3,5	2,7	6	3	<b>3</b>	<b>3</b>
P P d d d d d d d d d d d d d d d d d d	TC115-M4-C0-	0,7	63	7	21	4,5	3,4	6	3	<b>®</b>	<b>3</b>
	TC115-M5-C0-	0,8	70	8	25	6	4,9	8	3	<b>®</b>	<b>3</b>
	TC115-M6-C0-	1	80	10	30	6	4,9	8	3	<b>3</b>	<b>3</b>
+ L <sub>C</sub> +	TC115-M8-C0-	1,25	90	12	35	8	6,2	9	3	<b>3</b>	<b>3</b>
	TC115-M10-C0-	1,5	100	15	39	10	8	11	3	<b>®</b>	<b>3</b>

Tool	Designation	P mm	l <sub>1</sub> js16 mm	L <sub>C</sub>	I <sub>3</sub> ±1 mm	d <sub>1</sub> h <sub>g</sub> mm	□ h12 mm	l <sub>9</sub> mm	N	WY80FC	WY80AA
DIN 376 ISO2/6H	TC115-M12-L0-	1,75	110	16	-	9	7	10	3	<b>3</b>	<b>3</b>
P	TC115-M14-L0-	2	110	20	-	11	9	12	3	<b>®</b>	<b>3</b>
, M	TC115-M16-L0-	2	110	20	-	12	9	12	3	<b>3</b>	<b>3</b>
$D_N$	TC115-M20-L0-	2,5	140	25	-	16	12	15	4	•	<b>3</b>
+ -L <sub>c</sub> -											
<del></del>											

Ordering example: TC115 HSS-E machine tap in M10 in WY80AA grade

Ordering code: TC115-M10-C0-WY80AA





## Machine tap Perform TC216



## $\leq$ 3,5xD<sub>N</sub>



- HSS-E
  Chamfer form B = 3.5-5 thread
  Materials from 350 to 1000 N/mm² or 32 HRC
  For long-chipping materials

## DIN 13

	Р	М	K	N	S	Н	0
WY80FC	••	••	••	••			
WY80AA	••	••	••	••			

Tool	Designation	P mm	l <sub>1</sub> js16 mm	L <sub>C</sub>	I <sub>3</sub> ±1 mm	d <sub>1</sub> h <sub>9</sub> mm	□ h12 mm	l <sub>9</sub> mm	N	WY80FC	WY80AA
DIN 371 ISO2/6H	TC216-M3-C0-	0,5	56	9	18	3,5	2,7	6	3	<b>3</b>	<b>3</b>
- P  <del>-</del>	TC216-M4-C0-	0,7	63	12	21	4,5	3,4	6	3	•	<b>3</b>
_ <u> </u>	TC216-M5-C0-	0,8	70	13	25	6	4,9	8	3	•	<b>3</b>
$\frac{1}{1}$ $\frac{1}{1}$ $\frac{1}{1}$ $\frac{1}{1}$ $\frac{1}{1}$	TC216-M6-C0-	1	80	15	30	6	4,9	8	3	•	<b>3</b>
→ l <sub>g</sub> →	TC216-M8-C0-	1,25	90	18	35	8	6,2	9	3	•	<b>3</b>
	TC216-M10-C0-	1,5	100	20	39	10	8	11	3	•	<b>3</b>

Tool	Designation	P mm	l <sub>1</sub> js16 mm	L <sub>C</sub>	I <sub>3</sub> ±1 mm	d <sub>1</sub> h <sub>9</sub> mm	□ h12 mm	l <sub>g</sub> mm	N	WY80FC	WY80AA
DIN 376 ISO2/6H	TC216-M12-L0-	1,75	110	23	-	9	7	10	3	<b>3</b>	<b>3</b>
- P  <del>-</del>	TC216-M14-L0-	2	110	25	-	11	9	12	3	<b>3</b>	<b>®</b>
	TC216-M16-L0-	2	110	25	-	12	9	12	3	•	<b>®</b>
$D_N$	TC216-M20-L0-	2,5	140	30	-	16	12	15	4	•	<b>3</b>
→ L <sub>c</sub> →   <sub>19</sub> ←											
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Ordering example: TC216 HSS-E machine tap in M10 in WY80AA grade

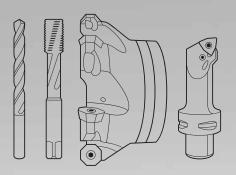
Ordering code: TC216-M10-C0-WY80AA



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