





Solid drilling and bore machining

**1** HSS drilling

**2** Solid carbide drilling

**3** Indexable insert drilling

**4** Reaming and Countersinking

**5** Spindle Tooling

Threading

**6** Taps and thread formers

**7** Circular and Thread Milling

**8** Thread turning

Turning

**9** Turning Tools

**10** EcoCut

**11** Grooving Tools

**12** Miniature turning tools

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Milling

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**14** Solid Carbide milling cutters

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## WNT \ Performance

Premium quality tools for high performance.

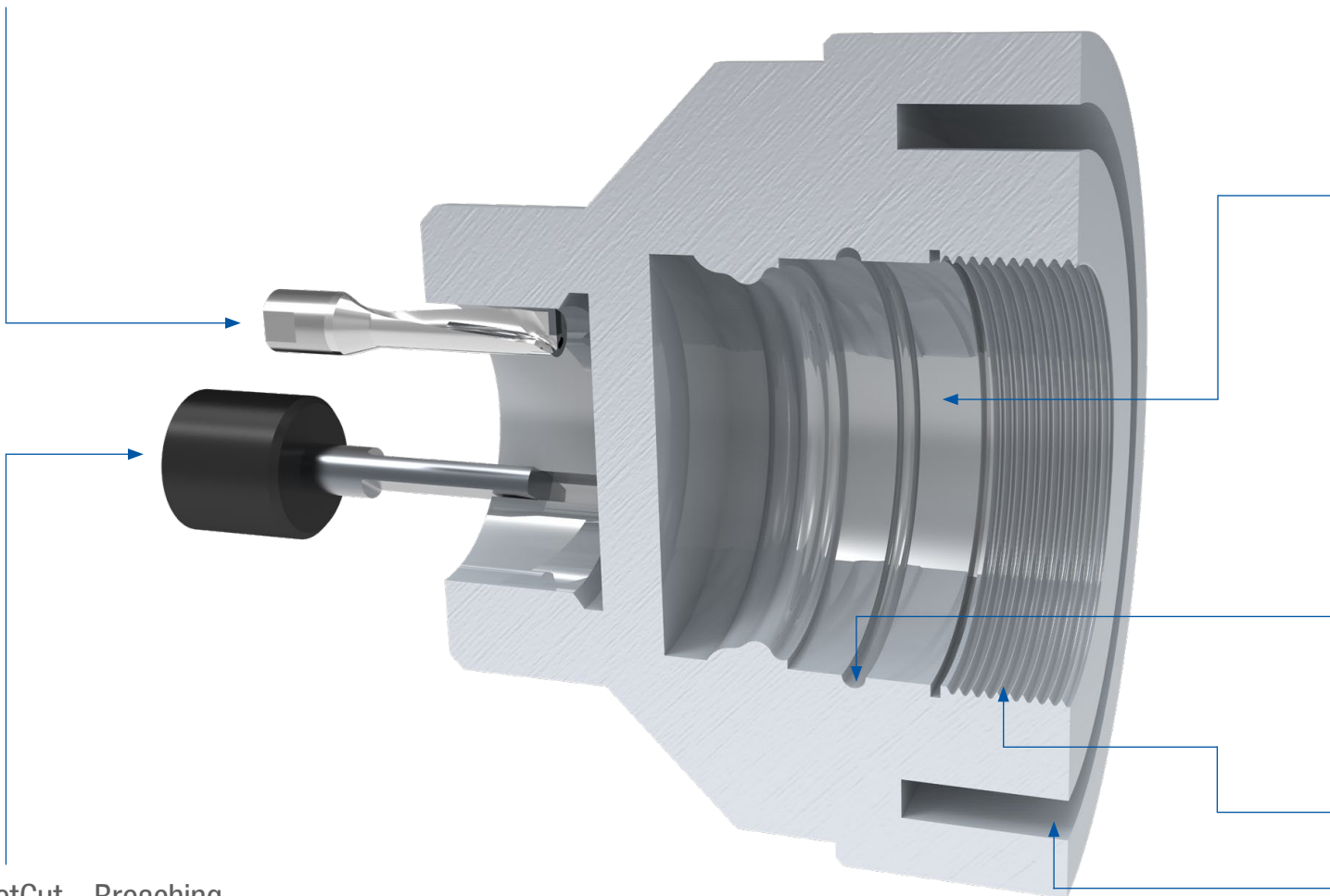
The premium quality tools from the **WNT Performance** product line have been designed for specific applications and are distinguished by their outstanding performance. If you make high demands on the performance of your production and want to achieve the very best results, we recommend the Premium tools in this product line.

## Toolfinder

### EcoCut Mini

From  $\varnothing$  2 mm

Inserts and tool holders can be found in → **Chapter 10 – EcoCut**



### SlotCut – Broaching

Inserts + Holder DIN138

55-58

# System overview

## UltraMini



- ▲ from Ø 0.5 mm
- ▲ flexible system
- ▲ ground inserts
- ▲ high repeatability
- ▲ coolant supply to the cutting edge

## MiniCut



- ▲ from Ø 7.8 mm
- ▲ stable three-rib interface
- ▲ easy handling
- ▲ coolant supply to the cutting edge
- ▲ precise cutting edge position

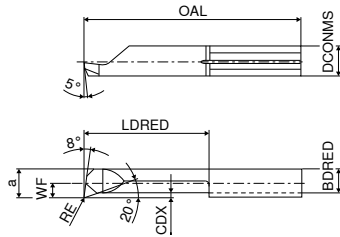
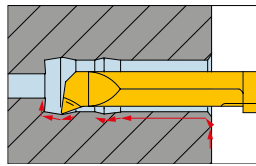
## SlotCut



- ▲ broaching directly on the machine
- ▲ usable from Ø 6 mm
- ▲ low machine load
- ▲ variety of tolerance classes

Hole diameter in mm	UltraMini										MiniCut						
	≥ 0,5	≥ 2	≥ 2,4	≥ 2,8	≥ 3	≥ 4	≥ 5	≥ 6	≥ 8	≥ 16	≥ 8	≥ 9	≥ 11	≥ 14	≥ 16		
Internal turning and profiling		4-7	4-7	4-7	4-7		4-7	4-7	4-7			36	36	36	36	36	
Internal turning and profiling - hard turning			8		8		8	8	8			37		37	37	37	
High-feed turning			10			10	10	10	10								
Turning and profile turning - super alloys			9		9		9	9	9								
Internal turning					11		11	11				38	38	38	38	38	
Back boring						12	12	12	12			39	39	39	39		
Turning and chamfering								13	13			39	39	39	39		
Pre-parting and chamfering							13	13	13			40	40	40	40	40	
Groove turning		14-16				14-16	14-16	14-16	14-16			41+42	40	40	40	40	
Internal Undercuts		17			17		17	17	17			43	43	43	43	43	
Groove and profile turning							18	18	18			44	44	44	44	44	
Internal thread turning				19-22			19-22	19-22	19-22			45-48	45-48	45-48	45-48	45-48	
Axial grooving								23-28	23-28	23-28	23-28		49+50	49+50	49+50	49+50	49+50
<b>Suitable holder</b>							31-35							51-54			
<b>Sets</b>							29+30							50			

# UltraMini – Inserts for internal turning and profiling

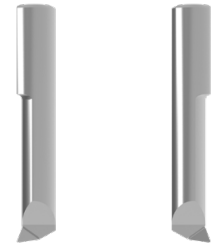
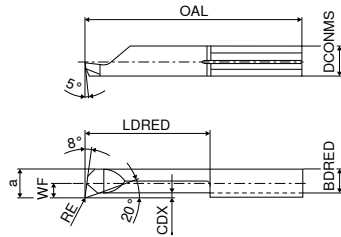
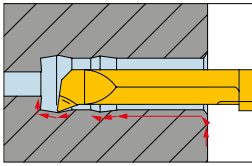


Illustrations show right-hand versions

Designation	DCONMS <sub>HS</sub> mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	RE mm	Standard tool holder	Left-hand		Right-hand		Left-hand		Right-hand	
											Y5		Y5		Y5		Y5	
											Article no. 73 005 ...	EUR	Article no. 73 004 ...	EUR	Article no. 73 005 ...	EUR	Article no. 73 004 ...	EUR
R/L 050.05-2	4		0,5	0,4	20	2	0,03	0,32	0,02	645.00..D	30,41	500	30,41	500				
R/L 050.06-2	4		0,6	0,5	20	2	0,05	0,40	0,04	645.00..D	30,41	510	30,41	510				
R/L 050.06-3	4		0,6	0,5	20	3	0,05	0,40	0,04	645.00..D	31,30	511	31,30	511				
R/L 050.08-4	4		0,8	0,7	20	4	0,05	0,60	0,04	645.00..D					31,64	812	31,64	812
R/L 050.1-8	4		1,0	0,9	22	8	0,10	0,75	0,05	645.00..D					31,30	813	31,30	813
R/L 050.15-5	4		1,5	1,3	19	5	0,10	1,15	0,05	645.00..D	28,98	515	28,98	515				
R/L 050.15-10	4		1,5	1,3	24	10	0,10	1,15	0,05	645.00..D	29,65	516	29,65	516				
R/L 050.15-12	4		1,5	1,3	26	12	0,10	1,15	0,05	645.00..D					31,30	818	31,30	818
R/L 050.2-5	4		2,0	1,7	19	5	0,10	1,50	0,05	645.00..D	26,33	520	26,33	520				
R/L 050.2-10	4		2,0	1,7	24	10	0,10	1,50	0,05	645.00..D	26,88	521	26,88	521				
R/L 050.2-15	4		2,0	1,7	29	15	0,10	1,50	0,05	645.00..D	28,43	522	28,43	522				
R/L 050.3-10	4	0,6	2,8	2,6	24	10	0,20	2,30	0,10	645.00..D	28,33	531	28,33	531				
R/L 050.3-16	4	0,6	2,8	2,6	30	16	0,20	2,30	0,10	645.00..D	28,77	530	28,77	530				
R/L 050.3-20	4	0,6	2,8	2,6	34	20	0,20	2,30	0,10	645.00..D	30,31	532	30,31	532				
R/L 050.35-10	4	1,1	3,5	3,1	24	10	0,25	2,80	0,10	645.00..D					24,80	835	24,80	835
R/L 050.35-16	4	1,1	3,5	3,1	30	16	0,25	2,80	0,10	645.00..D					26,12	836	26,12	836
R/L 050.35-20	4	1,1	3,5	3,1	34	20	0,25	2,80	0,10	645.00..D					31,41	837	31,41	837
R/L 050.35-24	4	1,1	3,5	3,1	38	24	0,25	2,80	0,10	645.00..D					34,38	838	34,38	838
R/L 050.4-10	4	1,5	4,0	3,5	24	10	0,30	3,00	0,10	645.00..D	28,55	541	28,55	541	28,55	841	28,55	841
R/L 050.4-16	4	1,5	4,0	3,5	30	16	0,30	3,00	0,10	645.00..D	28,98	540	28,98	540	28,98	840	28,98	840
R/L 050.4-20	4	1,5	4,0	3,5	34	20	0,30	3,00	0,10	645.00..D	30,41	542	30,41	542	30,41	842	30,41	842
R/L 050.4-24	4	1,5	4,0	3,5	38	24	0,30	3,00	0,10	645.00..D	32,96	545	32,96	545	32,96	845	32,96	845
R/L 050.4-28	4	1,5	4,0	3,5	42	28	0,30	3,00	0,10	645.00..D	36,70	546	36,70	546	36,70	846	36,70	846
R/L 050.5-10	5	1,9	5,0	4,4	25	10	0,50	3,80	0,15	645.00..D	26,78	551	26,78	551	26,78	851	26,78	851
R/L 050.5-15	5	1,9	5,0	4,4	30	15	0,50	3,80	0,15	645.00..D	29,10	552	29,10	552	29,10	852	29,10	852
R/L 050.5-20	5	1,9	5,0	4,4	35	20	0,50	3,80	0,15	645.00..D	29,86	550	29,86	550	29,86	850	29,86	850
R/L 050.5-25	5	1,9	5,0	4,4	40	25	0,50	3,80	0,15	645.00..D	33,83	553	33,83	553	33,83	853	33,83	853
R/L 050.5-30	5	1,9	5,0	4,4	45	30	0,50	3,80	0,15	645.00..D	36,70	554	36,70	554	36,70	854	36,70	854
R/L 050.5-35	5	1,9	5,0	4,4	50	35	0,50	3,80	0,15	645.00..D	40,01	556	40,01	556	40,01	856	40,01	856
R/L 050.5-40	5	1,9	5,0	4,4	55	40	0,50	3,80	0,15	645.00..D					44,97	857	44,97	857
R/L 050.6-15	6	2,3	6,0	5,3	30	15	0,50	4,50	0,15	676.00..D	29,43	561	29,43	561	29,43	861	29,43	861
R/L 050.6-22	6	2,3	6,0	5,3	37	22	0,50	4,50	0,15	676.00..D	30,64	560	30,64	560	30,64	860	30,64	860
R/L 050.6-25	6	2,3	6,0	5,3	40	25	0,50	4,50	0,15	676.00..D	33,96	562	33,96	562	33,96	862	33,96	862
R/L 050.6-30	6	2,3	6,0	5,3	45	30	0,50	4,50	0,15	676.00..D	37,25	563	37,25	563	37,25	863	37,25	863
R/L 050.6-35	6	2,3	6,0	5,3	50	35	0,50	4,50	0,15	676.00..D	40,01	564	40,01	564	40,01	864	40,01	864
R/L 050.6-42	6	2,3	6,0	5,3	57	42	0,50	4,50	0,15	676.00..D	44,64	565	44,64	565	44,64	865	44,64	865
R/L 050.7-20	7	2,8	6,8	6,3	35	20	0,60	5,50	0,15	676.00..D	30,75	572	30,75	572	30,75	872	30,75	872
R/L 050.7-25	7	2,8	6,8	6,3	40	25	0,60	5,50	0,15	676.00..D	38,58	573	38,58	573	38,58	873	38,58	873
R/L 050.7-30	7	2,8	6,8	6,3	45	30	0,60	5,50	0,15	676.00..D	39,24	574	39,24	574	39,24	874	39,24	874
R/L 050.7-35	7	2,8	7,0	6,3	50	35	0,60	5,50	0,15	676.00..D	40,66	575	40,66	575	40,66	875	40,66	875
R/L 050.7-40	7	2,8	7,0	6,3	55	40	0,60	5,50	0,15	676.00..D	45,19	576	45,19	576	45,19	876	45,19	876
R/L 050.7-45	7	2,8	7,0	6,3	60	45	0,60	5,50	0,15	676.00..D	47,94	577	47,94	577	47,94	877	47,94	877
R/L 050.7-50	7	2,8	7,0	6,3	65	50	0,60	5,50	0,15	676.00..D	51,69	578	51,69	578	51,69	878	51,69	878

Steel	●	●	●	●
Stainless steel	●	●	●	●
Cast iron	○	○	●	●
Non ferrous metals	○	○	●	●
Heat resistant alloys	○	○	●	●
hardened materials				

# UltraMini – Inserts for internal turning and profiling

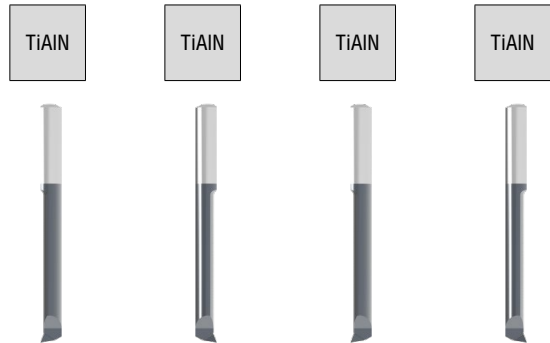
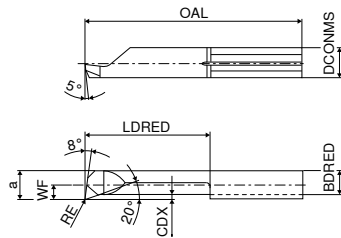
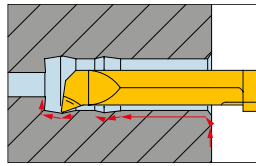


Illustrations show right-hand versions

Designation	DCONMS <sub>h6</sub> mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	RE mm	Standard tool holder	Left-hand Y5		Right-hand Y5	
											Article no. 73 005 ...	EUR	Article no. 73 004 ...	EUR
R/L 050.2-5	4		2,0	1,7	19	5	0,1	1,5	0,05	645.00..D	21,70	020	21,70	020
R/L 050.2-10	4		2,0	1,7	24	10	0,1	1,5	0,05	645.00..D	22,26	021	22,26	021
R/L 050.2-15	4		2,0	1,7	29	15	0,1	1,5	0,05	645.00..D	23,91	022	23,91	022
R/L 050.3-10	4	0,6	2,8	2,6	24	10	0,2	2,3	0,10	645.00..D	21,93	031	21,93	031
R/L 050.3-16	4	0,6	2,8	2,6	30	16	0,2	2,3	0,10	645.00..D	23,81	030	23,81	030
R/L 050.3-20	4	0,6	2,8	2,6	34	20	0,2	2,3	0,10	645.00..D	26,12	032	26,12	032
R/L 050.4-10	4	1,5	4,0	3,5	24	10	0,3	3,0	0,10	645.00..D	22,15	041	22,15	041
R/L 050.4-16	4	1,5	4,0	3,5	30	16	0,3	3,0	0,10	645.00..D	23,91	040	23,91	040
R/L 050.4-20	4	1,5	4,0	3,5	34	20	0,3	3,0	0,10	645.00..D	25,02	042	25,02	042
R/L 050.5-10	5	1,9	5,0	4,4	25	10	0,5	3,8	0,15	645.00..D	22,26	051	22,26	051
R/L 050.5-15	5	1,9	5,0	4,4	30	15	0,5	3,8	0,15	645.00..D	24,14	052	24,14	052
R/L 050.5-20	5	1,9	5,0	4,4	35	20	0,5	3,8	0,15	645.00..D	25,24	050	25,24	050
R/L 050.5-25	5	1,9	5,0	4,4	40	25	0,5	3,8	0,15	645.00..D	29,32	053	29,32	053
R 050.5-30	5	1,9	5,0	4,4	45	30	0,5	3,8	0,05	645.00..D			31,19	054
L 050.5-30	5	1,9	5,0	4,4	45	30	0,5	3,8	0,15	645.00..D	31,19	054		
R/L 050.6-15	6	2,3	6,0	5,3	30	15	0,5	4,5	0,15	676.00..D	24,25	061	24,25	061
R/L 050.6-22	6	2,3	6,0	5,3	37	22	0,5	4,5	0,15	676.00..D	25,78	060	25,78	060
R/L 050.6-25	6	2,3	6,0	5,3	40	25	0,5	4,5	0,15	676.00..D	29,75	062	29,75	062
R/L 050.6-30	6	2,3	6,0	5,3	45	30	0,5	4,5	0,15	676.00..D	32,07	063	32,07	063
R/L 050.7-20	7	2,8	6,8	6,3	35	20	0,6	5,5	0,15	676.00..D	25,91	072	25,91	072
R/L 050.7-25	7	2,8	6,8	6,3	40	25	0,6	5,5	0,15	676.00..D	30,31	073	30,31	073
R/L 050.7-30	7	2,8	6,8	6,3	45	30	0,6	5,5	0,15	676.00..D	34,61	074	34,61	074
Steel												○		○
Stainless steel														
Cast iron												○		○
Non ferrous metals												●		●
Heat resistant alloys														
hardened materials														

# UltraMini – Inserts for internal turning and profiling

▲ with corner radius ≤ 0.05 mm



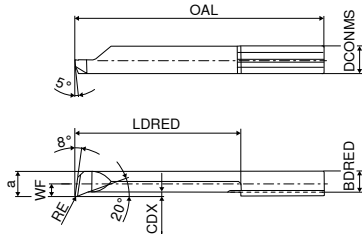
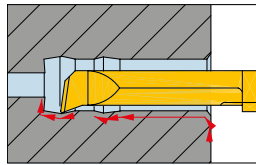
Illustrations show right-hand versions

Designation	DCONMS <sub>h6</sub> mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	RE mm	Standard tool holder	Left-hand Y5		Right-hand Y5		Left-hand Y5		Right-hand Y5	
											Article no. 73 021 ...		Article no. 73 020 ...		Article no. 73 023 ...		Article no. 73 022 ...	
											EUR		EUR		EUR		EUR	
R/L 053.3-10	4	0,6	2,8	2,6	24	10	0,2	2,3	0,03	645.00..D	30,20	310	30,20	310				
R/L 053.3-16	4	0,6	2,8	2,6	30	16	0,2	2,3	0,03	645.00..D	31,74	316	31,74	316				
R/L 053.3-20	4	0,6	2,8	2,6	34	20	0,2	2,3	0,03	645.00..D	37,48	320	37,48	320				
R/L 053.4-10	4	1,5	4,0	3,5	24	10	0,3	3,0	0,03	645.00..D	30,20	410	30,20	410				
R/L 053.4-16	4	1,5	4,0	3,5	30	16	0,3	3,0	0,03	645.00..D	31,74	416	31,74	416				
R/L 053.4-20	4	1,5	4,0	3,5	34	20	0,3	3,0	0,03	645.00..D	35,82	420	35,82	420				
R/L 053.4-24	4	1,5	4,0	3,5	38	24	0,3	3,0	0,03	645.00..D	39,68	424	39,68	424				
R/L 053.4-28	4	1,5	4,0	3,5	42	28	0,3	3,0	0,03	645.00..D	43,87	428	43,87	428				
R/L 055.2-10	4		2,0	1,7	24	10	0,1	1,5	0,05	645.00..D					30,97	210	30,97	210
R/L 055.2-15	4		2,0	1,7	29	15	0,1	1,5	0,05	645.00..D					32,41	215	32,41	215
R/L 055.2-5	4		2,0	1,7	19	5	0,1	1,5	0,05	645.00..D					30,31	205	30,31	205
R/L 055.3-10	4	0,6	2,8	2,6	24	10	0,2	2,3	0,05	645.00..D					30,20	310	30,20	310
R/L 055.3-16	4	0,6	2,8	2,6	30	16	0,2	2,3	0,05	645.00..D					31,74	316	31,74	316
R/L 055.3-20	4	0,6	2,8	2,6	34	20	0,2	2,3	0,05	645.00..D					37,48	320	37,48	320
R/L 055.4-10	4	1,5	4,0	3,5	24	10	0,3	3,0	0,05	645.00..D					30,20	410	30,20	410
R/L 055.4-16	4	1,5	4,0	3,5	30	16	0,3	3,0	0,05	645.00..D					31,74	416	31,74	416
R/L 055.4-20	4	1,5	4,0	3,5	34	20	0,3	3,0	0,05	645.00..D					35,82	420	35,82	420
R/L 055.4-24	4	1,5	4,0	3,5	38	24	0,3	3,0	0,05	645.00..D					39,68	424	39,68	424
R/L 055.4-28	4	1,5	4,0	3,5	42	28	0,3	3,0	0,05	645.00..D					43,87	428	43,87	428
R/L 055.5-10	5	1,9	5,0	4,4	25	10	0,5	3,8	0,05	645.00..D					28,33	510	28,33	510
R/L 055.5-15	5	1,9	5,0	4,4	30	15	0,5	3,8	0,05	645.00..D					30,20	515	30,20	515
R/L 055.5-20	5	1,9	5,0	4,4	35	20	0,5	3,8	0,05	645.00..D					34,28	520	34,28	520
R/L 055.5-25	5	1,9	5,0	4,4	40	25	0,5	3,8	0,05	645.00..D					38,58	525	38,58	525
R/L 055.5-30	5	1,9	5,0	4,4	45	30	0,5	3,8	0,05	645.00..D					43,20	530	43,20	530
R/L 055.5-35	5	1,9	5,0	4,4	50	35	0,5	3,8	0,05	645.00..D					47,61	535	47,61	535
R/L 055.6-15	6	2,3	6,0	5,3	30	15	0,5	4,5	0,05	676.00..D					30,20	615	30,20	615
R/L 055.6-22	6	2,3	6,0	5,3	37	22	0,5	4,5	0,05	676.00..D					34,28	622	34,28	622
R/L 055.6-25	6	2,3	6,0	5,3	40	25	0,5	4,5	0,05	676.00..D					38,58	625	38,58	625
R/L 055.6-30	6	2,3	6,0	5,3	45	30	0,5	4,5	0,05	676.00..D					43,20	630	43,20	630
R/L 055.6-35	6	2,3	6,0	5,3	50	35	0,5	4,5	0,05	676.00..D					47,61	635	47,61	635
R/L 055.6-42	6	2,3	6,0	5,3	57	42	0,5	4,5	0,05	676.00..D					52,90	642	52,90	642
Steel											•		•		•		•	
Stainless steel											•		•		•		•	
Cast iron											•		•		•		•	
Non ferrous metals											•		•		•		•	
Heat resistant alloys											•		•		•		•	
hardened materials											•		•		•		•	

→ v<sub>c</sub> Page 60

# UltraMini – Inserts for internal turning and profiling

▲ with chip former



Illustrations show right-hand versions



Left-hand

Right-hand

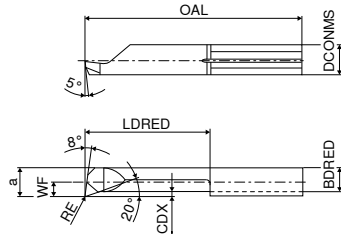
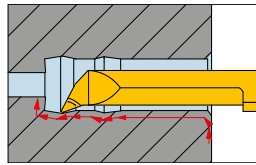
Designation	DCONMS <sub>16</sub> mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	RE mm	Standard tool holder	Y5			
											Article no. 73 017 ... EUR	Article no. 73 016 ... EUR		
R/L 050.4-10C	4	1,5	4	3,5	24	10	0,3	3,0	0,2	645.00..-D	24,58	410	24,58	410
R/L 050.4-16C	4	1,5	4	3,5	30	16	0,3	3,0	0,2	645.00..-D	25,78	416	25,78	416
R/L 050.4-20C	4	1,5	4	3,5	34	20	0,3	3,0	0,2	645.00..-D	29,54	420	29,54	420
R/L 050.4-24C	4	1,5	4	3,5	38	24	0,3	3,0	0,2	645.00..-D	32,96	424	32,96	424
R/L 050.4-28C	4	1,5	4	3,5	42	28	0,3	3,0	0,2	645.00..-D	36,70	428	36,70	428
R/L 050.5-10C	5	1,9	5	4,4	25	10	0,5	3,8	0,2	645.00..-D	23,04	510	23,04	510
R/L 050.5-15C	5	1,9	5	4,4	30	15	0,5	3,8	0,2	645.00..-D	24,58	515	24,58	515
R/L 050.5-20C	5	1,9	5	4,4	35	20	0,5	3,8	0,2	645.00..-D	28,22	520	28,22	520
R/L 050.5-25C	5	1,9	5	4,4	40	25	0,5	3,8	0,2	645.00..-D	31,96	525	31,96	525
R/L 050.5-30C	5	1,9	5	4,4	45	30	0,5	3,8	0,2	645.00..-D	36,04	530	36,04	530
R/L 050.5-35C	5	1,9	5	4,4	50	35	0,5	3,8	0,2	645.00..-D	40,01	535	40,01	535
R/L 050.6-15C	6	2,3	6	5,3	30	15	0,5	4,5	0,2	676.00..-D	24,58	615	24,58	615
R/L 050.6-22C	6	2,3	6	5,3	37	22	0,5	4,5	0,2	676.00..-D	28,22	622	28,22	622
R/L 050.6-25C	6	2,3	6	5,3	40	25	0,5	4,5	0,2	676.00..-D	31,96	625	31,96	625
R/L 050.6-30C	6	2,3	6	5,3	45	30	0,5	4,5	0,2	676.00..-D	36,04	630	36,04	630
R/L 050.6-35C	6	2,3	6	5,3	50	35	0,5	4,5	0,2	676.00..-D	40,01	635	40,01	635
R/L 050.6-42C	6	2,3	6	5,3	57	42	0,5	4,5	0,2	676.00..-D	44,64	642	44,64	642
R/L 050.7-20C	7	2,8	7	6,3	35	20	0,6	5,5	0,2	676.00..-D	28,43	720	28,43	720
R/L 050.7-25C	7	2,8	7	6,3	40	25	0,6	5,5	0,2	676.00..-D	32,29	725	32,29	725
R/L 050.7-30C	7	2,8	7	6,3	45	30	0,6	5,5	0,2	676.00..-D	36,48	730	36,48	730
R/L 050.7-35C	7	2,8	7	6,3	50	35	0,6	5,5	0,2	676.00..-D	40,66	735	40,66	735
R/L 050.7-40C	7	2,8	7	6,3	55	40	0,6	5,5	0,2	676.00..-D	45,19	740	45,19	740
R/L 050.7-45C	7	2,8	7	6,3	60	45	0,6	5,5	0,2	676.00..-D	47,94	745	47,94	745
R/L 050.7-50C	7	2,8	7	6,3	65	50	0,6	5,5	0,2	676.00..-D	51,69	750	51,69	750
Steel												•		•
Stainless steel												•		•
Cast iron												•		•
Non ferrous metals												•		•
Heat resistant alloys												•		•
hardened materials												•		•

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# UltraMini – Inserts for internal turning and profiling – hard turning

▲ 46 to 65 HRC



Illustrations show right-hand versions



Left-hand

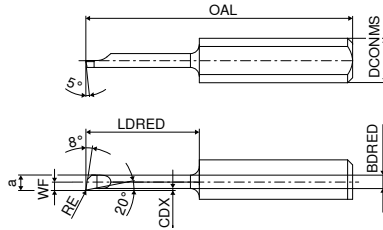
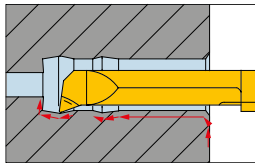
Right-hand

Designation	DCONMS <sub>h6</sub> mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	RE mm	Standard tool holder	Left-hand Y5		Right-hand Y5	
											Article no. 73 025 ...	EUR	Article no. 73 024 ...	EUR
R/L 050.2-5	4		2,0	1,7	19	5	0,1	1,5	0,05	645.00..-D	36,70	920	36,70	920
R/L 050.2-10	4		2,0	1,7	24	10	0,1	1,5	0,05	645.00..-D	37,36	921	37,36	921
R/L 050.2-15	4		2,0	1,7	29	15	0,1	1,5	0,05	645.00..-D	38,79	922	38,79	922
R/L 050.3-10	4	0,6	2,8	2,6	24	10	0,2	2,3	0,10	645.00..-D	36,59	931	36,59	931
R/L 050.3-16	4	0,6	2,8	2,6	30	16	0,2	2,3	0,10	645.00..-D	38,14	930	38,14	930
R/L 050.3-20	4	0,6	2,8	2,6	34	20	0,2	2,3	0,10	645.00..-D	43,64	932	43,64	932
R/L 050.4-10	4	1,5	4,0	3,5	24	10	0,3	3,0	0,10	645.00..-D	36,59	941	36,59	941
R/L 050.4-16	4	1,5	4,0	3,5	30	16	0,3	3,0	0,10	645.00..-D	38,14	940	38,14	940
R/L 050.4-20	4	1,5	4,0	3,5	34	20	0,3	3,0	0,10	645.00..-D	41,98	942	41,98	942
R/L 050.4-24	4	1,5	4,0	3,5	38	24	0,3	3,0	0,10	645.00..-D	45,64	945	45,64	945
R/L 050.4-28	4	1,5	4,0	3,5	42	28	0,3	3,0	0,10	645.00..-D	49,60	946	49,60	946
R/L 050.5-10	5	1,9	5,0	4,4	25	10	0,5	3,8	0,15	645.00..-D	35,48	951	35,48	951
R/L 050.5-15	5	1,9	5,0	4,4	30	15	0,5	3,8	0,15	645.00..-D	37,14	952	37,14	952
R/L 050.5-20	5	1,9	5,0	4,4	35	20	0,5	3,8	0,15	645.00..-D	41,11	950	41,11	950
R/L 050.5-25	5	1,9	5,0	4,4	40	25	0,5	3,8	0,15	645.00..-D	45,19	953	45,19	953
R/L 050.5-30	5	1,9	5,0	4,4	45	30	0,5	3,8	0,15	645.00..-D	49,48	954	49,48	954
R/L 050.5-35	5	1,9	5,0	4,4	50	35	0,5	3,8	0,15	645.00..-D	53,68	956	53,68	956
R/L 050.6-15	6	2,3	6,0	5,3	30	15	0,5	4,5	0,15	676.00..-D	37,69	961	37,69	961
R/L 050.6-22	6	2,3	6,0	5,3	37	22	0,5	4,5	0,15	676.00..-D	41,66	960	41,66	960
R/L 050.6-25	6	2,3	6,0	5,3	40	25	0,5	4,5	0,15	676.00..-D	45,74	962	45,74	962
R/L 050.6-30	6	2,3	6,0	5,3	45	30	0,5	4,5	0,15	676.00..-D	50,03	963	50,03	963
R/L 050.6-35	6	2,3	6,0	5,3	50	35	0,5	4,5	0,15	676.00..-D	54,34	964	54,34	964
R/L 050.6-42	6	2,3	6,0	5,3	57	42	0,5	4,5	0,15	676.00..-D	59,19	965	59,19	965
R/L 050.7-20	7	2,8	6,8	6,3	35	20	0,6	5,5	0,15	676.00..-D	42,11	972	42,11	972
R/L 050.7-25	7	2,8	6,8	6,3	40	25	0,6	5,5	0,15	676.00..-D	46,40	973	46,40	973
R/L 050.7-30	7	2,8	6,8	6,3	45	30	0,6	5,5	0,15	676.00..-D	50,92	974	50,92	974
R/L 050.7-35	7	2,8	6,8	6,3	50	35	0,6	5,5	0,15	676.00..-D	55,21	975	55,21	975
R/L 050.7-40	7	2,8	6,8	6,3	55	40	0,6	5,5	0,15	676.00..-D	60,29	976	60,29	976
R/L 050.7-45	7	2,8	6,8	6,3	60	45	0,6	5,5	0,15	676.00..-D	63,16	977	63,16	977
R/L 050.7-50	7	2,8	6,8	6,3	65	50	0,6	5,5	0,15	676.00..-D	67,12	978	67,12	978

Steel	
Stainless steel	
Cast iron	
Non ferrous metals	
Heat resistant alloys	
hardened materials	

# UltraMini – Inserts for internal turning and profiling

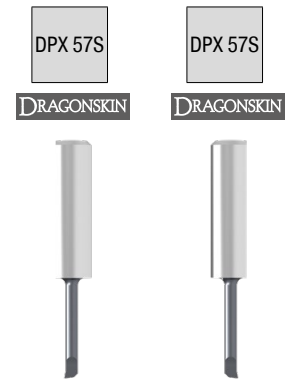
▲ Specially designed for super alloys



Illustrations show right-hand versions

Designation	DCONMS <sub>16</sub> mm	WF mm	DMIN mm		OAL mm	LDRED mm	CDX mm	BDRED mm	RE mm	Standard tool holder	Left-hand Y5 Article no. 73 027 ... EUR		Right-hand Y5 Article no. 73 026 ... EUR	
			a	a							052	082	052	082
R/L M050.05-2	4	0,20	0,5	0,40	20	2	0,02	0,02	0,02	645.00..-D	37,59	052	37,59	052
R/L M050.08-4	4	0,35	0,8	0,70	20	4	0,08	0,03	0,02	645.00..-D	38,69	082	38,69	082
R/L M050.1-5	4	0,40	1,0	0,90	20	5	0,05	0,05	0,02	645.00..-D	35,71	102	35,71	102
R/L M050.1-7	4	0,40	1,0	0,90	22	7	0,05	0,05	0,02	645.00..-D	36,70	103	36,70	103
R/L M050.15-5	4	0,60	1,5	1,15	19	5	0,08	0,08	0,02	645.00..-D	35,71	151	35,71	151
R/L M050.15-10	4	0,60	1,5	1,15	24	10	0,08	0,08	0,02	645.00..-D	36,70	154	36,70	154
R/L M050.2-5	4	0,80	2,0	1,70	19	5	0,08	0,08	0,02	645.00..-D	30,31	201	30,31	201
R/L M050.2-10	4	0,80	2,0	1,70	24	10	0,08	0,08	0,02	645.00..-D	31,19	204	31,19	204
R/L M050.25-5	4	0,20	2,5	2,20	19	5	0,10	0,10	0,02	645.00..-D	30,31	251	30,31	251
R/L M050.25-10	4	0,20	2,5	2,20	24	10	0,10	0,10	0,02	645.00..-D	31,19	254	31,19	254
R/L M050.3-10	4	0,60	3,0	2,60	24	10	0,15	0,15	0,02	645.00..-D	30,31	304	30,31	304
R/L M050.3-16	4	0,60	3,0	2,60	30	16	0,15	0,15	0,02	645.00..-D	31,96	307	31,96	307
R/L M050.35-10	4	1,10	3,5	3,10	24	10	0,17	0,17	0,02	645.00..-D	30,31	350	30,31	350
R/L M050.35-16	4	1,10	3,5	3,10	30	16	0,17	0,17	0,02	645.00..-D	31,96	353	31,96	353
R/L M050.35-20	4	1,10	3,5	3,10	34	20	0,17	0,17	0,02	645.00..-D	38,36	354	38,36	354
R/L M050.4-10	4	1,50	4,0	3,50	24	10	0,20	0,20	0,02	645.00..-D	30,31	400	30,31	400
R/L M050.4-16	4	1,50	4,0	3,50	30	16	0,20	0,20	0,02	645.00..-D	31,96	403	31,96	403
R/L M050.4-20	4	1,50	4,0	3,50	34	20	0,20	0,20	0,02	645.00..-D	36,48	404	36,48	404
R/L M050.4-24	4	1,50	4,0	3,50	38	24	0,20	0,20	0,02	645.00..-D	40,66	406	40,66	406

Steel	•	•
Stainless steel	•	•
Cast iron	•	•
Non ferrous metals	•	•
Heat resistant alloys	•	•
hardened materials	•	•

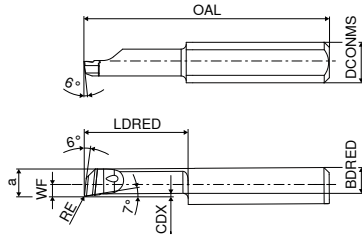
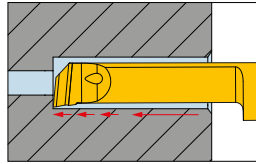


Left-hand Y5 Article no. 73 027 ... EUR  
Right-hand Y5 Article no. 73 026 ... EUR

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# UltraMini – Inserts for internal turning

▲ with chip former



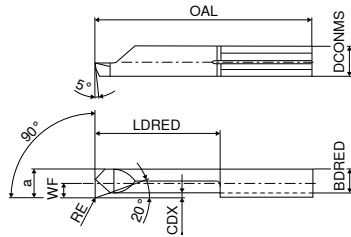
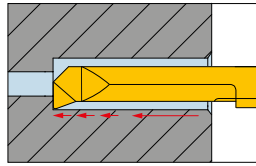
Illustrations show right-hand versions



Designation	DCONMS <sub>h6</sub> mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	RE mm	Standard tool holder	Left-hand		Right-hand	
											Y5 Article no. 73 001 ... EUR	121	Y5 Article no. 73 000 ... EUR	121
R/L X050.1-5	4		1,0	0,90	20	5	0,03	0,85	0,05	645.00..-D	33,83	121	33,83	121
R/L X050.15-7	4		1,5	1,35	22	7	0,05	1,25	0,10	645.00..-D	38,69	233	38,69	233
R/L X050.2-5	4		2,0	1,80	19	5	0,10	1,60	0,15	645.00..-D	29,43	245	29,43	245
R/L X050.2-10	4		2,0	1,80	24	10	0,10	1,60	0,05	645.00..-D	30,20	215	30,20	215
R/L X050.2-10	4		2,0	1,80	24	10	0,10	1,60	0,15	645.00..-D	30,20	241	30,20	241
R/L X050.3-10	4	0,7	3,0	2,70	24	10	0,15	2,55	0,05	645.00..-D	29,32	341	29,32	341
R/L X050.3-10	4	0,7	3,0	2,70	24	10	0,15	2,55	0,20	645.00..-D	29,32	347	29,32	347
R/L X050.3-16	4	0,7	3,0	2,70	30	16	0,15	2,55	0,05	645.00..-D	30,97	371	30,97	371
R/L X050.3-16	4	0,7	3,0	2,70	30	16	0,15	2,55	0,10	645.00..-D	30,97	373	30,97	373
R/L X050.3-16	4	0,7	3,0	2,70	30	16	0,15	2,55	0,20	645.00..-D	30,97	377	30,97	377
R/L X050.4-10	4	1,6	4,0	3,60	24	10	0,20	3,20	0,10	645.00..-D	29,32	403	29,32	403
R/L X050.4-10	4	1,6	4,0	3,60	24	10	0,20	3,20	0,20	645.00..-D	29,32	407	29,32	407
R/L X050.4-16	4	1,6	4,0	3,60	30	16	0,20	3,20	0,05	645.00..-D	30,97	431	30,97	431
R/L X050.4-16	4	1,6	4,0	3,60	30	16	0,20	3,20	0,10	645.00..-D	30,97	433	30,97	433
R/L X050.4-16	4	1,6	4,0	3,60	30	16	0,20	3,20	0,20	645.00..-D	30,97	437	30,97	437
R/L X050.4-24	4	1,6	4,0	3,60	38	24	0,20	3,20	0,10	645.00..-D	39,35	463	39,35	463
R/L X050.4-24	4	1,6	4,0	3,60	38	24	0,20	3,20	0,20	645.00..-D	39,35	467	39,35	467
R/L X050.5-15	5	2,1	5,0	4,60	30	15	0,30	4,05	0,05	645.00..-D	29,32	511	29,32	511
R/L X050.5-15	5	2,1	5,0	4,60	30	15	0,30	4,05	0,10	645.00..-D	29,32	513	29,32	513
R/L X050.5-15	5	2,1	5,0	4,60	30	15	0,30	4,05	0,20	645.00..-D	29,32	517	29,32	517
R/L X050.5-25	5	2,1	5,0	4,60	40	25	0,30	4,05	0,10	645.00..-D	38,24	543	38,24	543
R/L X050.5-25	5	2,1	5,0	4,60	40	25	0,30	4,05	0,20	645.00..-D	38,24	547	38,24	547
R/L X050.5-30	5	2,1	5,0	4,60	45	30	0,30	4,05	0,10	645.00..-D	43,20	553	43,20	553
R/L X050.5-30	5	2,1	5,0	4,60	45	30	0,30	4,05	0,20	645.00..-D	43,20	557	43,20	557
R/L X050.6-15	6	2,5	6,0	5,50	30	15	0,40	4,90	0,05	676.00..-D	29,32	611	29,32	611
R/L X050.6-15	6	2,5	6,0	5,50	30	15	0,40	4,90	0,10	676.00..-D	29,32	613	29,32	613
R/L X050.6-15	6	2,5	6,0	5,50	30	15	0,40	4,90	0,20	676.00..-D	29,32	617	29,32	617
R/L X050.6-22	6	2,5	6,0	5,50	37	22	0,40	4,90	0,20	676.00..-D	33,73	637	33,73	637
R/L X050.6-30	6	2,5	6,0	5,50	45	30	0,40	4,90	0,20	676.00..-D	43,20	657	43,20	657
R/L X050.6-35	6	2,5	6,0	5,50	50	35	0,40	4,90	0,20	676.00..-D	47,83	667	47,83	667
R/L X050.6-50	6	2,5	6,0	5,50	65	50	0,40	4,90	0,20	676.00..-D	59,52	697	59,52	697
R/L X050.7-25	7	3,0	7,0	6,50	40	25	0,50	5,90	0,20	676.00..-D	38,79	747	38,79	747
R/L X050.7-30	7	3,0	7,0	6,50	45	30	0,50	5,90	0,20	676.00..-D	43,75	757	43,75	757

Steel	●	●
Stainless steel	●	●
Cast iron	●	●
Non ferrous metals	●	●
Heat resistant alloys	●	●
hardened materials	●	●

# UltraMini – Inserts for internal turning



Illustrations show right-hand versions

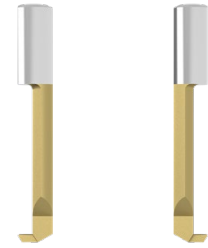
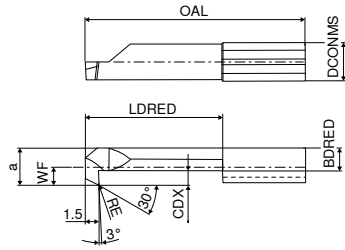
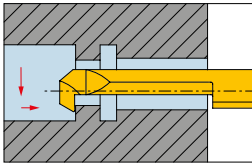


Designation	DCONMS <sub>h6</sub> mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	RE mm	Standard tool holder	Left-hand Y5		Right-hand Y5	
											Article no. 73 015 ...	EUR	Article no. 73 014 ...	EUR
R/L 090.3-10	4	0,6	2,8	2,6	24	10	0,2	2,3	0,2	645.00..-D	26,12	541	26,12	541
R/L 090.3-16	4	0,6	2,8	2,6	30	16	0,2	2,3	0,2	645.00..-D	27,66	542	27,66	542
R/L 090.4-10	4	1,5	4,0	3,5	24	10	0,3	3,0	0,2	645.00..-D	26,12	545	26,12	545
R/L 090.4-16	4	1,5	4,0	3,5	30	16	0,3	3,0	0,2	645.00..-D	27,66	546	27,66	546
R/L 090.5-10	5	1,9	5,0	4,4	25	10	0,5	3,8	0,2	645.00..-D	26,12	550	26,12	550
R/L 090.5-15	5	1,9	5,0	4,4	30	15	0,5	3,8	0,2	645.00..-D	27,66	551	27,66	551
R/L 090.5-20	5	1,9	5,0	4,4	35	20	0,5	3,8	0,2	645.00..-D	30,20	552	30,20	552

Steel	●	●
Stainless steel	●	●
Cast iron	○	○
Non ferrous metals	○	○
Heat resistant alloys	○	○
hardened materials		

→ v<sub>c</sub> Page 60

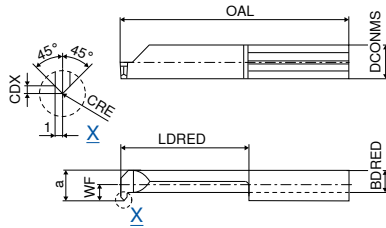
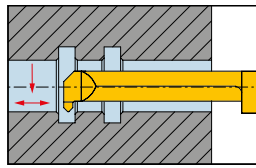
# UltraMini – Inserts for back boring



Illustrations show right-hand versions

Designation	DCONMS <sub>h6</sub> mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	RE mm	Standard tool holder	Left-hand Y5		Right-hand Y5	
											Article no. 73 013 ...	EUR	Article no. 73 012 ...	EUR
R/L 080.0003-15	4	0,6	3	2,6	29	15	0,5	2,0	0,10	645.00..-D	29,98	542	29,98	542
R/L 080.0003-20	4	0,6	3	2,6	34	20	0,5	2,0	0,10	645.00..-D	35,71	544	35,71	544
R/L 080.0004-15	4	1,5	4	3,5	29	15	0,8	2,4	0,15	645.00..-D	29,98	546	29,98	546
R/L 080.0004-25	4	1,5	4	3,5	39	25	0,8	2,4	0,15	645.00..-D	34,28	548	34,28	548
R/L 080.0005-20	5	1,9	5	4,4	35	20	1,0	3,3	0,20	645.00..-D	30,75	554	30,75	554
R/L 080.0005-30	5	1,9	5	4,4	45	30	1,0	3,3	0,20	645.00..-D	31,86	558	31,86	558
R/L 080.0006-20	6	2,3	6	5,3	35	20	1,8	3,4	0,20	676.00..-D	31,96	564	31,96	564
R/L 080.0006-30	6	2,3	6	5,3	45	30	1,8	3,4	0,20	676.00..-D	38,36	568	38,36	568
R/L 080.0007-20	7	2,7	7	6,3	35	20	2,5	3,8	0,20	676.00..-D	31,96	574	31,96	574
R/L 080.0007-30	7	2,7	7	6,3	45	30	2,5	3,8	0,20	676.00..-D	38,36	578	38,36	578
Steel												●		●
Stainless steel												●		●
Cast iron												○		○
Non ferrous metals												○		○
Heat resistant alloys												○		○
hardened materials												○		○

## UltraMini – Inserts for internal turning and chamfering



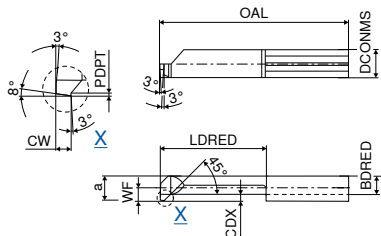
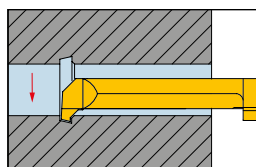
Illustrations show right-hand versions

Designation	DCONMS <sub>h6</sub> mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRD mm	CRE mm	Standard tool holder	Left-hand Y5		Right-hand Y5	
											Article no. 73 007 ...	EUR	Article no. 73 006 ...	EUR
R/L 060.5-15	5	1,9	5,0	4,4	30	15	0,7	3,3	0,2	645.00..-D	26,88	551	26,88	551
R/L 060.5-20	5	1,9	5,0	4,4	35	20	0,7	3,3	0,2	645.00..-D	28,43	550	28,43	550
R/L 060.7-20	7	2,7	6,8	6,3	35	20	0,7	3,8	0,2	676.00..-D	31,52	570	31,52	570

Steel	●	●
Stainless steel	●	●
Cast iron	○	○
Non ferrous metals	○	○
Heat resistant alloys	○	○
hardened materials		

→ v<sub>c</sub> Page 60

## UltraMini – Inserts for internal chamfering for subsequent parting off



Illustrations show right-hand versions

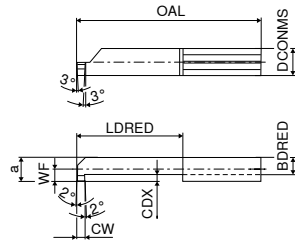
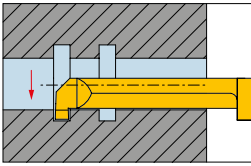
Designation	DCONMS <sub>h6</sub> mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRD mm	CW mm	PDPT mm	Standard tool holder	Left-hand Y5		Right-hand Y5	
												Article no. 73 009 ...	EUR	Article no. 73 008 ...	EUR
R/L 070.4-10	4	1,5	4	3,5	25	10	0,8	2,4	1	0,2	645.00..-D	26,68	410	26,68	410
R/L 070.4-16	4	1,5	4	3,5	30	16	0,8	2,4	1	0,2	645.00..-D	27,44	416	27,44	416
R/L 070.5-15	5	1,9	5	4,4	30	15	1,0	3,3	1	0,2	645.00..-D	27,01	551	27,01	551
R/L 070.5-20	5	1,9	5	4,4	35	20	1,0	3,3	1	0,2	645.00..-D	29,54	550	29,54	550
R/L 070.5-30	5	1,9	5	4,4	45	30	1,0	3,3	1	0,2	645.00..-D	37,14	530	37,14	530
R/L 070.6-30	6	2,3	6	5,3	45	30	1,0	4,2	1	0,2	676.00..-D	37,14	630	37,14	630
R/L 070.6-42	6	2,3	6	5,3	57	42	1,0	4,2	1	0,2	676.00..-D	43,43	642	43,43	642

Steel	●	●
Stainless steel	●	●
Cast iron	○	○
Non ferrous metals	○	○
Heat resistant alloys	○	○
hardened materials		

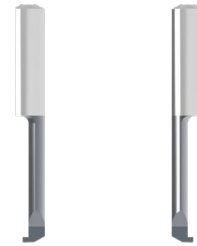
→ v<sub>c</sub> Page 60



# UltraMini – Inserts for Internal Grooving



Illustrations show right-hand versions



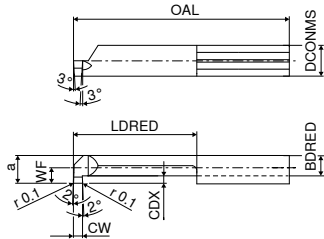
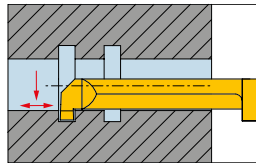
Designation	DCONMS <sub>h6</sub> mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	CW mm	Standard tool holder	Left-hand Y5		Right-hand Y5	
											Article no. 73 003 ...	EUR	Article no. 73 002 ...	EUR
R/L 002.0050-5	4		2	1,8	19	5	0,4	1,2	0,5	645.00..-D	30,97	820	30,97	820
R/L 002.0050-10	4		2	1,8	24	10	0,4	1,2	0,5	645.00..-D	31,86	821	31,86	821
R/L 002.0050-15	4		2	1,8	29	15	0,4	1,2	0,5	645.00..-D	34,93	822	34,93	822
R/L 003.0070-5	4	0,7	3	2,7	19	5	0,6	1,9	0,7	645.00..-D	29,32	830	29,32	830
R/L 003.0070-10	4	0,7	3	2,7	24	10	0,6	1,9	0,7	645.00..-D	33,06	831	33,06	831
R/L 003.0070-16	4	0,7	3	2,7	30	16	0,6	1,9	0,7	645.00..-D	36,93	832	36,93	832
Steel												•		•
Stainless steel												•		•
Cast iron												•		•
Non ferrous metals												•		•
Heat resistant alloys												•		•
hardened materials														

→ v<sub>c</sub> Page 60

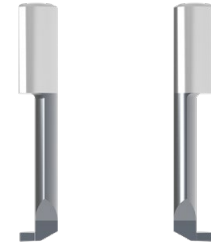


# UltraMini – Inserts for Internal Grooving

▲ with corner radius



Illustrations show right-hand versions

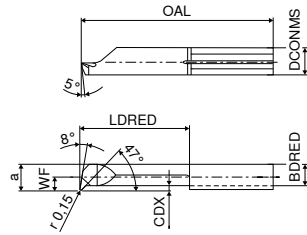
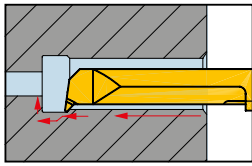


Left-hand Y5 Article no. 73 203 ...  
Right-hand Y5 Article no. 73 202 ...

Designation	DCONMS <sub>ns</sub> mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	CW mm	Standard tool holder	Left-hand Y5 Article no. 73 203 ...		Right-hand Y5 Article no. 73 202 ...	
											EUR		EUR	
R/L 004M0100-10	4	1,5	4,0	3,5	24	10	0,8	2,4	1,0	645.00.-D	28,55	800	28,55	800
R/L 004M0100-16	4	1,5	4,0	3,5	30	16	0,8	2,4	1,0	645.00.-D	32,84	802	32,84	802
R/L 004M0100-20	4	1,5	4,0	3,5	34	20	0,8	2,4	1,0	645.00.-D	36,04	804	36,04	804
R/L 005M0100-10	5	1,9	5,0	4,4	25	10	1,0	3,3	1,0	645.00.-D	27,11	806	27,11	806
R/L 005M0150-10	5	1,9	5,0	4,4	25	10	1,0	3,3	1,5	645.00.-D	27,11	816	27,11	816
R/L 005M0200-10	5	1,9	5,0	4,4	25	10	1,0	3,3	2,0	645.00.-D	27,11	826	27,11	826
R/L 005M0100-15	5	1,9	5,0	4,4	30	15	1,0	3,3	1,0	645.00.-D	31,09	808	31,09	808
R/L 005M0150-15	5	1,9	5,0	4,4	30	15	1,0	3,3	1,5	645.00.-D	31,09	818	31,09	818
R/L 005M0200-15	5	1,9	5,0	4,4	30	15	1,0	3,3	2,0	645.00.-D	31,09	828	31,09	828
R/L 005M0100-20	5	1,9	5,0	4,4	35	20	1,0	3,3	1,0	645.00.-D	34,61	810	34,61	810
R/L 005M0150-20	5	1,9	5,0	4,4	35	20	1,0	3,3	1,5	645.00.-D	34,61	820	34,61	820
R/L 005M0200-20	5	1,9	5,0	4,4	35	20	1,0	3,3	2,0	645.00.-D	34,61	830	34,61	830
R/L 005M0100-25	5	1,9	5,0	4,4	40	25	1,0	3,3	1,0	645.00.-D	37,69	812	37,69	812
R/L 005M0150-25	5	1,9	5,0	4,4	40	25	1,0	3,3	1,5	645.00.-D	37,69	822	37,69	822
R/L 005M0200-25	5	1,9	5,0	4,4	40	25	1,0	3,3	2,0	645.00.-D	37,69	832	37,69	832
R/L 005M0100-30	5	1,9	5,0	4,4	45	30	1,0	3,3	1,0	645.00.-D	41,77	814	41,77	814
R/L 005M0150-30	5	1,9	5,0	4,4	45	30	1,0	3,3	1,5	645.00.-D	41,77	824	41,77	824
R/L 005M0200-30	5	1,9	5,0	4,4	45	30	1,0	3,3	2,0	645.00.-D	41,77	834	41,77	834
R/L 006M0100-10	6	2,3	6,0	5,3	25	10	1,8	3,4	1,0	676.00.-D	27,11	836	27,11	836
R/L 006M0150-10	6	2,3	6,0	5,3	25	10	1,8	3,4	1,5	676.00.-D	27,11	846	27,11	846
R/L 006M0200-10	6	2,3	6,0	5,3	25	10	1,8	3,4	2,0	676.00.-D	27,11	856	27,11	856
R/L 006M0100-15	6	2,3	6,0	5,3	30	15	1,8	3,4	1,0	676.00.-D	31,09	838	31,09	838
R/L 006M0150-15	6	2,3	6,0	5,3	30	15	1,8	3,4	1,5	676.00.-D	31,09	848	31,09	848
R/L 006M0200-15	6	2,3	6,0	5,3	30	15	1,8	3,4	2,0	676.00.-D	31,09	858	31,09	858
R/L 006M0100-20	6	2,3	6,0	5,3	35	22	1,8	3,4	1,0	676.00.-D	34,61	840	34,61	840
R/L 006M0150-20	6	2,3	6,0	5,3	37	22	1,8	3,4	1,5	676.00.-D	34,61	850	34,61	850
R/L 006M0200-20	6	2,3	6,0	5,3	37	22	1,8	3,4	2,0	676.00.-D	34,61	860	34,61	860
R/L 006M0100-25	6	2,3	6,0	5,3	40	25	1,8	3,4	1,0	676.00.-D	37,69	842	37,69	842
R/L 006M0150-25	6	2,3	6,0	5,3	40	25	1,8	3,4	1,5	676.00.-D	37,69	852	37,69	852
R/L 006M0200-25	6	2,3	6,0	5,3	40	25	1,8	3,4	2,0	676.00.-D	37,69	862	37,69	862
R/L 006M0100-30	6	2,3	6,0	5,3	45	30	1,8	3,4	1,0	676.00.-D	41,77	844	41,77	844
R/L 006M0150-30	6	2,3	6,0	5,3	45	30	1,8	3,4	1,5	676.00.-D	41,77	854	41,77	854
R/L 006M0200-30	6	2,3	6,0	5,3	45	30	1,8	3,4	2,0	676.00.-D	41,77	864	41,77	864
R/L 007M0100-10	7	2,7	6,8	6,3	25	10	2,5	3,7	1,0	676.00.-D	27,11	866	27,11	866
R/L 007M0150-10	7	2,7	6,8	6,3	25	10	2,5	3,7	1,5	676.00.-D	27,11	876	27,11	876
R/L 007M0200-10	7	2,7	6,8	6,3	25	10	2,5	3,7	2,0	676.00.-D	27,11	886	27,11	886
R/L 007M0100-15	7	2,7	6,8	6,3	30	15	2,5	3,7	1,0	676.00.-D	31,09	868	31,09	868
R/L 007M0150-15	7	2,7	6,8	6,3	30	15	2,5	3,7	1,5	676.00.-D	31,09	878	31,09	878
R/L 007M0200-15	7	2,7	6,8	6,3	30	15	2,5	3,7	2,0	676.00.-D	31,09	888	31,09	888
R/L 007M0100-22	7	2,7	6,8	6,3	37	22	2,5	3,7	1,0	676.00.-D	34,61	870	34,61	870
R/L 007M0150-22	7	2,7	6,8	6,3	37	22	2,5	3,7	1,5	676.00.-D	34,61	880	34,61	880
R/L 007M0200-22	7	2,7	6,8	6,3	37	22	2,5	3,7	2,0	676.00.-D	34,61	890	34,61	890
R/L 007M0100-25	7	2,7	6,8	6,3	40	25	2,5	3,7	1,0	676.00.-D	37,69	872	37,69	872
R/L 007M0150-25	7	2,7	6,8	6,3	40	25	2,5	3,7	1,5	676.00.-D	37,69	882	37,69	882
R/L 007M0200-25	7	2,7	6,8	6,3	40	25	2,5	3,7	2,0	676.00.-D	37,69	892	37,69	892
R/L 007M0100-30	7	2,7	6,8	6,3	45	30	2,5	3,7	1,0	676.00.-D	42,11	874	42,11	874
R/L 007M0150-30	7	2,7	6,8	6,3	45	30	2,5	3,7	1,5	676.00.-D	42,11	884	42,11	884
R/L 007M0200-30	7	2,7	6,8	6,3	45	30	2,5	3,7	2,0	676.00.-D	42,11	894	42,11	894

Steel	•	•
Stainless steel	•	•
Cast iron	•	•
Non ferrous metals	•	•
Heat resistant alloys	•	•
hardened materials	•	•

# UltraMini – Inserts for internal undercuts

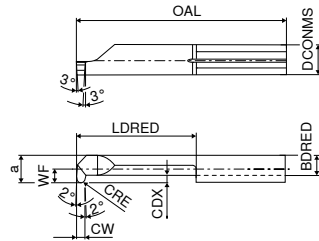
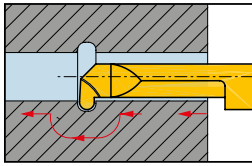


Illustrations show right-hand versions

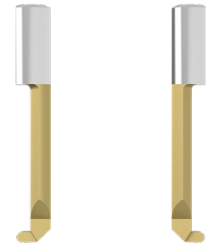
Designation	DCONMS <sub>ns</sub> mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	Standard tool holder	Left-hand Y5		Right-hand Y5		Left-hand Y5		Right-hand Y5	
										Article no. 73 011 ... EUR		Article no. 73 010 ... EUR		Article no. 73 011 ... EUR		Article no. 73 010 ... EUR	
R/L 047.2-10	4		2,0	1,7	24	10	0,4	1,2	645.00.-D					28,55	221	28,55	221
R/L 047.3-15	4	0,6	2,8	2,6	29	15	0,6	1,9	645.00.-D					29,75	231	29,75	231
R/L 047.4-10	4	1,5	4,0	3,5	24	10	0,6	2,8	645.00.-D					27,23	241	27,23	241
R/L 047.T4-20	4	1,5	4,0	3,5	34	20	0,6	2,8	645.00.-D					31,96	242	31,96	242
R/L 047.4-20	4	1,5	4,0	3,5	34	20	0,3	3,0	645.00.-D	31,52	542	31,52	542				
R/L 047.5-15	5	1,9	5,0	4,4	30	15	0,8	3,5	645.00.-D					30,64	251	30,64	251
R/L 047.T5-25	5	1,9	5,0	4,4	40	25	0,8	3,5	645.00.-D					32,41	252	32,41	252
R/L 047.5-25	5	1,9	5,0	4,4	40	25	0,5	3,8	645.00.-D	32,07	552	32,07	552				
R/L 047.T6-22	6	2,3	6,0	5,3	37	22	1,8	3,4	676.00.-D					31,41	262	31,41	262
R/L 047.T6-30	6	2,3	6,0	5,3	45	30	1,8	3,4	676.00.-D					33,18	263	33,18	263
R/L 047.6-30	6	2,3	6,0	5,3	45	30	0,5	4,5	676.00.-D	32,84	562	32,84	562				
Steel										●		●		●		●	
Stainless steel										●		●		●		●	
Cast iron										○		○		●		●	
Non ferrous metals										○		○		●		●	
Heat resistant alloys										○		○		●		●	
hardened materials														●		●	

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# UltraMini – Inserts for internal grooving and turning



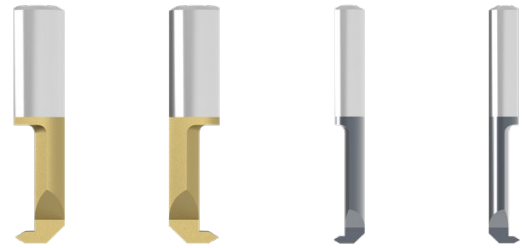
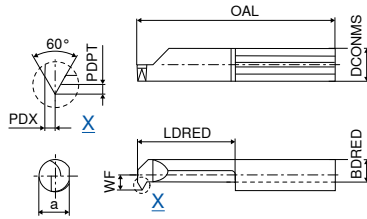
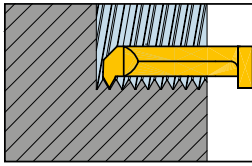
Illustrations show right-hand versions



Left-hand Y5 Right-hand Y5

Designation	DCONMS <sub>h6</sub> mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	CW mm	CRE mm	Standard tool holder	Left-hand Y5		Right-hand Y5	
												Article no. 73 019 ... EUR	564	Article no. 73 018 ... EUR	564
R/L 006-0.75-25	6	2,3	6,0	5,3	40	25	1,8	3,4	1,5	0,75	676.00..-D	33,06	564	33,06	564
R/L 006-0.50-25	6	2,3	6,0	5,3	40	25	1,8	3,4	1,0	0,50	676.00..-D	33,06	562	33,06	562
R/L 006-1.00-25	6	2,3	6,0	5,3	40	25	1,8	3,4	2,0	1,00	676.00..-D	33,06	566	33,06	566
R/L 005-1.00-20	5	1,9	5,0	4,4	35	20	1,0	3,3	2,0	1,00	645.00..-D	32,41	556	32,41	556
R/L 007-0.50-30	7	2,7	6,8	6,3	45	30	2,5	3,8	1,0	0,50	676.00..-D	34,28	572	34,28	572
R/L 005-0.75-20	5	1,9	5,0	4,4	35	20	1,0	3,3	1,5	0,75	645.00..-D	32,41	554	32,41	554
R/L 007-0.75-30	7	2,7	6,8	6,3	45	30	2,5	3,8	1,5	0,75	676.00..-D	34,28	574	34,28	574
R/L 005-0.50-20	5	1,9	5,0	4,4	35	20	1,0	3,3	1,0	0,50	645.00..-D	32,41	552	32,41	552
R/L 007-1.00-30	7	2,7	6,8	6,3	45	30	2,5	3,8	2,0	1,00	676.00..-D	34,28	576	34,28	576
R/L 004-0.50-16	4	1,5	4,0	3,5	30	16	0,8	2,4	1,0	0,50	645.00..-D	31,19	541	31,19	541
Steel													●		●
Stainless steel													●		●
Cast iron													○		○
Non ferrous metals													○		○
Heat resistant alloys													○		○
hardened materials															

# UltraMini – Inserts for internal threading (Partial profile)



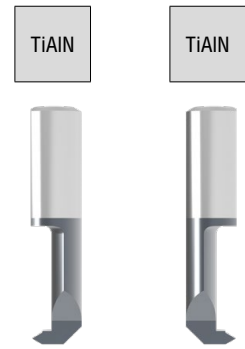
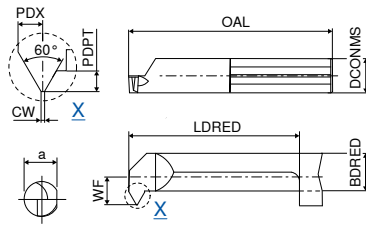
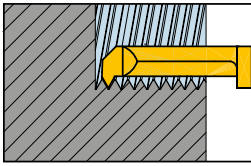
Left-hand Right-hand Left-hand Right-hand

Illustrations show right-hand versions

Designation	DCONMS <sub>ns</sub> mm	TP mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	BDRED mm	PDPT mm	PDX mm	Standard tool holder	Y5		Y5		Y5		Y5	
												Article no. 73 101 ... EUR		Article no. 73 100 ... EUR		Article no. 73 101 ... EUR		Article no. 73 100 ... EUR	
R/L 003.0105-8	4	0,50	0,30	2,4	2,3	22	8	1,8	0,27	0,33	645.00..-D								
R/L 004.0408-15	4	0,80	1,75	4,0	3,5	30	15	2,4	0,43	0,45	645.00..-D					28,88	551	28,88	551
																30,09	552	30,09	552
R/L 005.0510-15	5	1,00	1,90	4,8	4,4	30	15	3,3	0,55	0,55	645.00..-D	28,00	545	28,00	545				
R/L 005.0510-20	5	1,00	1,90	4,8	4,4	35	20	3,3	0,55	0,55	645.00..-D	28,22	544	28,22	544				
R/L 006.0612-15	6	1,25	2,30	6,0	5,3	30	15	3,4	0,68	0,65	676.00..-D	28,00	547	28,00	547				
R/L 006.0612-22	6	1,25	2,30	6,0	5,3	37	22	3,4	0,68	0,65	676.00..-D	28,65	546	28,65	546				
R/L 006.0815-15	6	1,50	2,30	6,0	5,3	30	15	3,4	0,81	0,75	676.00..-D	28,00	549	28,00	549				
R/L 006.0815-22	6	1,50	2,30	6,0	5,3	37	22	3,4	0,81	0,75	676.00..-D	28,65	548	28,65	548				
R/L 007.0815-15	7	1,50	2,70	7,0	6,3	30	15	3,8	0,81	0,75	676.00..-D	28,65	550	28,65	550				
Steel												●		●		●		●	
Stainless steel												●		●		●		●	
Cast iron												○		○		●		●	
Non ferrous metals												○		○		●		●	
Heat resistant alloys												○		○		●		●	
hardened materials												○		○		●		●	

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# UltraMini – Inserts for Internal thread turning (Full profile)

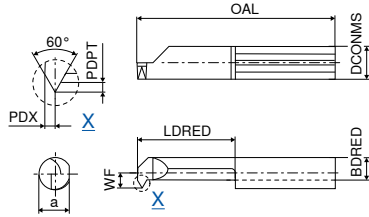
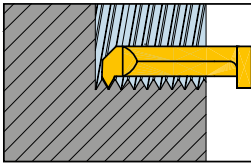


Left-hand Right-hand

Illustrations show right-hand versions

Designation	DCONMS <sub>hg</sub> mm	TP mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	BDRED mm	PDPT mm	PDX mm	CW mm	Standard tool holder	Y5		Y5	
													Article no. 73 209 ... EUR		Article no. 73 208 ... EUR	
R/L 105.0408-15	5	0,80	1,9	4,8	4,4	30	15	3,3	0,43	0,50	0,10	645.00..-D	31,19	799	31,19	799
R/L 105.510-15	5	1,00	1,9	4,8	4,4	30	15	3,3	0,54	0,55	0,12	645.00..-D	31,86	800	31,86	800
R/L 106.612-15	6	1,25	2,3	6,0	5,3	30	15	3,4	0,67	0,65	0,15	676.00..-D	31,86	802	31,86	802
R/L 106.815-15	6	1,50	2,3	6,0	5,3	30	15	3,4	0,81	0,75	0,18	676.00..-D	31,86	804	31,86	804
R/L 106.815-15	7	1,50	2,7	7,0	6,3	30	15	3,8	0,81	0,75	0,18	676.00..-D	31,86	806	31,86	806
Steel														•		•
Stainless steel														•		•
Cast iron														•		•
Non ferrous metals														•		•
Heat resistant alloys														•		•
hardened materials														•		•

### UltraMini – Inserts for internal thread turning (Partial profile)



Left-hand Right-hand Left-hand Right-hand

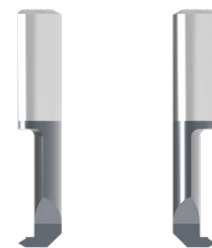
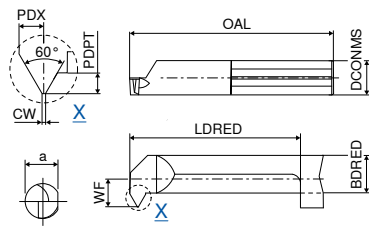
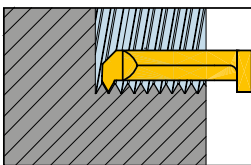
Illustrations show right-hand versions

Designation	DCONMS <sub>ns</sub> mm	TP mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	BDRED mm	PDPT mm	PDX mm	Standard tool holder	Y5		Y5		Y5		Y5	
												Article no. 73 103 ... EUR	510	Article no. 73 102 ... EUR	510	Article no. 73 103 ... EUR	509	Article no. 73 102 ... EUR	509
R/L 004.0105-10	4	0,50	1,0	3,2	3,0	24	10	2,3	0,27	0,44	645.00..-D	29,43	510	29,43	510	28,43	509	28,43	509
R/L 004.0205-15	4	0,50	1,5	4,0	3,5	30	15	2,4	0,27	0,35	645.00..-D								
R/L 005.0205-15	5	0,50	1,9	5,0	4,4	30	15	3,3	0,27	0,35	645.00..-D	28,22	539	28,22	539				
R/L 005.0205-20	5	0,50	1,9	5,0	4,4	35	20	3,3	0,27	0,35	645.00..-D	28,22	540	28,22	540				
R/L 005.0407-15	5	0,75	1,9	5,0	4,4	30	15	3,3	0,40	0,45	645.00..-D	28,22	541	28,22	541				
R/L 005.0407-20	5	0,75	1,9	5,0	4,4	35	20	3,3	0,40	0,45	645.00..-D	28,22	542	28,22	542				
R/L 006.0510-15	6	1,00	2,3	6,0	5,3	30	15	3,4	0,55	0,55	676.00..-D	28,22	543	28,22	543				
R/L 006.0510-22	6	1,00	2,3	6,0	5,3	37	22	3,4	0,55	0,55	676.00..-D	28,22	544	28,22	544				

Steel	●	●	●	●
Stainless steel	●	●	●	●
Cast iron	○	○	●	●
Non ferrous metals	○	○	●	●
Heat resistant alloys	○	○	●	●
hardened materials				

→ v<sub>c</sub> Page 60

### UltraMini – Inserts for Internal thread turning (Full profile)



Left-hand Right-hand

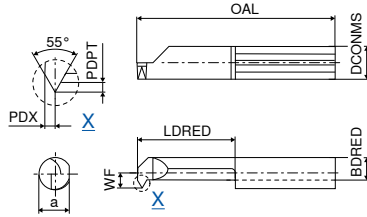
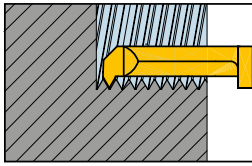
Illustrations show right-hand versions

Designation	DCONMS <sub>ns</sub> mm	TP mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	BDRED mm	PDPT mm	PDX mm	CW mm	Standard tool holder	Y5		Y5	
													Article no. 73 207 ... EUR	800	Article no. 73 206 ... EUR	800
R/L 104.0205-15	5	0,50	1,5	4	3,5	30	15	2,4	0,27	0,35	0,06	645.00..-D	33,51	800	33,51	800
R/L 105.0205-15	5	0,50	1,9	5	4,4	30	15	3,3	0,27	0,35	0,06	645.00..-D	31,96	802	31,96	802
R/L 105.0407-15	5	0,75	1,9	5	4,4	30	15	3,3	0,40	0,45	0,09	645.00..-D	31,96	804	31,96	804
R/L 106.0510-15	6	1,00	2,3	6	5,3	30	15	3,4	0,54	0,55	0,12	676.00..-D	31,96	806	31,96	806

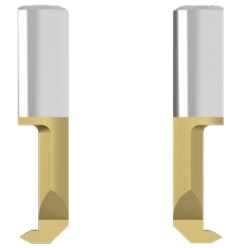
Steel	●	●
Stainless steel	●	●
Cast iron	●	●
Non ferrous metals	●	●
Heat resistant alloys	●	●
hardened materials		

→ v<sub>c</sub> Page 60

## UltraMini – Inserts for internal thread turning (Partial profile)



Illustrations show right-hand versions



Left-hand Right-hand

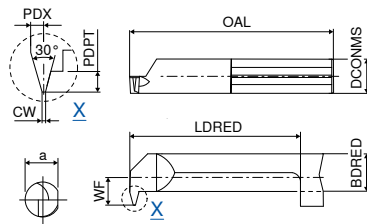
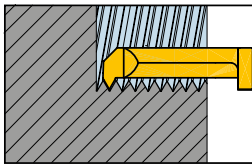
Designation	DCONMS <sub>h6</sub> mm	TPI 1/"	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	BDRED mm	PDPT mm	PDX mm	Standard tool holder	Y5		Y5	
												Article no. 73 105 ...	EUR	Article no. 73 104 ...	EUR
R/L 005.5548-15	5	48 - 24	1,9	4,8	4,4	30	15	3,3	0,40	0,45	645.00.-D	30,75	552	30,75	552
R/L 006.5548-15	6	48 - 24	2,3	6,0	5,3	30	15	3,4	0,40	0,45	676.00.-D	30,75	562	30,75	562
R/L 006.5524-15	6	24 - 16	2,3	6,0	5,3	30	15	3,4	0,81	0,75	676.00.-D	30,75	563	30,75	563
R/L 007.5524-15	7	24 - 16	2,7	7,0	6,3	30	15	3,8	0,81	0,75	676.00.-D	30,75	572	30,75	572

Steel	●	●
Stainless steel	●	●
Cast iron	○	○
Non ferrous metals	○	○
Heat resistant alloys	○	○
hardened materials		

→ v<sub>c</sub> Page 60

## UltraMini – Inserts for internal thread turning (Partial profile)

▲ Trapezoidal thread DIN 103



Illustrations show right-hand versions



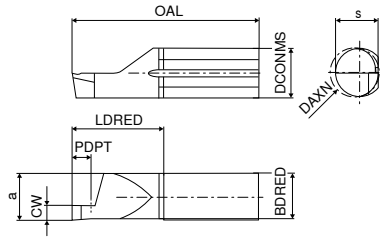
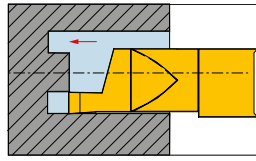
Left-hand Right-hand

Designation	DCONMS <sub>h6</sub> mm	TP mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	BDRED mm	PDPT mm	PDX mm	CW mm	Standard tool holder	Y5		Y5	
													Article no. 73 211 ...	EUR	Article no. 73 210 ...	EUR
R/L 007.1220-22	7	2	2,8	7	6,3	37	22	3,8	1,25	0,75	0,6	676.00.-D	39,01	222	39,01	222
R/L 007.1220-30	7	2	2,8	7	6,3	45	30	3,8	1,25	0,75	0,6	676.00.-D	47,16	230	47,16	230
R/L 007.1730-22	7	3	2,8	7	6,3	37	22	3,8	1,75	1,10	1,0	676.00.-D	39,01	322	39,01	322
R/L 007.1730-30	7	3	2,8	7	6,3	45	30	3,8	1,75	1,10	1,0	676.00.-D	47,16	330	47,16	330

Steel	●	●
Stainless steel	●	●
Cast iron	●	●
Non ferrous metals	●	●
Heat resistant alloys	●	●
hardened materials		

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# UltraMini – Inserts for axial grooving



Illustrations show right-hand versions

Designation	DCONMS <sub>ns</sub> mm	a mm	DAXN mm	s mm	OAL mm	LDRED mm	PDPT mm	BDRED mm	CW mm	Standard tool holder	Left-hand		Right-hand		Left-hand		Right-hand	
											Y5		Y5		Y5		Y5	
											Article no. 73 051 ...	EUR	Article no. 73 050 ...	EUR	Article no. 73 053 ...	EUR	Article no. 73 052 ...	EUR
R/L 010.1006-10	6	5,2	6	5,3	26	11	1,5	4,9	1,0	676.00.-D	31,30	561	31,30	561	31,30	561	31,30	561
R/L 010.1506-10	6	5,2	6	5,3	26	11	2,0	4,9	1,5	676.00.-D	31,30	563	31,30	563	31,30	563	31,30	563
R/L 010.1008-10	7	5,9	8	6,3	26	11	1,5	5,6	1,0	676.00.-D	32,07	571	32,07	571	32,07	571	32,07	571
R/L 010.1008-20	7	5,9	8	6,3	35	20	1,5	5,6	1,0	676.00.-D	34,28	671	34,28	671	34,28	671	34,28	671
R/L 010.1008-30	7	5,9	8	6,3	45	30	1,5	5,6	1,0	676.00.-D	36,04	771	36,04	771	36,04	771	36,04	771
R/L 010.1508-10	7	5,9	8	6,3	26	11	2,5	5,6	1,5	676.00.-D	32,07	573	32,07	573	32,07	573	32,07	573
R/L 010.1508-20	7	5,9	8	6,3	35	20	2,5	5,6	1,5	676.00.-D	34,28	673	34,28	673	34,28	673	34,28	673
R/L 010.1508-30	7	5,9	8	6,3	45	30	2,5	5,6	1,5	676.00.-D	36,04	773	36,04	773	36,04	773	36,04	773
R/L 010.2008-10	7	5,9	8	6,3	26	11	3,0	5,6	2,0	676.00.-D	32,07	575	32,07	575	32,07	575	32,07	575
R/L 010.2008-20	7	5,9	8	6,3	35	20	3,0	5,6	2,0	676.00.-D	34,28	675	34,28	675	34,28	675	34,28	675
R/L 010.2008-30	7	5,9	8	6,3	45	30	3,0	5,6	2,0	676.00.-D	36,04	775	36,04	775	36,04	775	36,04	775
R/L 010.2508-10	7	5,9	8	6,3	26	11	3,5	5,6	2,5	676.00.-D	32,07	577	32,07	577	32,07	577	32,07	577
R/L 010.2508-20	7	5,9	8	6,3	35	20	3,5	5,6	2,5	676.00.-D	34,28	677	34,28	677	34,28	677	34,28	677
R/L 010.2508-30	7	5,9	8	6,3	45	30	3,5	5,6	2,5	676.00.-D	36,04	777	36,04	777	36,04	777	36,04	777
R/L 010.3008-10	7	5,9	8	6,3	26	11	3,5	5,6	3,0	676.00.-D	32,07	579	32,07	579	32,07	579	32,07	579
R/L 010.3008-20	7	5,9	8	6,3	35	20	3,5	5,6	3,0	676.00.-D	34,28	679	34,28	679	34,28	679	34,28	679
R/L 010.3008-30	7	5,9	8	6,3	45	30	3,5	5,6	3,0	676.00.-D	36,04	779	36,04	779	36,04	779	36,04	779

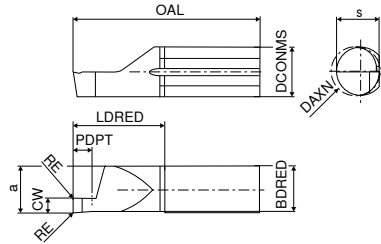
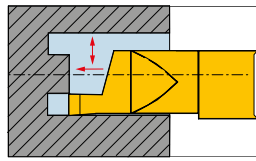
Steel	●	●	●	●
Stainless steel	●	●	●	●
Cast iron	○	○	●	●
Non ferrous metals	○	○	●	●
Heat resistant alloys	○	○	●	●
hardened materials				

→ v<sub>c</sub> Page 60



# UltraMini – Inserts for axial grooving

▲ with corner radius



Illustrations show right-hand versions

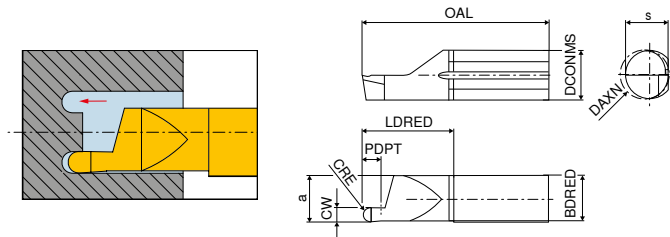


Designation	DCONMS <sub>16</sub> mm	a mm	DAXN mm	s mm	OAL mm	LDRED mm	PDPT mm	BDRED mm	CW mm	RE mm	Standard tool holder	Left-hand Y5		Right-hand Y5	
												Article no. 73 253 ...	EUR	Article no. 73 252 ...	EUR
R/L 510M1008-10	5	4,3	5	6,3	26	11	2	4,0	1,0	0,05	645.00..-D	37,03	510	37,03	510
R/L 510M1008-20	5	4,3	5	6,3	35	20	2	4,0	1,0	0,05	645.00..-D	39,12	610	39,12	610
R/L 510M1508-10	5	4,3	5	6,3	26	11	3	4,0	1,5	0,05	645.00..-D	37,03	515	37,03	515
R/L 510M1508-20	5	4,3	5	6,3	35	20	3	4,0	1,5	0,05	645.00..-D	39,12	615	39,12	615
R/L 510M2008-10	5	4,3	5	6,3	26	11	4	4,0	2,0	0,05	645.00..-D	37,03	520	37,03	520
R/L 510M2008-20	5	4,3	5	6,3	35	20	4	4,0	2,0	0,05	645.00..-D	39,12	620	39,12	620
R/L 010M1008-10	7	5,9	8	6,3	26	11	2	5,6	1,0	0,10	676.00..-D	37,91	800	37,91	800
R/L 010M1008-20	7	5,9	8	6,3	35	20	2	5,6	1,0	0,10	676.00..-D	40,01	810	40,01	810
R/L 010M1008-30	7	5,9	8	6,3	45	30	2	5,6	1,0	0,10	676.00..-D	41,88	820	41,88	820
R/L 010M1508-10	7	5,9	8	6,3	26	11	3	5,6	1,5	0,10	676.00..-D	37,91	802	37,91	802
R/L 010M1508-20	7	5,9	8	6,3	35	20	3	5,6	1,5	0,10	676.00..-D	40,01	812	40,01	812
R/L 010M1508-30	7	5,9	8	6,3	45	30	3	5,6	1,5	0,10	676.00..-D	41,88	822	41,88	822
R/L 010M2008-10	7	5,9	8	6,3	26	11	4	5,6	2,0	0,10	676.00..-D	37,91	804	37,91	804
R/L 010M2008-20	7	5,9	8	6,3	35	20	4	5,6	2,0	0,10	676.00..-D	40,01	814	40,01	814
R/L 010M2008-30	7	5,9	8	6,3	45	30	4	5,6	2,0	0,10	676.00..-D	41,88	824	41,88	824
R/L 010M2508-10	7	5,9	8	6,3	26	11	5	5,6	2,5	0,10	676.00..-D	37,91	806	37,91	806
R/L 010M2508-20	7	5,9	8	6,3	35	20	5	5,6	2,5	0,10	676.00..-D	40,01	816	40,01	816
R/L 010M2508-30	7	5,9	8	6,3	45	30	5	5,6	2,5	0,10	676.00..-D	41,88	826	41,88	826
R/L 010M3008-10	7	5,9	8	6,3	26	11	6	5,6	3,0	0,10	676.00..-D	37,91	808	37,91	808
R/L 010M3008-20	7	5,9	8	6,3	35	20	6	5,6	3,0	0,10	676.00..-D	40,01	818	40,01	818
R/L 010M3008-30	7	5,9	8	6,3	45	30	6	5,6	3,0	0,10	676.00..-D	41,88	828	41,88	828

Steel	●	●
Stainless steel	●	●
Cast iron	●	●
Non ferrous metals	●	●
Heat resistant alloys	●	●
hardened materials		

→ v<sub>c</sub> Page 60

# UltraMini – Inserts for axial grooving (Full radius)



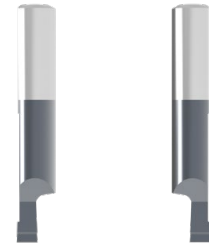
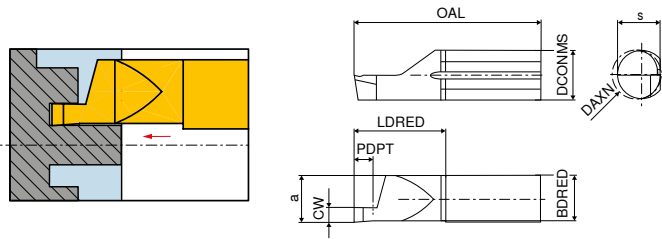
Illustrations show right-hand versions

Designation	DCONMS <sub>h6</sub>	a	DAXN	s	OAL	LDRED	PDPT	BORED	CW	CRE	Standard tool holder	Left-hand		Right-hand	
												Y5	Article no.	Y5	Article no.
R/L 610.1005-10	6	5,2	6	5,3	26	11	2	4,9	1,0	0,50	676.00.-D	73 059 ...	071	73 058 ...	071
R/L 610.1005-20	6	5,2	6	5,3	35	20	2	4,9	1,0	0,50	676.00.-D	37,69	171	39,90	171
R/L 610.1608-10	6	5,2	6	5,3	26	11	3	4,9	1,6	0,80	676.00.-D	37,69	073	37,69	073
R/L 610.1608-20	6	5,2	6	5,3	35	20	3	4,9	1,6	0,80	676.00.-D	39,90	173	39,90	173
R/L 610.2010-10	6	5,2	6	5,3	26	11	4	4,9	2,0	1,00	676.00.-D	37,69	075	37,69	075
R/L 610.2010-20	6	5,2	6	5,3	35	20	4	4,9	2,0	1,00	676.00.-D	39,90	175	39,90	175
R/L 610.2512-10	6	5,2	6	5,3	26	11	5	4,9	2,5	1,25	676.00.-D	37,69	077	37,69	077
R/L 610.2512-20	6	5,2	6	5,3	35	20	5	4,9	2,5	1,25	676.00.-D	39,90	177	39,90	177
R/L 610.3015-10	6	5,2	6	5,3	26	11	6	4,9	3,0	1,50	676.00.-D	37,69	079	37,69	079
R/L 610.3015-20	6	5,2	6	5,3	35	20	6	4,9	3,0	1,50	676.00.-D	39,90	179	39,90	179
R/L 010.1005-10	7	5,9	8	6,3	26	11	2	5,6	1,0	0,50	676.00.-D	36,93	571	36,93	571
R/L 010.1005-20	7	5,9	8	6,3	35	20	2	5,6	1,0	0,50	676.00.-D	39,01	671	39,01	671
R/L 010.1608-10	7	5,9	8	6,3	26	11	3	5,6	1,6	0,80	676.00.-D	36,93	573	36,93	573
R/L 010.1608-20	7	5,9	8	6,3	35	20	3	5,6	1,6	0,80	676.00.-D	39,01	673	39,01	673
R/L 010.2010-10	7	5,9	8	6,3	26	11	4	5,6	2,0	1,00	676.00.-D	36,93	575	36,93	575
R/L 010.2010-20	7	5,9	8	6,3	35	20	4	5,6	2,0	1,00	676.00.-D	39,01	675	39,01	675
R/L 010.2512-10	7	5,9	8	6,3	26	11	5	5,6	2,5	1,25	676.00.-D	36,93	577	36,93	577
R/L 010.2512-20	7	5,9	8	6,3	35	20	5	5,6	2,5	1,25	676.00.-D	39,01	677	39,01	677
R/L 010.3015-10	7	5,9	8	6,3	26	11	6	5,6	3,0	1,50	676.00.-D	36,93	579	36,93	579
R/L 010.3015-20	7	5,9	8	6,3	35	20	6	5,6	3,0	1,50	676.00.-D	39,01	679	39,01	679

Steel	•	•
Stainless steel	•	•
Cast iron	•	•
Non ferrous metals	•	•
Heat resistant alloys	•	•
hardened materials	•	•

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# UltraMini – Inserts for axial grooving over a spigot



Illustrations show right-hand versions

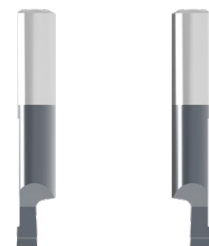
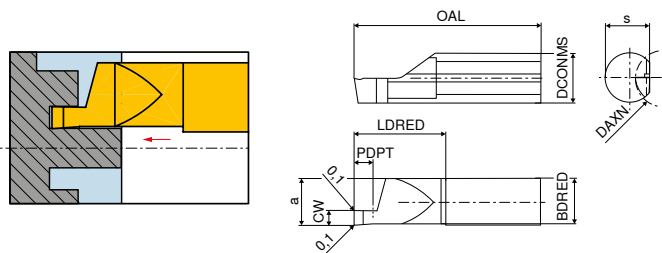
Designation	DCONMS <sub>h6</sub> mm	a mm	DAXN mm	s mm	OAL mm	LDRED mm	PDPT mm	BDRED mm	CW mm	Standard tool holder	Left-hand Y5		Right-hand Y5	
											Article no. 73 061 ...	Article no. 73 060 ...	Article no. 73 061 ...	Article no. 73 060 ...
R/L 620.1006-20	6	5,2	6	5,3	35	20	2	4,9	1,0	676.00..-D	39,01	561	39,01	561
R/L 620.1506-20	6	5,2	6	5,3	35	20	3	4,9	1,5	676.00..-D	39,01	563	39,01	563
R/L 620.2006-20	6	5,2	6	5,3	35	20	4	4,9	2,0	676.00..-D	39,01	565	39,01	565
R/L 620.2506-20	6	5,2	6	5,3	35	20	5	4,9	2,5	676.00..-D	39,01	567	39,01	567
R/L 620.3006-20	6	5,2	6	5,3	35	20	6	4,9	3,0	676.00..-D	39,01	569	39,01	569

Steel	•	•
Stainless steel	•	•
Cast iron	•	•
Non ferrous metals	•	•
Heat resistant alloys	•	•
hardened materials	•	•

→ v<sub>c</sub> Page 60

# UltraMini – Inserts for axial grooving over a spigot

▲ with corner radius



Illustrations show right-hand versions

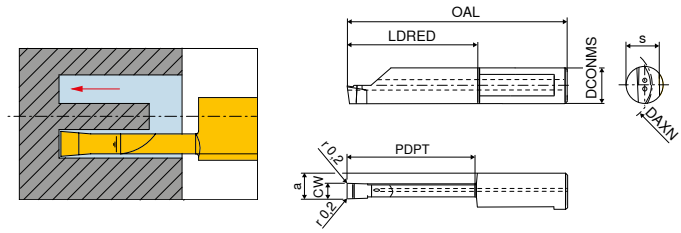
Designation	DCONMS <sub>h6</sub> mm	a mm	DAXN mm	s mm	OAL mm	LDRED mm	PDPT mm	BDRED mm	CW mm	Standard tool holder	Left-hand Y5		Right-hand Y5	
											Article no. 73 261 ...	Article no. 73 260 ...	Article no. 73 261 ...	Article no. 73 260 ...
R/L 620M1006-20	6	5,2	6	5,3	35	20	2	4,9	1,0	676.00..-D	40,46	800	40,46	800
R/L 620M1506-20	6	5,2	6	5,3	35	20	3	4,9	1,5	676.00..-D	40,46	802	40,46	802
R/L 620M2006-20	6	5,2	6	5,3	35	20	4	4,9	2,0	676.00..-D	40,46	804	40,46	804
R/L 620M2506-20	6	5,2	6	5,3	35	20	5	4,9	2,5	676.00..-D	40,46	806	40,46	806
R/L 620M3006-20	6	5,2	6	5,3	35	20	6	4,9	3,0	676.00..-D	40,46	808	40,46	808

Steel	•	•
Stainless steel	•	•
Cast iron	•	•
Non ferrous metals	•	•
Heat resistant alloys	•	•
hardened materials	•	•

→ v<sub>c</sub> Page 60

# UltraMini – Inserts for axial grooving

- ▲ up to 100 bar
- ▲ dual cooling channel



Left-hand

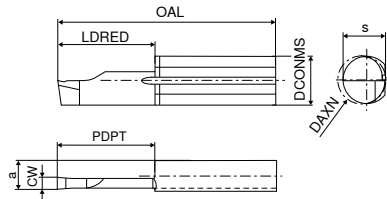
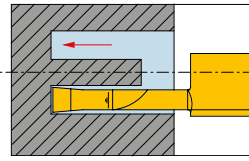
Right-hand

Designation	DCONMS <sub>hg</sub>		DAXN		OAL	LDRED	PDPT	CW	Standard tool holder	Left-hand		Right-hand	
	mm	a mm	mm	s mm						Y5 Article no. 73 263 ...	EUR	Y5 Article no. 73 262 ...	EUR
R/L 012.0200-10	8	5,00	12	7,3	30	10	10	2,0	687.00..-D	52,02	700	52,02	700
R/L 012.0200-15	8	5,00	12	7,3	35	15	15	2,0	687.00..-D	52,69	702	52,69	702
R/L 012.0250-10	8	5,25	12	7,3	30	10	10	2,5	687.00..-D	52,02	704	52,02	704
R/L 012.0250-20	8	5,25	12	7,3	40	20	20	2,5	687.00..-D	53,34	706	53,34	706
R/L 016.0300-10	8	5,50	16	7,3	30	10	10	3,0	687.00..-D	53,01	800	53,01	800
R/L 016.0300-20	8	5,50	16	7,3	40	20	20	3,0	687.00..-D	54,44	802	54,44	802
R/L 020.0300-25	8	5,50	20	7,3	45	25	25	3,0	687.00..-D	55,11	804	55,11	804
R/L 020.0300-30	8	5,50	20	7,3	50	30	30	3,0	687.00..-D	55,11	806	55,11	806
R/L 020.0300-35	8	5,50	20	7,3	55	35	35	3,0	687.00..-D	56,53	808	56,53	808
R/L 020.0300-40	8	5,50	20	7,3	60	40	40	3,0	687.00..-D	56,53	810	56,53	810
R/L 016.0400-10	8	6,00	16	7,3	30	10	10	4,0	687.00..-D	53,01	812	53,01	812
R/L 016.0400-20	8	6,00	16	7,3	40	20	20	4,0	687.00..-D	54,44	814	54,44	814
R/L 020.0400-25	8	6,00	20	7,3	45	25	25	4,0	687.00..-D	55,11	816	55,11	816
R/L 020.0400-30	8	6,00	20	7,3	50	30	30	4,0	687.00..-D	55,11	818	55,11	818
R/L 020.0400-35	8	6,00	20	7,3	55	35	35	4,0	687.00..-D	56,53	820	56,53	820
R/L 020.0400-40	8	6,00	20	7,3	60	40	40	4,0	687.00..-D	56,53	822	56,53	822
R/L 020.0500.20	8	6,50	20	7,3	40	20	20	5,0	687.00..-D	53,01	824	53,01	824
R/L 020.0500.25	8	6,50	20	7,3	45	25	25	5,0	687.00..-D	53,79	826	53,79	826
R/L 020.0500.30	8	6,50	20	7,3	50	30	30	5,0	687.00..-D	53,79	828	53,79	828
R/L 020.0500.35	8	6,50	20	7,3	55	35	35	5,0	687.00..-D	55,11	830	55,11	830
R/L 020.0500.40	8	6,50	20	7,3	60	40	40	5,0	687.00..-D	55,11	832	55,11	832

Steel	•	•
Stainless steel	•	•
Cast iron	•	•
Non ferrous metals	•	•
Heat resistant alloys	•	•
hardened materials		

→ v<sub>c</sub> Page 60

## UltraMini – Inserts for axial grooving



Illustrations show right-hand versions

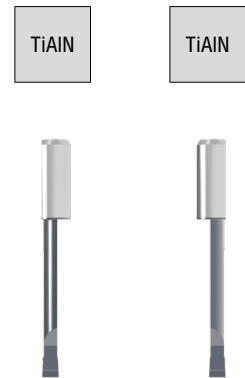
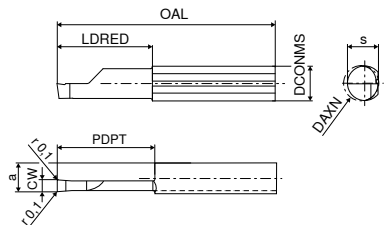
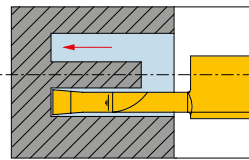
Designation	DCONMS <sub>h6</sub> mm	a mm	DAXN mm	s mm	OAL mm	LDRED mm	PDPT mm	CW mm	Standard tool holder	Left-hand Y5		Right-hand Y5		Left-hand Y5		Right-hand Y5	
										Article no. 73 055 ...	EUR	Article no. 73 054 ...	EUR	Article no. 73 057 ...	EUR	Article no. 73 056 ...	EUR
R/L 015.2515-20	7	5,9	15	6,3	35	20	20	2,5	676.00.-D	43,09	572	43,09	572	43,09	572	43,09	572
R/L 015.3015-20	7	5,9	15	6,3	35	20	20	3,0	676.00.-D	43,09	574	43,09	574	43,09	574	43,09	574
R/L 015.3015-30	7	5,9	15	6,3	45	30	30	3,0	676.00.-D	47,29	674	47,29	674	47,29	674	47,29	674

Steel	●	●	●	●
Stainless steel	●	●	●	●
Cast iron	○	○	○	○
Non ferrous metals	○	○	●	●
Heat resistant alloys	○	○	●	●
hardened materials				

→ v<sub>c</sub> Page 60

## UltraMini – Inserts for axial grooving

▲ with corner radius



Illustrations show right-hand versions

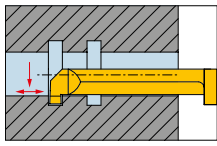
Designation	DCONMS <sub>h6</sub> mm	a mm	DAXN mm	s mm	OAL mm	LDRED mm	PDPT mm	CW mm	Standard tool holder	Left-hand Y5		Right-hand Y5	
										Article no. 73 257 ...	EUR	Article no. 73 256 ...	EUR
R/L 015M2515-20	7	5,9	8	6,3	35	20	20	2,5	676.00.-D	44,30	800	44,30	800
R/L 015M3015-20	7	5,9	8	6,3	35	20	20	3,0	676.00.-D	44,30	802	44,30	802
R/L 015M3015-30	7	5,9	8	6,3	45	30	30	3,0	676.00.-D	48,50	804	48,50	804

Steel	●	●
Stainless steel	●	●
Cast iron	●	●
Non ferrous metals	●	●
Heat resistant alloys	●	●
hardened materials		

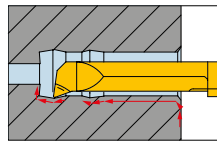
→ v<sub>c</sub> Page 60

## Set 1: Internal turning, grooving and chamfering, right hand

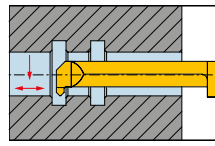
- ▲ extensive assortment of right-hand tools
- ▲ K10F - TiN



Grooving (E)



Profile turn (A)



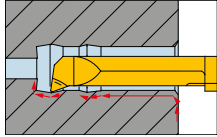
Chamfers (F)



Tool	Designation	Article No.	Bore Ø mm	Boring depth mm	Grooving depth mm	Groove width mm	Piece	fig.	Y5 Article no. 73 085 ... EUR
Inserts	R 004.0100-16	73 002 541	4	16	0,8	1,0	1	E	999 469,40
Inserts	R 005.0150-20	73 002 552	5	20	1,0	1,5	1	E	
Inserts	R 005.0200-20	73 002 553	5	20	1,0	2,0	1	E	
Inserts	R 006.0150-22	73 002 562	6	22	1,8	1,5	1	E	
Inserts	R 006.0200-22	73 002 563	6	22	1,8	2,0	1	E	
Inserts	R 050.3-16	73 004 530	3	16			1	A	
Inserts	R 050.4-16	73 004 540	4	16			1	A	
Inserts	R 050.5-20	73 004 550	5	20			1	A	
Inserts	R 050.6-22	73 004 560	6	22			1	A	
Inserts	R 060.5-20	73 006 550	5	20			1	F	
Tool holder	645.0016-D	73 080 164					1		
Tool holder	676.0016-D	73 080 166					1		
Tightening Key	110.645	70 950 175					1		

## Set 3: Internal Turning

- ▲ extensive assortment of right-hand tools
- ▲ K10F - TiN



Tool	Designation	Article No.	Bore Ø mm	Boring depth mm	Piece	Y5 Article no. 73 085 ... EUR
Inserts	R 050.3-16	73 004 530	3	16	1	994 300,60
Inserts	R 050.4-16	73 004 540	4	16	1	
Inserts	R 050.5-20	73 004 550	5	20	1	
Inserts	R 050.6-22	73 004 560	6	22	1	
Tool holder	645.0016-D	73 080 164			1	
Tool holder	676.0016-D	73 080 166			1	
Tightening Key	110.645	70 950 175			1	

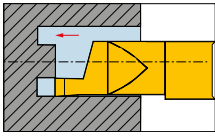
## Set 4: Holder



Tool	Designation	Article No.	for cutting insert Ø mm	Piece	Y5 Article no. 73 085 ... EUR
Tool holder	645.0016-D	73 080 164	3 / 4 / 5	1	990 186,70
Tool holder	676.0016-D	73 080 166	6 / 7	1	
Tightening Key	110.645	70 950 175		1	

## Set 6: Axial Grooving

- ▲ extensive assortment of right-hand tools
- ▲ K10F - TiN



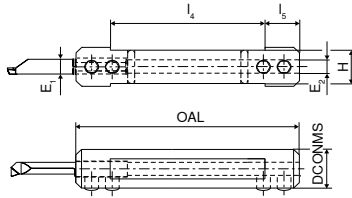
Tool	Designation	Article No.	Bore Ø mm	Boring depth mm	Grooving depth mm	Groove width mm	Piece	Y5 Article no. <b>73 085 ...</b> EUR	
Inserts	R 010.1008-10	73 050 571	8	10	1,5	1,0	1		
Inserts	R 010.1508-10	73 050 573	8	10	2,5	1,5	1		
Inserts	R 010.2008-10	73 050 575	8	10	3,0	2,0	1	234,10	996
Inserts	R 010.2508-20	73 050 677	8	20	3,5	2,5	1		
Inserts	R 010.3008-20	73 050 679	8	20	3,5	3,0	1		
Tool holder	676.0016-D	73 080 166					1		
Tightening Key	110.645	70 950 175					1		

# UltraMini – Standard tool holder for cutting inserts

- ▲ double ended
- ▲ Machining diameter from  $\varnothing 0.2$  mm

### Scope of supply:

Tool holder with allen key



Designation	$\varnothing E_1$ mm	$\varnothing E_2$ mm	DCONMS mm	OAL mm	$l_4$ mm	$l_5$ mm	H mm	Y5	
								Article no. 73 080 ...	EUR
645.0012-D	4	5	12,00	75	55	10	10,3	88,71	163
645.0016-D	4	5	16,00	75	55	10	14,0	93,11	164
645.001905-D	4	5	19,05	90	70	10	17,2	104,60	170
645.0020-D	4	5	20,00	90	70	10	18,0	100,30	165
645.0022-D	4	5	22,00	90	70	10	20,0	109,10	171
645.00254-D	4	5	25,40	95	75	10	23,4	116,40	172
676.0016-D	6	7	16,00	75	55	10	14,0	93,11	166
676.001905-D	6	7	19,05	90	70	10	17,2	104,60	173
676.0020-D	6	7	20,00	90	70	10	18,0	100,30	167
676.0022-D	6	7	22,00	90	70	10	20,0	109,10	174
676.00254-D	6	7	25,40	95	75	10	23,4	116,40	175
687.0016-D	7	8	16,00	75	55	10	14,0	113,30	168
687.0020-D	7	8	20,00	90	70	10	18,0	120,60	169

### Spare parts

for Article no.

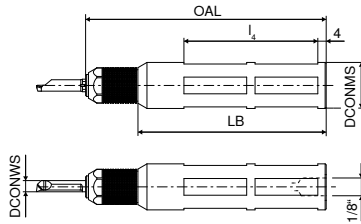
for Article no.	2A/28 Key I			Y5 Clamping screw		
	Article no. 70 950 ...	EUR	175	Article no. 73 082 ...	EUR	013
73 080 163	SW2,5	2,45	175	M5x4	2,90	013
73 080 164	SW2,5	2,45	175	M5x6	2,90	001
73 080 170	SW2,5	2,45	175	M5x6	2,90	001
73 080 165	SW2,5	2,45	175	M5x8	3,80	008
73 080 171	SW2,5	2,45	175	M5x8	3,80	008
73 080 172	SW2,5	2,45	175	M5x8	3,80	008
73 080 166	SW2,5	2,45	175	M5x6	2,90	001
73 080 173	SW2,5	2,45	175	M5x6	2,90	001
73 080 167	SW2,5	2,45	175	M5x8	3,80	008
73 080 174	SW2,5	2,45	175	M5x8	3,80	008
73 080 175	SW2,5	2,45	175	M5x8	3,80	008
73 080 168	SW2,5	2,45	175	M6x6	3,80	014
73 080 169	SW2,5	2,45	175	M6x6	3,80	014



# UltraMini – Quick change tool holder for cutting inserts

**Scope of supply:**

Tool holder, lock nut and clamping wedge



Designation	DCONWS mm	DCONMS <sub>g6</sub> mm	OAL mm	LB mm	l <sub>s</sub> mm	Y5	
						Article no. 73 089 ...	EUR
UM600H.0012.4	4	12,00	115	90	64	226,50	124
UM600H.0016.4	4	16,00	115	90	64	205,50	164
UM600H.001905.4	4	19,05	115	90	64	220,20	194
UM600H.0020.4	4	20,00	115	90	64	217,00	204
UM600H.0022.4	4	22,00	115	90	64	221,20	224
UM600H.0025.4	4	25,00	115	90	64	225,50	254
UM600H.00254.4	4	25,40	115	90	64	229,70	264
UM600H.0028.4	4	28,00	115	90	64	229,70	284
UM600H.0012.5	5	12,00	115	90	64	226,50	125
UM600H.0016.5	5	16,00	115	90	64	205,50	165
UM600H.001905.5	5	19,05	115	90	64	220,20	195
UM600H.0020.5	5	20,00	115	90	64	217,00	205
UM600H.0022.5	5	22,00	115	90	64	221,20	225
UM600H.0025.5	5	25,00	115	90	64	225,50	255
UM600H.00254.5	5	25,40	115	90	64	229,70	265
UM600H.0028.5	5	28,00	115	90	64	229,70	285
UM600H.0012.6	6	12,00	115	90	64	226,50	126
UM600H.0016.6	6	16,00	115	90	64	205,50	166
UM600H.001905.6	6	19,05	115	90	64	220,20	196
UM600H.0020.6	6	20,00	115	90	64	217,00	206
UM600H.0022.6	6	22,00	115	90	64	221,20	226
UM600H.0025.6	6	25,00	115	90	64	225,50	256
UM600H.00254.6	6	25,40	115	90	64	229,70	266
UM600H.0028.6	6	28,00	115	90	64	229,70	286
UM600H.0012.7	7	12,00	115	90	64	226,50	127
UM600H.0016.7	7	16,00	115	90	64	205,50	167
UM600H.001905.7	7	19,05	115	90	64	220,20	197
UM600H.0020.7	7	20,00	115	90	64	217,00	207
UM600H.0022.7	7	22,00	115	90	64	221,20	227
UM600H.0025.7	7	25,00	115	90	64	225,50	257
UM600H.00254.7	7	25,40	115	90	64	229,70	267
UM600H.0028.7	7	28,00	115	90	64	229,70	287

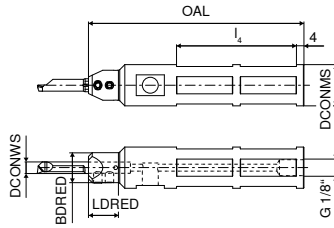
**i** Avoid pulling cuts. Ensure a suitable clamping force is used when using thro' coolant supply. Can be tightened using a key.

**Spare parts**  
DCONWS

		Y5		Y5	
		Lock nut UM600H		Clamping wedge UM600H	
		Article no. 73 950 ...	Article no. 73 950 ...	Article no. 73 950 ...	Article no. 73 950 ...
		EUR	EUR	EUR	EUR
4	M4	50,65	104	32,61	111
5	M5	50,65	105	32,61	111
6	M6	50,65	106	32,61	111
7	M7	50,65	107	32,61	111

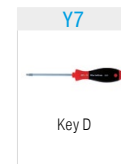
# UltraMini – Toolholder for inserts

▲ Tool holder suitable for high coolant pressures

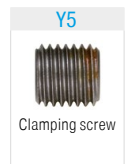


Designation	DCONWS mm	BDRED mm	DCONMS <sub>g6</sub> mm	OAL mm	LDRED mm	l <sub>4</sub> mm	Y5	
							Article no. 73 088 ...	EUR
UMST.0016.4	4	16	16,00	115	24	42	242,20	164
UMST.001905.4	4	16	19,05	115	24	42	262,20	194
UMST.0020.4	4	16	20,00	115	24	42	247,50	204
UMST.0022.4	4	16	22,00	115	24	42	254,80	224
UMST.00254.4	4	16	25,40	115	24	42	262,20	264
UMST.0028.4	4	16	28,00	115	24	42	262,20	284
UMST.0016.5	5	16	16,00	115	24	42	242,20	165
UMST.001905.5	5	16	19,05	115	24	42	262,20	195
UMST.0020.5	5	16	20,00	115	24	42	247,50	205
UMST.0022.5	5	16	22,00	115	24	42	254,80	225
UMST.00254.5	5	16	25,40	115	24	42	262,20	265
UMST.0028.5	5	16	28,00	115	24	42	262,20	285
UMST.0016.6	6	16	16,00	115	24	42	242,20	166
UMST.001905.6	6	16	19,05	115	24	42	262,20	196
UMST.0020.6	6	16	20,00	115	24	42	247,50	206
UMST.0022.6	6	16	22,00	115	24	42	254,80	226
UMST.00254.6	6	16	25,40	115	24	42	262,20	266
UMST.0028.6	6	16	28,00	115	24	42	262,20	286
UMST.0016.7	7	16	16,00	115	24	42	242,20	167
UMST.001905.7	7	16	19,05	115	24	42	262,20	197
UMST.0020.7	7	16	20,00	115	24	42	247,50	207
UMST.0022.7	7	16	22,00	115	24	42	254,80	227
UMST.00254.7	7	16	25,40	115	24	42	262,20	267
UMST.0028.7	7	16	28,00	115	24	42	262,20	287
UMST.0016.8	8	16	16,00	115	24	42	242,20	168
UMST.001905.8	8	16	19,05	115	24	42	262,20	198
UMST.0020.8	8	16	20,00	115	24	42	247,50	208
UMST.0022.8	8	16	22,00	115	24	42	254,80	228
UMST.00254.8	8	16	25,40	115	24	42	262,20	268
UMST.0028.8	8	16	28,00	115	24	42	262,20	288

**i** up to 150 bar



Key D



Clamping screw

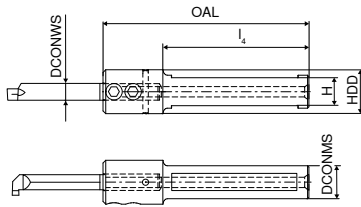
Spare parts DCONWS	Y7		Y5	
	Article no. 80 950 ...	EUR	Article no. 73 950 ...	EUR
4	T10	7,05 104	M5x0,5x6T10	4,90 050
5	T10	7,05 104	M5x0,5x6T10	4,90 050
6	T10	7,05 104	M5x0,5x6T10	4,90 050
7	T10	7,05 104	M5x0,5x6T10	4,90 050
8	T10	7,05 104	M5x0,5x6T10	4,90 050

# UltraMini – Toolholder for inserts

▲ single ended

## Scope of supply:

Tool holder with allen key



Designation	DCONWS	HDD	DCONMS	OAL	$l_4$	H	Y5	
	mm	mm	mm	mm	mm	mm	Article no.	
640.0012-D	4	16	12	75	53	10,2	<b>73 081 ...</b>	
650.0012-D	5	16	12	75	53	10,2	EUR 123,70	264
660.0012-D	6	16	12	75	53	10,2	EUR 123,70	266
670.0012-D	7	16	12	75	53	10,2	EUR 123,70	267
680.0012-D	8	16	12	75	53	10,2	EUR 123,70	268

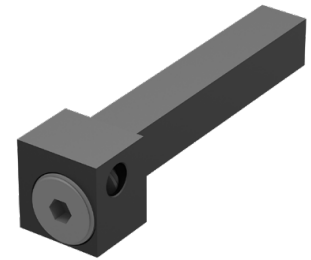
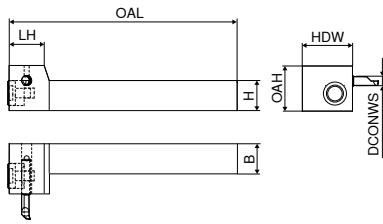
## Spare parts

DCONWS	2A/28 Key I		Y5 Clamping screw	
	Article no.		Article no.	
4	70 950 ...		73 082 ...	
	EUR 2,45	175	EUR 2,96	010
5	SW2,5	2,45 175	M5x0,5x6	2,96 010
6	SW2,5	2,45 175	M5x0,5x6	2,96 010
7	SW2,5	2,45 175	M5x0,5x6	2,96 010
8	SW2,5	2,45 175	M5x0,5x6	2,96 010

## UltraMini – Toolholder for inserts

**Scope of supply:**

Tool holder with allen key

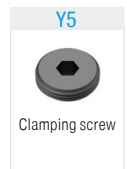
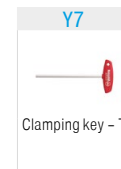


Illustrations show right-hand versions

Designation	DCONWS	OAL	LH	B	HDW	H	OAH	Left-hand		Right-hand	
								Y5	Article no.	Y5	Article no.
R/L .UHCM.1212.4	4	90	17	12	20	12	18	73 083 ...	73 084 ...		
R/L .UHCM.1212.5	5	90	17	12	20	12	18	EUR 157,30	EUR 157,30	124	124
R/L .UHCM.1212.6	6	90	17	12	20	12	21	EUR 157,30	EUR 157,30	125	125
R/L .UHCM.1212.7	7	90	17	12	20	12	21	EUR 157,30	EUR 157,30	126	126

**Spare parts**  
DCONWS

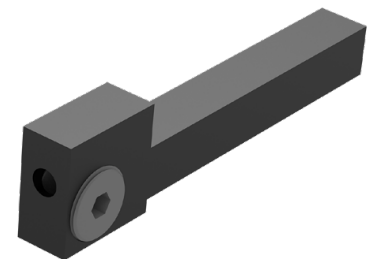
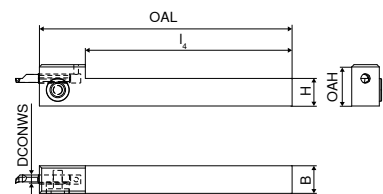
DCONWS	Article no.	EUR	SW5	050	UM 12	Article no.	EUR	SW5	050	UM 16
4	80 397 ...	4,24	050	UM 12	73 082 ...	26,95	011			
5		4,24	050	UM 12		26,95	011			
6		4,24	050	UM 16		26,95	012			
7		4,24	050	UM 16		26,95	012			



## UltraMini – Toolholder for inserts

**Scope of supply:**

Tool holder with allen key

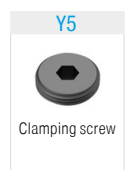
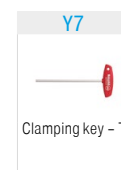


12

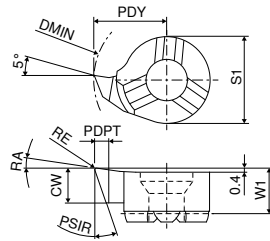
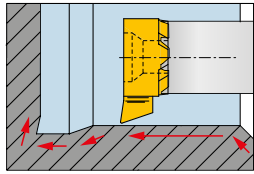
Designation	DCONWS	OAL	l <sub>4</sub>	B	H	OAH	Y5	
							Article no.	EUR
UM.1010.4	4	100	75	10	10	20	73 086 ...	104
UM.1010.5	5	100	75	10	10	20	EUR 157,30	105
UM.1212.4	4	100	75	12	12	22	EUR 157,30	124
UM.1212.5	5	100	75	12	12	22	EUR 157,30	125
UM.1212.6	6	100	75	12	12	22	EUR 157,30	126

**Spare parts**  
DCONWS

DCONWS	Article no.	EUR	SW5	050	UM 12	Article no.	EUR	SW5	050	UM 16
4	80 397 ...	4,24	050	UM 12	73 082 ...	26,95	011			
5		4,24	050	UM 12		26,95	011			
6		4,24	050	UM 16		26,95	012			



# MiniCut – Insert for turning and profiling



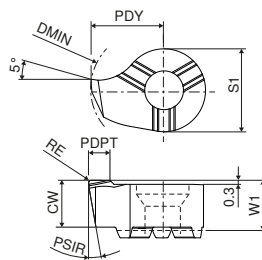
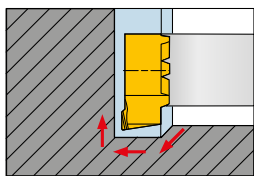
Illustrations show right-hand versions

Size	Designation	DMIN mm	CW mm	W1 mm	PDY mm	S1 mm	RE mm	PDPT mm	PSIR °	RA °	Left-hand Y5		Right-hand Y5	
											Article no. 73 324 ...	EUR	Article no. 73 322 ...	EUR
08	8,00. R/L .3.30.18°	7,8	3,3	3,5	4,65	6,0	0,20	0,6	18	8	17,52	033	17,52	033
	8,00. R/L .3.50.18°	7,8	3,5	3,5	4,65	6,0	0,05	0,6	18	8	20,50	035	20,50	035
	8,00. R/L .3.50.20°	7,8	3,5	3,5	4,65	6,0	0,20	0,6	20	20	19,83	135	19,83	135
09	9,00. R/L .3.60.18°	9,0	3,6	3,6	5,50	6,2	0,20	0,8	18	8	17,86	136	17,86	136
	9,00. R/L .3.60.20°	9,0	3,6	3,6	5,50	6,2	0,20	0,8	20	20	20,18	236	20,18	236
11	9,80. R/L .3.90.18°	9,8	3,9	4,2	5,50	8,0	0,20	1,0	18	8	17,52	139	17,52	139
	11,00. R/L .3.90.18°	11,0	3,9	4,2	6,70	8,0	0,20	1,0	18	8	17,08	339	17,08	339
	11,00. R/L .4.20.20°	11,0	4,2	4,2	6,70	8,0	0,20	1,0	20	20	20,18	342	20,18	342
14	14,00. R/L .5.00.18°	13,8	5,0	5,1	8,70	9,0	0,20	1,5	18	8	17,08	550	17,08	550
	14,00. R/L .5.30.20°	14,0	5,3	5,3	8,70	9,0	0,20	1,5	20	20	20,18	553	20,18	553
16	15,50. R/L .5.00.18°	15,5	5,0	5,4	9,70	11,0	0,20	1,5	18	8	18,63	750	18,63	750
Steel											•	•		
Stainless steel											•	•		
Cast iron											•	•		
Non ferrous metals											•	•		
Heat resistant alloys											•	•		
hardened materials											•	•		

→ v<sub>c</sub> Page 60

# MiniCut – Insert for copy turning

▲ with chip breaker



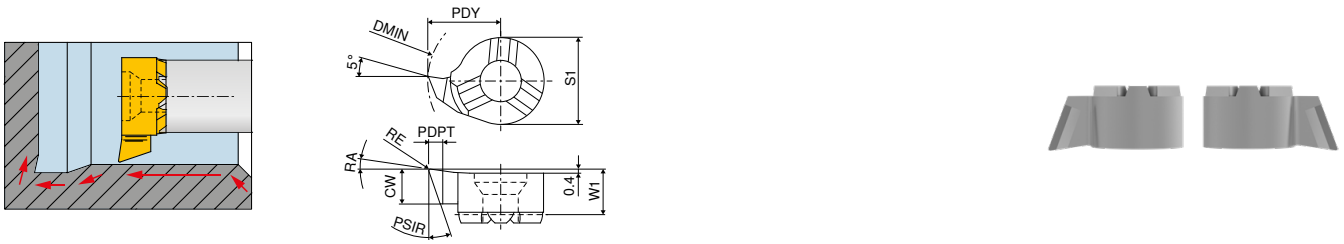
Illustrations show right-hand versions

Size	Designation	DMIN mm	CW mm	W1 mm	PDY mm	S1 mm	RE mm	PDPT mm	PSIR °	Left-hand Y5		Right-hand Y5		
										Article no. 73 388 ...	EUR	Article no. 73 386 ...	EUR	
08	8,00. R/L .3.40.10°	8	3,4	3,5	4,65	6,0	0,2	0,5	10	20,18	13400	20,18	13400	
09	9,00. R/L .3.50.10°	9	3,5	3,6	5,50	6,2	0,2	0,5	10	20,18	136	20,18	136	
11	11,00. R .4.10.10°	11	4,1	4,2	6,70	8,0	0,2	0,5	10	20,18	14100	20,18	14100	
Steel											•	•		
Stainless steel											•	•		
Cast iron											•	•		
Non ferrous metals											•	•		
Heat resistant alloys											•	•		
hardened materials											•	•		

→ v<sub>c</sub> Page 60

# MiniCut – CBN insert for profiling – hard turning

▲ 56 to 65 HRC



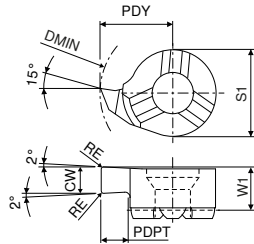
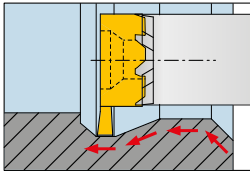
Illustrations show right-hand versions

Size	Designation	DMIN mm	CW mm	W1 mm	PDY mm	S1 mm	RE mm	PDPT mm	PSIR °	RA °	Left-hand CBN	Right-hand CBN
											Y5	Y5
											Article no. <b>73 368 ...</b>	Article no. <b>73 366 ...</b>
											EUR <b>82,13</b>	EUR <b>82,13</b>
<b>08</b>	8,00. R/L .3,30.18°	7,8	3,3	3,5	4,65	6	0,2	0,39	18	8	033	033
<b>11</b>	11,00. R/L .3,90.18°	11,0	3,9	4,2	6,70	8	0,2	0,55	18	8	139	139
<b>14</b>	14,00. R/L .5,00.18°	13,8	5,0	5,3	8,70	9	0,2	0,69	18	8	550	550
<b>16</b>	16,00. R/L .5,00.18°	15,5	5,0	5,4	9,70	11	0,2	0,77	18	8	750	750

Steel	●	●
Stainless steel		
Cast iron		
Non ferrous metals		
Heat resistant alloys		
hardened materials		

→ v<sub>c</sub> Page 60

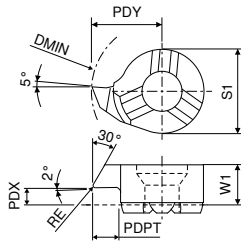
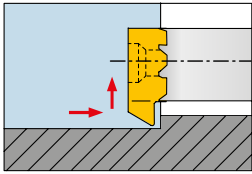
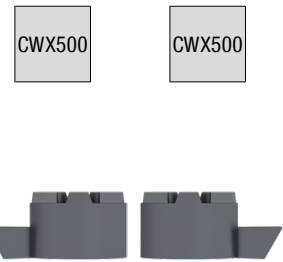
# MiniCut – Internal turning insert



Illustrations show right-hand versions

Size	Designation	DMIN mm	CW <sub>-0.05</sub> mm	PDPT mm	W1 mm	PDY mm	S1 mm	RE mm	CDX mm	Left-hand Y5		Right-hand Y5	
										Article no. 73 316 ... EUR	Article no. 73 314 ... EUR	Article no. 73 314 ... EUR	Article no. 73 314 ... EUR
08	8,00. R/L .1,50.1,0	8	1,5	1,0	3,3	4,8	6,0	0,2	0,2	17,41	015	17,41	015
	8,00. R/L .2,00.1,0	8	2,0	1,0	3,3	4,8	6,0	0,2	0,2	16,97	020	16,97	020
09	9,00. R/L .1,50.2,0	9	1,5	2,0	3,6	5,5	6,2	0,2	0,2	19,51	115	19,51	115
	9,00. R/L .1,50.3,0	10	1,5	3,0	3,6	6,5	6,2	0,2	0,2	19,51	121	19,51	121
	9,00. R/L .2,00.2,0	9	2,0	2,0	3,6	5,5	6,2	0,2	0,2	17,31	120	17,31	120
	9,00. R/L .2,00.3,0	10	2,0	3,0	3,6	6,5	6,2	0,2	0,2	17,31	122	17,31	122
11	11,00. R/L .1,50.2,3	11	1,5	2,3	4,2	6,7	8,0	0,2	0,2	18,63	315	18,63	315
	11,00. R/L .2,00.2,3	11	2,0	2,3	4,2	6,7	8,0	0,2	0,2	17,52	320	17,52	320
14	14,00. R/L .1,50.4,0	14	1,5	4,0	5,3	9,0	9,0	0,2	0,2	17,08	515	17,08	515
	14,00. R/L .1,50.5,5	16	1,5	5,5	5,2	10,5	9,0	0,2	0,2	21,93	516	21,93	516
	14,00. R/L .1,50.6,5	17	1,5	6,5	5,2	11,5	9,0	0,2	0,2	21,93	517	21,93	517
	14,00. R/L .2,00.4,0	14	2,0	4,0	5,3	9,0	9,0	0,2	0,2	17,52	520	17,52	520
	14,00. R/L .2,00.5,5	16	2,0	5,5	5,2	10,5	9,0	0,2	0,2	21,93	521	21,93	521
	14,00. R/L .2,00.6,5	17	2,0	6,5	5,2	11,5	9,0	0,2	0,2	21,93	522	21,93	522
	14,00. R/L .2,50.5,5	16	2,5	5,5	5,2	10,5	9,0	0,2	0,2	21,93	525	21,93	525
	14,00. R/L .2,50.6,5	17	2,5	6,5	5,2	11,5	9,0	0,2	0,2	21,93	526	21,93	526
	14,00. R/L .3,00.5,5	16	3,0	5,5	5,2	10,5	9,0	0,2	0,2	21,93	530	21,93	530
	14,00. R/L .3,00.6,5	17	3,0	6,5	5,2	11,5	9,0	0,2	0,2	21,93	531	21,93	531
16	16,00. R/L .2,00.4,3	16	2,0	4,3	5,4	10,2	11,0	0,2	0,2	19,07	720	19,07	720
Steel										•		•	
Stainless steel										•		•	
Cast iron										•		•	
Non ferrous metals										•		•	
Heat resistant alloys										•		•	
hardened materials													

## MiniCut – Back boring insert

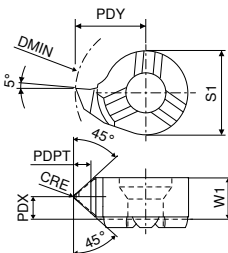
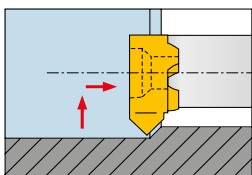
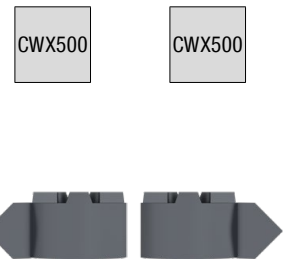


Illustrations show right-hand versions

Size	Designation	DMIN	PDPT	W1	PDX	PDY	S1	RE	CDX	Left-hand	Right-hand		
										Y5	Y5		
										Article no.	Article no.		
										73 332 ...	73 330 ...		
										EUR	EUR		
08	8,00. R/L .30°1,3	7,8	1,3	3,50	1,0	4,65	6,0	0,2	0,6	20,28	013	20,28	013
09	9,00. R/L .30°1,7	9,0	1,7	3,55	1,2	5,50	6,2	0,2	0,8	19,83	117	19,83	117
	9,00. R/L .30°2,3	10,0	2,3	3,55	1,2	6,50	6,2	0,2	0,8	19,83	123	19,83	123
11	11,00. R/L .30°2,3	11,0	2,3	4,30	1,6	6,70	8,0	0,2	1,0	19,62	323	19,62	323
14	14,00. R/L .30°3,5	13,8	3,5	5,40	2,4	8,70	9,0	0,2	1,5	20,28	535	20,28	535
Steel										•	•		
Stainless steel										•	•		
Cast iron										•	•		
Non ferrous metals										•	•		
Heat resistant alloys										•	•		
hardened materials										•	•		

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## MiniCut – Internal turning and chamfering insert



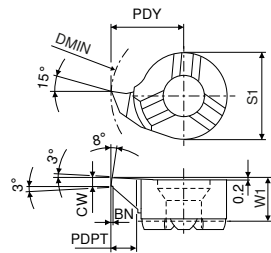
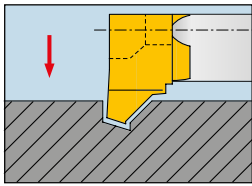
Illustrations show right-hand versions

Size	Designation	DMIN	PDPT	W1	PDX	PDY	S1	CRE	CDX	Left-hand	Right-hand		
										Y5	Y5		
										Article no.	Article no.		
										73 336 ...	73 334 ...		
										EUR	EUR		
08	8,00. R/L .45°1,4	8	1,4	3,50	1,8	4,8	6,0	0,2	0,6	16,75	010	16,75	010
09	9,00. R/L .45°1,3	9	1,3	3,55	1,8	5,5	6,2	0,2	0,8	16,97	110	16,97	110
	11,00. R/L .45°1,5	11	1,5	4,30	2,2	6,7	8,0	0,2	1,0	16,75	310	16,75	310
14	14,00. R/L .45°1,5	14	1,5	5,40	2,8	9,0	9,0	0,2	1,2	18,08	510	18,08	510
Steel										•	•		
Stainless steel										•	•		
Cast iron										•	•		
Non ferrous metals										•	•		
Heat resistant alloys										•	•		
hardened materials										•	•		

→ v<sub>c</sub> Page 60



# MiniCut – Insert for pregrooving and chamfering

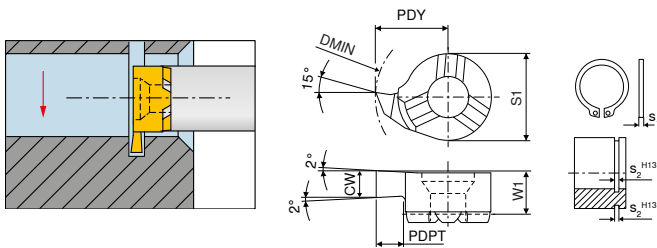


Illustrations show right-hand versions

Size	Designation	DMIN mm	CW mm	PDPT mm	W1 mm	PDY mm	S1 mm	BN mm	Left-hand	Right-hand		
									Y5	Y5		
									Article no.	Article no.		
									73 340 ...	73 338 ...		
									EUR	EUR		
08	8,00. R/L .1,00.45°	8	1	1,0	3,3	4,8	6,0	0,2	17,20	100	17,20	100
09	9,00. R/L .1,00.45°	9	1	1,5	3,6	5,5	6,2	0,2	17,52	215	17,52	215
11	11,00. R/L .1,00.45°	11	1	1,5	4,2	6,7	8,0	0,2	17,20	315	17,20	315
14	14,00. R/L .1,00.45°	14	1	1,5	5,3	9,0	9,0	0,2	17,20	515	17,20	515
16	16,00. R/L .1,00.45°	16	1	1,5	5,4	10,2	11,0	0,2	17,20	715	17,20	715
Steel									•	•		
Stainless steel									•	•		
Cast iron									•	•		
Non ferrous metals									•	•		
Heat resistant alloys									•	•		
hardened materials												

→ v<sub>c</sub> Page 60

# MiniCut – Grooving insert



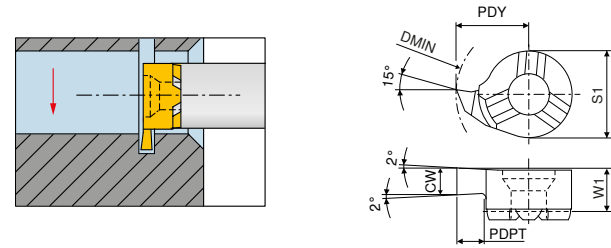
Illustrations show right-hand versions

Size	Designation	DMIN	CW	PDPT	W1	S1	S2 H13	PDY	S1	Left-hand		Right-hand	
										Y5	Y5	Y5	Y5
										Article no.		Article no.	
										73 312 ...		73 310 ...	
										EUR		EUR	
08	8,00. R/L .073.1,0	8	0,73	1,0	3,3	0,6	0,7	4,8	6,0	15,65	073	15,65	073
	8,00. R/L .083.1,0	8	0,83	1,0	3,3	0,7	0,8	4,8	6,0	15,65	083	15,65	083
	8,00. R/L .093.1,0	8	0,93	1,0	3,3	0,8	0,9	4,8	6,0	15,65	093	15,65	093
	8,00. R/L .100.1,0	8	1,00	1,0	3,3			4,8	6,0	15,65	110	15,65	110
	8,00. R/L .120.1,0	8	1,20	1,0	3,3	1,0	1,1	4,8	6,0	15,65	112	15,65	112
	8,00. R/L .140.1,0	8	1,40	1,0	3,3	1,2	1,3	4,8	6,0	15,65	114	15,65	114
	8,00. R/L .150.1,0	8	1,50	1,0	3,3			4,8	6,0	15,65	115	15,65	115
	8,00. R/L .170.1,0	8	1,70	1,0	3,3	1,5	1,6	4,8	6,0	15,65	117	15,65	117
8,00. R/L .200.1,0	8	2,00	1,0	3,3			4,8	6,0	15,65	120	15,65	120	
09	9,00. R/L .073.1,2	9	0,73	1,2	3,6	0,6	0,7	5,5	6,2	15,87	173	15,87	173
	9,00. R/L .083.1,3	9	0,83	1,3	3,6	0,7	0,8	5,5	6,2	15,87	183	15,87	183
	9,00. R/L .093.1,5	9	0,93	1,5	3,6	0,8	0,9	5,5	6,2	15,87	193	15,87	193
	9,00. R/L .100.1,8	9	1,00	1,8	3,6			5,5	6,2	15,87	210	15,87	210
	9,00. R/L .120.1,8	9	1,20	1,8	3,6	1,0	1,1	5,5	6,2	15,87	212	15,87	212
	9,00. R/L .140.1,8	9	1,40	1,8	3,6	1,2	1,3	5,5	6,2	15,87	214	15,87	214
	9,00. R/L .150.1,8	9	1,50	1,8	3,6			5,5	6,2	15,87	215	15,87	215
	9,00. R/L .170.1,8	9	1,70	1,8	3,6	1,5	1,6	5,5	6,2	15,87	217	15,87	217
	9,00. R/L .200.1,8	9	2,00	1,8	3,6			5,5	6,2	15,87	220	15,87	220
	9,00. R/L .250.1,8	9	2,50	1,8	3,6			5,5	6,2	15,87	225	15,87	225
9,00. R/L .300.1,8	9	3,00	1,8	3,6			5,5	6,2	15,87	230	15,87	230	
11	11,00. R/L .073.1,2	11	0,73	1,2	4,2	0,6	0,7	6,7	8,0	15,65	373	15,65	373
	11,00. R/L .083.1,3	11	0,83	1,3	4,2	0,7	0,8	6,7	8,0	15,65	383	15,65	383
	11,00. R/L .093.1,5	11	0,93	1,5	4,2	0,8	0,9	6,7	8,0	15,65	393	15,65	393
	11,00. R/L .100.2,3	11	1,00	2,3	4,2			6,7	8,0	15,65	310	15,65	310
	11,00. R/L .120.2,3	11	1,20	2,3	4,2	1,0	1,1	6,7	8,0	15,65	312	15,65	312
	11,00. R/L .140.2,3	11	1,40	2,3	4,2	1,2	1,3	6,7	8,0	15,65	314	15,65	314
	11,00. R/L .150.2,3	11	1,50	2,3	4,2			6,7	8,0	15,65	315	15,65	315
	11,00. R/L .170.2,3	11	1,70	2,3	4,2	1,5	1,6	6,7	8,0	15,65	317	15,65	317
	11,00. R/L .200.2,3	11	2,00	2,3	4,2			6,7	8,0	15,65	320	15,65	320
	11,00. R/L .250.2,3	11	2,50	2,3	4,2			6,7	8,0	15,65	325	15,65	325
11,00. R/L .300.2,3	11	3,00	2,3	4,2			6,7	8,0	15,65	330	15,65	330	
14	14,00. R/L .073.1,2	14	0,73	1,2	5,3	0,6	0,7	9,0	9,0	15,65	573	15,65	573
	14,00. R/L .083.1,3	14	0,83	1,3	5,3	0,7	0,8	9,0	9,0	15,65	583	15,65	583
	14,00. R/L .093.1,5	14	0,93	1,5	5,3	0,8	0,9	9,0	9,0	15,65	593	15,65	593
	14,00. R/L .120.4,0	14	1,20	4,0	5,3	1,0	1,1	9,0	9,0	15,65	512	15,65	512
	14,00. R/L .140.4,0	14	1,40	4,0	5,3	1,2	1,3	9,0	9,0	15,65	514	15,65	514
	14,00. R/L .150.4,0	14	1,50	4,0	5,3			9,0	9,0	15,65	515	15,65	515
	14,00. R/L .170.4,0	14	1,70	4,0	5,3	1,5	1,6	9,0	9,0	15,65	517	15,65	517
	14,00. R/L .200.4,0	14	2,00	4,0	5,3			9,0	9,0	15,65	520	15,65	520
	14,00. R/L .250.4,0	14	2,50	4,0	5,3			9,0	9,0	15,65	525	15,65	525
	14,00. R/L .300.4,0	14	3,00	4,0	5,3			9,0	9,0	15,65	530	15,65	530
16	16,00. R/L .073.1,2	16	0,73	1,2	5,4	0,6	0,7	10,2	11,0	18,96	773	18,96	773
	16,00. R/L .083.1,3	16	0,83	1,3	5,4	0,7	0,8	10,2	11,0	18,96	783	18,96	783
	16,00. R/L .093.1,5	16	0,93	1,5	5,4	0,8	0,9	10,2	11,0	18,96	793	18,96	793
	16,00. R/L .120.4,3	16	1,20	4,3	5,4	1,0	1,1	10,2	11,0	17,20	712	17,20	712
	16,00. R/L .140.4,3	16	1,40	4,3	5,4	1,2	1,3	10,2	11,0	17,20	714	17,20	714
	16,00. R/L .150.4,3	16	1,50	4,3	5,4			10,2	11,0	17,20	715	17,20	715
	16,00. R/L .170.4,3	16	1,70	4,3	5,4	1,5	1,6	10,2	11,0	17,20	717	17,20	717
	16,00. R/L .200.4,3	16	2,00	4,3	5,4			10,2	11,0	17,20	720	17,20	720
	16,00. R/L .250.4,3	16	2,50	4,3	5,4			10,2	11,0	17,20	725	17,20	725
	16,00. R/L .300.4,3	16	3,00	4,3	5,4			10,2	11,0	17,20	730	17,20	730
	16,00. R/L .350.4,3	16	3,50	4,3	5,4			10,2	11,0	17,20	735	17,20	735
	16,00. R/L .400.4,3	16	4,00	4,3	5,4			10,2	11,0	17,20	740	17,20	740

Steel	•	•
Stainless steel	•	•
Cast iron	•	•
Non ferrous metals	•	•
Heat resistant alloys	•	•
hardened materials		

## MiniCut – Grooving insert

▲ large groove depth ( $T_{max}$  5.5 mm)



Illustrations show right-hand versions

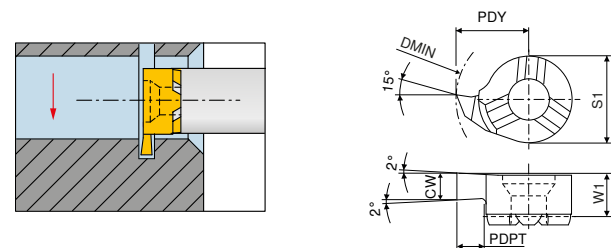
Size	Designation	DMIN	CW <sup>-0.03</sup>	PDPT	W1	PDY	S1
		mm	mm	mm	mm	mm	mm
14	14,00. R/L .1,50.5,5	16	1,5	5,5	5,2	10,5	9
	14,00. R/L .2,00.5,5	16	2,0	5,5	5,2	10,5	9
	14,00. R/L .2,50.5,5	16	2,5	5,5	5,2	10,5	9
	14,00. R/L .3,00.5,5	16	3,0	5,5	5,2	10,5	9

	Left-hand Y5	Right-hand Y5
Article no.	<b>73 372 ...</b>	<b>73 370 ...</b>
EUR		
	18,08 715	18,08 715
	18,08 720	18,08 720
	18,08 725	18,08 725
	18,08 730	18,08 730
Steel	●	●
Stainless steel	●	●
Cast iron	●	●
Non ferrous metals	●	●
Heat resistant alloys	●	●
hardened materials		

→ v<sub>c</sub> Page 60

## MiniCut – Grooving insert

▲ large groove depth ( $T_{max}$  6.5 mm)



Illustrations show right-hand versions

Size	Designation	DMIN	CW <sup>-0.03</sup>	PDPT	W1	PDY	S1
		mm	mm	mm	mm	mm	mm
14	14,00. R/L .1,50.6,5	17	1,5	6,5	5,2	11,5	9
	14,00. R/L .2,00.6,5	17	2,0	6,5	5,2	11,5	9
	14,00. R/L .2,50.6,5	17	2,5	6,5	5,2	11,5	9
	14,00. R/L .3,00.6,5	17	3,0	6,5	5,2	11,5	9

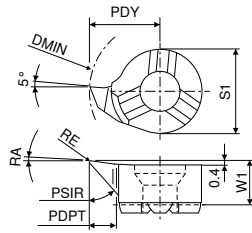
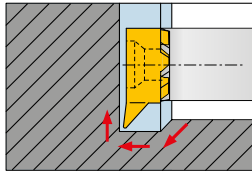
	Left-hand Y5	Right-hand Y5
Article no.	<b>73 384 ...</b>	<b>73 382 ...</b>
EUR		
	18,08 515	18,08 515
	18,08 520	18,08 520
	18,08 525	18,08 525
	18,08 530	18,08 530
Steel	●	●
Stainless steel	●	●
Cast iron	●	●
Non ferrous metals	●	●
Heat resistant alloys	●	●
hardened materials		

→ v<sub>c</sub> Page 60

# MiniCut – Internal undercut insert

CWX500

CWX500

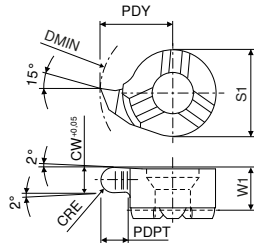
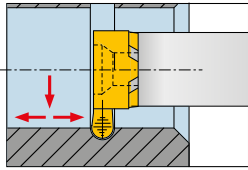


Illustrations show right-hand versions

Size	Designation	DMIN mm	PDPT mm	W1 mm	PDY mm	S1 mm	RE mm	CDX mm	PSIR °	RA °	Left-hand Y5		Right-hand Y5	
											Article no. 73 328 ...	Article no. 73 326 ...	Article no. 73 328 ...	Article no. 73 326 ...
08	8,00. R/L .30°1,0	7,8	1,0	3,5	4,65	6,0	0,2	0,4	30	3	20,38	010	20,38	010
	8,00. R/L .47°1,2	7,8	1,2	3,5	4,65	6,0	0,2	0,4	47	3	17,63	012	17,63	012
09	9,00. R/L .47°1,5	9,0	1,5	3,6	5,50	6,2	0,2	0,5	47	3	17,52	115	17,52	115
11	11,00. R/L .30°2,3	11,0	2,3	4,2	6,70	8,0	0,2	0,6	30	3	19,83	423	19,83	423
	11,00. R/L .47°2,3	11,0	2,3	4,2	6,70	8,0	0,2	0,6	47	3	17,20	323	17,20	323
14	13,70. R/L .47°3,0	13,7	3,0	5,3	8,70	9,0	0,2	0,8	47	3	17,63	530	17,63	530
	13,70. R/L .30°4,0	13,7	4,0	5,3	8,70	9,0	0,2	0,8	30	3	20,38	540	20,38	540
16	15,80. R/L .30°4,3	15,8	4,3	5,4	10,20	11,0	0,2	1,0	30	3	22,38	744	22,38	744
Steel											•	•	•	•
Stainless steel											•	•	•	•
Cast iron											•	•	•	•
Non ferrous metals											•	•	•	•
Heat resistant alloys											•	•	•	•
hardened materials											•	•	•	•

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# MiniCut – Full radius grooving and turning insert

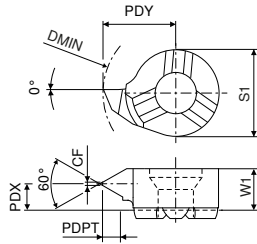
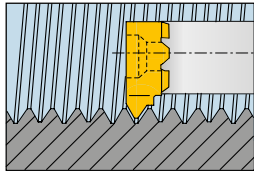
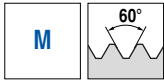


Illustrations show right-hand versions

Size	Designation	DMIN mm	CW mm	PDPT mm	W1 mm	PDY mm	S1 mm	CRE mm	Left-hand Y5		Right-hand Y5	
									Article no. 73 320 ... EUR	Article no. 73 318 ... EUR	Article no. 73 318 ... EUR	Article no. 73 318 ... EUR
08	8,00. R/L .0,80.1,0	8	0,8	1,0	3,3	4,8	6,0	0,4	18,51	008	18,51	008
	8,00. R/L .1,20.1,0	8	1,2	1,0	3,3	4,8	6,0	0,6	18,51	012	18,51	012
	8,00. R/L .1,80.1,0	8	1,8	1,0	3,3	4,8	6,0	0,9	18,51	018	18,51	018
	8,00. R/L .2,00.1,0	8	2,0	1,0	3,3	4,8	6,0	1,0	18,84	020	18,84	020
09	9,00. R/L .0,80.1,6	9	0,8	1,6	3,6	5,5	6,2	0,4	19,51	108	19,51	108
	9,00. R/L .1,20.1,6	9	1,2	1,6	3,6	5,5	6,2	0,6	19,51	112	19,51	112
	9,00. R/L .1,80.1,6	9	1,8	1,6	3,6	5,5	6,2	0,9	19,51	118	19,51	118
	9,00. R/L .2,00.1,6	9	2,0	1,6	3,6	5,5	6,2	1,0	19,51	120	19,51	120
11	11,00. R/L .0,80.2,3	11	0,8	2,3	4,2	6,7	8,0	0,4	19,07	308	19,07	308
	11,00. R/L .1,20.2,3	11	1,2	2,3	4,2	6,7	8,0	0,6	19,07	312	19,07	312
	11,00. R/L .1,60.2,3	11	1,6	2,3	4,2	6,7	8,0	0,8	19,51	316	19,51	316
	11,00. R/L .1,80.2,3	11	1,8	2,3	4,2	6,7	8,0	0,9	19,07	318	19,07	318
	11,00. R/L .2,00.2,3	11	2,0	2,3	4,2	6,7	8,0	1,0	19,07	320	19,07	320
	11,00. R/L .2,40.2,3	11	2,4	2,3	4,2	6,7	8,0	1,2	19,51	324	19,51	324
	11,00. R/L .3,00.2,3	11	3,0	2,3	4,2	6,7	8,0	1,5	19,07	330	19,07	330
14	14,00. R/L .0,80.4,0	14	0,8	4,0	5,3	9,0	9,0	0,4	20,28	508	20,28	508
	14,00. R/L .1,20.4,0	14	1,2	4,0	5,3	9,0	9,0	0,6	19,95	512	19,95	512
	14,00. R/L .1,80.4,0	14	1,8	4,0	5,3	9,0	9,0	0,9	19,95	518	19,95	518
	14,00. R/L .2,00.4,0	14	2,0	4,0	5,3	9,0	9,0	1,0	19,95	520	19,95	520
	14,00. R/L .2,20.4,0	14	2,2	4,0	5,3	9,0	9,0	1,1	19,95	522	19,95	522
	14,00. R/L .3,00.4,0	14	3,0	4,0	5,3	9,0	9,0	1,5	19,95	530	19,95	530
16	16,00. R/L .1,60.4,3	16	1,6	4,3	5,4	10,2	11,0	0,8	20,83	716	20,83	716
	16,00. R/L .1,80.4,3	16	1,8	4,3	5,4	10,2	11,0	0,9	20,50	718	20,50	718
	16,00. R/L .2,00.4,3	16	2,0	4,3	5,4	10,2	11,0	1,0	20,83	720	20,83	720
	16,00. R/L .2,20.4,3	16	2,2	4,3	5,4	10,2	11,0	1,1	20,50	722	20,50	722
	16,00. R/L .2,40.4,3	16	2,4	4,3	5,4	10,2	11,0	1,2	20,83	724	20,83	724
	16,00. R/L .3,00.4,3	16	3,0	4,3	5,4	10,2	11,0	1,5	20,50	730	20,50	730
	16,00. R/L .3,20.4,3	16	3,2	4,3	5,4	10,2	11,0	1,6	20,83	732	20,83	732
	16,00. R/L .4,00.4,3	16	4,0	4,3	5,4	10,2	11,0	2,0	20,50	740	20,50	740
Steel										●		●
Stainless steel										●		●
Cast iron										●		●
Non ferrous metals										●		●
Heat resistant alloys										●		●
hardened materials												

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# MiniCut – Threading insert (Partial profile)



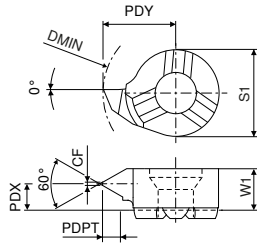
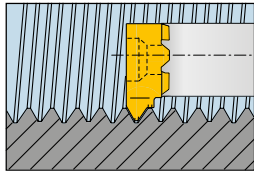
Illustrations show right-hand versions

Size	Designation	DMIN mm	TP mm	CF mm	PDPT mm	W1 mm	PDX mm	PDY mm	S1 mm	Left-hand		Right-hand	
										Y5	Article no. 73 344 ...	Y5	Article no. 73 342 ...
08	8,00. R/L .0,5/0,75.60°	8	0,5 - 0,75	0,06	0,43	3,50	2,7	4,8	6,0	EUR	012	EUR	012
	8,00. R/L .1,0/1,25.60°	8	1,0 - 1,25	0,12	0,70	3,50	2,7	4,8	6,0	20,50	014	20,50	014
	8,00. R/L .1,5/1,75.60°	8	1,5 - 1,75	0,18	0,95	3,50	2,5	4,8	6,0	20,50	010	20,50	010
09	9,00. R/L .0,5/0,75.60°	9	0,5 - 0,75	0,06	0,27	3,55	3,2	5,5	6,2	20,83	112	20,83	112
	9,00. R/L .1,0/1,25.60°	9	1,0 - 1,25	0,12	0,54	3,55	3,0	5,5	6,2	20,83	114	20,83	114
	9,00. R/L .1,5/1,75.60°	9	1,5 - 1,75	0,18	0,81	3,55	2,8	5,5	6,2	20,83	116	20,83	116
	9,00. R/L .1,75/2,0.60°	9	1,75 - 2,0	0,20	0,95	3,55	2,6	5,5	6,2	20,83	118	20,83	118
	9,00. R/L .2,0/2,5.60°	9	2,0 - 2,5	0,25	1,08	3,55	2,5	5,5	6,2	20,83	120	20,83	120
	9,00. R/L .2,5/3,0.60°	9	2,5 - 3,0	0,31	1,35	3,55	2,1	5,5	6,2	20,83	122	20,83	122
	9,00. R/L .3,0/3,5.60°	9	3,0 - 3,5	0,37	1,62	3,55	1,9	5,5	6,2	20,83	124	20,83	124
11	11,00. R/L .0,5/0,75.60°	11	0,5 - 0,75	0,06	0,75	4,30	3,5	6,7	8,0	20,50	312	20,50	312
	11,00. R/L .1,0/1,25.60°	11	1,0 - 1,25	0,12	0,55	4,30	3,5	6,7	8,0	20,50	314	20,50	314
	11,00. R/L .1,5/1,75.60°	11	1,5 - 1,75	0,18	0,81	4,30	3,5	6,7	8,0	20,50	316	20,50	316
	11,00. R/L .2,0/2,5.60°	11	2,0 - 2,5	0,25	1,08	4,30	3,0	6,7	8,0	20,50	310	20,50	310
	11,00. R/L .2,5/3,0.60°	11	2,5 - 3,0	0,31	1,35	4,30	3,0	6,7	8,0	20,50	320	20,50	320
14	14,00. R/L .1,0/1,25.60°	14	1,0 - 1,25	0,12	0,55	5,40	4,7	9,0	9,0	20,50	512	20,50	512
	14,00. R/L .1,5/1,75.60°	14	1,5 - 1,75	0,18	0,81	5,40	4,5	9,0	9,0	20,50	514	20,50	514
	14,00. R/L .2,0/2,5.60°	14	2,0 - 2,5	0,25	1,08	5,40	4,2	9,0	9,0	20,50	510	20,50	510
	14,00. R/L .2,5/3,0.60°	14	2,5 - 3,0	0,31	1,35	5,40	4,7	9,0	9,0	20,50	520	20,50	520
16	16,00. R/L .1,0/1,25.60°	16	1,0 - 1,25	0,12	0,55	5,50	4,7	10,2	11,0	20,50	712	20,50	712
	16,00. R/L .1,5/1,75.60°	16	1,5 - 1,75	0,18	0,81	5,50	4,5	10,2	11,0	20,50	714	20,50	714
	16,00. R/L .2,0/2,5.60°	16	2,0 - 2,5	0,25	1,08	5,50	4,2	10,2	11,0	20,50	716	20,50	716
	16,00. R/L .2,5/3,0.60°	16	2,5 - 3,0	0,31	1,35	5,50	4,2	10,2	11,0	20,50	710	20,50	710

Steel	•	•
Stainless steel	•	•
Cast iron	•	•
Non ferrous metals	•	•
Heat resistant alloys	•	•
hardened materials	•	•

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# MiniCut – Threading insert (Full profile)



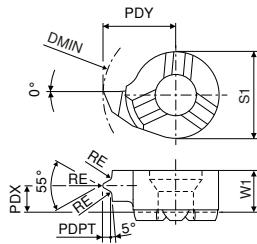
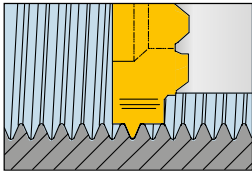
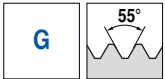
Illustrations show right-hand versions

Size	Designation	DMIN	TP	CF	PDPT	W1	PDX	PDY	S1	Left-hand		Right-hand	
										Y5	Article no.	Y5	Article no.
09	9,00. R/L .0,5.60°	9	0,50	0,06	0,27	3,55	3,25	5,5	6,2	<b>EUR</b>	405	<b>EUR</b>	405
	9,00. R/L .1,0.60°	9	1,00	0,12	0,54	3,55	3,00	5,5	6,2	23,25	410	23,25	410
	9,00. R/L .1,5.60°	9	1,50	0,18	0,81	3,55	2,80	5,5	6,2	23,25	415	23,25	415
	9,00. R/L .1,75.60°	9	1,75	0,20	0,95	3,55	2,70	5,5	6,2	23,25	418	23,25	418
	9,00. R/L .2,0.60°	9	2,00	0,25	1,08	3,55	2,60	5,5	6,2	23,25	420	23,25	420
	9,00. R/L .2,5.60°	9	2,50	0,31	1,35	3,55	2,50	5,5	6,2	23,25	425	23,25	425
	9,00. R/L .3,0.60°	9	3,00	0,37	1,62	3,55	2,20	5,5	6,2	23,25	430	23,25	430
11	11,00. R/L .1,0.60°	11	1,00	0,12	0,54	4,30	3,50	6,7	8,0	22,81	314	22,81	314
	11,00. R/L .1,5.60°	11	1,50	0,18	0,81	4,30	3,50	6,7	8,0	22,81	316	22,81	316
	11,00. R/L .2,0.60°	11	2,00	0,25	1,08	4,30	3,20	6,7	8,0	22,81	310	22,81	310
	11,00. R/L .2,5.60°	11	2,50	0,31	1,35	4,30	3,00	6,7	8,0	22,81	320	22,81	320
	11,00. R/L .3,0.60°	11	3,00	0,37	1,62	4,30	2,90	6,7	8,0	22,81	330	22,81	330
14	14,00. R/L .0,5.60°	14	0,50	0,06	0,27	5,40	3,50	9,0	9,0	23,70	510	23,70	510
	14,00. R/L .1,0.60°	14	1,00	0,12	0,54	5,40	3,50	9,0	9,0	21,05	512	21,05	512
	14,00. R/L .1,5.60°	14	1,50	0,18	0,81	5,40	3,30	9,0	9,0	21,05	514	21,05	514
	14,00. R/L .2,0.60°	14	2,00	0,25	1,08	5,40	4,20	9,0	9,0	21,05	610	21,05	610
	14,00. R/L .2,5.60°	14	2,50	0,31	1,35	5,40	4,70	9,0	9,0	21,05	520	21,05	520
16	16,00. R/L .1,0.60°	16	1,00	0,12	0,54	5,50	4,70	10,2	11,0	25,46	712	25,46	712
	16,00. R/L .1,5.60°	16	1,50	0,18	0,81	5,50	4,50	10,2	11,0	25,46	714	25,46	714
	16,00. R/L .2,0.60°	16	2,00	0,25	1,08	5,50	4,20	10,2	11,0	25,46	716	25,46	716
	16,00. R/L .2,5.60°	16	2,50	0,31	1,35	5,50	4,20	10,2	11,0	25,46	710	25,46	710
	16,00. R/L .3,0.60°	16	3,00	0,37	1,62	5,50	4,00	10,2	11,0	25,46	720	25,46	720
	16,00. R/L .3,5.60°	16	3,50	0,43	1,89	5,50	3,80	10,2	11,0	25,46	730	25,46	730
	16,00. R/L .4,0.60°	16	4,00	0,50	2,16	5,50	3,60	10,2	11,0	25,46	740	25,46	740

Steel	•	•
Stainless steel	•	•
Cast iron	•	•
Non ferrous metals	•	•
Heat resistant alloys	•	•
hardened materials		

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# MiniCut – Threading insert (Full profile)



Illustrations show right-hand versions

Size	Designation	DMIN mm	TP mm	TPI 1/"	PDPT mm	W1 mm	PDX mm	PDY mm	S1 mm	RE mm	Left-hand Y5		Right-hand Y5	
											Article no. 73 352 ...	EUR	Article no. 73 350 ...	EUR
11	11,00. R/L .1,814.55°	11	1,814	14	1,16	4,30	3,0	6,7	8	0,24	30,31	306	30,31	306
	11,00. R/L .1,337.55°	11	1,337	19	0,85	4,30	2,7	6,7	8	0,18	30,31	304	30,31	304
14	14,00. R/L .1,814.55°	14	1,814	14	1,16	5,35	3,6	9,0	9	0,24	30,31	506	30,31	506
	14,00. R/L .1,337.55°	14	1,337	19	0,85	5,35	3,8	9,0	9	0,18	30,31	504	30,31	504
16	16,00. R/L .2,309.55°	16	2,309	11	1,48	5,50	3,5	10,2	11	0,31	32,41	708	32,41	708
	16,00. R/L .1,814.55°	16	1,814	14	1,16	5,50	3,9	10,2	11	0,24	32,41	706	32,41	706

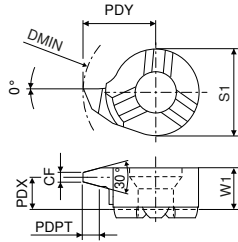
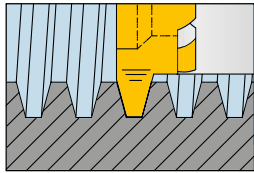
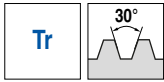
Steel	•	•
Stainless steel	•	•
Cast iron	•	•
Non ferrous metals	•	•
Heat resistant alloys	•	•
hardened materials		

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# MiniCut – Threading insert (Partial profile)

▲ Trapezoidal thread DIN 103



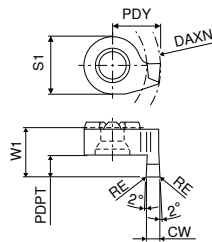
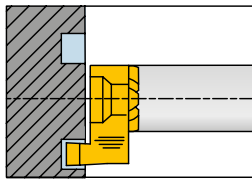
Illustrations show right-hand versions

Size	Designation	DMIN	TP	CF	PDPT	W1	PDX	PDY	S1	Left-hand		Right-hand	
										Y5		Y5	
										Article no.		Article no.	
										73 356 ...		73 354 ...	
										EUR		EUR	
09	9,00. R/L .1,5.30°	9	1,5	0,47	0,90	3,55	3,00	5,5	6,2	21,49	415	21,49	415
	9,00. R/L .2,0.30°	9	2,0	0,60	1,25	3,55	2,85	5,5	6,2	21,49	420	21,49	420
	9,00. R/L .3,0.30°	9	3,0	0,96	1,75	3,55	2,25	5,5	6,2	21,49	430	21,49	430
	9,00. R/L .4,0.30°	10	4,0	1,33	2,25	3,55	2,25	5,5	6,2	21,49	440	21,49	440
11	11,00. R/L .1,5.30°	11	1,5	0,47	0,90	4,30	3,70	6,7	8,0	21,15	315	21,15	315
	11,00. R/L .2,0.30°	11	2,0	0,60	1,25	4,30	3,50	6,7	8,0	21,15	320	21,15	320
	11,00. R/L .3,0.30°	11	3,0	0,96	1,75	4,30	3,20	6,7	8,0	21,15	330	21,15	330
	11,00. R/L .4,0.30°	11	4,0	1,33	2,25	3,95	2,60	6,7	8,0	20,50	340	20,50	340
14	14,00. R/L .2,0.30°	14	2,0	0,60	1,25	5,30	4,30	9,0	9,0	21,15	520	21,15	520
	14,00. R/L .3,0.30°	14	3,0	0,96	1,75	5,30	4,00	9,0	9,0	21,15	530	21,15	530
	14,00. R/L .4,0.30°	14	4,0	1,33	2,25	5,30	3,60	9,0	9,0	21,15	540	21,15	540
	14,00. R/L .5,0.30°	14	5,0	1,69	2,75	5,30	3,30	9,0	9,0	21,15	550	21,15	550
16	16,00. R/L .2,0.30°	16	2,0	0,60	1,25	5,50	4,50	9,7	11,0	24,14	720	24,14	720
	16,00. R/L .3,0.30°	16	3,0	0,96	1,75	5,50	4,30	9,7	11,0	24,14	730	24,14	730
	16,00. R/L .4,0.30°	16	4,0	1,33	2,25	5,50	4,00	9,7	11,0	24,14	740	24,14	740
	16,00. R/L .5,0.30°	16	5,0	1,69	2,75	5,50	3,55	9,7	11,0	23,36	750	23,36	750
	16,00. R/L .6,0.30°	16	6,0	1,92	3,50	5,50	3,30	10,2	11,0	25,46	760	25,46	760

Steel	•	•
Stainless steel	•	•
Cast iron	•	•
Non ferrous metals	•	•
Heat resistant alloys	•	•
hardened materials		

→ v<sub>c</sub> Page 60

# MiniCut – Axial grooving insert



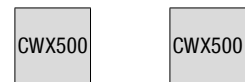
Illustrations show right-hand versions

Size	Designation	DAXN mm	CW mm	PDPT mm	W1 mm	PDY mm	RE mm	S1 mm	Left-hand Y5		Right-hand Y5	
									Article no. 73 364 ...	EUR	Article no. 73 362 ...	EUR
14	14,00. R/L .1,0,1,5	14	1,0	1,5	8,3	9		9	16,65	510	16,65	510
	14,00. R/L .1,5,2,5	14	1,5	2,5	8,3	9	0,2	9	16,65	515	16,65	515
	14,00. R/L .2,0,3,0	14	2,0	3,0	8,3	9	0,2	9	16,65	520	16,65	520
	14,00. R/L .2,0,5,0	14	2,0	5,0	10,3	9	0,2	9	19,07	620	19,07	620
	14,00. R/L .2,5,3,0	14	2,5	3,0	8,3	9	0,2	9	16,65	525	16,65	525
	14,00. R/L .2,5,5,0	14	2,5	5,0	10,3	9	0,2	9	19,07	625	19,07	625
	14,00. R/L .3,0,3,0	14	3,0	3,0	8,3	9	0,2	9	16,65	530	16,65	530
	14,00. R/L .3,0,5,0	14	3,0	5,0	10,3	9	0,2	9	19,07	630	19,07	630

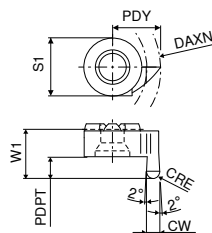
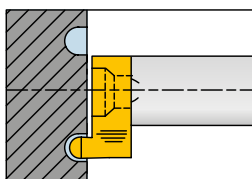
Steel	•	•
Stainless steel	•	•
Cast iron	•	•
Non ferrous metals	•	•
Heat resistant alloys	•	•
hardened materials		

→ v<sub>c</sub> Page 60

# MiniCut – Full radius axial grooving insert



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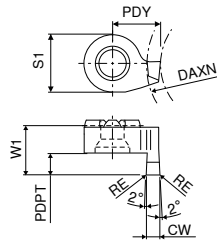
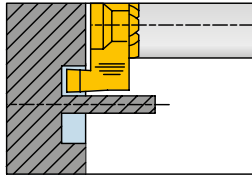
Illustrations show right-hand versions

Size	Designation	DAXN mm	CW mm	PDPT mm	W1 mm	PDY mm	CRE mm	S1 mm	Left-hand Y5		Right-hand Y5	
									Article no. 73 376 ...	EUR	Article no. 73 374 ...	EUR
14	14,00. R/L . 1,0,1,5	14	1,0	1,5	8,3	9	0,5	9	20,50	510	20,50	510
	14,00. R/L . 1,6,2,5	14	1,6	2,5	8,3	9	0,8	9	20,50	516	20,50	516
	14,00. R/L . 2,0,3,0	14	2,0	3,0	8,3	9	1,0	9	20,50	520	20,50	520
	14,00. R/L . 2,5,3,0	14	2,5	3,0	8,3	9	1,2	9	20,50	525	20,50	525
	14,00. R/L . 3,0,3,0	14	3,0	3,0	8,3	9	1,5	9	20,50	530	20,50	530

Steel	•	•
Stainless steel	•	•
Cast iron	•	•
Non ferrous metals	•	•
Heat resistant alloys	•	•
hardened materials		

→ v<sub>c</sub> Page 60

# MiniCut – Axial grooving insert over a spigot



Illustrations show right-hand versions

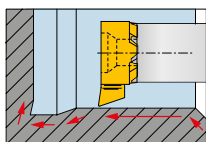
Size	Designation	DAXN mm	CW mm	PDPT mm	W1 mm	PDY mm	RE mm	S1 mm	Left-hand Y5		Right-hand Y5	
									Article no. 73 360 ...	EUR	Article no. 73 358 ...	EUR
12	12,00. R/L .1,0.1,5	12	1,0	1,5	8,3	7,0		9	17,20	310	17,20	310
	12,00. R/L .1,5.2,5	12	1,5	2,5	8,3	7,5	0,2	9	17,52	315	17,52	315
	12,00. R/L .2,0.3,0	12	2,0	3,0	8,3	8,0	0,2	9	17,52	320	17,52	320
	12,00. R/L .2,0.5,0	12	2,0	5,0	10,3	8,0	0,2	9	20,18	420	20,18	420
	12,00. R/L .2,5.3,0	12	2,5	3,0	8,3	8,5	0,2	9	17,52	325	17,52	325
	12,00. R/L .2,5.5,0	12	2,5	5,0	10,3	8,5	0,2	9	20,18	425	20,18	425
	12,00. R/L .3,0.3,0	12	3,0	3,0	8,3	9,0	0,2	9	17,52	330	17,52	330
	12,00. R/L .3,0.5,0	12	3,0	5,0	10,3	9,0	0,2	9	20,18	430	20,18	430

Steel	•	•
Stainless steel	•	•
Cast iron	•	•
Non ferrous metals	•	•
Heat resistant alloys	•	•
hardened materials		

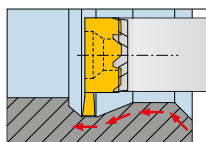
→ v<sub>c</sub> Page 60

## Set: MiniCut size 9

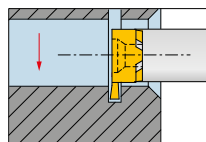
- ▲ Extensive range of size 9 inserts
- ▲ CWX 500



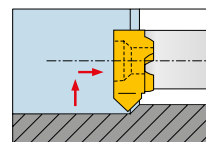
Profile turning (K)



Profile turn (A)



Grooving (E)

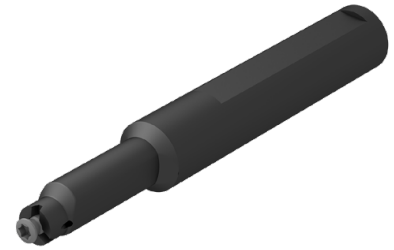
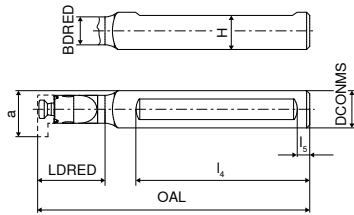


Chamfers (F)



Tool	Designation	Article number	Bore Ø mm	Width mm	Grooving depth mm	Piece	fig.	Y5	
								Article no. 73 528 ...	EUR
Grooving insert	9,00. R .1,00.1,8	73 310 210	9	1,00	1,8	1	E		
NC fine turning insert	9,00. R .2,00.2,0	73 314 120	9	2,0+0,05	2,0	1	A		
Profiling insert	9,00. R .3,60.10°	73 386 136	9	3,6		1	K		
Profiling insert	9,00. R .3,60.20°	73 322 236	9	3,6		1	K	190,90	125
Chamfering insert	9,00. R .45°1,3	73 334 110	9		1,3	1	F		
Tool holder	9,00/16.N.25.1,0	73 522 125				1			
Tightening Key		70 950 105				1			

# MiniCut – Steel Tool holder

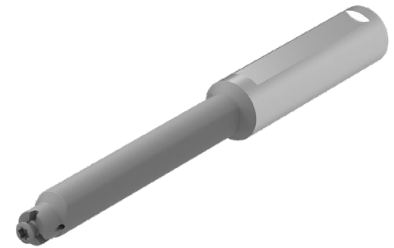
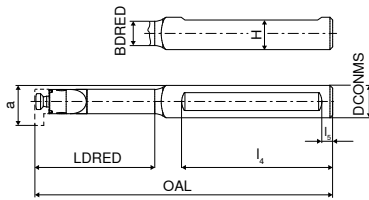


Size	Designation	a mm	DCONMS <sub>17</sub> mm	OAL mm	l <sub>4</sub> mm	LDRED mm	BDRED mm	H mm	l <sub>5</sub> mm	Y5	
										Article no. 73 522 ...	EUR
08	8,00/16.N.12.1,0	7,8	16	80	60	12	6,0	15,0	5	83,15	012
	8,00/16.N.22.1,0	7,8	16	90	60	22	6,0	15,0	5	95,32	122
09	9,00/16.N.14.1,8	8,6	16	95	60	14	7,4	15,0	5	84,20	014
	9,00/16.N.25.1,8	8,6	16	105	60	25	7,4	15,0	5	96,57	125
11	11,00/16.N.16.2,3	10,7	16	97	60	16	8,0	14,5	5	83,15	016
	11,00/16.N.29.2,3	10,7	16	110	60	29	8,0	14,5	5	95,32	129
14	14,00/16.N.18.4,0	13,8	16	100	60	18	11,0	14,5	5	95,32	018
	14,00/16.N.38.4,0	13,8	16	120	60	38	11,0	14,5	5	95,32	138
16	16,00/16.N.22.4,3	15,7	16	100	60	22	11,0	14,5	5	83,15	022
	16,00/16.N.42.4,3	15,7	16	120	60	42	11,0	14,5	5	95,32	142

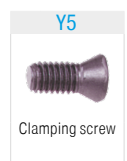
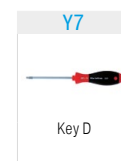
### Spare parts

Size	Y7 Key D Article no. 80 950 ...			Y5 Clamping screw Article no. 73 082 ...		
	EUR			EUR		
08	7,80	110	M2,6	3,15		002
09	7,80	110	M2,6	3,15		002
11	9,14	112	M3,5	3,15		003
14	9,28	113	M4	3,15		004
16	9,95	114	M5	3,15		005

# MiniCut – Solid Carbide Tool holder – vibration damped



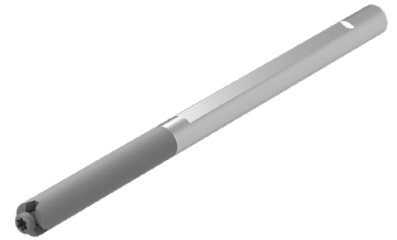
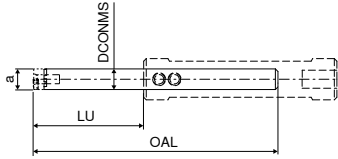
Size	Designation	a mm	DCONMS <sub>17</sub> mm	OAL mm	l <sub>4</sub> mm	LDRED mm	BDRED mm	H mm	l <sub>5</sub> mm	Y5	
										Article no. 73 520 ...	EUR
08	8,00/12.N.21.1,0 HM	7,8	12	80	48	21	6,0	11,0	5	134,20	021
	8,00/12.N.30.1,0 HM	7,8	12	90	48	30	6,0	11,0	5	145,70	030
	8,00/12.N.42.1,0 HM	7,8	12	100	48	42	6,0	11,0	5	172,00	042
	8,00/12.N.50.1,0 HM	7,8	12	115	48	50	6,0	11,0	5	195,00	050
09	9,00/12.N.22.1,0 HM	8,6	12	90	60	22	7,4	11,0	5	151,00	222
	9,00/12.N.30.2,0 HM	8,6	12	98	60	30	7,4	11,0	5	176,20	230
	9,00/12.N.42.3,0 HM	8,6	12	110	60	42	7,4	11,0	5	198,20	242
	9,00/12.N.56.4,0 HM	8,6	12	122	60	56	7,4	11,0	5	224,40	256
11	11,00/12.N.29.2,3 HM	10,7	12	95	60	29	8,0	10,5	5	134,20	129
	11,00/12.N.42.2,3 HM	10,7	12	110	60	42	8,0	10,5	5	145,70	142
	11,00/12.N.56.2,3 HM	10,7	12	120	60	56	8,0	10,5	5	172,00	156
	11,00/12.N.64.2,3 HM	10,7	12	130	60	64	8,0	10,5	5	195,00	164
14	14,00/12.N.34.4,0 HM	13,8	12	100	60	34	11,0	10,5	5	163,60	234
	14,00/12.N.45.4,0 HM	13,8	12	110	60	45	11,0	10,5	5	184,50	245
	14,00/12.N.64.4,0 HM	13,8	12	130	60	64	11,0	10,5	5	219,20	264
	14,00/16.N.34.4,0 HM	13,8	16	100	60	34	11,0	14,5	5	191,90	334
	14,00/16.N.45.4,0 HM	13,8	16	110	60	45	11,0	14,5	5	220,20	345
	14,00/16.N.64.4,0 HM	13,8	16	130	60	64	11,0	14,5	5	250,60	364
	14,00/16.N.75.4,0 HM	13,8	16	145	60	75	11,0	14,5	5	268,50	375
16	16,00/12.N.40.4,3 HM	15,7	12	130	60	40	11,0	10,5	5	174,10	440
	16,00/12.N.56.4,3 HM	15,7	12	130	60	56	11,0	10,5	5	184,50	456
	16,00/12.N.80.4,3 HM	15,7	12	150	60	80	11,0	10,5	5	219,20	480
	16,00/16.N.40.4,3 HM	15,7	16	130	60	40	11,0	14,5	5	220,20	540
	16,00/16.N.56.4,3 HM	15,7	16	130	60	56	11,0	14,5	5	220,20	556
	16,00/16.N.80.4,3 HM	15,7	16	150	60	80	11,0	14,5	5	250,60	580



### Spare parts

Size	Article no.	Y7		Article no.	Y5	
		80 950 ...	EUR		73 082 ...	EUR
08	T08	7,80	110	M2,6	3,15	002
09	T08	7,80	110	M2,6	3,15	002
11	T10	9,14	112	M3,5	3,15	003
14	T15	9,28	113	M4	3,15	004
16	T20	9,95	114	M5	3,15	005

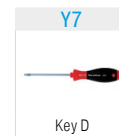
## MiniCut – HM – Flexoholder



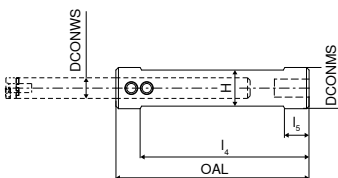
Size	Designation	DCONMS mm	OAL mm	LU mm	a mm	Y5	
						Article no.	Price
08	8,0/6.N16/2	6	65	18	8	73 525 ...	818
	8,0/6.N40/4	6	103	40	8	73 526 ...	840
11	11,0/8.N20/2	8	79	20	11	73 526 ...	120 <sup>1)</sup>
	11,0/8.N50/4	8	129	50	11	73 526 ...	150 <sup>1)</sup>

1) with thro' coolant

Size	Spare parts	Y7		Y5	
		Article no.	Price	Article no.	Price
08	T08	80 950 ...	7,80	73 082 ...	3,15
11	T10	80 950 ...	9,14	73 082 ...	3,15

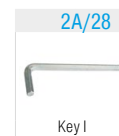


## MiniCut – Base holder for solid carbide Flexoholder



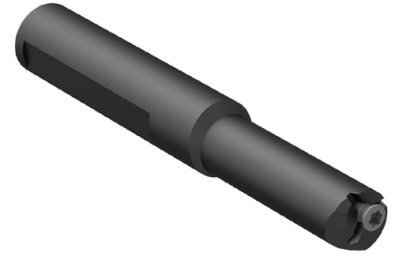
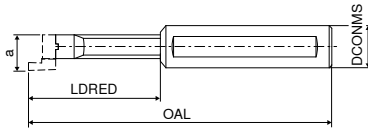
Size	Designation	DCONWS mm	DCONMS mm	H mm	OAL mm	l <sub>4</sub> mm	l <sub>5</sub> mm	Y5	
								Article no.	Price
08	8/16.75	6	16	14	75	55	10	73 526 ...	816
	8/20.90	6	20	18	90	70	10	73 526 ...	820
11	11/16.75	8	16	14	75	55	10	73 526 ...	116
	11/20.90	8	20	18	90	70	10	73 526 ...	120

for Article no.	Spare parts	2A/28		Y5	
		Article no.	Price	Article no.	Price
73 526 816	SW2,5	70 950 ...	2,45	73 082 ...	2,96
73 526 820	SW2,5	70 950 ...	2,45	73 082 ...	2,96
73 526 116	SW2,5	70 950 ...	2,45	73 082 ...	2,96
73 526 120	SW2,5	70 950 ...	2,45	73 082 ...	2,96



# MiniCut – Steel holder

▲ for axial machining



Illustrations show right-hand versions

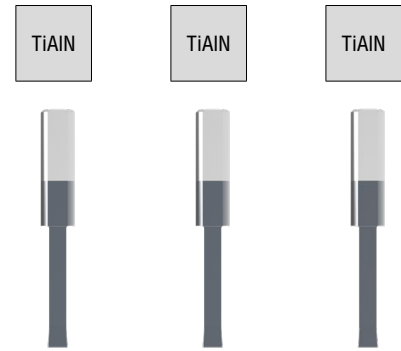
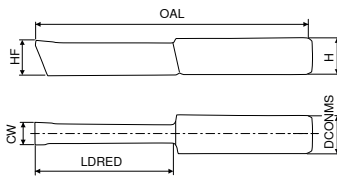
Size	Designation	a mm	DCONMS mm	OAL mm	LDRED mm	Left-hand Y5		Right-hand Y5			
						Article no.	EUR	Article no.	EUR		
14	14,0/16. R/L .25.1,0	13,5	16	90	25	73 523 ...	114,30	025	73 524 ...	114,30	025
	14,0/16. R/L .45.1,0	13,5	16	110	45	73 523 ...	121,60	145	73 524 ...	121,60	145

## Spare parts

Size	Key D	Article no.	EUR	Clamping screw	Article no.	EUR
14	T15	80 950 ...	9,28	M4	73 082 ...	3,15

# SlotCut – Inserts – DIN 138

▲ b<sub>1</sub> = Groove width



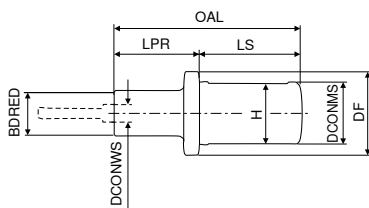
Designation	d <sub>1</sub> P9/JS9/C11 mm	CW mm	HF mm	RE mm	OAL mm	LDRED mm	DAXN mm	DCONMS <sub>h6</sub> mm	H mm	clamping holder	Y5 Article no. 73 600 ... EUR		Y5 Article no. 73 601 ... EUR		Y5 Article no. 73 602 ... EUR	
NPU.0198.01.1	2	1,98	5,5	0,10	38	12,5	6	7	6,3	NHU						
NPU.0200.01.1	2	2,01	5,5	0,10	38	12,5	6	7	6,3	NHU						
NPU.0210.03.1	2	2,10	5,5	0,35	38	12,5	6	7	6,3	NHU	42,98	098				
NPU.0298.01.1	3	2,98	6,2	0,10	38	12,5	7	7	6,3	NHU						
NPU.0300.01.1	3	3,01	6,2	0,10	38	12,5	7	7	6,3	NHU						
NPU.0310.03.1	3	3,10	6,2	0,35	38	12,5	7	7	6,3	NHU	42,98	099				
NPU.0310.05.1	3	3,10	6,2	0,50	38	12,5	7	7	6,3	NHU	42,98	100				
NPU.0398.01.1	4	3,98	6,2	0,10	40	15,0	7	7	6,3	NHU						
NPU.0398.02.2	4	3,98	6,2	0,20	50	25,0	7	7	6,3	NHU						
NPU.0400.01.1	4	4,01	6,2	0,10	40	15,0	7	7	6,3	NHU						
NPU.0400.02.1	4	4,01	6,2	0,20	40	15,0	7	7	6,3	NHU						
NPU.0400.02.2	4	4,01	6,2	0,20	50	25,0	7	7	6,3	NHU						
NPU.0410.05.1	4	4,10	6,2	0,50	40	15,0	7	7	6,3	NHU	41,22	101				
NPU.0410.05.2	4	4,10	6,2	0,50	50	25,0	7	7	6,3	NHU	54,01	102				
NPU.0498.02.2	5	4,98	5,8	0,20	50	25,0	7	7	6,3	NHU						
NPU.0500.02.2	5	5,01	5,8	0,20	50	25,0	8	7	6,3	NHU						

**i** Tolerance **C 11** for 73 600 ..., Tolerance **JS 9** for 73 601 ..., Tolerance **P 9** for 73 602 ...

## SlotCut – Toolholder for broaching inserts

### Scope of supply:

Tool holder with clamping screw, without insert



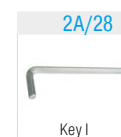
12

Designation	DCONWS mm	BDRED mm	DCONMS <sub>g6</sub> mm	DF mm	OAL mm	LS mm	LPR mm	H mm	Inserts	Y5 Article no. 73 610 ... EUR	
NHU.25	7	18	25	33	73	40	33	23	NPU	215,00	025
NHU.32	7	20	32	40	73	40	33	30	NPU	224,40	032

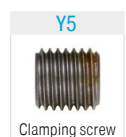
### Spare parts

#### for Article no.

Article no.	EUR	Quantity	Part	Article no.	EUR	Quantity
73 610 025	2,45	175	SW2,5	73 610 025	2,90	001
73 610 032	2,45	175	SW2,5	73 610 032	2,90	001



Key I

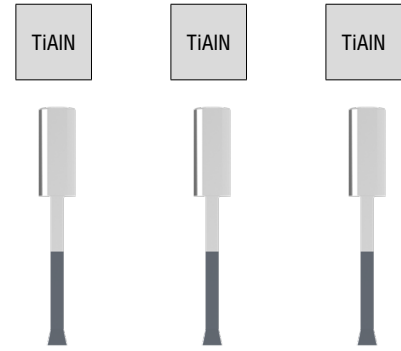
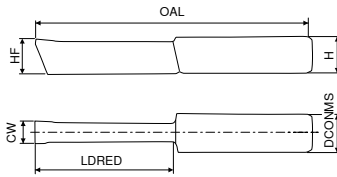


Clamping screw



# SlotCut – Inserts – DIN 138

▲ b<sub>1</sub> = Groove width



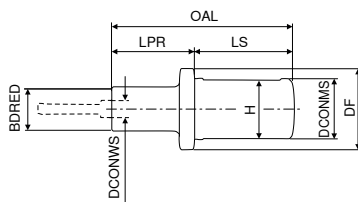
Designation	b <sub>1</sub> JS9/P9/C11 mm	CW mm	HF mm	RE mm	OAL mm	LDRED mm	DAXN mm	DCONMS <sub>96</sub> mm	H mm	clamping holder	Y5 Article no. 73 606 ... EUR		Y5 Article no. 73 607 ... EUR		Y5 Article no. 73 608 ... EUR	
NP10.398.02.2	4	3,98	9	0,2	50	25	10	10	9,2	NH 10						
NP10.398.02.3	4	3,98	9	0,2	66	41	10	10	9,2	NH 10			60,07	101		
NP10.400.02.2	4	4,01	9	0,2	50	25	10	10	9,2	NH 10					60,07	101
NP10.400.02.3	4	4,01	9	0,2	66	41	10	10	9,2	NH 10					75,17	102
NP10.410.05.2	4	4,10	9	0,5	50	25	10	10	9,2	NH 10	60,07	101				
NP10.410.05.3	4	4,10	9	0,5	66	41	10	10	9,2	NH 10	75,17	102				
NP10.498.02.2	5	4,98	9	0,2	50	25	10	10	9,2	NH 10			60,07	103		
NP10.498.02.3	5	4,98	9	0,2	66	41	10	10	9,2	NH 10			75,17	104		
NP10.500.02.2	5	5,01	9	0,2	50	25	10	10	9,2	NH 10					60,07	103
NP10.500.02.3	5	5,01	9	0,2	66	41	10	10	9,2	NH 10					75,17	104
NP10.510.05.2	5	5,10	9	0,5	50	25	10	10	9,2	NH 10	60,07	103				
NP10.510.05.3	5	5,10	9	0,5	66	41	10	10	9,2	NH 10	75,17	104				

**i** Tolerance **C 11** for 73 606 ..., Tolerance **P 9** for 73 607 ..., Tolerance **JS 9** for 73 608 ...

## SlotCut – Toolholder for Cutting Inserts

### Scope of supply:

Tool holder with clamping screw, without insert

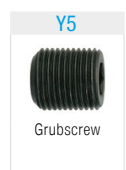
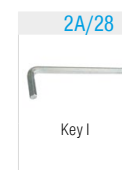


Designation	DCONWS mm	BRED mm	DCONMS <sub>96</sub> mm	DF mm	OAL mm	LS mm	LPR mm	H mm	Inserts	Y5 Article no. 73 612 ... EUR	
NH10.0025.1	10	20	25	33	73	40	33	23	NP10	215,00	025
NH10.0032.1	10	20	32	40	73	40	33	30	NP10	215,00	032

### Spare parts

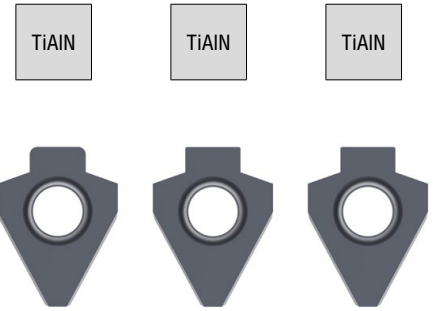
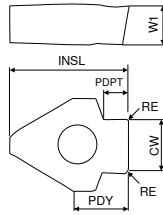
for Article no.

Article no.	SW03	EUR	176	M6x5,5	EUR	3,44	031
73 612 032	SW03	2,45	176	M6x5,5	3,44	031	
73 612 025	SW03	2,45	176	M6x5,5	3,44	031	



# SlotCut – Inserts – DIN 138

▲ b<sub>1</sub> = Groove width



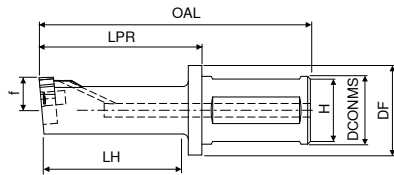
Designation	b <sub>1</sub> P9/JS9/C11 mm	CW mm	RE mm	PDY mm	INSL mm	PDPT mm	DAXN mm	W1 mm	clamping holder	Y5			
										Article no. 73 603 ... EUR	Article no. 73 604 ... EUR	Article no. 73 605 ... EUR	
NV15.0398.02	4	3,98	0,20	6,5	13,0	2,3	15	3,2	NHV 15				
NV15.0401.02	4	4,01	0,20	6,5	13,0	2,3	15	3,2	NHV 15		38,14	110	
NV15.0410.050	4	4,10	0,50	6,5	13,0	2,2	15	3,2	NHV 15	38,14	108		
NV15.0498.02	5	4,98	0,20	6,5	13,0	2,8	15	3,2	NHV 15			38,14	111
NV15.0501.02	5	5,01	0,20	6,5	13,0	2,8	15	3,2	NHV 15		38,14	111	
NV15.0510.050	5	5,10	0,50	6,5	13,0	2,5	15	3,2	NHV 15	38,14	109		
NV15.0598.02	6	5,98	0,20	6,5	13,0	3,3	15	3,2	NHV 15			38,14	112
NV15.0601.02	6	6,01	0,20	6,5	13,0	3,3	15	3,2	NHV 15		38,14	112	
NV15.0612.085	6	6,12	0,85	6,5	13,0	2,6	15	3,2	NHV 15	38,14	110		
NPV.0498.02	5	4,98	0,20	8,0	17,3	2,7	22	5,3	NHV 22			38,14	100
NPV.0501.02	5	5,01	0,20	8,0	17,3	2,7	22	5,3	NHV 22		38,14	100	
NPV.0598.02	6	5,98	0,20	8,0	17,3	3,4	22	5,3	NHV 22			38,14	101
NPV.0601.02	6	6,01	0,20	8,0	17,3	3,4	22	5,3	NHV 22		38,14	101	
NPV.0612.085	6	6,12	0,85	8,0	17,3	2,6	22	5,3	NHV 22	38,14	101		
NPV.0713.085	7	7,13	0,85	8,0	17,3	3,3	22	5,3	NHV 22	38,14	102		
NPV.0798.02	8	7,98	0,20	8,0	17,3	4,1	22	5,3	NHV 22/30			38,14	102
NPV.0801.02	8	8,01	0,20	8,0	17,3	4,1	22	5,3	NHV 22/30		38,14	102	
NPV.0813.105	8	8,13	1,05	8,0	17,3	3,4	22	5,3	NHV 22/30	38,14	103		
NPV.0998.03	10	9,98	0,30	8,0	17,3	4,2	30	5,3	NHV 30			38,14	103
NPV.1001.03	10	10,01	0,30	8,0	17,3	4,2	30	5,3	NHV 30		38,14	103	
NPV.1013.105	10	10,13	1,05	10,9	20,2	4,2	40	5,3	NHV 38	38,14	104		
NPV.1197.03	12	11,97	0,30	10,9	20,2	5,7	40	5,3	NHV 38			38,14	104
NPV.1202.05	20	12,02	0,50	10,9	20,2	8,5	40	5,3	NHV 38		38,14	105	
NPV.1202.03	12	12,02	0,30	10,9	20,2	5,7	40	5,3	NHV 38		38,14	104	
NPV.1215.135	12	12,15	1,35	10,9	20,2	5,1	40	5,3	NHV 38	38,14	105		
NPV.1215.175	16	12,15	1,75	10,9	20,2	6,6	40	5,3	NHV 38	38,14	106		
NPV.1215.225	24	12,15	2,25	10,9	20,2	8,5	40	5,3	NHV 38	38,14	107		
NPV.1397.03	14	13,97	0,30	10,9	20,1	7,5	45	5,3	NHV 45			43,20	106
NPV.1402.03	14	14,02	0,30	10,9	20,1	7,5	45	5,3	NHV 45		43,20	106	
NPV.1597.03	16	15,97	0,30	10,9	20,1	7,5	45	5,3	NHV 45			43,20	107
NPV.1602.03	16	16,02	0,30	10,9	20,1	7,5	45	5,3	NHV 45		43,20	107	
NPV.1797.05	18	17,97	0,50	10,9	20,1	9,5	45	5,3	NHV 45			43,20	108
NPV.1802.05	18	18,02	0,50	10,9	20,1	9,5	45	5,3	NHV 45		43,20	108	
NPV.1997.05	20	19,97	0,50	10,9	20,1	10,0	45	5,3	NHV 45			43,20	109
NPV.2002.05	20	20,02	0,50	10,9	20,1	10,0	45	5,3	NHV 45		43,20	109	

**i** Tolerance **C 11** for 73 603 ..., Tolerance **JS 9** for 73 604 ..., Tolerance **P 9** for 73 605 ...

## SlotCut – Toolholder for inserts

**Scope of supply:**

Tool holder with clamping screw, without insert

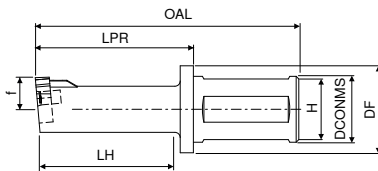


Designation	DCONMS <sub>g6</sub>	DAXN	DF	OAL	LH	LPR	H	f	Inserts	Y5	
										Article no.	EUR
NHV.15.1	25	15	33	75	25	35	23	8,4	NV15	73 613 ...	184,50
NHV.15.2	25	15	33	90	40	50	23	8,4	NV15	73 613 ...	202,40
NHV.15.3	25	15	33	110	60	70	23	8,4	NV15	73 613 ...	230,70

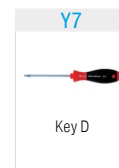
## SlotCut – Toolholder for inserts

**Scope of supply:**

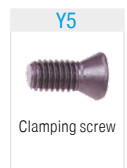
Tool holder with clamping screw, without insert



Designation	DCONMS <sub>g6</sub>	DAXN	DF	OAL	LH	LPR	H	f	Inserts	Y5	
										Article no.	EUR
NHV.22	25	22	33	100	50	60	23	12,0	NPV	73 611 ...	201,40
NHV.30	32	30	45	100	50	60	30	16,5	NPV	73 611 ...	201,40
NHV.30	32	30	45	125	75	85	30	16,5	NPV	73 611 ...	228,50
NHV.38	32	38	45	100	50	60	30	22,0	NPV	73 611 ...	201,40
NHV.38	32	38	45	125	75	85	30	22,0	NPV	73 611 ...	228,50
NHV.45	40	45	55	120	50	60	38	24,0	NPV	73 611 ...	272,60
NHV.45	40	45	55	175	105	115	38	24,0	NPV	73 611 ...	369,10
NHV.45	40	45	55	225	155	165	38	24,0	NPV	73 611 ...	416,20



Key D



Clamping screw

**Spare parts**  
DCONMS<sub>g6</sub>

DCONMS <sub>g6</sub>	Article no.	EUR	114	M5x13	Article no.	EUR	007
25	80 950 ...	9,95	114	M5x13	73 082 ...	4,27	007
32	80 950 ...	9,95	114	M5x13	73 082 ...	4,27	007
40	80 950 ...	9,95	114	M5x13	73 082 ...	4,27	007

# Material examples referring to the cutting data tables

	Index	Material	Strength N/mm <sup>2</sup> / HB / HRC	Material number	Material designation	Material number	Material designation	Material number	Material designation
P	1.1	General construction steel	< 800 N/mm <sup>2</sup>	1.0402	EN3B				
	1.2	Free cutting steel	< 800 N/mm <sup>2</sup>	1.0711	EN1A				
	1.3	Hardened steel, non alloyed	< 800 N/mm <sup>2</sup>	1.0401	EN32C				
	1.4	Alloyed hardened steel	< 1000 N/mm <sup>2</sup>	1.7325	25 CD4				
	1.5	Tempering steel, unalloyed	< 850 N/mm <sup>2</sup>	1.5752	EN36	1.0535	EN9		
	1.6	Tempering steel, unalloyed	< 1000 N/mm <sup>2</sup>	1.6582	EN24				
	1.7	Tempering steel, alloyed	< 800 N/mm <sup>2</sup>	1.7225	EN19				
	1.8	Tempering steel, alloyed	< 1300 N/mm <sup>2</sup>	1.8515	EN40B				
	1.9	Steel castings	< 850 N/mm <sup>2</sup>	0.9650	G-X 260 Cr 27	1.6750	GS-20 NiCrMo 3.7	1.6582	GS-34 CrNiMo 6
	1.10	Nitriding steel	< 1000 N/mm <sup>2</sup>	1.8509	EN41B				
	1.11	Nitriding steel	< 1200 N/mm <sup>2</sup>	1.1186	EN8	1.1160	EN14A		
	1.12	Roller bearing steel	< 1200 N/mm <sup>2</sup>	1.3505	534A99				
	1.13	Spring steel	< 1200 N/mm <sup>2</sup>		EN45		EN47		EN43
	1.14	High-speed steel	< 1300 N/mm <sup>2</sup>	1.3343	M2	1.3249	M34		
	1.15	Cold working tool steel	< 1300 N/mm <sup>2</sup>	1.2379	D2	1.2311	P20		
	1.16	Hot working tool steel	< 1300 N/mm <sup>2</sup>	1.2344	H13				
M	2.1	Cast steel and sulphured stainless steel	< 850 N/mm <sup>2</sup>	1.4581	318				
	2.2	Stainless steel, ferritic	< 750 N/mm <sup>2</sup>	1.4000	403				
	2.3	Stainless steel, martensitic	< 900 N/mm <sup>2</sup>	1.4057	EN57				
	2.4	Stainless steel, ferritic / martensitic	< 1100 N/mm <sup>2</sup>	1.4028	EN56B				
	2.5	Stainless steel, austenitic / ferritic	< 850 N/mm <sup>2</sup>	1.4542	17-4PH				
	2.6	Stainless steel, austenitic	< 750 N/mm <sup>2</sup>	1.4305	303	1.4401	316	1.4301	304
	2.7	Heat resistant steel	< 1100 N/mm <sup>2</sup>	1.4876	Incoloy 800				
K	3.1	Grey cast iron with lamellar graphite	100-350 N/mm <sup>2</sup>	0.6015	Grade 150	0.6020	Grade 220	0.6025	Grade 260
	3.2	Grey cast iron with lamellar graphite	300-500 N/mm <sup>2</sup>	0.6030	Grade 300	0.6035	Grade 350	0.6040	Grade 400
	3.3	Gray cast iron with spheroidal graphite	300-500 N/mm <sup>2</sup>	0.7040	SG 400-12	0.7043	SG 370-17	0.7050	SG 500-7
	3.4	Gray cast iron with spheroidal graphite	500-900 N/mm <sup>2</sup>	0.7060	SG 600-3	0.7070	SG 700-2	0.7080	SG 800-2
	3.5	White malleable cast iron	270-450 N/mm <sup>2</sup>	0.8035	GTW-35	0.8045	GTW-45		
	3.6	White malleable cast iron	500-650 N/mm <sup>2</sup>	0.8055	GTW-55	0.8065	GTW-65		
	3.7	Black malleable cast iron	300-450 N/mm <sup>2</sup>	0.8135	GTS-35	0.8145	GTS-45		
	3.8	Black malleable cast iron	500-800 N/mm <sup>2</sup>	0.8155	GTS-55	0.8170	GTS-70		
N	4.1	Aluminium (non alloyed, low alloyed)	< 350 N/mm <sup>2</sup>	3.0255	1050 A	3.0275	1070 A	3.0285	1080 A (A8)
	4.2	Aluminium alloys < 0.5 % Si	< 500 N/mm <sup>2</sup>	3.1325	2017 A (AU4G)	3.4335	7005 (AZ5G)	3.4365	7075 (AZ5GU)
	4.3	Aluminium alloy 0.5-10 % Si	< 400 N/mm <sup>2</sup>	3.2315	A-G S1	3.2373	A-S9 G	3.2151	A-S 6 U4
	4.4	Aluminium alloys 10-15 % Si	< 400 N/mm <sup>2</sup>	3.2581	A-S12	3.2583	A-S12 U		
	4.5	Aluminum alloys > 15 % Si	< 400 N/mm <sup>2</sup>		A-S18		A-S17 U4		
	4.6	Copper (non alloyed, low alloyed)	< 350 N/mm <sup>2</sup>	2.0040	Cu-c1	2.0060	Cu-a1	2.0090	Cu-b1
	4.7	Copper wrought alloys	< 700 N/mm <sup>2</sup>	2.1247	Cub2 (Beryllium Copper)	2.0855	CuN2S (Nickel Copper)	2.1310	CU-Fe2P
	4.8	Special copper alloys	< 200 HB	2.0916	Cu-A5	2.1525	Cu-S3 M		Ampco 8 (Cu-A6Fe2)
	4.9	Special copper alloys	< 300 HB	2.0978	Cu-Ai11 Fe5 Ni5)		Ampco 18 (Cu-A10 Fe3)		
	4.10	Special copper alloys	> 300 HB	2.1247	Cu Be2		Ampco M4		
	4.11	Short-chipping brass, bronze, red bronze	< 600 N/mm <sup>2</sup>	2.0331	Cu Zn36 Pb1,5	2.0380	Cu Zn39 Pb2 (Ms 56)	2.0410	Cu Zn44 Pb2
	4.12	Long-chipping brass	< 600 N/mm <sup>2</sup>	2.0335	Cu Zn 36 (Ms63)	2.1293	Cu Cr1 Zr		
	4.13	Thermoplastics			PE	PVC	PS	Polystyrene	Plexiglas
	4.14	Duroplastics			PF	Bakelite		Pertinax	
	4.15	Fibre-reinforced plastics				Carbon Fibre		Fibreglass	Aramid Fibre (Kevlar)
	4.16	Magnesium and magnesium alloys	< 850 N/mm <sup>2</sup>	3.5812	Mg A7 Z1	3.5662	Mg A9	3.5105	Mg Tr3 Z2 Zn 1
	4.17	Graphite			R8500X		R8650		Technograph 15
	4.18	Tungsten and tungsten alloys			W-Ni Fe (Densimet)		W- Ni Cu (Inermet)		Denal
	4.19	Molybdenum and molybdenum alloys			TZM		MHQ		Mo W
S	5.1	Pure nickel		2.4066	Ni99 (Nickel 200)	2.4068	Lc Ni99 (Nickel 201)		
	5.2	Nickel alloys		1.3912	Fe-Ni36 (Invar)	1.3917	Fe-Ni42 (N42)	1.3922	Fe-Ni48 (N48)
	5.3	Nickel alloys	< 850 N/mm <sup>2</sup>	2.4375	Ni Cu30 Al (Monel K500)	2.4360	Ni Cu30Fe (Monel 400)	2.4668	
	5.4	Nickel molybdenum alloys		2.4600	Ni Mo30Cr2 (Hastelloy B4)	2.4617	Ni Mo28 (Hastelloy B2)	2.4819	Ni Mo16Cr16 Hastell. C276
	5.5	Nickel-chromium alloys	< 1300 N/mm <sup>2</sup>	2.4951	Ni Cr20TiAl (Nimonic 80A)	2.4858	Ni Cr21Mo (Inconel 825)	2.4856	Ni Cr22Mo9Nb Inconel 625
	5.6	Cobalt Chrome Alloys	< 1300 N/mm <sup>2</sup>	2.4964	Co Cr20 W15 Ni10		Co Cr20 Ni16 Mo7		Co Cr28 Mo 6
	5.7	Heat resistant alloys	< 1300 N/mm <sup>2</sup>	1.4718	Z45 C S 9-3	1.4747	Z80 CSN 20-02	1.4845	Z12 CN 25-20
	5.8	Nickel-cobalt-chromium alloys	< 1400 N/mm <sup>2</sup>	2.4851	Ni Cr23Fe (Inconel 601)	2.4668	Ni Cr19NbMo (Inconel 718)	2.4602	Ni Cr21Mo14 Hastelloy C22
	5.9	Pure titanium	< 900 N/mm <sup>2</sup>	3.7025	T35 (Titanium Grade 1)	3.7034	T40 (Titanium Grade 2)	3.7064	T60 (Titanium Grade 4)
	5.10	Titanium alloys	< 700 N/mm <sup>2</sup>		T-A6-Nb7 (367)		T-A5-Sn2-Mo4-Cr4 (Ti17)		T-A3-V2,5 (Gr18)
	5.11	Titanium alloys	< 1200 N/mm <sup>2</sup>	3.7165	T-A6-V4 (Ta6V)		T-A4-3V-Mo2-Fe2 (SP700)		T-A5-Sn1-Zr1-V1-Mo (Gr32)
H	6.1		< 45 HRC						
	6.2		46-55 HRC						
	6.3	Tempered steel	56-60 HRC						
	6.4		61-65 HRC						
	6.5		65-70 HRC						

## Cutting data approximate values

	UltraMini K10F	UltraMini K10F-TiN	UltraMini K10-TiAlN	UltraMini DPX 57S	MiniCut CWX500	UltraMini TiAlN+	MiniCut CBN	UltraMini	MiniCut
<b>Index</b>	<b>v<sub>c</sub> in m/min</b>							<b>f in mm/rev.</b>	
1.1	30-130	<b>30-180</b>	<b>80-200</b>	<b>80-200</b>	<b>80-200</b>				
1.2	30-130	<b>40-200</b>	<b>80-200</b>	<b>80-200</b>	<b>80-200</b>				
1.3	30-130	<b>40-180</b>	<b>80-200</b>	<b>80-200</b>	<b>80-200</b>				
1.4	15-90	<b>30-140</b>	<b>80-160</b>	<b>80-160</b>	<b>80-160</b>				
1.5	15-90	<b>30-100</b>		<b>80-140</b>					
1.6	15-90	<b>30-100</b>	<b>80-160</b>	<b>80-160</b>	<b>80-160</b>				
1.7	30-130	<b>30-100</b>	<b>80-160</b>	<b>80-160</b>	<b>80-160</b>				
1.8	15-90	<b>30-100</b>	<b>80-150</b>	<b>80-150</b>	<b>80-150</b>				
1.9	30-130	<b>40-200</b>	<b>80-200</b>	<b>80-200</b>	<b>80-200</b>				
1.10	15-90	<b>30-100</b>	<b>70-140</b>	<b>70-140</b>	<b>70-140</b>				
1.11	15-90	<b>30-100</b>	<b>70-140</b>	<b>70-140</b>	<b>70-140</b>				
1.12	15-90	<b>30-100</b>	<b>70-140</b>	<b>70-140</b>	<b>70-140</b>				
1.13									
1.14									
1.15	15-45	<b>30-100</b>							
1.16	15-45	<b>30-100</b>							
2.1		<b>30-100</b>	<b>80-160</b>	<b>80-160</b>	<b>80-160</b>				
2.2		<b>30-100</b>	<b>80-160</b>	<b>80-160</b>	<b>80-160</b>				
2.3		<b>30-100</b>	<b>80-160</b>	<b>80-160</b>	<b>80-160</b>				
2.4		<b>20-90</b>	<b>20-85</b>	<b>20-85</b>	<b>20-85</b>				
2.5		<b>20-65</b>	<b>20-75</b>	<b>20-75</b>	<b>20-75</b>				
2.6		<b>20-80</b>	<b>20-65</b>	<b>20-65</b>	<b>20-65</b>				
2.7		<b>20-80</b>	<b>20-65</b>	<b>20-65</b>	<b>20-65</b>				
3.1	30-110	70-150	<b>30-180</b>	<b>30-180</b>	<b>30-180</b>				
3.2	30-90	50-120	<b>30-150</b>	<b>30-150</b>	<b>30-150</b>				
3.3	25-110	30-130	<b>30-180</b>	<b>30-180</b>	<b>30-180</b>				
3.4	25-80	30-110	<b>30-120</b>	<b>30-120</b>	<b>30-120</b>				
3.5	30-110	30-100	<b>30-90</b>	<b>30-90</b>	<b>30-90</b>				
3.6	30-90	30-90	<b>20-80</b>	<b>20-80</b>	<b>20-80</b>				
3.7	30-110	30-100	<b>30-90</b>	<b>30-90</b>	<b>30-90</b>				
3.8	30-90	30-90	<b>20-80</b>	<b>20-80</b>	<b>20-80</b>				
4.1	<b>110-210</b>	100-600	<b>120-600</b>	<b>120-600</b>	<b>120-600</b>				
4.2	<b>90-200</b>	100-600	<b>120-600</b>	<b>120-600</b>	<b>120-600</b>				
4.3	<b>90-200</b>	100-500	<b>100-450</b>	<b>100-450</b>	<b>100-450</b>				
4.4	<b>50-140</b>	80-350	<b>70-300</b>	<b>70-300</b>	<b>70-300</b>				
4.5		80-200	<b>60-150</b>	<b>60-150</b>	<b>60-150</b>				
4.6	<b>50-140</b>	70-160	<b>60-150</b>	<b>60-150</b>	<b>60-150</b>				
4.7	<b>60-150</b>	80-180	<b>100-180</b>	<b>100-180</b>	<b>100-180</b>				
4.8	<b>50-140</b>	80-180	<b>90-180</b>	<b>90-180</b>	<b>90-180</b>				
4.9	<b>50-140</b>	80-180	<b>80-180</b>	<b>80-180</b>	<b>80-180</b>				
4.10	<b>50-140</b>	80-180	<b>80-180</b>	<b>80-180</b>	<b>80-180</b>				
4.11	<b>80-160</b>	100-200	<b>120-220</b>	<b>120-220</b>	<b>120-220</b>				
4.12	<b>50-120</b>	80-180	<b>70-150</b>	<b>70-150</b>	<b>70-150</b>				
4.13	<b>40-120</b>	70-160	<b>80-180</b>	<b>80-180</b>	<b>80-180</b>				
4.14									
4.15									
4.16									
4.17									
4.18	<b>15-70</b>								
4.19									
5.1		30-80	<b>30-80</b>	30-80	<b>30-80</b>				
5.2		18-75	<b>18-75</b>	18-75	<b>18-75</b>				
5.3		18-75	<b>18-75</b>	18-75	<b>18-75</b>				
5.4				40-70		<b>55-75</b>			
5.5		18-40	<b>18-40</b>	40-70	<b>18-40</b>	<b>55-75</b>			
5.6		18-40	<b>18-40</b>	40-70	<b>18-40</b>	<b>55-75</b>			
5.7		15-30	<b>15-30</b>	40-70	<b>15-30</b>	<b>55-75</b>			
5.8		15-30	<b>15-30</b>	40-70	<b>15-30</b>	<b>55-75</b>			
5.9		15-30	<b>15-30</b>	<b>70-150</b>	<b>15-30</b>				
5.10				<b>70-150</b>					
5.11				<b>70-150</b>					
6.1									
6.2						<b>70-100</b>			
6.3						<b>70-100</b>	<b>50</b>		
6.4						<b>70-100</b>	<b>50</b>		
6.5									

Internal turning and profiling	0,02-0,05	0,03-0,10
Internal turning and profiling - hard turning	0,02-0,06	0,03-0,10
Turning and profile turning - super alloys	0,02-0,08	
Internal turning	0,02-0,05	0,01-0,03
Back boring	0,02-0,04	0,03-0,10
Turning and chamfering	0,01-0,03	0,03-0,10
Pre-parting and chamfering	0,01-0,02	0,01-0,03
Groove turning	0,01-0,02	0,01-0,03
Internal Undercuts	0,01-0,03	0,03-0,08
Groove and profile turning	0,01-0,02	0,01-0,03
Axial grooving	0,02-0,05	0,02-0,05

**i** The cutting data depends largely on the external conditions, e.g. stability of the tools and tool clamping, material and machine type. The indicated values are possible cutting data which have to be increased or reduced according to the application conditions.

## Cutting data standard values – 73 000 ... / 73 001 ...

Index	UltraMini DPX77S  v <sub>c</sub> in m/min	Corner radius in mm			
		0,05	0,1	0,15	0,2
		f in mm/rev.			
1.1	80–200	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
1.2	80–200	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
1.3	80–200	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
1.4	80–160	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
1.5	80–140	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
1.6	80–160	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
1.7	80–160	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
1.8	80–150	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
1.9	80–200	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
1.10	70–140	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
1.11	70–140	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
1.12	70–140	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
1.13					
1.14					
1.15					
1.16					
2.1	80–160	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
2.2	80–160	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
2.3	80–160	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
2.4	20–85	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
2.5	20–75	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
2.6	20–65	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
2.7	20–65	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
3.1	30–180	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
3.2	30–150	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
3.3	30–180	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
3.4	30–120	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
3.5	30–90	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
3.6	20–80	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
3.7	30–90	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
3.8	20–80	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
4.1	120–600	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
4.2	120–600	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
4.3	100–450	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
4.4	70–300	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
4.5	60–150	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
4.6	60–150	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
4.7	100–180	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
4.8	90–180	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
4.9	80–180	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
4.10	80–180	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
4.11	120–220	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
4.12	70–150	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
4.13	80–180	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
4.14					
4.15					
4.16					
4.17					
4.18					
4.19					
5.1	30–80	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
5.2	18–75	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
5.3	18–75	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
5.4	40–70	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
5.5	40–70	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
5.6	40–70	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
5.7	40–70	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
5.8	40–70	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
5.9	40–70	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
5.10	40–70	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
5.11	40–70	0,015–0,03	0,02–0,06	0,02–0,08	0,02–0,12
6.1					
6.2					
6.3					
6.4					
6.5					

**i** The cutting data depends largely on the external conditions, e.g. stability of the tools and tool clamping, material and machine type. The indicated values are possible cutting data which have to be increased or reduced according to the application conditions.

## Broaching – Recommendations for Correct Use

### SlotCut

More and more often small and medium sized batch sizes are manufactured with precision grooves.

To directly machine such grooves in one set-up on one machine, it requires a special application of "Broaching" tools.

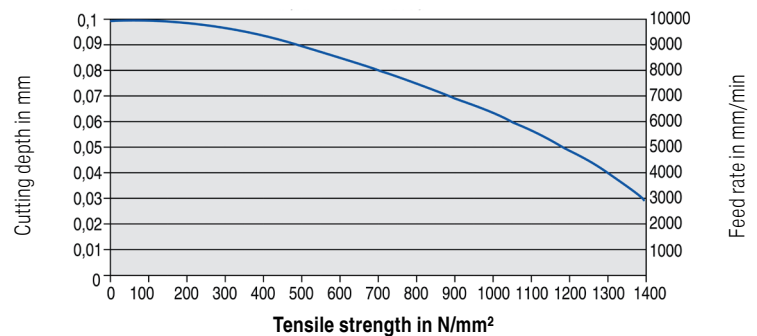
The SlotCut system can produce grooves with the most common groove tolerances.

To this end, there are four options. Two concepts are based on a solid carbide solution, which gives great success with small diameters.

For larger diameters, the concept with screw-on inserts is more suitable.

Broaching, on both lathes and machining centers is now economical, and provides highly accurate results in the shortest possible time.

Approximate values when broaching



**i** The data depends strongly on the conditions and represent only an approximate value, factors such as machine stability, application and material may require adjustment of the data upward or downward.



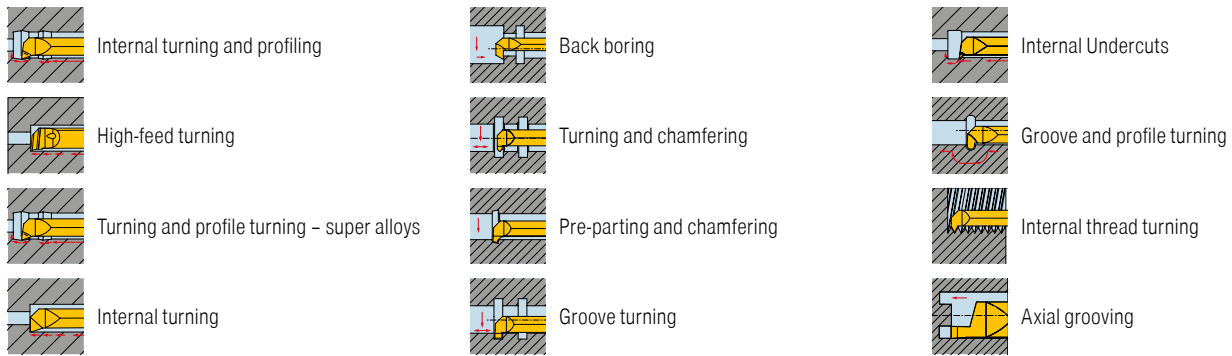
### Tips for the User

- ▲ Avoid interrupted cuts.
- ▲ Lift the tool out of the groove when retracting.
- ▲ Where possible, orientate the part so the groove is at the top, so the chips fall away!
- ▲ Use coolant. This will increase tool life and surface quality.
- ▲ Ensure there is a relief at the end of the groove.
- ▲ Adjustment of the tool is essential, therefore the tool diameter must be considered.

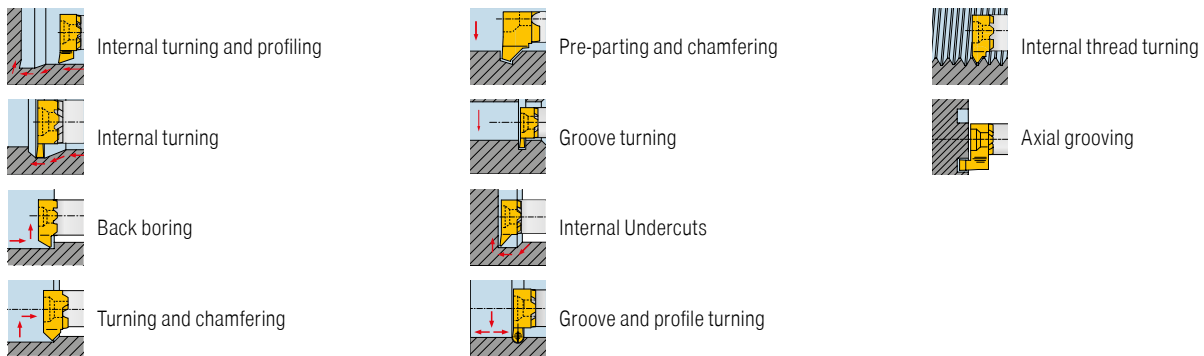


## Symbol explanation

### UltraMini



### MiniCut



## Coatings

**TiAlN+**

- ▲ TiAlN multilayer coating
- ▲ Maximum application temperature: 1000 °C

**TiN**

- ▲ TiN coating
- ▲ Maximum application temperature: 450 °C

**TiAlN**

- ▲ TiAlN multilayer coating
- ▲ Maximum application temperature: 900 °C

**CWX500**

- ▲ Carbide, TiAlN-coated
- ▲ ISO | **K30**
- ▲ The universal carbide grade for almost all materials

**DXP77S**

- ▲ TiAlN+X-coating
- ▲ Maximum application temperature: 900 °C

**DPX57S**

- ▲ TiCrN coating
- ▲ Maximum application temperature: 900 °C

## Thread types

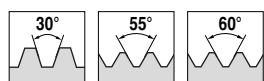
**M** Metric ISO standard thread

**MF** Metric ISO fine thread

**G** Whitworth thread

**Tr** Metric ISO trapezoidal fine thread

## Thread flank angle



## Coolant

