





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 Multifunctional Tools –
EcoCut and FreeTurn

11 Grooving Tools

12 Miniature turning tools

12

Milling

13 HSS Milling Cutters

14 Solid Carbide milling cutters

15 Milling tools with indexable
inserts

Catalogue –
Clamping technology

16 Adaptors and Accessories

17 Workpiece clamping

18 Material examples and
article no. Index

Table of contents

System overview	3
Toolfinder	2+3
Product programme	
UltraMini	4-34
MiniCut	35-53
UltraMini + MiniCut Hard Turning	8+36
SlotCut – Broaching	54-57
Technical Information	
Cutting Data	58-61
Broaching – Recommendations for Correct Use	62
Symbol explanation, coatings and thread types	63

WNT \ Performance

Premium quality tools for high performance.

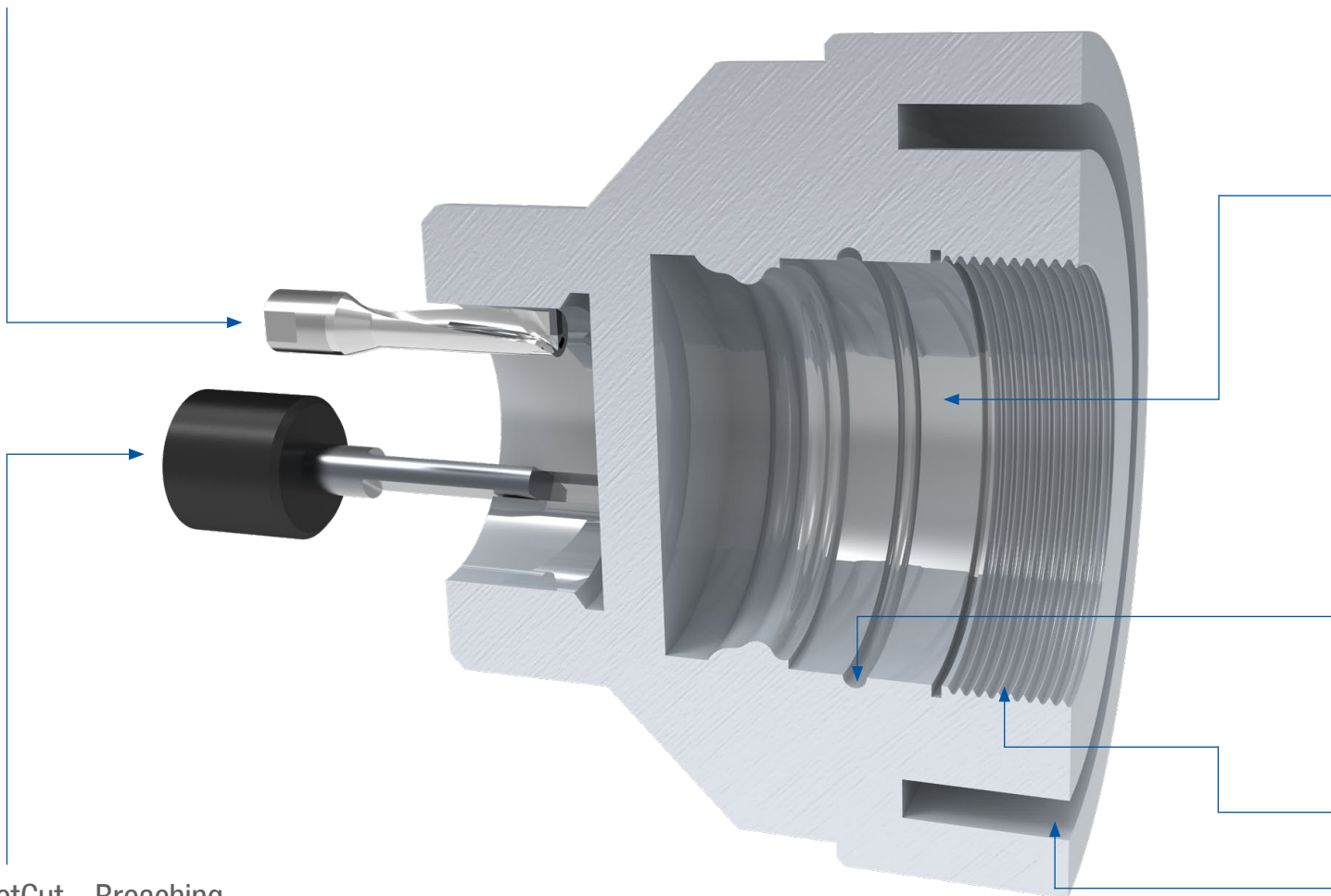
The premium quality tools from the **WNT Performance** product line have been designed for specific applications and are distinguished by their outstanding performance. If you make high demands on the performance of your production and want to achieve the very best results, we recommend the Premium tools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

Toolfinder

EcoCut Mini

From Ø 2 mm

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



SlotCut – Broaching

Inserts + Holder DIN138 54-57

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

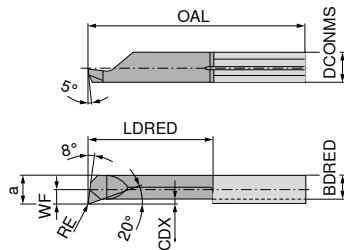
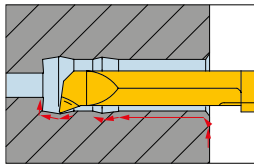
SlotCut



- ▲ 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				35	35	35	35	35
Internal turning and profiling – hard turning			8		8		8	8	8				36		36	36	36
High-feed turning			10			10	10	10	10								
Turning and profile turning – super alloys			9		9		9	9	9								
Internal turning					11		11	11					37	37	37	37	37
Back boring						12	12	12	12				38	38	38	38	
Turning and chamfering								13	13				38	38	38	38	
Pre-parting and chamfering							13	13	13				39	39	39	39	39
Groove turning			14-16			14-16	14-16	14-16	14-16				40+41	40+41	40+41	40+41	40+41
Internal Undercuts			17		17		17	17	17				42	42	42	42	42
Groove and profile turning							18	18	18				43	43	43	43	43
Internal thread turning				19-21			19-21	19-21	19-21				44-47	44-47	44-47	44-47	44-47
Axial grooving								22-27	22-27	22-27	22-27		48+49	48+49	48+49	48+49	48+49
suitable holder		30-34											50-53				
Sets		28+29											49				

UltraMini – Inserts for internal turning and profiling

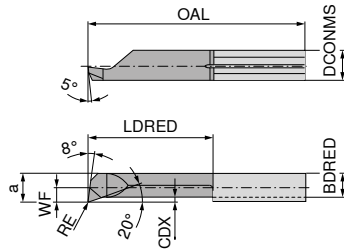
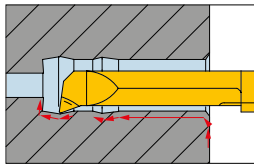


Illustrations show right-hand versions



Designation	DCONMS _{h6} mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	RE mm	Standard tool holder	Left-hand 73 005 ...		Right-hand 73 004 ...		Left-hand 73 005 ...		Right-hand 73 004 ...	
											£		£		£		£	
											Y5		Y5		Y5		Y5	
R/L 050.05-2	4		0.5	0.4	20	2	0.03	0.32	0.02	645.00...D	64.80	500	64.80	500				
R/L 050.06-2	4		0.6	0.5	20	2	0.05	0.40	0.04	645.00...D	64.80	510	64.80	510				
R/L 050.06-3	4		0.6	0.5	20	3	0.05	0.40	0.04	645.00...D	66.90	511	66.90	511				
R/L 050.08-4	4		0.8	0.7	20	4	0.05	0.60	0.04	645.00...D					65.21	812	65.21	812
R/L 050.1-8	4		1.0	0.9	22	8	0.10	0.75	0.05	645.00...D					64.59	813	64.59	813
R/L 050.15-5	4		1.5	1.3	19	5	0.10	1.15	0.05	645.00...D	61.80	515	61.80	515				
R/L 050.15-10	4		1.5	1.3	24	10	0.10	1.15	0.05	645.00...D	62.39	516	62.39	516				
R/L 050.15-12	4		1.5	1.3	26	12	0.10	1.15	0.05	645.00...D					64.59	818	64.59	818
R/L 050.2-5	4		2.0	1.7	19	5	0.10	1.50	0.05	645.00...D	52.52	520	48.18	520				
R/L 050.2-10	4		2.0	1.7	24	10	0.10	1.50	0.05	645.00...D	53.13	521	52.52	521				
R/L 050.2-15	4		2.0	1.7	29	15	0.10	1.50	0.05	645.00...D	57.04	522	52.08	522				
R/L 050.3-10	4	0.6	2.8	2.6	24	10	0.20	2.30	0.10	645.00...D	57.04	531	55.38	531				
R/L 050.3-16	4	0.6	2.8	2.6	30	16	0.20	2.30	0.10	645.00...D	62.55	530	60.75	530				
R/L 050.3-20	4	0.6	2.8	2.6	34	20	0.20	2.30	0.10	645.00...D	59.41	532	60.67	532				
R/L 050.35-10	4	1.1	3.5	3.1	24	10	0.25	2.80	0.10	645.00...D					51.08	835	51.08	835
R/L 050.35-16	4	1.1	3.5	3.1	30	16	0.25	2.80	0.10	645.00...D					53.84	836	53.84	836
R/L 050.35-20	4	1.1	3.5	3.1	34	20	0.25	2.80	0.10	645.00...D					64.70	837	64.70	837
R/L 050.35-24	4	1.1	3.5	3.1	38	24	0.25	2.80	0.10	645.00...D					70.88	838	70.88	838
R/L 050.4-10	4	1.5	4.0	3.5	24	10	0.30	3.00	0.10	645.00...D	57.32	541	54.61	541	52.38	841	52.38	841
R/L 050.4-16	4	1.5	4.0	3.5	30	16	0.30	3.00	0.10	645.00...D	57.32	540	54.61	540	55.38	840	55.38	840
R/L 050.4-20	4	1.5	4.0	3.5	34	20	0.30	3.00	0.10	645.00...D	58.57	542	58.21	542	61.94	842	61.94	842
R/L 050.4-24	4	1.5	4.0	3.5	38	24	0.30	3.00	0.10	645.00...D	70.32	545	68.23	545	70.32	845	70.32	845
R/L 050.4-28	4	1.5	4.0	3.5	42	28	0.30	3.00	0.10	645.00...D	78.27	546	74.72	546	78.27	846	78.27	846
R/L 050.5-10	5	1.9	5.0	4.4	25	10	0.50	3.80	0.15	645.00...D	56.67	551	51.67	551	49.08	851	49.08	851
R/L 050.5-15	5	1.9	5.0	4.4	30	15	0.50	3.80	0.15	645.00...D	57.54	552	55.05	552	52.38	852	52.38	852
R/L 050.5-20	5	1.9	5.0	4.4	35	20	0.50	3.80	0.15	645.00...D	57.99	550	56.51	550	60.30	850	60.30	850
R/L 050.5-25	5	1.9	5.0	4.4	40	25	0.50	3.80	0.15	645.00...D	66.79	553	63.84	553	68.23	853	68.23	853
R/L 050.5-30	5	1.9	5.0	4.4	45	30	0.50	3.80	0.15	645.00...D	71.98	554	70.18	554	76.92	854	76.92	854
R/L 050.5-35	5	1.9	5.0	4.4	50	35	0.50	3.80	0.15	645.00...D	85.29	556	81.47	556	85.29	856	85.29	856
R/L 050.5-40	5	1.9	5.0	4.4	55	40	0.50	3.80	0.15	645.00...D					92.70	857	92.70	857
R/L 050.6-15	6	2.3	6.0	5.3	30	15	0.50	4.50	0.15	676.00...D	58.95	561	54.03	561	52.38	861	52.38	861
R/L 050.6-22	6	2.3	6.0	5.3	37	22	0.50	4.50	0.15	676.00...D	60.45	560	58.82	560	60.30	860	60.30	860
R/L 050.6-25	6	2.3	6.0	5.3	40	25	0.50	4.50	0.15	676.00...D	68.41	562	62.55	562	68.23	862	68.23	862
R/L 050.6-30	6	2.3	6.0	5.3	45	30	0.50	4.50	0.15	676.00...D	73.05	563	71.09	563	76.92	863	76.92	863
R/L 050.6-35	6	2.3	6.0	5.3	50	35	0.50	4.50	0.15	676.00...D	85.29	564	81.47	564	85.29	864	85.29	864
R/L 050.6-42	6	2.3	6.0	5.3	57	42	0.50	4.50	0.15	676.00...D	95.33	565	92.64	565	95.33	865	95.33	865
R/L 050.7-20	7	2.8	6.8	6.3	35	20	0.60	5.50	0.15	676.00...D	61.80	572	60.02	572	59.45	872	59.45	872
R/L 050.7-25	7	2.8	6.8	6.3	40	25	0.60	5.50	0.15	676.00...D	77.35	573	74.21	573	68.99	873	68.99	873
R/L 050.7-30	7	2.8	6.8	6.3	45	30	0.60	5.50	0.15	676.00...D	77.07	574	75.26	574	76.61	874	76.61	874
R/L 050.7-35	7	2.8	7.0	6.3	50	35	0.60	5.50	0.15	676.00...D	86.77	575	86.77	575	86.77	875	86.77	875
R/L 050.7-40	7	2.8	7.0	6.3	55	40	0.60	5.50	0.15	676.00...D	96.66	576	96.66	576	96.66	876	96.66	876
R/L 050.7-45	7	2.8	7.0	6.3	60	45	0.60	5.50	0.15	676.00...D	100.55	577	100.55	577	100.55	877	100.55	877
R/L 050.7-50	7	2.8	7.0	6.3	65	50	0.60	5.50	0.15	676.00...D	110.27	578	110.27	578	110.27	878	110.27	878
P											●		●		●		●	
M											●		●		●		●	
K											●		●		●		●	
N											●		●		●		●	
S											○		○		●		●	
H											○		○		●		●	
O											●		●		●		●	

UltraMini – Inserts for internal turning and profiling



Illustrations show right-hand versions



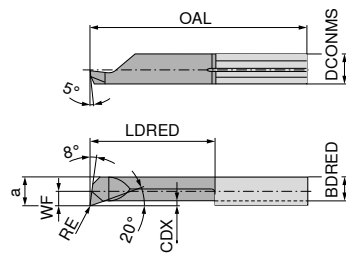
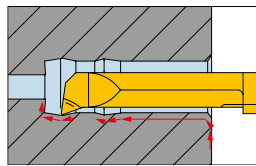
Left-hand

Right-hand

Designation	DCONMS _{h6} mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	RE mm	Standard tool holder	73 005 ...		73 004 ...	
											£ Y5		£ Y5	
R/L 050.2-5	4		2.0	1.7	19	5	0.1	1.5	0.05	645.00...D	41.99	020	41.99	020
R/L 050.2-10	4		2.0	1.7	24	10	0.1	1.5	0.05	645.00...D	44.01	021	44.01	021
R/L 050.2-15	4		2.0	1.7	29	15	0.1	1.5	0.05	645.00...D	46.99	022	46.99	022
R/L 050.3-10	4	0.6	2.8	2.6	24	10	0.2	2.3	0.10	645.00...D	44.46	031	44.46	031
R/L 050.3-16	4	0.6	2.8	2.6	30	16	0.2	2.3	0.10	645.00...D	51.23	030	51.23	030
R/L 050.3-20	4	0.6	2.8	2.6	34	20	0.2	2.3	0.10	645.00...D	52.50	032	52.50	032
R/L 050.4-10	4	1.5	4.0	3.5	24	10	0.3	3.0	0.10	645.00...D	44.59	041	44.59	041
R/L 050.4-16	4	1.5	4.0	3.5	30	16	0.3	3.0	0.10	645.00...D	46.25	040	46.25	040
R/L 050.4-20	4	1.5	4.0	3.5	34	20	0.3	3.0	0.10	645.00...D	49.08	042	48.47	042
R/L 050.5-10	5	1.9	5.0	4.4	25	10	0.5	3.8	0.15	645.00...D	44.91	051	44.91	051
R/L 050.5-15	5	1.9	5.0	4.4	30	15	0.5	3.8	0.15	645.00...D	47.28	052	47.28	052
R/L 050.5-20	5	1.9	5.0	4.4	35	20	0.5	3.8	0.15	645.00...D	48.93	050	48.93	050
R/L 050.5-25	5	1.9	5.0	4.4	40	25	0.5	3.8	0.15	645.00...D	56.67	053	56.67	053
R 050.5-30	5	1.9	5.0	4.4	45	30	0.5	3.8	0.05	645.00...D			62.17	054
L 050.5-30	5	1.9	5.0	4.4	45	30	0.5	3.8	0.15	645.00...D	61.35	054		
R/L 050.6-15	6	2.3	6.0	5.3	30	15	0.5	4.5	0.15	676.00...D	48.47	061	48.47	061
R/L 050.6-22	6	2.3	6.0	5.3	37	22	0.5	4.5	0.15	676.00...D	49.32	060	49.32	060
R/L 050.6-25	6	2.3	6.0	5.3	40	25	0.5	4.5	0.15	676.00...D	58.57	062	58.57	062
R/L 050.6-30	6	2.3	6.0	5.3	45	30	0.5	4.5	0.15	676.00...D	63.15	063	62.24	063
R/L 050.7-20	7	2.8	6.8	6.3	35	20	0.6	5.5	0.15	676.00...D	52.08	072	52.08	072
R/L 050.7-25	7	2.8	6.8	6.3	40	25	0.6	5.5	0.15	676.00...D	59.45	073	59.45	073
R/L 050.7-30	7	2.8	6.8	6.3	45	30	0.6	5.5	0.15	676.00...D	69.43	074	63.84	074
P														
M														
K														
N												○		○
S														
H														
O												●		●

→ v_c Page 59

UltraMini – Inserts for internal turning and profiling

▲ with corner radius ≤ 0.05 mm

Illustrations show right-hand versions

TiAlN



TiAlN



TiAlN



TiAlN

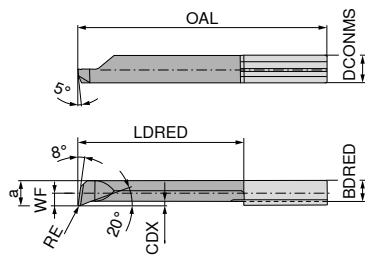
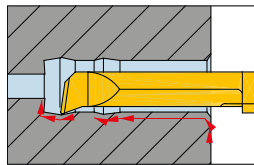


Designation	DCONMS _{h6} mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	RE mm	Standard tool holder	Left-hand		Right-hand		Left-hand		Right-hand	
											73 021 ...		73 020 ...		73 023 ...		73 022 ...	
											£ Y5		£ Y5		£ Y5		£ Y5	
R/L 053.3-10	4	0.6	2.8	2.6	24	10	0.2	2.3	0.03	645.00...D	56.56	310	56.56	310				
R/L 053.3-16	4	0.6	2.8	2.6	30	16	0.2	2.3	0.03	645.00...D	59.55	316	59.55	316				
R/L 053.3-20	4	0.6	2.8	2.6	34	20	0.2	2.3	0.03	645.00...D	69.29	320	69.29	320				
R/L 053.4-10	4	1.5	4.0	3.5	24	10	0.3	3.0	0.03	645.00...D	56.56	410	56.56	410				
R/L 053.4-16	4	1.5	4.0	3.5	30	16	0.3	3.0	0.03	645.00...D	59.55	416	59.55	416				
R/L 053.4-20	4	1.5	4.0	3.5	34	20	0.3	3.0	0.03	645.00...D	67.35	420	67.35	420				
R/L 053.4-24	4	1.5	4.0	3.5	38	24	0.3	3.0	0.03	645.00...D	74.53	424	74.53	424				
R/L 053.4-28	4	1.5	4.0	3.5	42	28	0.3	3.0	0.03	645.00...D	81.03	428	81.03	428				
R/L 055.2-10	4		2.0	1.7	24	10	0.1	1.5	0.05	645.00...D					57.11	210	57.11	210
R/L 055.2-15	4		2.0	1.7	29	15	0.1	1.5	0.05	645.00...D					61.05	215	61.05	215
R/L 055.2-5	4		2.0	1.7	19	5	0.1	1.5	0.05	645.00...D					56.56	205	56.56	205
R/L 055.3-10	4	0.6	2.8	2.6	24	10	0.2	2.3	0.05	645.00...D					56.56	310	56.56	310
R/L 055.3-16	4	0.6	2.8	2.6	30	16	0.2	2.3	0.05	645.00...D					59.55	316	59.55	316
R/L 055.3-20	4	0.6	2.8	2.6	34	20	0.2	2.3	0.05	645.00...D					70.78	320	70.78	320
R/L 055.4-10	4	1.5	4.0	3.5	24	10	0.3	3.0	0.05	645.00...D					56.56	410	56.56	410
R/L 055.4-16	4	1.5	4.0	3.5	30	16	0.3	3.0	0.05	645.00...D					59.55	416	59.55	416
R/L 055.4-20	4	1.5	4.0	3.5	34	20	0.3	3.0	0.05	645.00...D					67.35	420	67.35	420
R/L 055.4-24	4	1.5	4.0	3.5	38	24	0.3	3.0	0.05	645.00...D					74.53	424	74.53	424
R/L 055.4-28	4	1.5	4.0	3.5	42	28	0.3	3.0	0.05	645.00...D					81.03	428	81.03	428
R/L 055.5-10	5	1.9	5.0	4.4	25	10	0.5	3.8	0.05	645.00...D					53.40	510	50.89	510
R/L 055.5-15	5	1.9	5.0	4.4	30	15	0.5	3.8	0.05	645.00...D					56.56	515	56.56	515
R/L 055.5-20	5	1.9	5.0	4.4	35	20	0.5	3.8	0.05	645.00...D					64.35	520	64.35	520
R/L 055.5-25	5	1.9	5.0	4.4	40	25	0.5	3.8	0.05	645.00...D					71.19	525	71.19	525
R/L 055.5-30	5	1.9	5.0	4.4	45	30	0.5	3.8	0.05	645.00...D					80.97	530	80.97	530
R/L 055.5-35	5	1.9	5.0	4.4	50	35	0.5	3.8	0.05	645.00...D					89.48	535	89.48	535
R/L 055.6-15	6	2.3	6.0	5.3	30	15	0.5	4.5	0.05	676.00...D					56.56	615	56.56	615
R/L 055.6-22	6	2.3	6.0	5.3	37	22	0.5	4.5	0.05	676.00...D					62.98	622	62.98	622
R/L 055.6-25	6	2.3	6.0	5.3	40	25	0.5	4.5	0.05	676.00...D					71.19	625	71.19	625
R/L 055.6-30	6	2.3	6.0	5.3	45	30	0.5	4.5	0.05	676.00...D					80.97	630	80.97	630
R/L 055.6-35	6	2.3	6.0	5.3	50	35	0.5	4.5	0.05	676.00...D					89.48	635	89.48	635
R/L 055.6-42	6	2.3	6.0	5.3	57	42	0.5	4.5	0.05	676.00...D					97.62	642	97.62	642
P											•		•		•		•	
M											•		•		•		•	
K											•		•		•		•	
N											•		•		•		•	
S											•		•		•		•	
H											•		•		•		•	
O											•		•		•		•	

→ v_c Page 59

UltraMini – Inserts for internal turning and profiling

▲ with chip former



Illustrations show right-hand versions



Left-hand

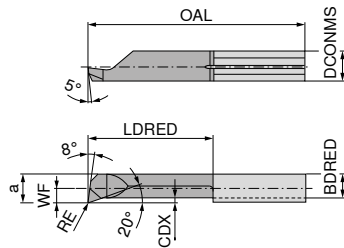
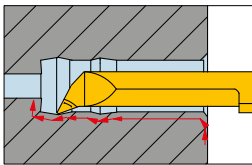
Right-hand

Designation	DCONMS _{hg} mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BRED mm	RE mm	Standard tool holder	73 017 ...		73 016 ...	
											£ Y5		£ Y5	
R/L 050.4-10C	4	1.5	4	3.5	24	10	0.3	3.0	0.2	645.00...D	52.38	410	52.38	410
R/L 050.4-16C	4	1.5	4	3.5	30	16	0.3	3.0	0.2	645.00...D	55.38	416	55.38	416
R/L 050.4-20C	4	1.5	4	3.5	34	20	0.3	3.0	0.2	645.00...D	61.94	420	61.94	420
R/L 050.4-24C	4	1.5	4	3.5	38	24	0.3	3.0	0.2	645.00...D	70.32	424	70.32	424
R/L 050.4-28C	4	1.5	4	3.5	42	28	0.3	3.0	0.2	645.00...D	78.27	428	78.27	428
R/L 050.5-10C	5	1.9	5	4.4	25	10	0.5	3.8	0.2	645.00...D	49.08	510	49.08	510
R/L 050.5-15C	5	1.9	5	4.4	30	15	0.5	3.8	0.2	645.00...D	52.38	515	52.38	515
R/L 050.5-20C	5	1.9	5	4.4	35	20	0.5	3.8	0.2	645.00...D	60.30	520	60.30	520
R/L 050.5-25C	5	1.9	5	4.4	40	25	0.5	3.8	0.2	645.00...D	68.23	525	68.23	525
R/L 050.5-30C	5	1.9	5	4.4	45	30	0.5	3.8	0.2	645.00...D	76.92	530	76.92	530
R/L 050.5-35C	5	1.9	5	4.4	50	35	0.5	3.8	0.2	645.00...D	85.29	535	85.29	535
R/L 050.6-15C	6	2.3	6	5.3	30	15	0.5	4.5	0.2	676.00...D	52.38	615	52.38	615
R/L 050.6-22C	6	2.3	6	5.3	37	22	0.5	4.5	0.2	676.00...D	60.30	622	60.30	622
R/L 050.6-25C	6	2.3	6	5.3	40	25	0.5	4.5	0.2	676.00...D	68.23	625	68.23	625
R/L 050.6-30C	6	2.3	6	5.3	45	30	0.5	4.5	0.2	676.00...D	76.92	630	76.92	630
R/L 050.6-35C	6	2.3	6	5.3	50	35	0.5	4.5	0.2	676.00...D	85.29	635	85.29	635
R/L 050.6-42C	6	2.3	6	5.3	57	42	0.5	4.5	0.2	676.00...D	95.33	642	95.33	642
R/L 050.7-20C	7	2.8	7	6.3	35	20	0.6	5.5	0.2	676.00...D	59.45	720	59.45	720
R/L 050.7-25C	7	2.8	7	6.3	40	25	0.6	5.5	0.2	676.00...D	68.99	725	68.99	725
R/L 050.7-30C	7	2.8	7	6.3	45	30	0.6	5.5	0.2	676.00...D	76.61	730	76.61	730
R/L 050.7-35C	7	2.8	7	6.3	50	35	0.6	5.5	0.2	676.00...D	86.77	735	86.77	735
R/L 050.7-40C	7	2.8	7	6.3	55	40	0.6	5.5	0.2	676.00...D	96.66	740	96.66	740
R/L 050.7-45C	7	2.8	7	6.3	60	45	0.6	5.5	0.2	676.00...D	100.55	745	100.55	745
R/L 050.7-50C	7	2.8	7	6.3	65	50	0.6	5.5	0.2	676.00...D	110.27	750	110.27	750
P												●		●
M												●		●
K												●		●
N												●		●
S												●		●
H												●		●
O												●		●

→ v_c Page 59

UltraMini – Inserts for internal turning and profiling – hard turning

▲ 46 to 65 HRC



Illustrations show right-hand versions

TiAIN+

TiAIN+



Left-hand

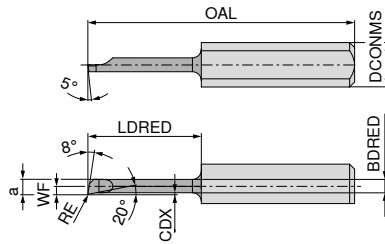
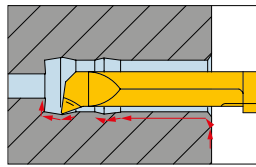
Right-hand

Designation	DCONMS _{HS} mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	RE mm	Standard tool holder	73 025 ...		73 024 ...	
											£ Y5		£ Y5	
R/L 050.2-5	4		2.0	1.7	19	5	0.1	1.5	0.05	645.00...D	77.93	920	77.93	920
R/L 050.2-10	4		2.0	1.7	24	10	0.1	1.5	0.05	645.00...D	79.37	921	79.37	921
R/L 050.2-15	4		2.0	1.7	29	15	0.1	1.5	0.05	645.00...D	82.35	922	82.35	922
R/L 050.3-10	4	0.6	2.8	2.6	24	10	0.2	2.3	0.10	645.00...D	77.67	931	77.67	931
R/L 050.3-16	4	0.6	2.8	2.6	30	16	0.2	2.3	0.10	645.00...D	80.94	930	80.94	930
R/L 050.3-20	4	0.6	2.8	2.6	34	20	0.2	2.3	0.10	645.00...D	92.62	932	92.62	932
R/L 050.4-10	4	1.5	4.0	3.5	24	10	0.3	3.0	0.10	645.00...D	77.67	941	77.67	941
R/L 050.4-16	4	1.5	4.0	3.5	30	16	0.3	3.0	0.10	645.00...D	80.94	940	80.94	940
R/L 050.4-20	4	1.5	4.0	3.5	34	20	0.3	3.0	0.10	645.00...D	89.11	942	89.11	942
R/L 050.4-24	4	1.5	4.0	3.5	38	24	0.3	3.0	0.10	645.00...D	96.92	945	96.92	945
R/L 050.4-28	4	1.5	4.0	3.5	42	28	0.3	3.0	0.10	645.00...D	105.21	946	105.21	946
R/L 050.5-10	5	1.9	5.0	4.4	25	10	0.5	3.8	0.15	645.00...D	75.33	951	75.33	951
R/L 050.5-15	5	1.9	5.0	4.4	30	15	0.5	3.8	0.15	645.00...D	78.84	952	78.84	952
R/L 050.5-20	5	1.9	5.0	4.4	35	20	0.5	3.8	0.15	645.00...D	87.30	950	87.30	950
R/L 050.5-25	5	1.9	5.0	4.4	40	25	0.5	3.8	0.15	645.00...D	95.87	953	95.87	953
R/L 050.5-30	5	1.9	5.0	4.4	45	30	0.5	3.8	0.15	645.00...D	105.09	954	105.09	954
R/L 050.5-35	5	1.9	5.0	4.4	50	35	0.5	3.8	0.15	645.00...D	113.93	956	113.93	956
R/L 050.6-15	6	2.3	6.0	5.3	30	15	0.5	4.5	0.15	676.00...D	80.00	961	80.00	961
R/L 050.6-22	6	2.3	6.0	5.3	37	22	0.5	4.5	0.15	676.00...D	88.45	960	88.45	960
R/L 050.6-25	6	2.3	6.0	5.3	40	25	0.5	4.5	0.15	676.00...D	97.03	962	97.03	962
R/L 050.6-30	6	2.3	6.0	5.3	45	30	0.5	4.5	0.15	676.00...D	106.25	963	106.25	963
R/L 050.6-35	6	2.3	6.0	5.3	50	35	0.5	4.5	0.15	676.00...D	115.35	964	115.35	964
R/L 050.6-42	6	2.3	6.0	5.3	57	42	0.5	4.5	0.15	676.00...D	125.62	965	125.62	965
R/L 050.7-20	7	2.8	6.8	6.3	35	20	0.6	5.5	0.15	676.00...D	89.38	972	89.38	972
R/L 050.7-25	7	2.8	6.8	6.3	40	25	0.6	5.5	0.15	676.00...D	98.46	973	98.46	973
R/L 050.7-30	7	2.8	6.8	6.3	45	30	0.6	5.5	0.15	676.00...D	108.09	974	108.09	974
R/L 050.7-35	7	2.8	6.8	6.3	50	35	0.6	5.5	0.15	676.00...D	117.18	975	117.18	975
R/L 050.7-40	7	2.8	6.8	6.3	55	40	0.6	5.5	0.15	676.00...D	127.95	976	127.95	976
R/L 050.7-45	7	2.8	6.8	6.3	60	45	0.6	5.5	0.15	676.00...D	134.06	977	134.06	977
R/L 050.7-50	7	2.8	6.8	6.3	65	50	0.6	5.5	0.15	676.00...D	142.51	978	142.51	978
P												○		○
M												○		○
K												○		○
N												○		○
S												○		○
H												●		●
O												○		○

→ v_c Page 59

UltraMini – Inserts for internal turning and profiling

▲ Specially designed for super alloys



Illustrations show right-hand versions

Designation	DCONMS _{HS} mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	RE mm	Standard tool holder
R/L M050.05-2	4	0.20	0.5	0.40	20	2	0.02	0.02	0.02	645.00...D
R/L M050.08-4	4	0.35	0.8	0.70	20	4	0.08	0.03	0.02	645.00...D
R/L M050.1-5	4	0.40	1.0	0.90	20	5	0.05	0.05	0.02	645.00...D
R/L M050.1-7	4	0.40	1.0	0.90	22	7	0.05	0.05	0.02	645.00...D
R/L M050.15-5	4	0.60	1.5	1.15	19	5	0.08	0.08	0.02	645.00...D
R/L M050.15-10	4	0.60	1.5	1.15	24	10	0.08	0.08	0.02	645.00...D
R/L M050.2-5	4	0.80	2.0	1.70	19	5	0.08	0.08	0.02	645.00...D
R/L M050.2-10	4	0.80	2.0	1.70	24	10	0.08	0.08	0.02	645.00...D
R/L M050.25-5	4	0.20	2.5	2.20	19	5	0.10	0.10	0.02	645.00...D
R/L M050.25-10	4	0.20	2.5	2.20	24	10	0.10	0.10	0.02	645.00...D
R/L M050.3-10	4	0.60	3.0	2.60	24	10	0.15	0.15	0.02	645.00...D
R/L M050.3-16	4	0.60	3.0	2.60	30	16	0.15	0.15	0.02	645.00...D
R/L M050.35-10	4	1.10	3.5	3.10	24	10	0.17	0.17	0.02	645.00...D
R/L M050.35-16	4	1.10	3.5	3.10	30	16	0.17	0.17	0.02	645.00...D
R/L M050.35-20	4	1.10	3.5	3.10	34	20	0.17	0.17	0.02	645.00...D
R/L M050.4-10	4	1.50	4.0	3.50	24	10	0.20	0.20	0.02	645.00...D
R/L M050.4-16	4	1.50	4.0	3.50	30	16	0.20	0.20	0.02	645.00...D
R/L M050.4-20	4	1.50	4.0	3.50	34	20	0.20	0.20	0.02	645.00...D
R/L M050.4-24	4	1.50	4.0	3.50	38	24	0.20	0.20	0.02	645.00...D

P	●	●
M	●	●
K	○	○
N	○	○
S	●	●
H	○	○
O	○	○



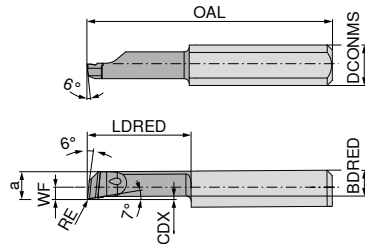
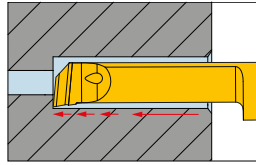
Left-hand	Right-hand
73 027 ...	73 026 ...
£ Y5	£ Y5
54.50	54.50
052	052
55.63	55.63
082	082
51.09	51.09
102	102
53.36	53.36
103	103
51.09	51.09
151	151
53.36	53.36
154	154
44.28	44.28
201	201
45.41	45.41
204	204
44.28	44.28
251	251
45.41	45.41
254	254
44.28	44.28
304	304
46.55	46.55
307	307
44.28	44.28
350	350
46.55	46.55
353	353
55.63	55.63
354	354
44.28	44.28
400	400
46.55	46.55
403	403
52.23	52.23
404	404
59.04	59.04
406	406

→ v_c Page 59

UltraMini – Inserts for internal turning

▲ with chip former

▲ High-feed internal turning

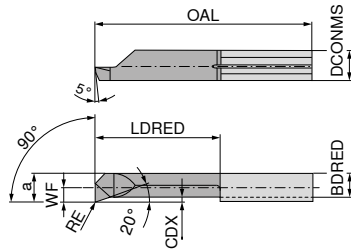
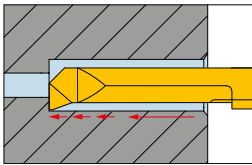


Illustrations show right-hand versions

Designation	DCONMS _{h6} mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	RE mm	Standard tool holder	Left-hand 73 001 ...		Right-hand 73 000 ...	
											£ Y5		£ Y5	
R/L X050.1-5	4		1.0	0.90	20	5	0.03	0.85	0.05	645.00..-D	46.89	121	46.89	121
R/L X050.15-7	4		1.5	1.35	22	7	0.05	1.25	0.10	645.00..-D	53.59	233	53.59	233
R/L X050.2-5	4		2.0	1.80	19	5	0.10	1.60	0.15	645.00..-D	40.77	245	40.77	245
R/L X050.2-10	4		2.0	1.80	24	10	0.10	1.60	0.05	645.00..-D	41.84	215	41.84	215
R/L X050.2-10	4		2.0	1.80	24	10	0.10	1.60	0.15	645.00..-D	41.84	241	41.84	241
R/L X050.3-10	4	0.7	3.0	2.70	24	10	0.15	2.55	0.05	645.00..-D	40.66	341	40.66	341
R/L X050.3-10	4	0.7	3.0	2.70	24	10	0.15	2.55	0.20	645.00..-D	40.66	347	40.66	347
R/L X050.3-16	4	0.7	3.0	2.70	30	16	0.15	2.55	0.05	645.00..-D	42.89	371	42.89	371
R/L X050.3-16	4	0.7	3.0	2.70	30	16	0.15	2.55	0.10	645.00..-D	42.89	373	42.89	373
R/L X050.3-16	4	0.7	3.0	2.70	30	16	0.15	2.55	0.20	645.00..-D	42.89	377	42.89	377
R/L X050.4-10	4	1.6	4.0	3.60	24	10	0.20	3.20	0.10	645.00..-D	40.66	403	40.66	403
R/L X050.4-10	4	1.6	4.0	3.60	24	10	0.20	3.20	0.20	645.00..-D	40.66	407	40.66	407
R/L X050.4-16	4	1.6	4.0	3.60	30	16	0.20	3.20	0.05	645.00..-D	42.89	431	42.89	431
R/L X050.4-16	4	1.6	4.0	3.60	30	16	0.20	3.20	0.10	645.00..-D	42.89	433	42.89	433
R/L X050.4-16	4	1.6	4.0	3.60	30	16	0.20	3.20	0.20	645.00..-D	42.89	437	42.89	437
R/L X050.4-24	4	1.6	4.0	3.60	38	24	0.20	3.20	0.10	645.00..-D	54.52	463	54.52	463
R/L X050.4-24	4	1.6	4.0	3.60	38	24	0.20	3.20	0.20	645.00..-D	54.52	467	54.52	467
R/L X050.5-15	5	2.1	5.0	4.60	30	15	0.30	4.05	0.05	645.00..-D	40.66	511	40.66	511
R/L X050.5-15	5	2.1	5.0	4.60	30	15	0.30	4.05	0.10	645.00..-D	40.66	513	40.66	513
R/L X050.5-15	5	2.1	5.0	4.60	30	15	0.30	4.05	0.20	645.00..-D	40.66	517	40.66	517
R/L X050.5-25	5	2.1	5.0	4.60	40	25	0.30	4.05	0.10	645.00..-D	52.99	543	52.99	543
R/L X050.5-25	5	2.1	5.0	4.60	40	25	0.30	4.05	0.20	645.00..-D	52.99	547	52.99	547
R/L X050.5-30	5	2.1	5.0	4.60	45	30	0.30	4.05	0.10	645.00..-D	59.93	553	59.93	553
R/L X050.5-30	5	2.1	5.0	4.60	45	30	0.30	4.05	0.20	645.00..-D	59.93	557	59.93	557
R/L X050.6-15	6	2.5	6.0	5.50	30	15	0.40	4.90	0.05	676.00..-D	40.66	611	40.66	611
R/L X050.6-15	6	2.5	6.0	5.50	30	15	0.40	4.90	0.10	676.00..-D	40.66	613	40.66	613
R/L X050.6-15	6	2.5	6.0	5.50	30	15	0.40	4.90	0.20	676.00..-D	40.66	617	40.66	617
R/L X050.6-22	6	2.5	6.0	5.50	37	22	0.40	4.90	0.20	676.00..-D	46.77	637	46.77	637
R/L X050.6-30	6	2.5	6.0	5.50	45	30	0.40	4.90	0.20	676.00..-D	59.93	657	59.93	657
R/L X050.6-35	6	2.5	6.0	5.50	50	35	0.40	4.90	0.20	676.00..-D	66.27	667	66.27	667
R/L X050.6-50	6	2.5	6.0	5.50	65	50	0.40	4.90	0.20	676.00..-D	82.50	697	82.50	697
R/L X050.7-25	7	3.0	7.0	6.50	40	25	0.50	5.90	0.20	676.00..-D	53.81	747	53.81	747
R/L X050.7-30	7	3.0	7.0	6.50	45	30	0.50	5.90	0.20	676.00..-D	60.64	757	60.64	757
P											●		●	
M											●		●	
K											●		●	
N											○		○	
S											○		○	
H											○		○	
O											○		○	

→ v_c Page 60+61

UltraMini – Inserts for internal turning



Illustrations show right-hand versions



Left-hand

Right-hand

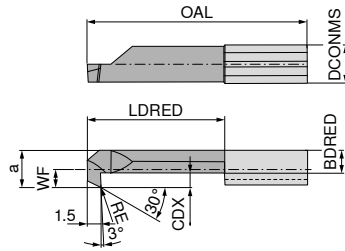
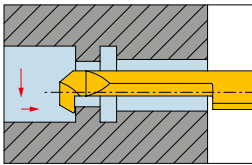
73 015 ...

73 014 ...

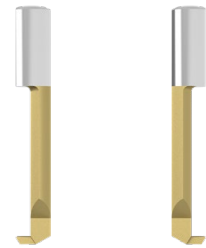
Designation	DCONMS _{h6} mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	RE mm	Standard tool holder	£ Y5		£ Y5	
R/L 090.3-10	4	0.6	2.8	2.6	24	10	0.2	2.3	0.2	645.00..-D	52.38	541	52.38	541
R/L 090.3-16	4	0.6	2.8	2.6	30	16	0.2	2.3	0.2	645.00..-D	55.51	542	55.51	542
R/L 090.4-10	4	1.5	4.0	3.5	24	10	0.3	3.0	0.2	645.00..-D	52.38	545	52.38	545
R/L 090.4-16	4	1.5	4.0	3.5	30	16	0.3	3.0	0.2	645.00..-D	55.51	546	55.51	546
R/L 090.5-10	5	1.9	5.0	4.4	25	10	0.5	3.8	0.2	645.00..-D	52.38	550	52.38	550
R/L 090.5-15	5	1.9	5.0	4.4	30	15	0.5	3.8	0.2	645.00..-D	55.51	551	55.51	551
R/L 090.5-20	5	1.9	5.0	4.4	35	20	0.5	3.8	0.2	645.00..-D	60.30	552	60.30	552
P												●		●
M												●		●
K												●		●
N												●		●
S												○		○
H												○		○
O												●		●

→ v_c Page 59

UltraMini – Inserts for back boring



Illustrations show right-hand versions



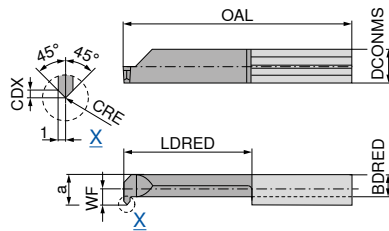
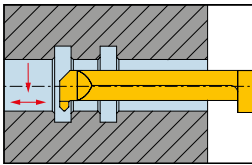
Left-hand

Right-hand

Designation	DCONMS _{ns} mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	RE mm	Standard tool holder	Left-hand		Right-hand	
											73 013 ...		73 012 ...	
R/L 080.0003-15	4	0.6	3	2.6	29	15	0.5	2.0	0.10	645.00..-D	£ Y5 64.04	542	£ Y5 64.04	542
R/L 080.0003-20	4	0.6	3	2.6	34	20	0.5	2.0	0.10	645.00..-D	76.32	544	76.32	544
R/L 080.0004-15	4	1.5	4	3.5	29	15	0.8	2.4	0.15	645.00..-D	64.04	546	64.04	546
R/L 080.0004-25	4	1.5	4	3.5	39	25	0.8	2.4	0.15	645.00..-D	71.79	548	71.79	548
R/L 080.0005-20	5	1.9	5	4.4	35	20	1.0	3.3	0.20	645.00..-D	65.42	554	65.42	554
R/L 080.0005-30	5	1.9	5	4.4	45	30	1.0	3.3	0.20	645.00..-D	67.95	558	67.95	558
R/L 080.0006-20	6	2.3	6	5.3	35	20	1.8	3.4	0.20	676.00..-D	68.23	564	68.23	564
R/L 080.0006-30	6	2.3	6	5.3	45	30	1.8	3.4	0.20	676.00..-D	81.69	568	81.69	568
R/L 080.0007-20	7	2.7	7	6.3	35	20	2.5	3.8	0.20	676.00..-D	68.23	574	68.23	574
R/L 080.0007-30	7	2.7	7	6.3	45	30	2.5	3.8	0.20	676.00..-D	81.69	578	81.69	578
P											●		●	
M											●		●	
K											●		●	
N											●		●	
S											○		○	
H											○		○	
O											●		●	

→ v_c Page 59

UltraMini – Inserts for internal turning and chamfering



Illustrations show right-hand versions



Left-hand

Right-hand

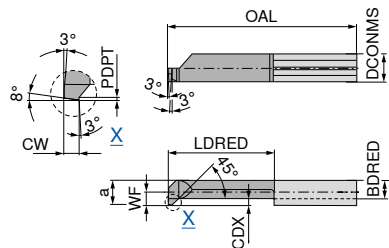
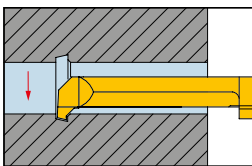
73 007 ...

73 006 ...

Designation	DCONMS _{h6} mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	CRE mm	Standard tool holder	£ Y5	£ Y5
R/L 060.5-15	5	1.9	5.0	4.4	30	15	0.7	3.3	0.2	645.00...-D	53.13	49.36
R/L 060.5-20	5	1.9	5.0	4.4	35	20	0.7	3.3	0.2	645.00...-D	55.18	54.94
R/L 060.7-20	7	2.7	6.8	6.3	35	20	0.7	3.8	0.2	676.00...-D	61.94	57.32
P											•	•
M											•	•
K											•	•
N											•	•
S											○	○
H											○	○
O											•	•

→ v_c Page 59

UltraMini – Inserts for internal chamfering for subsequent parting off



Illustrations show right-hand versions



Left-hand

Right-hand

73 009 ...

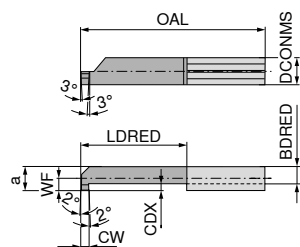
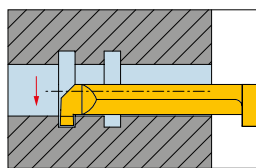
73 008 ...

Designation	DCONMS _{h6} mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	CW mm	PDPT mm	Standard tool holder	£ Y5	£ Y5
R/L 070.4-10	4	1.5	4	3.5	25	10	0.8	2.4	1	0.2	645.00...-D	54.99	54.99
R/L 070.4-16	4	1.5	4	3.5	30	16	0.8	2.4	1	0.2	645.00...-D	56.64	56.64
R/L 070.5-15	5	1.9	5	4.4	30	15	1.0	3.3	1	0.2	645.00...-D	54.32	54.32
R/L 070.5-20	5	1.9	5	4.4	35	20	1.0	3.3	1	0.2	645.00...-D	57.32	57.32
R/L 070.5-30	5	1.9	5	4.4	45	30	1.0	3.3	1	0.2	645.00...-D	76.56	76.56
R/L 070.6-30	6	2.3	6	5.3	45	30	1.0	4.2	1	0.2	676.00...-D	76.56	76.56
R/L 070.6-42	6	2.3	6	5.3	57	42	1.0	4.2	1	0.2	676.00...-D	89.55	89.55
P												•	•
M												•	•
K												•	•
N												•	•
S												○	○
H												○	○
O												•	•

→ v_c Page 59

12

UltraMini – Inserts for Internal Grooving



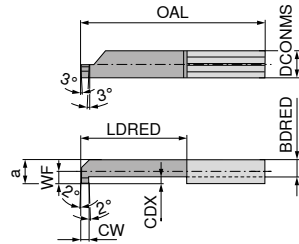
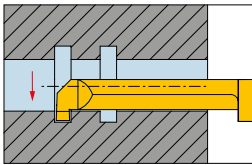
Illustrations show right-hand versions



Designation	DCONMS ₁₆ mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	CW mm	Standard tool holder	Left-hand 73 003 ...		Right-hand 73 002 ...		Left-hand 73 003 ...		Right-hand 73 002 ...	
											£		£		£		£	
											Y5		Y5		Y5		Y5	
R/L 004.0100-10	4	1.5	4.0	3.5	24	10	0.8	2.4	1.0	645.00..D	40.86	040	40.86	040	49.76	540	48.65	540
R/L 004.0100-16	4	1.5	4.0	3.5	30	16	0.8	2.4	1.0	645.00..D	51.03	041	51.03	041	61.05	541	59.41	541
R/L 004.0100-20	4	1.5	4.0	3.5	34	20	0.8	2.4	1.0	645.00..D	55.07	042	55.07	042	65.86	542	64.04	542
R/L 005.0100-10	5	1.9	5.0	4.4	25	10	1.0	3.3	1.0	645.00..D	40.52	150	40.52	150	50.89	650	47.86	650
R/L 005.0150-10	5	1.9	5.0	4.4	25	10	1.0	3.3	1.5	645.00..D	40.52	154	40.52	154	50.89	654	49.54	654
R/L 005.0200-10	5	1.9	5.0	4.4	25	10	1.0	3.3	2.0	645.00..D	40.52	158	40.52	158	50.89	658	49.54	658
R/L 005.0100-15	5	1.9	5.0	4.4	30	15	1.0	3.3	1.0	645.00..D	47.86	151	47.86	151	58.82	651	56.07	651
R/L 005.0150-15	5	1.9	5.0	4.4	30	15	1.0	3.3	1.5	645.00..D	47.86	155	47.86	155	58.82	655	56.07	655
R/L 005.0200-15	5	1.9	5.0	4.4	30	15	1.0	3.3	2.0	645.00..D	47.86	159	47.86	159	58.82	659	56.07	659
R/L 005.0100-20	5	1.9	5.0	4.4	35	20	1.0	3.3	1.0	645.00..D	55.07	051	55.07	051	63.84	551	63.47	551
R/L 005.0150-20	5	1.9	5.0	4.4	35	20	1.0	3.3	1.5	645.00..D	55.07	052	55.07	052	63.84	552	63.47	552
R/L 005.0200-20	5	1.9	5.0	4.4	35	20	1.0	3.3	2.0	645.00..D	55.07	053	55.07	053	63.84	553	63.47	553
R/L 005.0100-25	5	1.9	5.0	4.4	40	25	1.0	3.3	1.0	645.00..D	61.94	152	61.94	152	72.28	652	70.32	652
R/L 005.0150-25	5	1.9	5.0	4.4	40	25	1.0	3.3	1.5	645.00..D	61.94	156	61.94	156	72.28	656	70.32	656
R/L 005.0200-25	5	1.9	5.0	4.4	40	25	1.0	3.3	2.0	645.00..D	61.94	250	61.94	250	72.28	750	70.78	750
R/L 005.0100-30	5	1.9	5.0	4.4	45	30	1.0	3.3	1.0	645.00..D	69.89	153	69.89	153	80.50	653	78.27	653
R/L 005.0150-30	5	1.9	5.0	4.4	45	30	1.0	3.3	1.5	645.00..D	69.89	157	69.89	157	80.50	657	78.27	657
R/L 005.0200-30	5	1.9	5.0	4.4	45	30	1.0	3.3	2.0	645.00..D	69.89	251	69.89	251	80.97	751	78.87	751
R/L 005.0100-35	5	1.9	5.0	4.4	50	35	1.0	3.3	1.0	645.00..D					89.48	680	85.43	680
R/L 006.0100-10	6	2.3	6.0	5.3	25	10	1.8	3.4	1.0	676.00..D	42.49	160	42.49	160	50.21	660	48.74	660
R/L 006.0150-10	6	2.3	6.0	5.3	25	10	1.8	3.4	1.5	676.00..D	42.49	164	42.49	164	50.21	664	46.68	664
R/L 006.0200-10	6	2.3	6.0	5.3	25	10	1.8	3.4	2.0	676.00..D	42.49	168	42.49	168	50.21	668	48.74	668
R/L 006.0100-15	6	2.3	6.0	5.3	30	15	1.8	3.4	1.0	676.00..D	50.57	161	50.57	161	57.99	661	56.51	661
R/L 006.0150-15	6	2.3	6.0	5.3	30	15	1.8	3.4	1.5	676.00..D	50.57	165	50.57	165	57.99	665	56.51	665
R/L 006.0200-15	6	2.3	6.0	5.3	30	15	1.8	3.4	2.0	676.00..D	50.57	169	50.57	169	57.99	669	56.51	669
R/L 006.0100-22	6	2.3	6.0	5.3	37	22	1.8	3.4	1.0	676.00..D	55.51	061	55.51	061	64.44	561	63.91	561
R/L 006.0150-22	6	2.3	6.0	5.3	37	22	1.8	3.4	1.5	676.00..D	55.51	062	55.51	062	64.44	562	63.91	562
R/L 006.0200-22	6	2.3	6.0	5.3	37	22	1.8	3.4	2.0	676.00..D	55.51	063	55.51	063	64.44	563	63.91	563
R/L 006.0100-25	6	2.3	6.0	5.3	40	25	1.8	3.4	1.0	676.00..D	63.91	162	63.91	162	72.72	662	70.78	662
R/L 006.0150-25	6	2.3	6.0	5.3	40	25	1.8	3.4	1.5	676.00..D	63.91	166	63.91	166	72.72	666	70.78	666
R/L 006.0200-25	6	2.3	6.0	5.3	40	25	1.8	3.4	2.0	676.00..D	63.91	260	63.91	260	72.72	760	70.78	760
R/L 006.0100-30	6	2.3	6.0	5.3	45	30	1.8	3.4	1.0	676.00..D	72.28	163	72.28	163	80.97	663	78.87	663
R/L 006.0150-30	6	2.3	6.0	5.3	45	30	1.8	3.4	1.5	676.00..D	72.28	167	72.28	167	80.97	667	78.87	667
R/L 006.0200-30	6	2.3	6.0	5.3	45	30	1.8	3.4	2.0	676.00..D	72.28	261	72.28	261	80.97	761	78.87	761
R/L 006.0100-35	6	2.3	6.0	5.3	50	35	1.8	3.4	1.0	676.00..D					89.48	682	85.43	682
R/L 006.0150-35	6	2.3	6.0	5.3	50	35	1.8	3.4	1.5	676.00..D					89.48	684	85.43	684
R/L 006.0100-42	6	2.3	6.0	5.3	57	42	1.8	3.4	1.0	676.00..D					98.75	685	95.92	685
R/L 007.0100-10	7	2.7	6.8	6.3	25	10	2.5	3.8	1.0	676.00..D	42.93	070	42.93	070	50.65	570	49.54	570
R/L 007.0150-10	7	2.7	6.8	6.3	25	10	2.5	3.8	1.5	676.00..D	42.93	075	42.93	075	50.65	575	49.54	575
R/L 007.0200-10	7	2.7	6.8	6.3	25	10	2.5	3.8	2.0	676.00..D	42.93	170	42.93	170	50.65	670	49.54	670
R/L 007.0100-15	7	2.7	6.8	6.3	30	15	2.5	3.8	1.0	676.00..D	51.03	071	51.03	071	58.57	571	57.11	571
R/L 007.0150-15	7	2.7	6.8	6.3	30	15	2.5	3.8	1.5	676.00..D	51.03	076	51.03	076	58.57	576	57.11	576
R/L 007.0200-15	7	2.7	6.8	6.3	30	15	2.5	3.8	2.0	676.00..D	51.03	171	51.03	171	58.57	671	54.62	671
R/L 007.0100-22	7	2.7	6.8	6.3	37	22	2.5	3.8	1.0	676.00..D	58.37	072	58.37	072	65.91	572	65.24	572
R/L 007.0150-22	7	2.7	6.8	6.3	37	22	2.5	3.8	1.5	676.00..D	58.37	077	58.37	077	65.91	577	65.24	577
R/L 007.0200-22	7	2.7	6.8	6.3	37	22	2.5	3.8	2.0	676.00..D	58.37	172	58.37	172	65.91	672	65.24	672
R/L 007.0100-25	7	2.7	6.8	6.3	40	25	2.5	3.8	1.0	676.00..D	62.98	073	62.98	073	73.49	573	71.53	573
R/L 007.0150-25	7	2.7	6.8	6.3	40	25	2.5	3.8	1.5	676.00..D	62.98	078	62.98	078	73.49	578	71.53	578
R/L 007.0200-25	7	2.7	6.8	6.3	40	25	2.5	3.8	2.0	676.00..D	62.98	173	62.98	173	73.49	673	70.49	673
R/L 007.0100-30	7	2.7	6.8	6.3	45	30	2.5	3.8	1.0	676.00..D	73.49	074	73.49	074	81.03	574	80.20	574
R/L 007.0150-30	7	2.7	6.8	6.3	45	30	2.5	3.8	1.5	676.00..D	73.49	079	73.49	079	81.03	579	77.64	579
R/L 007.0200-30	7	2.7	6.8	6.3	45	30	2.5	3.8	2.0	676.00..D	73.93	174	65.72	174	81.03	674	75.26	674
R/L 007.0100-35	7	2.7	7.0	6.3	50	35	2.5	3.8	1.0	676.00..D					90.37	688	87.84	688
R/L 007.0150-35	7	2.7	7.0	6.3	50	35	2.5	3.8	1.5	676.00..D					90.37	690	87.84	690
R/L 007.0200-35	7	2.7	7.0	6.3	50	35	2.5	3.8	2.0	676.00..D					90.37	692	87.84	692
R/L 007.0100-40	7	2.7	7.0	6.3	55	40	2.5	3.8	1.0	676.00..D					100.25	700	97.41	700
R/L 007.0150-40	7	2.7	7.0	6.3	55	40	2.5	3.8	1.5	676.00..D					100.25	702	97.41	702
R/L 007.0100-45	7	2.7	7.0	6.3	60	45	2.5	3.8	1.0	676.00..D					108.78	712	105.81	712
R/L 007.0100-50	7	2.7	7.0	6.3	65	50	2.5	3.8	1.0	676.00..D					116.56	714	113.12	714

P																			
M																			
K																			
N																			
S																			
H																			
O																			

UltraMini – Inserts for Internal Grooving



Illustrations show right-hand versions

TiAlN

TiAlN



Left-hand

Right-hand

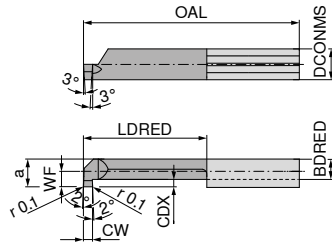
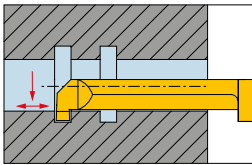
73 003 ...

73 002 ...

Designation	DCONMS _{h6} mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	CW mm	Standard tool holder	£ Y5		£ Y5	
R/L 002.0050-5	4		2	1.8	19	5	0.4	1.2	0.5	645.00..-D	62.55	820	62.55	820
R/L 002.0050-10	4		2	1.8	24	10	0.4	1.2	0.5	645.00..-D	62.98	821	62.98	821
R/L 002.0050-15	4		2	1.8	29	15	0.4	1.2	0.5	645.00..-D	69.29	822	69.29	822
R/L 003.0070-5	4	0.7	3	2.7	19	5	0.6	1.9	0.7	645.00..-D	57.99	830	57.99	830
R/L 003.0070-10	4	0.7	3	2.7	24	10	0.6	1.9	0.7	645.00..-D	66.90	831	66.90	831
R/L 003.0070-16	4	0.7	3	2.7	30	16	0.6	1.9	0.7	645.00..-D	74.53	832	74.53	832
P												•		•
M												•		•
K												•		•
N												•		•
S												•		•
H												•		•
O												•		•

→ v_c Page 59

UltraMini – Inserts for Internal Grooving



Illustrations show right-hand versions

TiAlN

TiAlN



Left-hand

Right-hand

73 203 ...

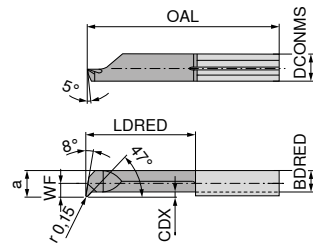
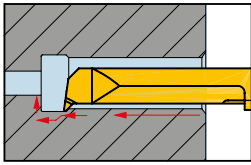
73 202 ...

Designation	DCONMS _{HS} mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	CW mm	Standard tool holder	£ Y5		£ Y5	
R/L 004M0100-10	4	1.5	4.0	3.5	24	10	0.8	2.4	1.0	645.00..-D	53.48	800	53.48	800
R/L 004M0100-16	4	1.5	4.0	3.5	30	16	0.8	2.4	1.0	645.00..-D	61.05	802	61.05	802
R/L 004M0100-20	4	1.5	4.0	3.5	34	20	0.8	2.4	1.0	645.00..-D	67.24	804	67.24	804
R/L 005M0100-10	5	1.9	5.0	4.4	25	10	1.0	3.3	1.0	645.00..-D	50.47	806	50.47	806
R/L 005M0150-10	5	1.9	5.0	4.4	25	10	1.0	3.3	1.5	645.00..-D	50.47	816	50.47	816
R/L 005M0200-10	5	1.9	5.0	4.4	25	10	1.0	3.3	2.0	645.00..-D	50.47	826	50.47	826
R/L 005M0100-15	5	1.9	5.0	4.4	30	15	1.0	3.3	1.0	645.00..-D	57.86	808	57.86	808
R/L 005M0150-15	5	1.9	5.0	4.4	30	15	1.0	3.3	1.5	645.00..-D	57.86	818	57.86	818
R/L 005M0200-15	5	1.9	5.0	4.4	30	15	1.0	3.3	2.0	645.00..-D	57.86	828	57.86	828
R/L 005M0100-20	5	1.9	5.0	4.4	35	20	1.0	3.3	1.0	645.00..-D	64.65	810	64.65	810
R/L 005M0150-20	5	1.9	5.0	4.4	35	20	1.0	3.3	1.5	645.00..-D	64.65	820	64.65	820
R/L 005M0200-20	5	1.9	5.0	4.4	35	20	1.0	3.3	2.0	645.00..-D	64.65	830	64.65	830
R/L 005M0100-25	5	1.9	5.0	4.4	40	25	1.0	3.3	1.0	645.00..-D	70.22	812	70.22	812
R/L 005M0150-25	5	1.9	5.0	4.4	40	25	1.0	3.3	1.5	645.00..-D	70.22	822	70.22	822
R/L 005M0200-25	5	1.9	5.0	4.4	40	25	1.0	3.3	2.0	645.00..-D	70.22	832	70.22	832
R/L 005M0100-30	5	1.9	5.0	4.4	45	30	1.0	3.3	1.0	645.00..-D	77.83	814	77.83	814
R/L 005M0150-30	5	1.9	5.0	4.4	45	30	1.0	3.3	1.5	645.00..-D	77.83	824	77.83	824
R/L 005M0200-30	5	1.9	5.0	4.4	45	30	1.0	3.3	2.0	645.00..-D	77.83	834	77.83	834
R/L 006M0100-10	6	2.3	6.0	5.3	25	10	1.8	3.4	1.0	676.00..-D	50.47	836	50.47	836
R/L 006M0150-10	6	2.3	6.0	5.3	25	10	1.8	3.4	1.5	676.00..-D	50.47	846	50.47	846
R/L 006M0200-10	6	2.3	6.0	5.3	25	10	1.8	3.4	2.0	676.00..-D	50.47	856	50.47	856
R/L 006M0100-15	6	2.3	6.0	5.3	30	15	1.8	3.4	1.0	676.00..-D	57.86	838	57.86	838
R/L 006M0150-15	6	2.3	6.0	5.3	30	15	1.8	3.4	1.5	676.00..-D	57.86	848	57.86	848
R/L 006M0200-15	6	2.3	6.0	5.3	30	15	1.8	3.4	2.0	676.00..-D	57.86	858	57.86	858
R/L 006M0100-20	6	2.3	6.0	5.3	35	22	1.8	3.4	1.0	676.00..-D	64.65	840	64.65	840
R/L 006M0150-20	6	2.3	6.0	5.3	37	22	1.8	3.4	1.5	676.00..-D	64.65	850	64.65	850
R/L 006M0200-20	6	2.3	6.0	5.3	37	22	1.8	3.4	2.0	676.00..-D	64.65	860	64.65	860
R/L 006M0100-25	6	2.3	6.0	5.3	40	25	1.8	3.4	1.0	676.00..-D	70.22	842	70.22	842
R/L 006M0150-25	6	2.3	6.0	5.3	40	25	1.8	3.4	1.5	676.00..-D	70.22	852	70.22	852
R/L 006M0200-25	6	2.3	6.0	5.3	40	25	1.8	3.4	2.0	676.00..-D	70.22	862	70.22	862
R/L 006M0100-30	6	2.3	6.0	5.3	45	30	1.8	3.4	1.0	676.00..-D	77.83	844	77.83	844
R/L 006M0150-30	6	2.3	6.0	5.3	45	30	1.8	3.4	1.5	676.00..-D	77.83	854	77.83	854
R/L 006M0200-30	6	2.3	6.0	5.3	45	30	1.8	3.4	2.0	676.00..-D	77.83	864	77.83	864
R/L 007M0100-10	7	2.7	6.8	6.3	25	10	2.5	3.7	1.0	676.00..-D	50.47	866	50.47	866
R/L 007M0150-10	7	2.7	6.8	6.3	25	10	2.5	3.7	1.5	676.00..-D	50.47	876	50.47	876
R/L 007M0200-10	7	2.7	6.8	6.3	25	10	2.5	3.7	2.0	676.00..-D	50.47	886	50.47	886
R/L 007M0100-15	7	2.7	6.8	6.3	30	15	2.5	3.7	1.0	676.00..-D	57.86	868	57.86	868
R/L 007M0150-15	7	2.7	6.8	6.3	30	15	2.5	3.7	1.5	676.00..-D	57.86	878	57.86	878
R/L 007M0200-15	7	2.7	6.8	6.3	30	15	2.5	3.7	2.0	676.00..-D	57.86	888	57.86	888
R/L 007M0100-22	7	2.7	6.8	6.3	37	22	2.5	3.7	1.0	676.00..-D	64.65	870	64.65	870
R/L 007M0150-22	7	2.7	6.8	6.3	37	22	2.5	3.7	1.5	676.00..-D	64.65	880	64.65	880
R/L 007M0200-22	7	2.7	6.8	6.3	37	22	2.5	3.7	2.0	676.00..-D	64.65	890	64.65	890
R/L 007M0100-25	7	2.7	6.8	6.3	40	25	2.5	3.7	1.0	676.00..-D	70.22	872	70.22	872
R/L 007M0150-25	7	2.7	6.8	6.3	40	25	2.5	3.7	1.5	676.00..-D	70.22	882	70.22	882
R/L 007M0200-25	7	2.7	6.8	6.3	40	25	2.5	3.7	2.0	676.00..-D	70.22	892	70.22	892
R/L 007M0100-30	7	2.7	6.8	6.3	45	30	2.5	3.7	1.0	676.00..-D	78.41	874	78.41	874
R/L 007M0150-30	7	2.7	6.8	6.3	45	30	2.5	3.7	1.5	676.00..-D	78.41	884	78.41	884
R/L 007M0200-30	7	2.7	6.8	6.3	45	30	2.5	3.7	2.0	676.00..-D	78.41	894	78.41	894

P	•	•
M	•	•
K	•	•
N	•	•
S	•	•
H	•	•
O	•	•

→ v_c Page 59

UltraMini – Inserts for internal undercuts



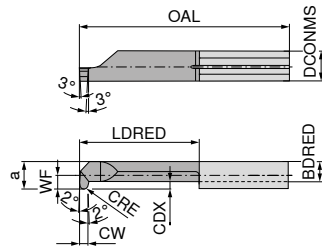
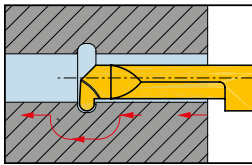
Illustrations show right-hand versions



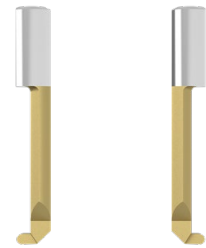
Designation	DCONMS _{h6} mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	Standard tool holder	Left-hand 73 011 ...		Right-hand 73 010 ...		Left-hand 73 011 ...		Right-hand 73 010 ...	
										£ Y5		£ Y5		£ Y5		£ Y5	
R/L 047.2-10	4		2.0	1.7	24	10	0.4	1.2	645.00..-D					58.89	221	58.89	221
R/L 047.3-15	4	0.6	2.8	2.6	29	15	0.6	1.9	645.00..-D					61.30	231	61.30	231
R/L 047.4-10	4	1.5	4.0	3.5	24	10	0.6	2.8	645.00..-D					56.13	241	56.13	241
R/L 047.T4-20	4	1.5	4.0	3.5	34	20	0.6	2.8	645.00..-D					65.84	242	65.84	242
R/L 047.4-20	4	1.5	4.0	3.5	34	20	0.3	3.0	645.00..-D	63.30	542	62.40	542				
R/L 047.5-15	5	1.9	5.0	4.4	30	15	0.8	3.5	645.00..-D					63.18	251	63.18	251
R/L 047.T5-25	5	1.9	5.0	4.4	40	25	0.8	3.5	645.00..-D					66.84	252	66.84	252
R/L 047.5-25	5	1.9	5.0	4.4	40	25	0.5	3.8	645.00..-D	62.98	552	62.98	552				
R/L 047.T6-22	6	2.3	6.0	5.3	37	22	1.8	3.4	676.00..-D					64.70	262	64.70	262
R/L 047.T6-30	6	2.3	6.0	5.3	45	30	1.8	3.4	676.00..-D					86.14	263	86.14	263
R/L 047.6-30	6	2.3	6.0	5.3	45	30	0.5	4.5	676.00..-D	64.44	562	65.42	562				
P											●		●		●		●
M											●		●		●		●
K											●		●		●		●
N											●		●		●		●
S											○		○		○		○
H											○		○		○		○
O											●		●		●		●

→ v_c Page 59

UltraMini – Inserts for internal grooving and turning



Illustrations show right-hand versions



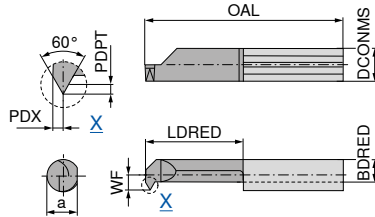
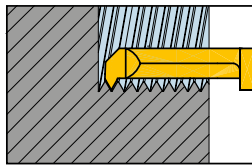
Left-hand

Right-hand

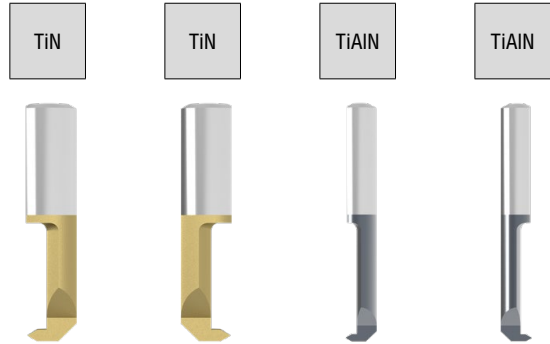
Designation	DCONMS _{h6} mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	CDX mm	BDRED mm	CW mm	CRE mm	Standard tool holder	£ Y5	73 019 ...	£ Y5	73 018 ...
R/L 006-0.75-25	6	2.3	6.0	5.3	40	25	1.8	3.4	1.5	0.75	676.00..-D	66.44	564	66.44	564
R/L 006-0.50-25	6	2.3	6.0	5.3	40	25	1.8	3.4	1.0	0.50	676.00..-D	66.44	562	66.44	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	66.44	566	65.42	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	64.95	556	64.95	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	68.52	572	65.33	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	64.95	554	64.95	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	68.52	574	68.52	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	64.95	552	64.95	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	68.52	576	68.52	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	61.49	541	58.82	541
P													●		●
M													●		●
K													●		●
N													●		●
S													○		○
H													○		○
O													●		●

→ v_c Page 59

UltraMini – Inserts for internal threading (Partial profile)



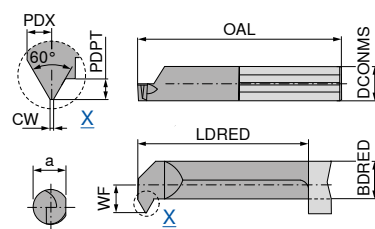
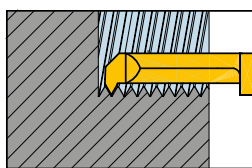
Illustrations show right-hand versions



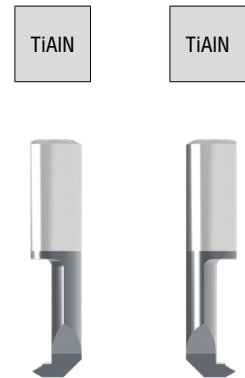
Illustrations show right-hand versions													Left-hand		Right-hand		Left-hand		Right-hand	
Designation	DCONMS _{ns} mm	TP mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	BDRED mm	PDPT mm	PDX mm	Standard tool holder	73 101 ...		73 100 ...		73 101 ...		73 100 ...		
												£ Y5		£ Y5		£ Y5		£ Y5		
R/L 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						59.52 62.06	551 552	59.52 62.06	551 552
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	56.61	545	54.87	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	57.39	544	57.16	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	55.49	547	54.87	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	58.15	546	56.74	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	56.61	549	55.58	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	58.15	548	56.74	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	56.27	550	56.74	550					
P													●		●		●		●	
M													●		●		●		●	
K													●		●		●		●	
N													●		●		●		●	
S													○		○		●		●	
H													○		○		●		●	
Q													●		●		●		●	

→ v_c Page 59

UltraMini – Inserts for Internal thread turning (Full profile)



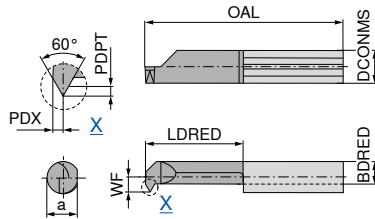
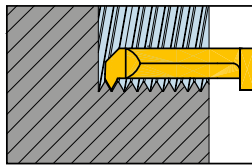
Illustrations show right-hand versions



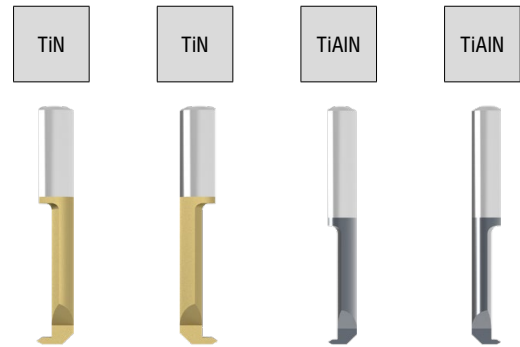
Designation	DCONMS _{ns} mm	TP mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	BDRED mm	PDPT mm	PDX mm	CW mm	Standard tool holder	Left-hand 73 209 ...		Right-hand 73 208 ...	
													£ Y5		£ Y5	
R/L 105.0408-15	5	0.80	1.9	4.8	4.4	30	15	3.3	0.43	0.50	0.10	645.00...D	64.33	799	64.33	799
R/L 105.510-15	5	1.00	1.9	4.8	4.4	30	15	3.3	0.54	0.55	0.12	645.00...D	59.45	800	59.45	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	59.45	802	59.45	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	59.45	804	59.45	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	59.45	806	59.45	806
P														●		●
M														●		●
K														●		●
N														●		●
S														●		●
H														●		●
O														●		●

→ v_c Page 59

UltraMini – Inserts for internal thread turning (Partial profile)



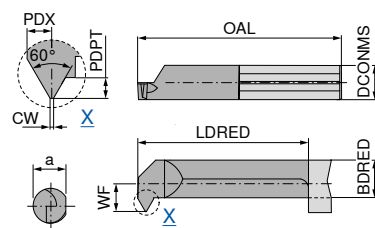
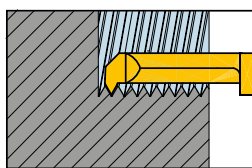
Illustrations show right-hand versions



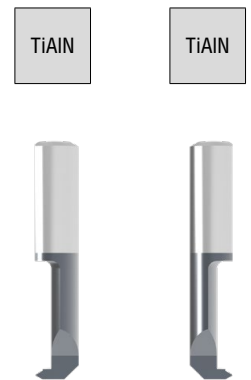
Designation	DCONMS _{ns} mm	TP mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	BDRED mm	PDPT mm	PDX mm	Standard tool holder	Left-hand 73 103 ...		Right-hand 73 102 ...		Left-hand 73 103 ...		Right-hand 73 102 ...	
												£		£		£		£	
												Y5		Y5		Y5		Y5	
R/L 004.0105-10	4	0.50	1.0	3.2	3.0	24	10	2.3	0.27	0.44	645.00...D					58.65	509	58.65	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	58.62	510	58.62	510				
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	56.61	539	56.61	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	57.39	540	57.39	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	56.61	541	56.61	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	57.39	542	57.39	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	56.61	543	56.61	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	58.15	544	58.15	544				
P												•		•		•		•	
M												•		•		•		•	
K												•		•		•		•	
N												•		•		•		•	
S												○		○		•		•	
H												○		○		•		•	
O												•		•		•		•	

→ v_c Page 59

UltraMini – Inserts for Internal thread turning (Full profile)



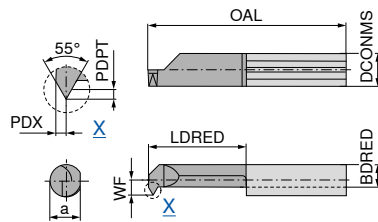
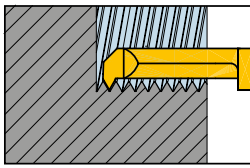
Illustrations show right-hand versions



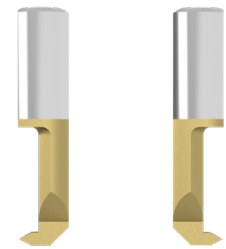
Designation	DCONMS _{ns} mm	TP mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	BDRED mm	PDPT mm	PDX mm	CW mm	Standard tool holder	Left-hand 73 207 ...		Right-hand 73 206 ...	
													£		£	
													Y5		Y5	
R/L 104.0205-15	5	0.50	1.5	4	3.5	30	15	2.4	0.27	0.35	0.06	645.00...D	62.66	800	62.66	800
R/L 105.0205-15	5	0.50	1.9	5	4.4	30	15	3.3	0.27	0.35	0.06	645.00...D	59.45	802	59.45	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	59.45	804	59.45	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	59.45	806	59.45	806
P													•		•	
M													•		•	
K													•		•	
N													•		•	
S													•		•	
H													•		•	
O													•		•	

→ v_c Page 59

UltraMini – Inserts for internal thread turning (Partial profile)



Illustrations show right-hand versions



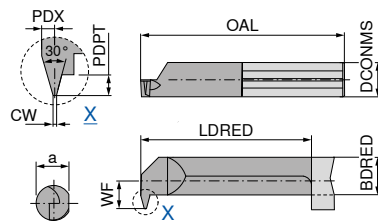
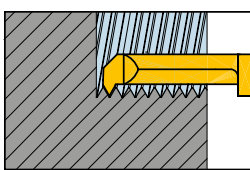
Left-hand Right-hand

Designation	DCONMS _{hg} mm	TPI 1/"	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	BDRED mm	PDPT mm	PDX mm	Standard tool holder	73 105 ... £ Y5	552	73 104 ... £ Y5	552
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	60.48	552	60.48	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	60.48	562	60.48	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	60.48	563	60.48	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	60.48	572	60.48	572
P													●		●
M													●		●
K													●		●
N													●		●
S													○		○
H													○		○
O													●		●

→ v_c Page 59

UltraMini – Inserts for internal thread turning (Partial profile)

▲ Trapezoidal thread DIN 103



Illustrations show right-hand versions

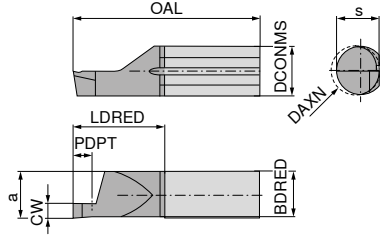
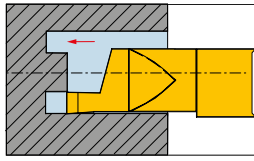


Left-hand Right-hand

Designation	DCONMS _{hg} mm	TP mm	WF mm	DMIN mm	a mm	OAL mm	LDRED mm	BDRED mm	PDPT mm	PDX mm	CW mm	Standard tool holder	73 211 ... £ Y5	222	73 210 ... £ Y5	222
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	80.47	222	80.47	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	97.24	230	97.24	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	80.47	322	80.47	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	97.24	330	97.24	330
P														●		●
M														●		●
K														●		●
N														●		●
S														●		●
H														●		●
O														●		●

→ v_c Page 59

UltraMini – Inserts for axial grooving



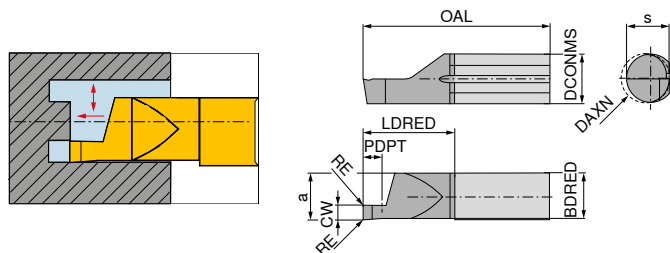
Illustrations show right-hand versions

Designation	DCONMS _{ns} mm	a mm	DAXN mm	s mm	OAL mm	LDRED mm	PDPT mm	BDRED mm	CW mm	Standard tool holder	Left-hand 73 051 ...		Right-hand 73 050 ...		Left-hand 73 053 ...		Right-hand 73 052 ...	
											£		£		£		£	
											Y5		Y5		Y5		Y5	
R/L 010.1006-10	6	5.2	6	5.3	26	11	1.5	4.9	1.0	676.00..-D	62.84	561	61.05	561	62.55	561	62.55	561
R/L 010.1506-10	6	5.2	6	5.3	26	11	2.0	4.9	1.5	676.00..-D	62.84	563	61.05	563	62.55	563	62.55	563
R/L 010.1008-10	7	5.9	8	6.3	26	11	1.5	5.6	1.0	676.00..-D	62.98	571	62.40	571	64.04	571	64.04	571
R/L 010.1008-20	7	5.9	8	6.3	35	20	1.5	5.6	1.0	676.00..-D	68.52	671	66.73	671	68.41	671	68.41	671
R/L 010.1008-30	7	5.9	8	6.3	45	30	1.5	5.6	1.0	676.00..-D	72.28	771	70.32	771	70.76	771	70.76	771
R/L 010.1508-10	7	5.9	8	6.3	26	11	2.5	5.6	1.5	676.00..-D	62.98	573	60.48	573	64.04	573	64.04	573
R/L 010.1508-20	7	5.9	8	6.3	35	20	2.5	5.6	1.5	676.00..-D	68.52	673	64.44	673	68.41	673	68.41	673
R/L 010.1508-30	7	5.9	8	6.3	45	30	2.5	5.6	1.5	676.00..-D	72.28	773	70.32	773	70.76	773	70.76	773
R/L 010.2008-10	7	5.9	8	6.3	26	11	3.0	5.6	2.0	676.00..-D	62.98	575	60.48	575	64.04	575	64.04	575
R/L 010.2008-20	7	5.9	8	6.3	35	20	3.0	5.6	2.0	676.00..-D	68.52	675	64.44	675	68.41	675	68.41	675
R/L 010.2008-30	7	5.9	8	6.3	45	30	3.0	5.6	2.0	676.00..-D	72.28	775	70.32	775	70.76	775	70.76	775
R/L 010.2508-10	7	5.9	8	6.3	26	11	3.5	5.6	2.5	676.00..-D	62.98	577	62.40	577	64.04	577	64.04	577
R/L 010.2508-20	7	5.9	8	6.3	35	20	3.5	5.6	2.5	676.00..-D	68.52	677	66.73	677	68.41	677	68.41	677
R/L 010.2508-30	7	5.9	8	6.3	45	30	3.5	5.6	2.5	676.00..-D	72.28	777	70.32	777	70.76	777	70.76	777
R/L 010.3008-10	7	5.9	8	6.3	26	11	3.5	5.6	3.0	676.00..-D	62.98	579	62.40	579	64.04	579	64.04	579
R/L 010.3008-20	7	5.9	8	6.3	35	20	3.5	5.6	3.0	676.00..-D	68.52	679	64.44	679	68.41	679	68.41	679
R/L 010.3008-30	7	5.9	8	6.3	45	30	3.5	5.6	3.0	676.00..-D	72.28	779	70.32	779	70.76	779	70.76	779
P											●		●		●		●	
M											●		●		●		●	
K											●		●		●		●	
N											●		●		●		●	
S											○		○		●		●	
H											○		○		●		●	
O											●		●		●		●	

→ v_c Page 59

UltraMini – Inserts for axial grooving

▲ with corner radius



Illustrations show right-hand versions



Left-hand

Right-hand

Designation	DCONMS ₁₆ mm	a mm	DAXN mm	s mm	OAL mm	LDRED mm	PDPT mm	BDRED mm	CW mm	RE mm	Standard tool holder	73 253 ...		73 252 ...	
												£ Y5		£ Y5	
R/L 510M1008-10	5	4.3	5	6.3	26	11	2	4.0	1.0	0.05	645.00..-D	76.31	510	76.31	510
R/L 510M1008-20	5	4.3	5	6.3	35	20	2	4.0	1.0	0.05	645.00..-D	80.59	610	80.59	610
R/L 510M1508-10	5	4.3	5	6.3	26	11	3	4.0	1.5	0.05	645.00..-D	76.31	515	76.31	515
R/L 510M1508-20	5	4.3	5	6.3	35	20	3	4.0	1.5	0.05	645.00..-D	80.59	615	80.59	615
R/L 510M2008-10	5	4.3	5	6.3	26	11	4	4.0	2.0	0.05	645.00..-D	76.31	520	76.31	520
R/L 510M2008-20	5	4.3	5	6.3	35	20	4	4.0	2.0	0.05	645.00..-D	80.59	620	80.59	620
R/L 010M1008-10	7	5.9	8	6.3	26	11	2	5.6	1.0	0.10	676.00..-D	70.62	800	70.62	800
R/L 010M1008-20	7	5.9	8	6.3	35	20	2	5.6	1.0	0.10	676.00..-D	74.60	810	74.60	810
R/L 010M1008-30	7	5.9	8	6.3	45	30	2	5.6	1.0	0.10	676.00..-D	78.00	820	78.00	820
R/L 010M1508-10	7	5.9	8	6.3	26	11	3	5.6	1.5	0.10	676.00..-D	70.62	802	70.62	802
R/L 010M1508-20	7	5.9	8	6.3	35	20	3	5.6	1.5	0.10	676.00..-D	74.60	812	74.60	812
R/L 010M1508-30	7	5.9	8	6.3	45	30	3	5.6	1.5	0.10	676.00..-D	78.00	822	78.00	822
R/L 010M2008-10	7	5.9	8	6.3	26	11	4	5.6	2.0	0.10	676.00..-D	70.62	804	70.62	804
R/L 010M2008-20	7	5.9	8	6.3	35	20	4	5.6	2.0	0.10	676.00..-D	74.60	814	74.60	814
R/L 010M2008-30	7	5.9	8	6.3	45	30	4	5.6	2.0	0.10	676.00..-D	78.00	824	78.00	824
R/L 010M2508-10	7	5.9	8	6.3	26	11	5	5.6	2.5	0.10	676.00..-D	70.62	806	70.62	806
R/L 010M2508-20	7	5.9	8	6.3	35	20	5	5.6	2.5	0.10	676.00..-D	74.60	816	74.60	816
R/L 010M2508-30	7	5.9	8	6.3	45	30	5	5.6	2.5	0.10	676.00..-D	78.00	826	78.00	826
R/L 010M3008-10	7	5.9	8	6.3	26	11	6	5.6	3.0	0.10	676.00..-D	70.62	808	70.62	808
R/L 010M3008-20	7	5.9	8	6.3	35	20	6	5.6	3.0	0.10	676.00..-D	74.60	818	74.60	818
R/L 010M3008-30	7	5.9	8	6.3	45	30	6	5.6	3.0	0.10	676.00..-D	78.00	828	78.00	828
P												•		•	
M												•		•	
K												•		•	
N												•		•	
S												•		•	
H												•		•	
O												•		•	

→ v_c Page 59

UltraMini – Inserts for axial grooving (Full radius)



Left-hand

Right-hand

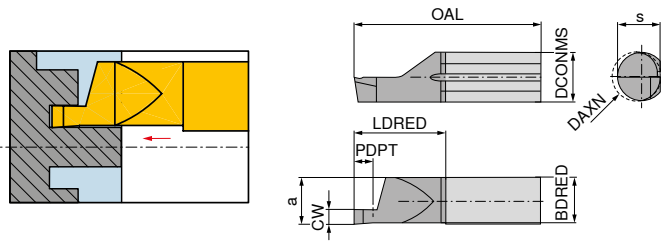
73 059 ...

73 058 ...

Designation	DCONMS _{ns} mm	a mm	DAXN mm	s mm	OAL mm	LDRED mm	PDPT mm	BDRED mm	CW mm	CRE mm	Standard tool holder	£ Y5		£ Y5	
R/L 610.1005-10	6	5.2	6	5.3	26	11	2	4.9	1.0	0.50	676.00..-D	77.68	071	77.68	071
R/L 610.1005-20	6	5.2	6	5.3	35	20	2	4.9	1.0	0.50	676.00..-D	82.24	171	82.24	171
R/L 610.1608-10	6	5.2	6	5.3	26	11	3	4.9	1.6	0.80	676.00..-D	77.68	073	77.68	073
R/L 610.1608-20	6	5.2	6	5.3	35	20	3	4.9	1.6	0.80	676.00..-D	82.24	173	82.24	173
R/L 610.2010-10	6	5.2	6	5.3	26	11	4	4.9	2.0	1.00	676.00..-D	77.68	075	77.68	075
R/L 610.2010-20	6	5.2	6	5.3	35	20	4	4.9	2.0	1.00	676.00..-D	82.24	175	82.24	175
R/L 610.2512-10	6	5.2	6	5.3	26	11	5	4.9	2.5	1.25	676.00..-D	77.68	077	77.68	077
R/L 610.2512-20	6	5.2	6	5.3	35	20	5	4.9	2.5	1.25	676.00..-D	82.24	177	82.24	177
R/L 610.3015-10	6	5.2	6	5.3	26	11	6	4.9	3.0	1.50	676.00..-D	77.68	079	77.68	079
R/L 610.3015-20	6	5.2	6	5.3	35	20	6	4.9	3.0	1.50	676.00..-D	82.24	179	82.24	179
R/L 010.1005-10	7	5.9	8	6.3	26	11	2	5.6	1.0	0.50	676.00..-D	74.53	571	74.53	571
R/L 010.1005-20	7	5.9	8	6.3	35	20	2	5.6	1.0	0.50	676.00..-D	78.87	671	78.87	671
R/L 010.1608-10	7	5.9	8	6.3	26	11	3	5.6	1.6	0.80	676.00..-D	74.53	573	74.53	573
R/L 010.1608-20	7	5.9	8	6.3	35	20	3	5.6	1.6	0.80	676.00..-D	78.87	673	78.87	673
R/L 010.2010-10	7	5.9	8	6.3	26	11	4	5.6	2.0	1.00	676.00..-D	74.53	575	74.53	575
R/L 010.2010-20	7	5.9	8	6.3	35	20	4	5.6	2.0	1.00	676.00..-D	78.87	675	78.87	675
R/L 010.2512-10	7	5.9	8	6.3	26	11	5	5.6	2.5	1.25	676.00..-D	74.53	577	74.53	577
R/L 010.2512-20	7	5.9	8	6.3	35	20	5	5.6	2.5	1.25	676.00..-D	78.87	677	78.87	677
R/L 010.3015-10	7	5.9	8	6.3	26	11	6	5.6	3.0	1.50	676.00..-D	74.53	579	74.53	579
R/L 010.3015-20	7	5.9	8	6.3	35	20	6	5.6	3.0	1.50	676.00..-D	78.87	679	78.87	679
P													•		•
M													•		•
K													•		•
N													•		•
S													•		•
H													•		•
O													•		•

→ v_c Page 59

UltraMini – Inserts for axial grooving over a spigot



Illustrations show right-hand versions



Left-hand

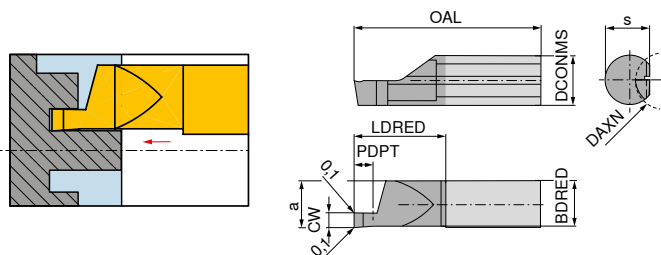
Right-hand

Designation	DCONMS _{h6} mm	a mm	DAXN mm	s mm	OAL mm	LDRED mm	PDPT mm	BDRED mm	CW mm	Standard tool holder	73 061 ... £ Y5	73 060 ... £ Y5
R/L 620.1006-20	6	5.2	6	5.3	35	20	2	4.9	1.0	676.00..-D	78.87 561	78.87 561
R/L 620.1506-20	6	5.2	6	5.3	35	20	3	4.9	1.5	676.00..-D	78.87 563	78.87 563
R/L 620.2006-20	6	5.2	6	5.3	35	20	4	4.9	2.0	676.00..-D	78.87 565	78.87 565
R/L 620.2506-20	6	5.2	6	5.3	35	20	5	4.9	2.5	676.00..-D	78.87 567	78.87 567
R/L 620.3006-20	6	5.2	6	5.3	35	20	6	4.9	3.0	676.00..-D	78.87 569	78.87 569
P											•	•
M											•	•
K											•	•
N											•	•
S											•	•
H											•	•
O											•	•

→ v_c Page 59

UltraMini – Inserts for axial grooving over a spigot

▲ with corner radius



Illustrations show right-hand versions



Left-hand

Right-hand

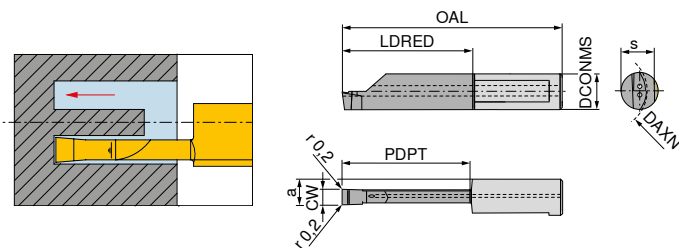
Designation	DCONMS _{h6} mm	a mm	DAXN mm	s mm	OAL mm	LDRED mm	PDPT mm	BDRED mm	CW mm	Standard tool holder	73 261 ... £ Y5	73 260 ... £ Y5
R/L 620M1006-20	6	5.2	6	5.3	35	20	2	4.9	1.0	676.00..-D	75.42 800	75.42 800
R/L 620M1506-20	6	5.2	6	5.3	35	20	3	4.9	1.5	676.00..-D	75.42 802	75.42 802
R/L 620M2006-20	6	5.2	6	5.3	35	20	4	4.9	2.0	676.00..-D	75.42 804	75.42 804
R/L 620M2506-20	6	5.2	6	5.3	35	20	5	4.9	2.5	676.00..-D	75.42 806	75.42 806
R/L 620M3006-20	6	5.2	6	5.3	35	20	6	4.9	3.0	676.00..-D	75.42 808	75.42 808
P											•	•
M											•	•
K											•	•
N											•	•
S											•	•
H											•	•
O											•	•

→ v_c Page 59

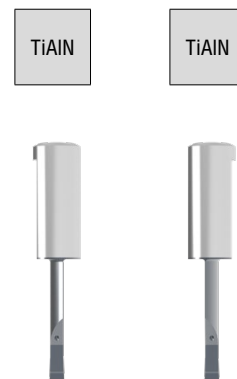
UltraMini – Inserts for axial grooving

▲ up to 70 bar

▲ dual cooling channel



Illustrations show right-hand versions



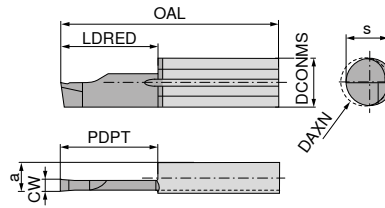
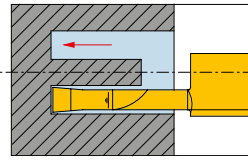
Left-hand

Right-hand

Designation	DCONMS ₁₆ mm	a mm	DAXN mm	s mm	OAL mm	LDRED mm	PDPT mm	CW mm	Standard tool holder	Left-hand 73 263 ...		Right-hand 73 262 ...	
										£ Y5		£ Y5	
R/L 012.0200-10	8	5.00	12	7.3	30	10	10	2.0	687.00...D	69.78	700	69.78	700
R/L 012.0200-15	8	5.00	12	7.3	35	15	15	2.0	687.00...D	71.14	702	71.14	702
R/L 012.0250-10	8	5.25	12	7.3	30	10	10	2.5	687.00...D	69.78	704	69.78	704
R/L 012.0250-20	8	5.25	12	7.3	40	20	20	2.5	687.00...D	72.41	706	72.41	706
R/L 016.0300-10	8	5.50	16	7.3	30	10	10	3.0	687.00...D	98.94	800	98.94	800
R/L 016.0300-20	8	5.50	16	7.3	40	20	20	3.0	687.00...D	101.57	802	101.57	802
R/L 020.0300-25	8	5.50	20	7.3	45	25	25	3.0	687.00...D	102.95	804	102.95	804
R/L 020.0300-30	8	5.50	20	7.3	50	30	30	3.0	687.00...D	102.95	806	102.95	806
R/L 020.0300-35	8	5.50	20	7.3	55	35	35	3.0	687.00...D	105.34	808	105.34	808
R/L 020.0300-40	8	5.50	20	7.3	60	40	40	3.0	687.00...D	105.34	810	105.34	810
R/L 016.0400-10	8	6.00	16	7.3	30	10	10	4.0	687.00...D	98.94	812	98.94	812
R/L 016.0400-20	8	6.00	16	7.3	40	20	20	4.0	687.00...D	101.57	814	101.57	814
R/L 020.0400-25	8	6.00	20	7.3	45	25	25	4.0	687.00...D	102.95	816	102.95	816
R/L 020.0400-30	8	6.00	20	7.3	50	30	30	4.0	687.00...D	102.95	818	102.95	818
R/L 020.0400-35	8	6.00	20	7.3	55	35	35	4.0	687.00...D	105.34	820	105.34	820
R/L 020.0400-40	8	6.00	20	7.3	60	40	40	4.0	687.00...D	105.34	822	105.34	822
R/L 020.0500.20	8	6.50	20	7.3	40	20	20	5.0	687.00...D	98.94	824	98.94	824
R/L 020.0500.25	8	6.50	20	7.3	45	25	25	5.0	687.00...D	100.15	826	100.15	826
R/L 020.0500.30	8	6.50	20	7.3	50	30	30	5.0	687.00...D	100.15	828	100.15	828
R/L 020.0500.35	8	6.50	20	7.3	55	35	35	5.0	687.00...D	102.95	830	102.95	830
R/L 020.0500.40	8	6.50	20	7.3	60	40	40	5.0	687.00...D	100.11	832	100.11	832
P											●		●
M											●		●
K											●		●
N											●		●
S											●		●
H											●		●
O											●		●

→ V_c Page 59

UltraMini – Inserts for axial grooving



Illustrations show right-hand versions

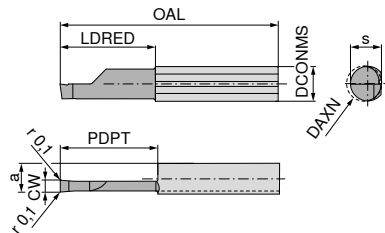
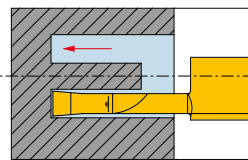


Designation	DCONMS _{h6} mm	a mm	DAXN mm	s mm	OAL mm	LDRED mm	PDPT mm	CW mm	Standard tool holder	Left-hand 73 055 ...		Right-hand 73 054 ...		Left-hand 73 057 ...		Right-hand 73 056 ...	
										£		£		£		£	
										Y5		Y5		Y5		Y5	
R/L 015.2515-20	7	5.9	15	6.3	35	20	20	2.5	676.00..-D	86.18	572	80.81	572	85.89	572	85.89	572
R/L 015.3015-20	7	5.9	15	6.3	35	20	20	3.0	676.00..-D	80.81	574	80.81	574	85.89	574	85.89	574
R/L 015.3015-30	7	5.9	15	6.3	45	30	30	3.0	676.00..-D	94.88	674	94.88	674	94.71	674	94.71	674
P											●		●		●		●
M											●		●		●		●
K											●		●		●		●
N											●		●		●		●
S											○		○		●		●
H											○		○		●		●
O											●		●		●		●

→ v_c Page 59

UltraMini – Inserts for axial grooving

▲ with corner radius



Illustrations show right-hand versions



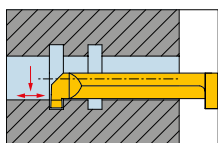
Designation	DCONMS _{h6} mm	a mm	DAXN mm	s mm	OAL mm	LDRED mm	PDPT mm	CW mm	Standard tool holder	Left-hand 73 257 ...		Right-hand 73 256 ...	
										£		£	
										Y5		Y5	
R/L 015M2515-20	7	5.9	8	6.3	35	20	20	2.5	676.00..-D	82.60	800	82.60	800
R/L 015M3015-20	7	5.9	8	6.3	35	20	20	3.0	676.00..-D	82.60	802	82.60	802
R/L 015M3015-30	7	5.9	8	6.3	45	30	30	3.0	676.00..-D	90.37	804	90.37	804
P											●		●
M											●		●
K											●		●
N											●		●
S											●		●
H											●		●
O											●		●

→ v_c Page 59

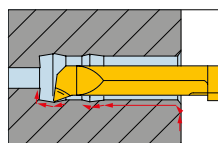
UltraMini – Set: Internal turning, grooving and chamfering, right hand

▲ extensive assortment of right-hand tools

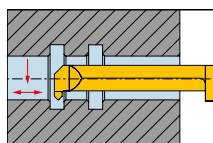
▲ K10F – TiN



Grooving (E)



Profile turn (A)



Chamfers (F)

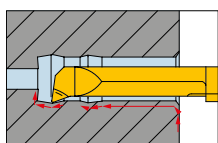


									73 085 ...
Tool	Designation	Article no.	Bore Ø mm	Boring depth mm	Grooving depth mm	Groove width mm	Piece	fig.	£ Y5
Inserts	R 004.0100-16	73 002 541	4	16	0,8	1,0	1	E	
Inserts	R 005.0150-20	73 002 552	5	20	1,0	1,5	1	E	
Inserts	R 005.0200-20	73 002 553	5	20	1,0	2,0	1	E	
Inserts	R 006.0150-22	73 002 562	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	1,000.84
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		

UltraMini – Set: Internal Turning

▲ extensive assortment of right-hand tools

▲ K10F – TiN



						73 085 ...
Tool	Designation	Article no.	Bore Ø mm	Boring depth mm	Piece	£ Y5
Inserts	R 050.3-16	73 004 530	3	16	1	
Inserts	R 050.4-16	73 004 540	4	16	1	
Inserts	R 050.5-20	73 004 550	5	20	1	629.02
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	

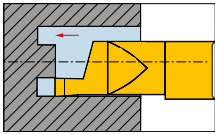
UltraMini – Set: Holder



					73 085 ...
Tool	Designation	Article no.	for cutting insert Ø mm	Piece	£ Y5
Tool holder	645.0016-D	73 080 164	3 / 4 / 5	1	
Tool holder	676.0016-D	73 080 166	6 / 7	1	392.18
Tightening Key	110.645	70 950 175		1	

UltraMini – Set: Axial Grooving

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



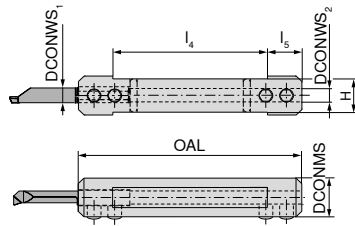
								73 085 ...
Tool	Designation	Article no.	Bore Ø mm	Boring depth mm	Grooving depth mm	Groove width mm	Piece	£ Y5
Inserts	R 010.1008-10	73 050 571	8	10	1,5	1,0	1	507.82
Inserts	R 010.1508-10	73 050 573	8	10	2,5	1,5	1	
Inserts	R 010.2008-10	73 050 575	8	10	3,0	2,0	1	
Inserts	R 010.2508-20	73 050 677	8	20	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	996
Tightening Key	110.645	70 950 175					1	

UltraMini – Standard tool holder for cutting inserts

- ▲ double ended
- ▲ Machining diameter from Ø 0.5 mm

Scope of supply:

Tool holder with allen key



Designation	DCONWS ₁ mm	DCONWS ₂ mm	DCONMS mm	OAL mm	l ₄ mm	l ₅ mm	H mm
687.0020-D	7	8	20.00	90	70	10	18.0
645.001905-D	4	5	19.05	90	70	10	17.2
687.0016-D	7	8	16.00	75	55	10	14.0
645.0022-D	4	5	22.00	90	70	10	20.0
676.0020-D	6	7	20.00	90	70	10	18.0
645.00254-D	4	5	25.40	95	75	10	23.4
676.0016-D	6	7	16.00	75	55	10	14.0
676.001905-D	6	7	19.05	90	70	10	17.2
645.0020-D	4	5	20.00	90	70	10	18.0
676.0022-D	6	7	22.00	90	70	10	20.0
645.0016-D	4	5	16.00	75	55	10	14.0
676.00254-D	6	7	25.40	95	75	10	23.4
645.0012-D	4	5	12.00	75	55	10	10.3

73 080 ...

£

Y5

236.81	169
158.95	170
221.26	168
165.76	171
205.45	167
175.98	172
190.79	166
158.95	173
205.45	165
165.76	174
190.79	164
175.98	175
181.64	163



Key I



Clamping screw

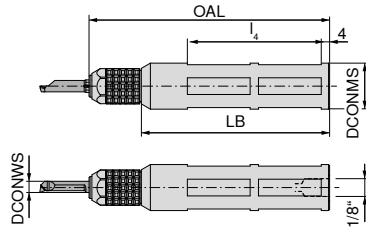
Spare parts for Article no.

		70 950 ...		73 082 ...	
		£		£	
		2A/28		Y5	
73 080 169	SW2,5	2.34	175	M6x6	8.58 014
73 080 170	SW2,5	2.34	175	M5x6	6.03 001
73 080 168	SW2,5	2.34	175	M6x6	8.58 014
73 080 171	SW2,5	2.34	175	M5x8	7.31 008
73 080 167	SW2,5	2.34	175	M5x8	7.31 008
73 080 172	SW2,5	2.34	175	M5x8	7.31 008
73 080 166	SW2,5	2.34	175	M5x6	6.03 001
73 080 173	SW2,5	2.34	175	M5x6	6.03 001
73 080 165	SW2,5	2.34	175	M5x8	7.31 008
73 080 174	SW2,5	2.34	175	M5x8	7.31 008
73 080 164	SW2,5	2.34	175	M5x6	6.03 001
73 080 175	SW2,5	2.34	175	M5x8	7.31 008
73 080 163	SW2,5	2.34	175	M5x4	7.34 013

UltraMini – Quick change tool holder for cutting inserts

Scope of supply:

Tool holder, lock nut and clamping wedge



						73 089 ...	
Designation	DCONWS	DCONMS _{g6}	OAL	LB	l _k	£ Y5	
UM600H.0012.4	4	12.00	115	90	64	342.88	124
UM600H.0016.4	4	16.00	115	90	64	311.08	164
UM600H.001905.4	4	19.05	115	90	64	333.80	194
UM600H.0020.4	4	20.00	115	90	64	329.26	204
UM600H.0022.4	4	22.00	115	90	64	334.93	224
UM600H.0025.4	4	25.00	115	90	64	341.74	254
UM600H.00254.4	4	25.40	115	90	64	348.56	264
UM600H.0028.4	4	28.00	115	90	64	348.56	284
UM600H.0012.5	5	12.00	115	90	64	342.88	125
UM600H.0016.5	5	16.00	115	90	64	311.08	165
UM600H.001905.5	5	19.05	115	90	64	333.80	195
UM600H.0020.5	5	20.00	115	90	64	329.26	205
UM600H.0022.5	5	22.00	115	90	64	334.93	225
UM600H.0025.5	5	25.00	115	90	64	341.74	255
UM600H.00254.5	5	25.40	115	90	64	348.56	265
UM600H.0028.5	5	28.00	115	90	64	348.56	285
UM600H.0012.6	6	12.00	115	90	64	342.88	126
UM600H.0016.6	6	16.00	115	90	64	311.08	166
UM600H.001905.6	6	19.05	115	90	64	333.80	196
UM600H.0020.6	6	20.00	115	90	64	329.26	206
UM600H.0022.6	6	22.00	115	90	64	334.93	226
UM600H.0025.6	6	25.00	115	90	64	341.74	256
UM600H.00254.6	6	25.40	115	90	64	348.56	266
UM600H.0028.6	6	28.00	115	90	64	348.56	286
UM600H.0012.7	7	12.00	115	90	64	342.88	127
UM600H.0016.7	7	16.00	115	90	64	311.08	167
UM600H.001905.7	7	19.05	115	90	64	333.80	197
UM600H.0020.7	7	20.00	115	90	64	329.26	207
UM600H.0022.7	7	22.00	115	90	64	334.93	227
UM600H.0025.7	7	25.00	115	90	64	341.74	257
UM600H.00254.7	7	25.40	115	90	64	348.56	267
UM600H.0028.7	7	28.00	115	90	64	348.56	287

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

Spare parts

DCONWS

		73 950 ...		73 950 ...	
		£ Y5		£ Y5	
4	M4	77.21	104	49.96	111
5	M5	77.21	105	49.96	111
6	M6	77.21	106	49.96	111
7	M7	77.21	107	49.96	111



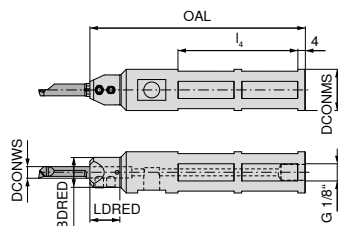
Lock nut
UM600H



Clamping wedge
UM600H

UltraMini – Toolholder for inserts

▲ Tool holder suitable for high coolant pressures



73 088 ...

Designation	DCONWS	BDRED	DCONMS _{g8}	OAL	LDRED	l ₄	£	
	mm	mm	mm	mm	mm	mm	Y5	
UMST.0016.4	4	16	16.00	115	24	42	366.72	164
UMST.001905.4	4	16	19.05	115	24	42	397.37	194
UMST.0020.4	4	16	20.00	115	24	42	374.67	204
UMST.0022.4	4	16	22.00	115	24	42	386.02	224
UMST.00254.4	4	16	25.40	115	24	42	397.37	264
UMST.0028.4	4	16	28.00	115	24	42	397.37	284
UMST.0016.5	5	16	16.00	115	24	42	366.72	165
UMST.001905.5	5	16	19.05	115	24	42	397.37	195
UMST.0020.5	5	16	20.00	115	24	42	374.67	205
UMST.0022.5	5	16	22.00	115	24	42	386.02	225
UMST.00254.5	5	16	25.40	115	24	42	397.37	265
UMST.0028.5	5	16	28.00	115	24	42	397.37	285
UMST.0016.6	6	16	16.00	115	24	42	366.72	166
UMST.001905.6	6	16	19.05	115	24	42	397.37	196
UMST.0020.6	6	16	20.00	115	24	42	374.67	206
UMST.0022.6	6	16	22.00	115	24	42	386.02	226
UMST.00254.6	6	16	25.40	115	24	42	397.37	266
UMST.0028.6	6	16	28.00	115	24	42	397.37	286
UMST.0016.7	7	16	16.00	115	24	42	366.72	167
UMST.001905.7	7	16	19.05	115	24	42	397.37	197
UMST.0020.7	7	16	20.00	115	24	42	374.67	207
UMST.0022.7	7	16	22.00	115	24	42	386.02	227
UMST.00254.7	7	16	25.40	115	24	42	397.37	267
UMST.0028.7	7	16	28.00	115	24	42	397.37	287
UMST.0016.8	8	16	16.00	115	24	42	366.72	168
UMST.001905.8	8	16	19.05	115	24	42	397.37	198
UMST.0020.8	8	16	20.00	115	24	42	374.67	208
UMST.0022.8	8	16	22.00	115	24	42	386.02	228
UMST.00254.8	8	16	25.40	115	24	42	397.37	268
UMST.0028.8	8	16	28.00	115	24	42	397.37	288

up to 150 bar



Key D



Clamping screw

80 950 ...

73 950 ...

Spare parts
DCONWS

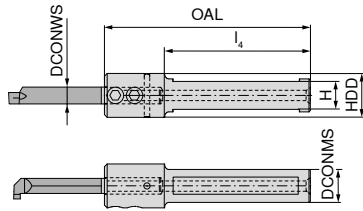
		£			£	
		Y7			Y5	
4	T10	9.54	104	M5x0,5x6T10	11.35	050
5	T10	9.54	104	M5x0,5x6T10	11.35	050
6	T10	9.54	104	M5x0,5x6T10	11.35	050
7	T10	9.54	104	M5x0,5x6T10	11.35	050
8	T10	9.54	104	M5x0,5x6T10	11.35	050

UltraMini – Toolholder for inserts

▲ single ended

Scope of supply:

Tool holder with allen key



Designation	DCONWS mm	HDD mm	DCONMS mm	OAL mm	l ₄ mm	H mm
640.0012-D	4	16	12	75	53	10.2
650.0012-D	5	16	12	75	53	10.2
660.0012-D	6	16	12	75	53	10.2
670.0012-D	7	16	12	75	53	10.2
680.0012-D	8	16	12	75	53	10.2

73 081 ...

£

Y5

187.33 264

187.33 265

267.88 266

267.88 267

267.88 268

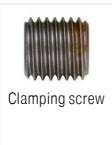
Spare parts

DCONWS

		70 950 ...		73 082 ...
		£		£
		2A/28		Y5
4	SW2,5	2.34 175	M5x0,5x6	4.83 010
5	SW2,5	2.34 175	M5x0,5x6	4.83 010
6	SW2,5	2.34 175	M5x0,5x6	4.83 010
7	SW2,5	2.34 175	M5x0,5x6	4.83 010
8	SW2,5	2.34 175	M5x0,5x6	4.83 010



Key I

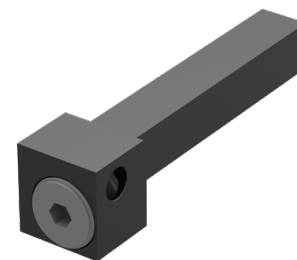
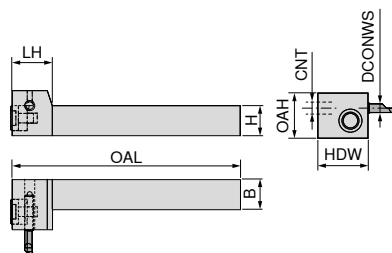


Clamping screw

UltraMini – Toolholder for inserts

Scope of supply:

Tool holder with allen key



Designation	DCONWS mm	OAL mm	LH mm	B mm	HDW mm	H mm	OAH mm	CNT	Left-hand 73 083 ...		Right-hand 73 084 ...	
									£ Y5		£ Y5	
R/L .IK.UHCM.1212.4	4	90	17	12	20	12	18	M5	340.52	124	340.52	124
R/L .IK.UHCM.1212.5	5	90	17	12	20	12	18	M5	340.52	125	340.52	125
R/L .IK.UHCM.1212.6	6	90	17	12	20	12	21	M5	340.52	126	340.52	126
R/L .IK.UHCM.1212.7	7	90	17	12	20	12	21	M5	340.52	127	340.52	127

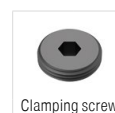
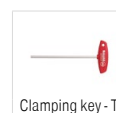


Suitable coolant connections can be found in our sliding head tooling catalogue.

Spare parts

DCONWS

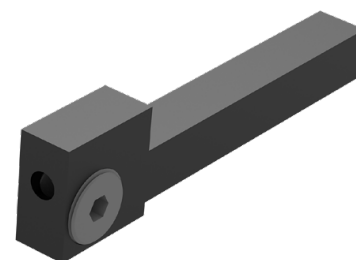
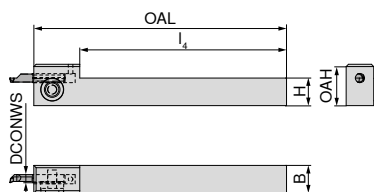
4		SW5	6.39	050	UM 12	40.41	011
5		SW5	6.39	050	UM 12	40.41	011
6		SW5	6.39	050	UM 16	40.41	012
7		SW5	6.39	050	UM 16	40.41	012



UltraMini – Toolholder for inserts

Scope of supply:

Tool holder with allen key

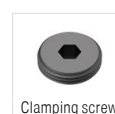
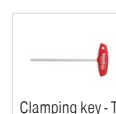


Designation	DCONWS mm	OAL mm	I ₄ mm	B mm	H mm	OAH mm	73 086 ...	
							£ Y5	
UM.1010.4	4	100	75	10	10	20	340.52	104
UM.1010.5	5	100	75	10	10	20	340.52	105
UM.1212.4	4	100	75	12	12	22	340.52	124
UM.1212.5	5	100	75	12	12	22	340.52	125
UM.1212.6	6	100	75	12	12	22	340.52	126

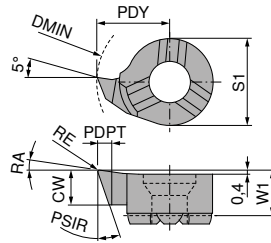
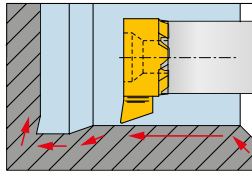
Spare parts

DCONWS

4	SW5	6.39	050	UM 12	40.41	011
5	SW5	6.39	050	UM 12	40.41	011
6	SW5	6.39	050	UM 16	40.41	012



MiniCut – Insert for turning and profiling



CW500

CW500



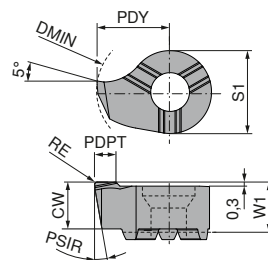
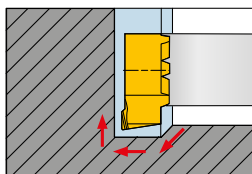
Illustrations show right-hand versions

Size	Designation	DMIN mm	CW mm	W1 mm	PDY mm	S1 mm	RE mm	PDPT mm	PSIR °	RA °	Left-hand		Right-hand	
											73 324 ...		73 322 ...	
08	8,00. R/L .3,30.18°	7.8	3.3	3.5	4.65	6.0	0.20	0.6	18	8	£ Y5		£ Y5	
	8,00. R/L .3,50.18°	7.8	3.5	3.5	4.65	6.0	0.05	0.6	18	8	38.91	033	38.91	033
	8,00. R/L .3,50.20°	7.8	3.5	3.5	4.65	6.0	0.20	0.6	20	20	42.26	035	42.26	035
09	9,00. R/L .3,60.18°	9.0	3.6	3.6	5.50	6.2	0.20	0.8	18	8	40.87	135	40.87	135
	9,00. R/L .3,60.20°	9.0	3.6	3.6	5.50	6.2	0.20	0.8	20	20	36.82	136	36.82	136
11	11,00. R/L .3,90.18°	9.8	3.9	4.2	5.50	8.0	0.20	1.0	18	8	41.62	236	41.62	236
	11,00. R/L .3,90.18°	11.0	3.9	4.2	6.70	8.0	0.20	1.0	18	8	38.91	139	38.91	139
	11,00. R/L .4,20.20°	11.0	4.2	4.2	6.70	8.0	0.20	1.0	20	20	38.48	339	38.48	339
14	14,00. R/L .5,00.18°	13.8	5.0	5.1	8.70	9.0	0.20	1.5	18	8	41.62	342	41.62	342
	14,00. R/L .5,30.20°	14.0	5.3	5.3	8.70	9.0	0.20	1.5	20	20	38.48	550	38.48	550
16	15,50. R/L .5,00.18°	15.5	5.0	5.4	9.70	11.0	0.20	1.5	18	8	41.62	553	41.62	553
P											42.05	750	42.05	750
M														
K														
N														
S														
H														
O														

→ v_c Page 59

MiniCut – Insert for copy turning

▲ with chip breaker



CW500

CW500



12

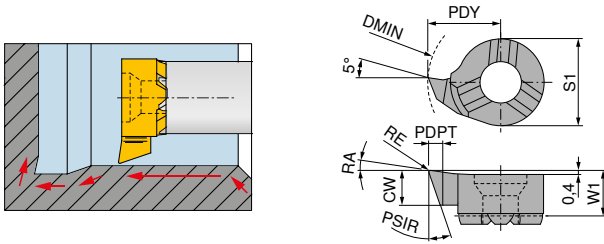
Illustrations show right-hand versions

Size	Designation	DMIN mm	CW mm	W1 mm	PDY mm	S1 mm	RE mm	PDPT mm	PSIR °	Left-hand		Right-hand	
										73 388 ...		73 386 ...	
08	8,00. R/L .3,40.10°	8	3.4	3.5	4.65	6.0	0.2	0.5	10	£ Y5		£ Y5	
										32.52	13400	32.52	13400
09	9,00. R/L .3,50.10°	9	3.5	3.6	5.50	6.2	0.2	0.5	10	33.88	136	33.88	136
11	11,00. R .4,10.10°	11	4.1	4.2	6.70	8.0	0.2	0.5	10	32.52	14100	32.52	14100
P													
M													
K													
N													
S													
H													
O													

→ v_c Page 59

MiniCut – CBN insert for profiling – hard turning

▲ 56 to 65 HRC



Illustrations show right-hand versions

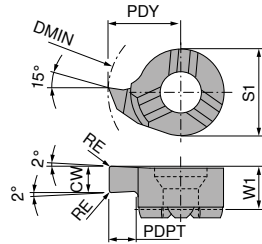
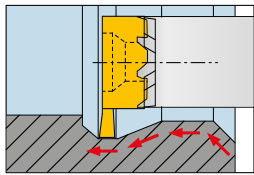
Size	Designation	DMIN mm	CW mm	W1 mm	PDY mm	S1 mm	RE mm	PDPT mm	PSIR °	RA °	Left-hand CBN		Right-hand CBN	
											73 368 ...		73 366 ...	
											£ Y5		£ Y5	
08	8,00. R/L .3,30.18°	7.8	3.3	3.5	4.65	6	0.2	0.39	18	8	175.94	033	175.94	033
11	11,00. R/L .3,90.18°	11.0	3.9	4.2	6.70	8	0.2	0.55	18	8	184.14	139	184.14	139
14	14,00. R/L .5,00.18°	13.8	5.0	5.3	8.70	9	0.2	0.69	18	8	195.10	550	195.10	550
16	16,00. R/L .5,00.18°	15.5	5.0	5.4	9.70	11	0.2	0.77	18	8	203.44	750	203.44	750
P														
M														
K														
N														
S												○		○
H												●		●
O														

→ v_c Page 59

MiniCut – Internal turning insert

CWX500

CWX500

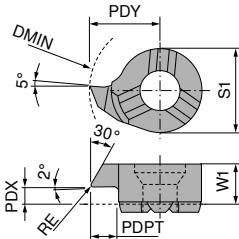
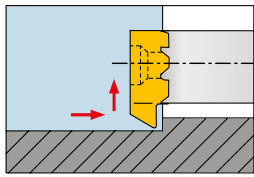


Illustrations show right-hand versions

Size	Designation	DMIN mm	CW ^{+0.05} mm	PDPT mm	W1 mm	PDY mm	S1 mm	RE mm	CDX mm	Left-hand		Right-hand	
										73 316 ...		73 314 ...	
08	8,00. R/L .1,50.1,0	8	1.5	1.0	3.3	4.8	6.0	0.2	0.2	£ Y5 39.36	015	£ Y5 39.36	015
	8,00. R/L .2,00.1,0	8	2.0	1.0	3.3	4.8	6.0	0.2	0.2	37.57	020	37.57	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	40.24	115	40.24	115
	9,00. R/L .1,50.3,0	10	1.5	3.0	3.6	6.5	6.2	0.2	0.2	40.24	121	40.24	121
	9,00. R/L .2,00.2,0	9	2.0	2.0	3.6	5.5	6.2	0.2	0.2	35.68	120	35.68	120
	9,00. R/L .2,00.3,0	10	2.0	3.0	3.6	6.5	6.2	0.2	0.2	35.68	122	35.68	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	41.45	315	41.45	315
	11,00. R/L .2,00.2,3	11	2.0	2.3	4.2	6.7	8.0	0.2	0.2	38.91	320	38.91	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	38.00	515	38.00	515
	14,00. R/L .1,50.5,5	16	1.5	5.5	5.2	10.5	9.0	0.2	0.2	48.35	516	48.35	516
	14,00. R/L .1,50.6,5	17	1.5	6.5	5.2	11.5	9.0	0.2	0.2	48.35	517	48.35	517
	14,00. R/L .2,00.4,0	14	2.0	4.0	5.3	9.0	9.0	0.2	0.2	38.91	520	38.91	520
	14,00. R/L .2,00.5,5	16	2.0	5.5	5.2	10.5	9.0	0.2	0.2	48.35	521	48.35	521
	14,00. R/L .2,00.6,5	17	2.0	6.5	5.2	11.5	9.0	0.2	0.2	48.35	522	48.35	522
	14,00. R/L .2,50.5,5	16	2.5	5.5	5.2	10.5	9.0	0.2	0.2	48.35	525	48.35	525
	14,00. R/L .2,50.6,5	17	2.5	6.5	5.2	11.5	9.0	0.2	0.2	48.35	526	48.35	526
	14,00. R/L .3,00.5,5	16	3.0	5.5	5.2	10.5	9.0	0.2	0.2	48.35	530	48.35	530
	14,00. R/L .3,00.6,5	17	3.0	6.5	5.2	11.5	9.0	0.2	0.2	48.35	531	48.35	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	42.43	720	42.43	720
P											•		•
M											•		•
K											•		•
N											•		•
S											•		•
H											•		•
O											•		•

→ v_c Page 59

MiniCut – Back boring insert



CWX500

CWX500

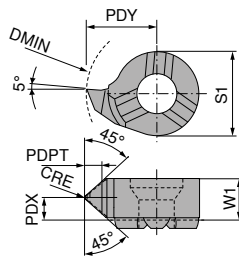
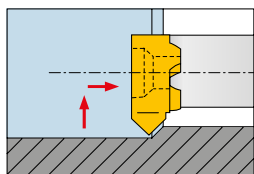


Illustrations show right-hand versions

Size	Designation	DMIN mm	PDPT mm	W1 mm	PDX mm	PDY mm	S1 mm	RE mm	CDX mm	Left-hand		Right-hand	
										73 332 ...		73 330 ...	
08	8,00. R/L .30°1,3	7.8	1.3	3.50	1.0	4.65	6.0	0.2	0.6	£ Y5 44.77	013	£ Y5 44.77	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	40.87	117	40.87	117
	9,00. R/L .30°2,3	10.0	2.3	3.55	1.2	6.50	6.2	0.2	0.8	40.87	123	40.87	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	43.84	323	43.84	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	44.77	535	44.77	535
P											•		•
M											•		•
K											•		•
N											•		•
S											•		•
H											•		•
O											•		•

→ v_c Page 59

MiniCut – Internal turning and chamfering insert



CWX500

CWX500

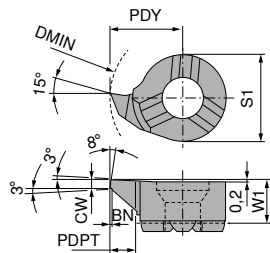
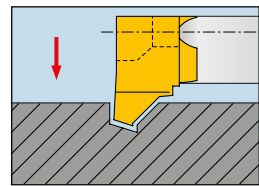


Illustrations show right-hand versions

Size	Designation	DMIN mm	PDPT mm	W1 mm	PDX mm	PDY mm	S1 mm	CRE mm	CDX mm	Left-hand		Right-hand	
										73 336 ...		73 334 ...	
08	8,00. R/L .45°1,4	8	1.4	3.50	1.8	4.8	6.0	0.2	0.6	£ Y5 37.40	010	£ Y5 37.40	010
09	9,00. R/L .45°1,3	9	1.3	3.55	1.8	5.5	6.2	0.2	0.8	35.05	110	35.05	110
11	11,00. R/L .45°1,5	11	1.5	4.30	2.2	6.7	8.0	0.2	1.0	37.40	310	37.40	310
14	14,00. R/L .45°1,5	14	1.5	5.40	2.8	9.0	9.0	0.2	1.2	40.40	510	40.40	510
P											•		•
M											•		•
K											•		•
N											•		•
S											•		•
H											•		•
O											•		•

→ v_c Page 59

MiniCut – Insert for pregrooving and chamfering



CWX500

CWX500



Illustrations show right-hand versions

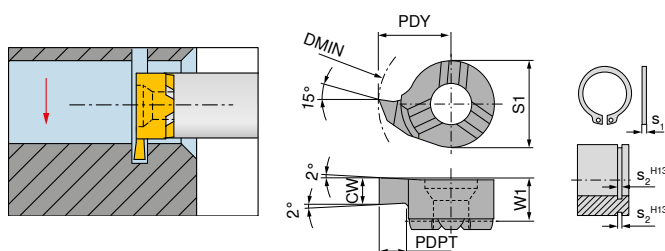
Size	Designation	DMIN mm	CW mm	PDPT mm	W1 mm	PDY mm	S1 mm	BN mm	Left-hand		Right-hand	
									73 340 ...		73 338 ...	
									£ Y5		£ Y5	
08	8,00. R/L .1,00.45°	8	1	1.0	3.3	4.8	6.0	0.2	38.01	100	38.01	100
09	9,00. R/L .1,00.45°	9	1	1.5	3.6	5.5	6.2	0.2	36.20	215	36.20	215
11	11,00. R/L .1,00.45°	11	1	1.5	4.2	6.7	8.0	0.2	38.01	315	38.01	315
14	14,00. R/L .1,00.45°	14	1	1.5	5.3	9.0	9.0	0.2	38.01	515	38.01	515
16	16,00. R/L .1,00.45°	16	1	1.5	5.4	10.2	11.0	0.2	38.01	715	38.01	715
P										●		●
M										●		●
K										●		●
N										●		●
S										●		●
H										●		●
O										●		●

→ v_c Page 59

MiniCut – Grooving insert

CWX500

CWX500



Illustrations show right-hand versions

Size	Designation	DMIN mm	CW mm	PDPT mm	W1 mm	S1 mm	S2 H13 mm	PDY mm	S1 mm	Left-hand		Right-hand	
										73 312 ...		73 310 ...	
										£ Y5		£ Y5	
08	8,00. R/L .073.1,0	8	0.73	1.0	3.3	0.6	0.7	4.8	6.0	33.62	073	33.62	073
	8,00. R/L .083.1,0	8	0.83	1.0	3.3	0.7	0.8	4.8	6.0	33.62	083	33.62	083
	8,00. R/L .093.1,0	8	0.93	1.0	3.3	0.8	0.9	4.8	6.0	33.62	093	33.62	093
	8,00. R/L .1,00.1,0	8	1.00	1.0	3.3			4.8	6.0	33.62	110	33.62	110
	8,00. R/L .1,20.1,0	8	1.20	1.0	3.3	1.0	1.1	4.8	6.0	33.62	112	33.62	112
	8,00. R/L .1,40.1,0	8	1.40	1.0	3.3	1.2	1.3	4.8	6.0	33.62	114	33.62	114
	8,00. R/L .1,50.1,0	8	1.50	1.0	3.3			4.8	6.0	33.62	115	33.62	115
	8,00. R/L .1,70.1,0	8	1.70	1.0	3.3	1.5	1.6	4.8	6.0	33.62	117	33.62	117
	8,00. R/L .2,00.1,0	8	2.00	1.0	3.3			4.8	6.0	33.62	120	33.62	120
09	9,00. R/L .073.1,2	9	0.73	1.2	3.6	0.6	0.7	5.5	6.2	32.79	173	32.79	173
	9,00. R/L .083.1,3	9	0.83	1.3	3.6	0.7	0.8	5.5	6.2	32.79	183	32.79	183
	9,00. R/L .093.1,5	9	0.93	1.5	3.6	0.8	0.9	5.5	6.2	32.79	193	32.79	193
	9,00. R/L .1,00.1,8	9	1.00	1.8	3.6			5.5	6.2	32.79	210	32.79	210
	9,00. R/L .1,20.1,8	9	1.20	1.8	3.6	1.0	1.1	5.5	6.2	32.79	212	32.79	212
	9,00. R/L .1,40.1,8	9	1.40	1.8	3.6	1.2	1.3	5.5	6.2	32.79	214	32.79	214
	9,00. R/L .1,50.1,8	9	1.50	1.8	3.6			5.5	6.2	32.79	215	32.79	215
	9,00. R/L .1,70.1,8	9	1.70	1.8	3.6	1.5	1.6	5.5	6.2	32.79	217	32.79	217
	9,00. R/L .2,00.1,8	9	2.00	1.8	3.6			5.5	6.2	32.79	220	32.79	220
	9,00. R/L .2,50.1,8	9	2.50	1.8	3.6			5.5	6.2	32.79	225	32.79	225
	9,00. R/L .3,00.1,8	9	3.00	1.8	3.6			5.5	6.2	32.79	230	32.79	230
11	11,00. R/L .073.1,2	11	0.73	1.2	4.2	0.6	0.7	6.7	8.0	33.62	373	33.62	373
	11,00. R/L .083.1,3	11	0.83	1.3	4.2	0.7	0.8	6.7	8.0	33.62	383	33.62	383
	11,00. R .093.1,5	11	0.93	1.5	4.2	0.9	0.9	6.7	8.0			33.62	393
	11,00. L .093.1,5	11	0.93	1.5	4.2	0.8	0.9	6.7	8.0	33.62	393		
	11,00. R/L .1,00.2,3	11	1.00	2.3	4.2			6.7	8.0	33.62	310	33.62	310
	11,00. R/L .1,20.2,3	11	1.20	2.3	4.2	1.0	1.1	6.7	8.0	33.62	312	33.62	312
	11,00. R/L .1,40.2,3	11	1.40	2.3	4.2	1.2	1.3	6.7	8.0	33.62	314	33.62	314
	11,00. R/L .1,50.2,3	11	1.50	2.3	4.2			6.7	8.0	33.62	315	33.62	315
	11,00. R/L .1,70.2,3	11	1.70	2.3	4.2	1.5	1.6	6.7	8.0	33.62	317	33.62	317
	11,00. R/L .2,00.2,3	11	2.00	2.3	4.2			6.7	8.0	33.62	320	33.62	320
	11,00. R/L .2,50.2,3	11	2.50	2.3	4.2			6.7	8.0	33.62	325	33.62	325
	11,00. R/L .3,00.2,3	11	3.00	2.3	4.2			6.7	8.0	33.62	330	33.62	330
14	14,00. R/L .073.1,2	14	0.73	1.2	5.3	0.6	0.7	9.0	9.0	33.62	573	33.62	573
	14,00. R/L .083.1,3	14	0.83	1.3	5.3	0.7	0.8	9.0	9.0	33.62	583	33.62	583
	14,00. R/L .093.1,5	14	0.93	1.5	5.3	0.8	0.9	9.0	9.0	33.62	593	33.62	593
	14,00. R/L .1,20.4,0	14	1.20	4.0	5.3	1.0	1.1	9.0	9.0	33.62	512	33.62	512
	14,00. R/L .1,40.4,0	14	1.40	4.0	5.3	1.2	1.3	9.0	9.0	33.62	514	33.62	514
	14,00. R/L .1,50.4,0	14	1.50	4.0	5.3			9.0	9.0	33.62	515	33.62	515
	14,00. R/L .1,70.4,0	14	1.70	4.0	5.3	1.5	1.6	9.0	9.0	33.62	517	33.62	517
	14,00. R/L .2,00.4,0	14	2.00	4.0	5.3			9.0	9.0	33.62	520	33.62	520
	14,00. R/L .2,50.4,0	14	2.50	4.0	5.3			9.0	9.0	33.62	525	33.62	525
	14,00. R/L .3,00.4,0	14	3.00	4.0	5.3			9.0	9.0	33.62	530	33.62	530
16	16,00. R/L .073.1,2	16	0.73	1.2	5.4	0.6	0.7	10.2	11.0	40.95	773	40.95	773
	16,00. R/L .083.1,3	16	0.83	1.3	5.4	0.7	0.8	10.2	11.0	40.95	783	40.95	783
	16,00. R/L .093.1,5	16	0.93	1.5	5.4	0.8	0.9	10.2	11.0	40.95	793	40.95	793
	16,00. R/L .1,20.4,3	16	1.20	4.3	5.4	1.0	1.1	10.2	11.0	36.99	712	36.99	712
	16,00. R/L .1,40.4,3	16	1.40	4.3	5.4	1.2	1.3	10.2	11.0	36.99	714	36.99	714
	16,00. R/L .1,50.4,3	16	1.50	4.3	5.4			10.2	11.0	36.99	715	36.99	715
	16,00. R/L .1,70.4,3	16	1.70	4.3	5.4	1.5	1.6	10.2	11.0	36.99	717	36.99	717
	16,00. R/L .2,00.4,3	16	2.00	4.3	5.4			10.2	11.0	36.99	720	36.99	720
	16,00. R/L .2,50.4,3	16	2.50	4.3	5.4			10.2	11.0	36.99	725	36.99	725
	16,00. R/L .3,00.4,3	16	3.00	4.3	5.4			10.2	11.0	36.99	730	36.99	730
	16,00. R/L .3,50.4,3	16	3.50	4.3	5.4			10.2	11.0	36.99	735	36.99	735
	16,00. R/L .4,00.4,3	16	4.00	4.3	5.4			10.2	11.0	36.99	740	36.99	740

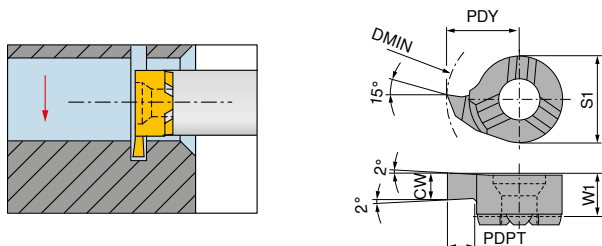
P	•	•
M	•	•
K	•	•
N	•	•
S	•	•
H	•	•
O	•	•

→ v_c Page 59

MiniCut – Grooving insert

CWX500

CWX500



Illustrations show right-hand versions

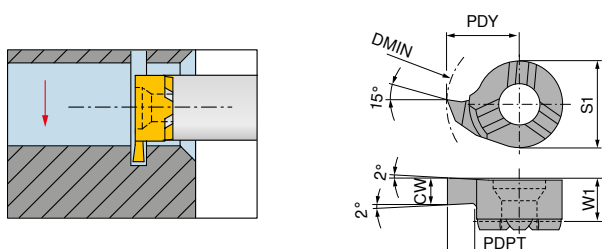
Size	Designation	DMIN mm	CW ^{+0.03} mm	PDPT mm	W1 mm	PDY mm	S1 mm	Left-hand		Right-hand	
								73 372 ...		73 370 ...	
								£		£	
								Y5		Y5	
14	14,00. R/L 1,50.5,5	16	1.5	5.5	5.2	10.5	9	39.04	715	39.04	715
	14,00. R/L 2,00.5,5	16	2.0	5.5	5.2	10.5	9	39.04	720	39.04	720
	14,00. R/L 2,50.5,5	16	2.5	5.5	5.2	10.5	9	39.04	725	39.04	725
	14,00. R/L 3,00.5,5	16	3.0	5.5	5.2	10.5	9	39.04	730	39.04	730
P									•		•
M									•		•
K									•		•
N									•		•
S									•		•
H									•		•
O									•		•

→ v_c Page 59

MiniCut – Grooving insert

CWX500

CWX500



Illustrations show right-hand versions

Size	Designation	DMIN mm	CW ^{+0.03} mm	PDPT mm	W1 mm	PDY mm	S1 mm	Left-hand		Right-hand	
								73 384 ...		73 382 ...	
								£		£	
								Y5		Y5	
14	14,00. R/L 1,50.6,5	17	1.5	6.5	5.2	11.5	9	39.04	515	39.04	515
	14,00. R/L 2,00.6,5	17	2.0	6.5	5.2	11.5	9	39.04	520	39.04	520
	14,00. R/L 2,50.6,5	17	2.5	6.5	5.2	11.5	9	39.04	525	39.04	525
	14,00. R/L 3,00.6,5	17	3.0	6.5	5.2	11.5	9	39.04	530	39.04	530
P									•		•
M									•		•
K									•		•
N									•		•
S									•		•
H									•		•
O									•		•

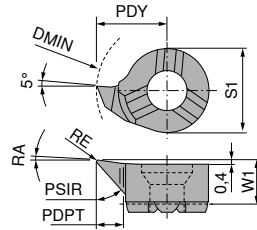
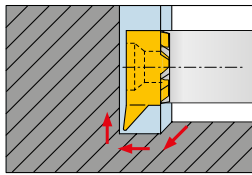
→ v_c Page 59

12

MiniCut – Internal undercut insert

CWX500

CWX500



Illustrations show right-hand versions

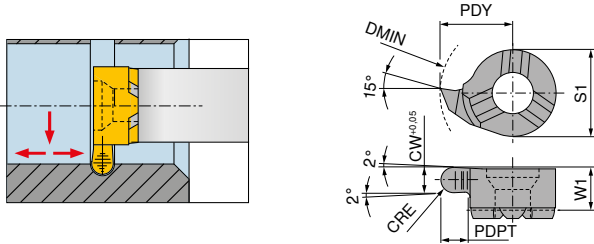
Size	Designation	DMIN mm	PDPT mm	W1 mm	PDY mm	S1 mm	RE mm	CDX mm	PSIR °	RA °	Left-hand		Right-hand	
											73 328 ...		73 326 ...	
08	8,00. R/L .30°1,0	7.8	1.0	3.5	4.65	6.0	0.2	0.4	30	3	£ Y5 44.94	010	£ Y5 44.94	010
	8,00. R/L .47°1,2	7.8	1.2	3.5	4.65	6.0	0.2	0.4	47	3	39.04	012	39.04	012
09	9,00. R/L .47°1,5	9.0	1.5	3.6	5.50	6.2	0.2	0.5	47	3	36.20	115	36.20	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	43.89	423	43.89	423
	11,00. R/L .47°2,3	11.0	2.3	4.2	6.70	8.0	0.2	0.6	47	3	38.01	323	38.01	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	39.04	530	39.04	530
	13,70. R/L .30°4,0	13.7	4.0	5.3	8.70	9.0	0.2	0.8	30	3	44.94	540	44.94	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	43.62	744	43.62	744
P											•		•	
M											•		•	
K											•		•	
N											•		•	
S											•		•	
H											•		•	
O											•		•	

→ v_c Page 59

MiniCut – Full radius grooving and turning insert

CWX500

CWX500



Illustrations show right-hand versions

Size	Designation	DMIN mm	CW mm	PDPT mm	W1 mm	PDY mm	S1 mm	CRE mm	Left-hand		Right-hand	
									73 320 ...		73 318 ...	
									£		£	
									Y5		Y5	
08	8,00. R/L .0,80.1,0	8	0.8	1.0	3.3	4.8	6.0	0.4	41.91	008	41.91	008
	8,00. R/L .1,20.1,0	8	1.2	1.0	3.3	4.8	6.0	0.6	41.91	012	41.91	012
	8,00. R/L .1,80.1,0	8	1.8	1.0	3.3	4.8	6.0	0.9	41.91	018	41.91	018
	8,00. R/L .2,00.1,0	8	2.0	1.0	3.3	4.8	6.0	1.0	38.84	020	38.84	020
09	9,00. R/L .0,80.1,6	9	0.8	1.6	3.6	5.5	6.2	0.4	40.24	108	40.24	108
	9,00. R/L .1,20.1,6	9	1.2	1.6	3.6	5.5	6.2	0.6	40.24	112	40.24	112
	9,00. R/L .1,80.1,6	9	1.8	1.6	3.6	5.5	6.2	0.9	40.24	118	40.24	118
	9,00. R/L .2,00.1,6	9	2.0	1.6	3.6	5.5	6.2	1.0	40.24	120	40.24	120
11	11,00. R/L .0,80.2,3	11	0.8	2.3	4.2	6.7	8.0	0.4	42.43	308	42.43	308
	11,00. R/L .1,20.2,3	11	1.2	2.3	4.2	6.7	8.0	0.6	42.43	312	42.43	312
	11,00. R/L .1,60.2,3	11	1.6	2.3	4.2	6.7	8.0	0.8	40.24	316	40.24	316
	11,00. R/L .1,80.2,3	11	1.8	2.3	4.2	6.7	8.0	0.9	42.43	318	42.43	318
	11,00. R/L .2,00.2,3	11	2.0	2.3	4.2	6.7	8.0	1.0	42.43	320	42.43	320
	11,00. R/L .2,40.2,3	11	2.4	2.3	4.2	6.7	8.0	1.2	40.24	324	40.24	324
	11,00. R/L .3,00.2,3	11	3.0	2.3	4.2	6.7	8.0	1.5	42.43	330	42.43	330
14	14,00. R/L .0,80.4,0	14	0.8	4.0	5.3	9.0	9.0	0.4	41.88	508	41.88	508
	14,00. R/L .1,20.4,0	14	1.2	4.0	5.3	9.0	9.0	0.6	44.91	512	44.91	512
	14,00. R/L .1,80.4,0	14	1.8	4.0	5.3	9.0	9.0	0.9	44.91	518	44.91	518
	14,00. R/L .2,00.4,0	14	2.0	4.0	5.3	9.0	9.0	1.0	44.91	520	44.91	520
	14,00. R/L .2,20.4,0	14	2.2	4.0	5.3	9.0	9.0	1.1	44.91	522	44.91	522
	14,00. R/L .3,00.4,0	14	3.0	4.0	5.3	9.0	9.0	1.5	44.91	530	44.91	530
16	16,00. R/L .1,60.4,3	16	1.6	4.3	5.4	10.2	11.0	0.8	43.01	716	43.01	716
	16,00. R/L .1,80.4,3	16	1.8	4.3	5.4	10.2	11.0	0.9	45.37	718	45.37	718
	16,00. R/L .2,00.4,3	16	2.0	4.3	5.4	10.2	11.0	1.0	43.01	720	43.01	720
	16,00. R/L .2,20.4,3	16	2.2	4.3	5.4	10.2	11.0	1.1	45.37	722	45.37	722
	16,00. R/L .2,40.4,3	16	2.4	4.3	5.4	10.2	11.0	1.2	43.01	724	43.01	724
	16,00. R/L .3,00.4,3	16	3.0	4.3	5.4	10.2	11.0	1.5	45.37	730	45.37	730
	16,00. R/L .3,20.4,3	16	3.2	4.3	5.4	10.2	11.0	1.6	43.01	732	43.01	732
	16,00. R/L .4,00.4,3	16	4.0	4.3	5.4	10.2	11.0	2.0	45.37	740	45.37	740
P										•		•
M										•		•
K										•		•
N										•		•
S										•		•
H										•		•
O										•		•

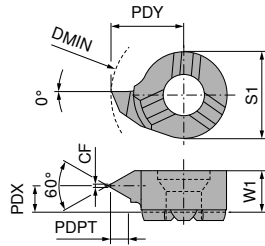
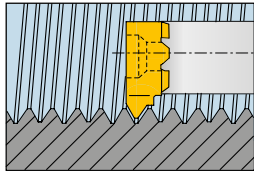
→ v_c Page 59

MiniCut – Threading insert (Partial profile)



CWX500

CWX500

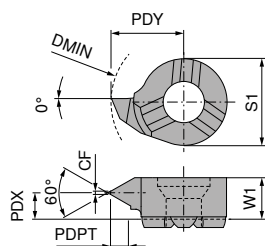
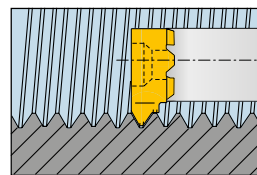


Illustrations show right-hand versions

Size	Designation	DMIN mm	TP mm	CF mm	PDPT mm	W1 mm	PDX mm	PDY mm	S1 mm	Left-hand		Right-hand	
										73 344 ...		73 342 ...	
										£ Y5		£ Y5	
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	45.37	012	45.37	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	45.37	014	45.37	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	45.37	010	45.37	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	43.01	112	43.01	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	43.01	114	43.01	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	43.01	116	43.01	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	43.01	118	43.01	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	43.01	120	43.01	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	43.01	122	43.01	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	43.01	124	43.01	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	45.37	312	45.37	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	45.37	314	45.37	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	45.37	316	45.37	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	45.37	310	45.37	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	45.37	320	45.37	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	45.37	512	45.37	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	45.37	514	45.37	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	45.37	510	45.37	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	45.37	520	45.37	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	45.37	712	45.37	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	45.37	714	45.37	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	45.37	716	45.37	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	45.37	710	45.37	710
P										•		•	
M										•		•	
K										•		•	
N										•		•	
S										•		•	
H										•		•	
O										•		•	

→ v_c Page 59

MiniCut – Threading insert (Full profile)

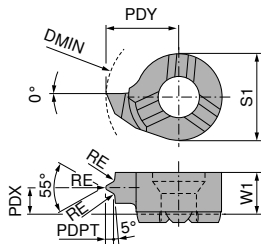
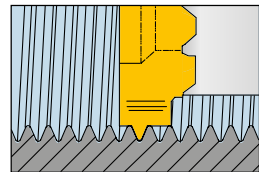


Illustrations show right-hand versions

Size	Designation	DMIN mm	TP mm	CF mm	PDPT mm	W1 mm	PDX mm	PDY mm	S1 mm	Left-hand		Right-hand	
										73 348 ...		73 346 ...	
										£ Y5		£ Y5	
09	9,00. R/L .0,5.60°	9	0.50	0.06	0.27	3.55	3.25	5.5	6.2	47.93	405	47.93	405
	9,00. R/L .1,0.60°	9	1.00	0.12	0.54	3.55	3.00	5.5	6.2	47.93	410	47.93	410
	9,00. R/L .1,5.60°	9	1.50	0.18	0.81	3.55	2.80	5.5	6.2	47.93	415	47.93	415
	9,00. R/L .1,75.60°	9	1.75	0.20	0.95	3.55	2.70	5.5	6.2	47.93	418	47.93	418
	9,00. R/L .2,0.60°	9	2.00	0.25	1.08	3.55	2.60	5.5	6.2	47.93	420	47.93	420
	9,00. R/L .2,5.60°	9	2.50	0.31	1.35	3.55	2.50	5.5	6.2	47.93	425	47.93	425
	9,00. R/L .3,0.60°	9	3.00	0.37	1.62	3.55	2.20	5.5	6.2	47.93	430	47.93	430
11	11,00. R/L .1,0.60°	11	1.00	0.12	0.54	4.30	3.50	6.7	8.0	51.47	314	51.47	314
	11,00. R/L .1,5.60°	11	1.50	0.18	0.81	4.30	3.50	6.7	8.0	50.65	316	51.47	316
	11,00. R/L .2,0.60°	11	2.00	0.25	1.08	4.30	3.20	6.7	8.0	51.47	310	51.47	310
	11,00. R/L .2,5.60°	11	2.50	0.31	1.35	4.30	3.00	6.7	8.0	51.47	320	51.47	320
	11,00. R/L .3,0.60°	11	3.00	0.37	1.62	4.30	2.90	6.7	8.0	51.47	330	51.47	330
14	14,00. R/L .0,5.60°	14	0.50	0.06	0.27	5.40	3.50	9.0	9.0	52.11	510	52.11	510
	14,00. R/L .1,0.60°	14	1.00	0.12	0.54	5.40	3.50	9.0	9.0	47.44	512	47.44	512
	14,00. R/L .1,5.60°	14	1.50	0.18	0.81	5.40	3.30	9.0	9.0	47.44	514	47.44	514
	14,00. R/L .2,0.60°	14	2.00	0.25	1.08	5.40	4.20	9.0	9.0	47.44	610	47.44	610
	14,00. R/L .2,5.60°	14	2.50	0.31	1.35	5.40	4.70	9.0	9.0	47.44	520	47.44	520
16	16,00. R/L .1,0.60°	16	1.00	0.12	0.54	5.50	4.70	10.2	11.0	57.32	712	57.32	712
	16,00. R/L .1,5.60°	16	1.50	0.18	0.81	5.50	4.50	10.2	11.0	57.32	714	57.32	714
	16,00. R/L .2,0.60°	16	2.00	0.25	1.08	5.50	4.20	10.2	11.0	57.32	716	57.32	716
	16,00. R/L .2,5.60°	16	2.50	0.31	1.35	5.50	4.20	10.2	11.0	57.32	710	57.32	710
	16,00. R/L .3,0.60°	16	3.00	0.37	1.62	5.50	4.00	10.2	11.0	57.32	720	57.32	720
	16,00. R/L .3,5.60°	16	3.50	0.43	1.89	5.50	3.80	10.2	11.0	57.32	730	57.32	730
	16,00. R/L .4,0.60°	16	4.00	0.50	2.16	5.50	3.60	10.2	11.0	57.32	740	57.32	740
P											•		•
M											•		•
K											•		•
N											•		•
S											•		•
H											•		•
O											•		•

→ v_c Page 59

MiniCut – Threading insert (Full profile)



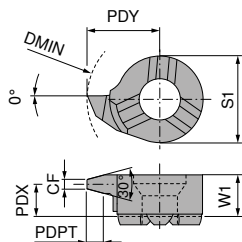
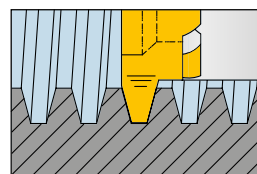
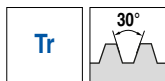
Illustrations show right-hand versions

Size	Designation	DMIN mm	TP mm	TPI 1/"	PDPT mm	W1 mm	PDX mm	PDY mm	S1 mm	RE mm	Left-hand		Right-hand	
											73 352 ...		73 350 ...	
11	11,00. R/L .1,814.55°	11	1.814	14	1.16	4.30	3.0	6.7	8	0.24	£ Y5 66.79	306	£ Y5 66.79	306
	11,00. R/L .1,337.55°	11	1.337	19	0.85	4.30	2.7	6.7	8	0.18	66.79	304	66.79	304
14	14,00. R/L .1,814.55°	14	1.814	14	1.16	5.35	3.6	9.0	9	0.24	65.91	506	65.91	506
	14,00. R/L .1,337.55°	14	1.337	19	0.85	5.35	3.8	9.0	9	0.18	65.91	504	65.91	504
16	16,00. R/L .2,309.55°	16	2.309	11	1.48	5.50	3.5	10.2	11	0.31	72.72	708	72.72	708
	16,00. R/L .1,814.55°	16	1.814	14	1.16	5.50	3.9	10.2	11	0.24	72.72	706	72.72	706
P											•		•	
M											•		•	
K											•		•	
N											•		•	
S											•		•	
H											•		•	
O											•		•	

→ v_c Page 59

MiniCut – Threading insert (Partial profile)

▲ Trapezoidal thread DIN 103

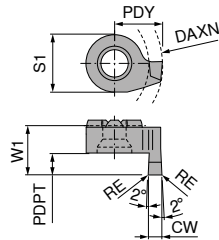
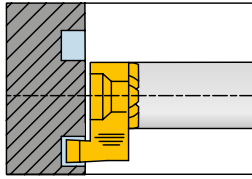


Illustrations show right-hand versions

Size	Designation	DMIN mm	TP mm	CF mm	PDPT mm	W1 mm	PDX mm	PDY mm	S1 mm	Left-hand		Right-hand	
										73 356 ...		73 354 ...	
										£ Y5		£ Y5	
09	9,00. R/L .1,5.30°	9	1.5	0.47	0.90	3.55	3.00	5.5	6.2	44.27	415	44.27	415
	9,00. R/L .2,0.30°	9	2.0	0.60	1.25	3.55	2.85	5.5	6.2	44.27	420	44.27	420
	9,00. R/L .3,0.30°	9	3.0	0.96	1.75	3.55	2.25	5.5	6.2	44.27	430	44.27	430
	9,00. R/L .4,0.30°	10	4.0	1.33	2.25	3.55	2.25	5.5	6.2	44.27	440	44.27	440
11	11,00. R/L .1,5.30°	11	1.5	0.47	0.90	4.30	3.70	6.7	8.0	46.85	315	46.85	315
	11,00. R/L .2,0.30°	11	2.0	0.60	1.25	4.30	3.50	6.7	8.0	46.85	320	46.85	320
	11,00. R/L .3,0.30°	11	3.0	0.96	1.75	4.30	3.20	6.7	8.0	46.85	330	46.85	330
	11,00. R/L .4,0.30°	11	4.0	1.33	2.25	3.95	2.60	6.7	8.0	44.77	340	44.77	340
14	14,00. R/L .2,0.30°	14	2.0	0.60	1.25	5.30	4.30	9.0	9.0	46.99	520	46.99	520
	14,00. R/L .3,0.30°	14	3.0	0.96	1.75	5.30	4.00	9.0	9.0	46.99	530	46.99	530
	14,00. R/L .4,0.30°	14	4.0	1.33	2.25	5.30	3.60	9.0	9.0	46.99	540	46.99	540
	14,00. R/L .5,0.30°	14	5.0	1.69	2.75	5.30	3.30	9.0	9.0	46.99	550	46.99	550
16	16,00. R/L .2,0.30°	16	2.0	0.60	1.25	5.50	4.50	9.7	11.0	54.32	720	54.32	720
	16,00. R/L .3,0.30°	16	3.0	0.96	1.75	5.50	4.30	9.7	11.0	54.32	730	54.32	730
	16,00. R/L .4,0.30°	16	4.0	1.33	2.25	5.50	4.00	9.7	11.0	54.32	740	54.32	740
	16,00. R/L .5,0.30°	16	5.0	1.69	2.75	5.50	3.55	9.7	11.0	50.78	750	50.78	750
	16,00. R/L .6,0.30°	16	6.0	1.92	3.50	5.50	3.30	10.2	11.0	47.49	760	47.49	760
P											●		●
M											●		●
K											●		●
N											●		●
S											●		●
H											●		●
O											●		●

→ v_c Page 59

MiniCut – Axial grooving insert



CW500

CW500

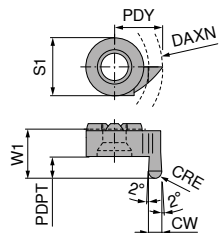
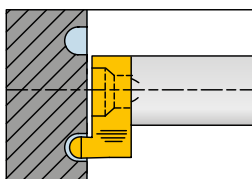


Illustrations show right-hand versions

Size	Designation	DAXN mm	CW mm	PDPT mm	W1 mm	PDY mm	RE mm	S1 mm	Left-hand		Right-hand	
									73 364 ...		73 362 ...	
									£		£	
									Y5		Y5	
14	14,00. R/L 1,0,1,5	14	1.0	1.5	8.3	9		9	36.55	510	36.55	510
	14,00. R/L 1,5,2,5	14	1.5	2.5	8.3	9	0.2	9	36.55	515	36.55	515
	14,00. R/L 2,0,3,0	14	2.0	3.0	8.3	9	0.2	9	36.55	520	36.55	520
	14,00. R/L 2,0,5,0	14	2.0	5.0	10.3	9	0.2	9	42.43	620	42.43	620
	14,00. R/L 2,5,3,0	14	2.5	3.0	8.3	9	0.2	9	36.55	525	36.55	525
	14,00. R/L 2,5,5,0	14	2.5	5.0	10.3	9	0.2	9	42.43	625	42.43	625
	14,00. R/L 3,0,3,0	14	3.0	3.0	8.3	9	0.2	9	36.55	530	36.55	530
	14,00. R/L 3,0,5,0	14	3.0	5.0	10.3	9	0.2	9	42.43	630	42.43	630
P									•		•	
M									•		•	
K									•		•	
N									•		•	
S									•		•	
H									•		•	
O									•		•	

→ v_c Page 59

MiniCut – Full radius axial grooving insert



CW500

CW500



Illustrations show right-hand versions

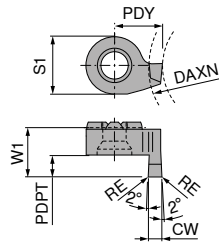
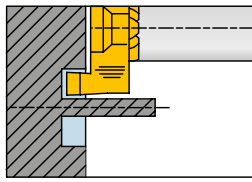
Size	Designation	DAXN mm	CW mm	PDPT mm	W1 mm	PDY mm	CRE mm	S1 mm	Left-hand		Right-hand	
									73 376 ...		73 374 ...	
									£		£	
									Y5		Y5	
14	14,00. R/L 1,0,1,5	14	1.0	1.5	8.3	9	0.5	9	42.26	510	42.26	510
	14,00. R/L 1,6,2,5	14	1.6	2.5	8.3	9	0.8	9	42.26	516	42.26	516
	14,00. R/L 2,0,3,0	14	2.0	3.0	8.3	9	1.0	9	42.26	520	42.26	520
	14,00. R/L 2,5,3,0	14	2.5	3.0	8.3	9	1.2	9	42.26	525	42.26	525
	14,00. R/L 3,0,3,0	14	3.0	3.0	8.3	9	1.5	9	42.26	530	42.26	530
P									•		•	
M									•		•	
K									•		•	
N									•		•	
S									•		•	
H									•		•	
O									•		•	

→ v_c Page 59

MiniCut – Axial grooving insert over a spigot

CWX500

CWX500



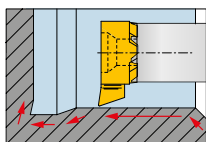
Illustrations show right-hand versions

Size	Designation	DAXN mm	CW mm	PDPT mm	W1 mm	PDY mm	RE mm	S1 mm	Left-hand		Right-hand	
									73 360 ...		73 358 ...	
									£ Y5		£ Y5	
14	14/12. R/L .1,0,1,5	12	1.0	1.5	8.3	7.0		9	38.01	310	38.01	310
	14/12. R/L .1,5,2,5	12	1.5	2.5	8.3	7.5	0.2	9	38.91	315	38.91	315
	14/12. R/L .2,0,3,0	12	2.0	3.0	8.3	8.0	0.2	9	38.91	320	38.91	320
	14/12. R/L .2,0,5,0	12	2.0	5.0	10.3	8.0	0.2	9	45.36	420	45.36	420
	14/12. R/L .2,5,3,0	12	2.5	3.0	8.3	8.5	0.2	9	38.91	325	38.91	325
	14/12. R/L .2,5,5,0	12	2.5	5.0	10.3	8.5	0.2	9	45.36	425	45.36	425
	14/12. R/L .3,0,3,0	12	3.0	3.0	8.3	9.0	0.2	9	38.91	330	38.91	330
	14/12. R/L .3,0,5,0	12	3.0	5.0	10.3	9.0	0.2	9	45.36	430	45.36	430
P										•		•
M										•		•
K										•		•
N										•		•
S										•		•
H										•		•
O										•		•

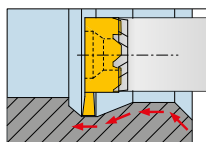
→ v_c Page 59

MiniCut – Set

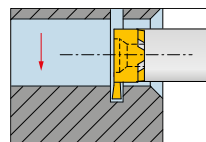
- ▲ Extensive range of size 9 inserts
- ▲ CWX500



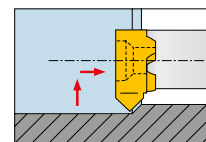
Profile turning (K)



Profile turn (A)



Grooving (E)

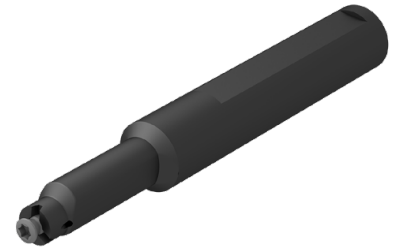
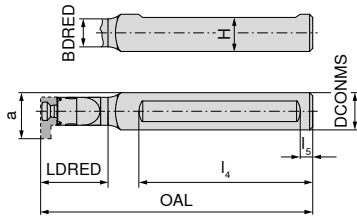


Chamfers (F)

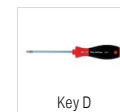


Size	Tool	Designation	Article no.	Bore Ø mm	Width mm	Grooving depth mm	Piece	fig.	73 528 ...	
									£ Y5	
09	Grooving insert	9,00. R .1,00,1,8	73 310 210	9	1,00	1,8	1	E		125
	NC fine turning insert	9,00. R .2,00,2,0	73 314 120	9	2,0 +0,05	2,0	1	A		
	Profiling insert	9,00. R .3,60,10°	73 386 136	9	3,6		1	K		
	Profiling insert	9,00. R .3,60,20°	73 322 236	9	3,6		1	K	273.68	
	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

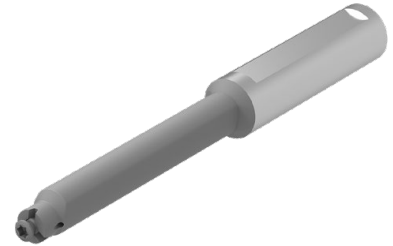
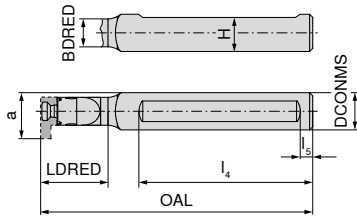


										73 522 ...	
Size	Designation	a	DCONMS ₁₇	OAL	l ₄	LDRED	BDRED	H	l ₅	£	
		mm	mm	mm	mm	mm	mm	mm	mm	Y5	
08	8,00/16.N.12.1,0	7.8	16	80	60	12	6.0	15.0	5	201.08	012
	8,00/16.N.22.1,0	7.8	16	90	60	22	6.0	15.0	5	230.73	122
09	9,00/16.N.14.1,8	8.6	16	95	60	14	7.4	15.0	5	182.37	014
	9,00/16.N.25.1,8	8.6	16	105	60	25	7.4	15.0	5	209.11	125
11	11,00/16.N.16.2,3	10.7	16	97	60	16	8.0	14.5	5	201.08	016
	11,00/16.N.29.2,3	10.7	16	110	60	29	8.0	14.5	5	230.73	129
14	14,00/16.N.18.4,0	13.8	16	100	60	18	11.0	14.5	5	230.73	018
	14,00/16.N.38.4,0	13.8	16	120	60	38	11.0	14.5	5	230.73	138
16	16,00/16.N.22.4,3	15.7	16	100	60	22	11.0	14.5	5	201.08	022
	16,00/16.N.42.4,3	15.7	16	120	60	42	11.0	14.5	5	230.73	142

Spare parts
Size

		80 950 ...		73 082 ...	
		£		£	
		Y7		Y5	
08	T08	10.82	110	M2,6	7.50 002
09	T08	10.82	110	M2,6	7.50 002
11	T10	12.65	112	M3,5	7.50 003
14	T15	12.87	113	M4	7.50 004
16	T20	13.77	114	M5	7.50 005

MiniCut – Solid Carbide Tool holder – vibration damped



										73 520 ...	
Size	Designation	a	DCONMS ₁₇	OAL	l ₄	LDRED	BDRED	H	l ₅	£	
		mm	mm	mm	mm	mm	mm	mm	mm	Y5	
08	8,00/12.N.21.1,0 HM	7.8	12	80	48	21	6.0	11.0	5	325.30	021
	8,00/12.N.30.1,0 HM	7.8	12	90	48	30	6.0	11.0	5	351.78	030
	8,00/12.N.42.1,0 HM	7.8	12	100	48	42	6.0	11.0	5	413.87	042
	8,00/12.N.50.1,0 HM	7.8	12	115	48	50	6.0	11.0	5	472.80	050
09	9,00/12.N.22.1,0 HM	8.6	12	90	60	22	7.4	11.0	5	326.91	222
	9,00/12.N.30.2,0 HM	8.6	12	98	60	30	7.4	11.0	5	381.38	230
	9,00/12.N.42.3,0 HM	8.6	12	110	60	42	7.4	11.0	5	429.06	242
	9,00/12.N.56.4,0 HM	8.6	12	122	60	56	7.4	11.0	5	485.81	256
11	11,00/12.N.29.2,3 HM	10.7	12	95	60	29	8.0	10.5	5	325.30	129
	11,00/12.N.42.2,3 HM	10.7	12	110	60	42	8.0	10.5	5	351.78	142
	11,00/12.N.56.2,3 HM	10.7	12	120	60	56	8.0	10.5	5	413.87	156
	11,00/12.N.64.2,3 HM	10.7	12	130	60	64	8.0	10.5	5	472.80	164
14	14,00/12.N.34.4,0 HM	13.8	12	100	60	34	11.0	10.5	5	395.90	234
	14,00/12.N.45.4,0 HM	13.8	12	110	60	45	11.0	10.5	5	446.17	245
	14,00/12.N.64.4,0 HM	13.8	12	130	60	64	11.0	10.5	5	526.07	264
	14,00/16.N.34.4,0 HM	13.8	16	100	60	34	11.0	14.5	5	464.00	334
	14,00/16.N.45.4,0 HM	13.8	16	110	60	45	11.0	14.5	5	528.94	345
	14,00/16.N.64.4,0 HM	13.8	16	130	60	64	11.0	14.5	5	608.38	364
	14,00/16.N.75.4,0 HM	13.8	16	145	60	75	11.0	14.5	5	649.94	375
16	16,00/12.N.40.4,3 HM	15.7	12	130	60	40	11.0	10.5	5	419.70	440
	16,00/12.N.56.4,3 HM	15.7	12	130	60	56	11.0	10.5	5	446.17	456
	16,00/12.N.80.4,3 HM	15.7	12	150	60	80	11.0	10.5	5	526.07	480
	16,00/16.N.40.4,3 HM	15.7	16	130	60	40	11.0	14.5	5	511.28	540
	16,00/16.N.56.4,3 HM	15.7	16	130	60	56	11.0	14.5	5	528.94	556
	16,00/16.N.80.4,3 HM	15.7	16	150	60	80	11.0	14.5	5	608.38	580



Key D

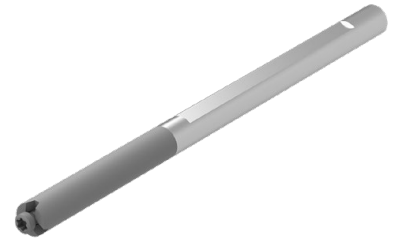
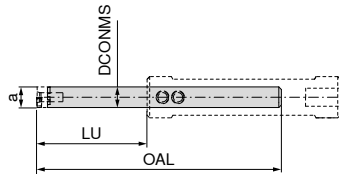


Clamping screw

Spare parts
Size

80 950 ...				73 082 ...			
		£			£		
		Y7			Y5		
08	T08	10.82	110	M2,6	7.50	002	
09	T08	10.82	110	M2,6	7.50	002	
11	T10	12.65	112	M3,5	7.50	003	
14	T15	12.87	113	M4	7.50	004	
16	T20	13.77	114	M5	7.50	005	

MiniCut – HM – Flexoholder



Size	Designation	DCONMS mm	OAL mm	LU mm	a mm		
08	8,0/6.N16/2	6	65	18	8		
	8,0/6.N40/4	6	103	40	8		
11	11,0/8.N20/2	8	79	20	11		
	11,0/8.N50/4	8	129	50	11		

73 525 ...

£

Y5

460.85

818

524.40

840

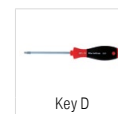
583.43 120 ¹⁾662.89 150 ¹⁾

1) with thro' coolant

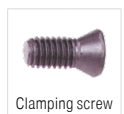
Spare parts

Size

08	T08	110	M2,6	002
11	T10	112	M3,5	003



Key D



Clamping screw

80 950 ...

£

Y7

10.82

110

12.65

112

73 082 ...

£

Y5

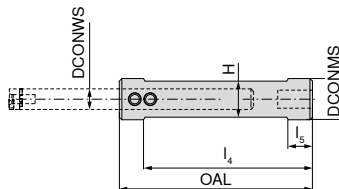
7.50

002

7.50

003

MiniCut – Base holder for solid carbide Flexoholder



Size	Designation	DCONWS mm	DCONMS mm	H mm	OAL mm	I ₄ mm	I ₅ mm		
08	8/16.75	6	16	14	75	55	10		
	8/20.90	6	20	18	90	70	10		
11	11/16.75	8	16	14	75	55	10		
	11/20.90	8	20	18	90	70	10		

73 526 ...

£

Y5

276.96

816

276.96

820

276.96 116

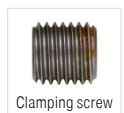
276.96 120

Spare parts
for Article no.

73 526 816	SW2,5	175	M5x0,5x6	010
73 526 820	SW2,5	175	M5x0,5x6	010
73 526 116	SW2,5	175	M5x0,5x4	009
73 526 120	SW2,5	175	M5x0,5x6	010



Key I



Clamping screw

70 950 ...

£

2A/28

2.34

175

2.34

175

2.34

175

2.34

175

73 082 ...

£

Y5

4.83

010

4.83

010

4.83

009

4.83

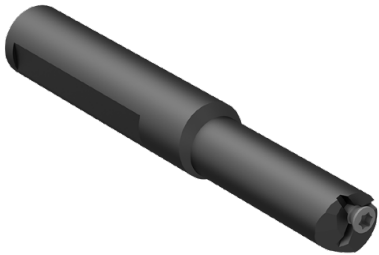
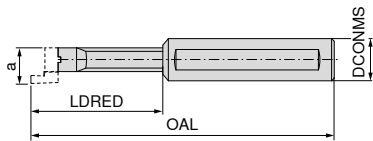
010

12|52

cuttingtools.ceratzit.com

MiniCut – Steel holder

▲ for axial machining

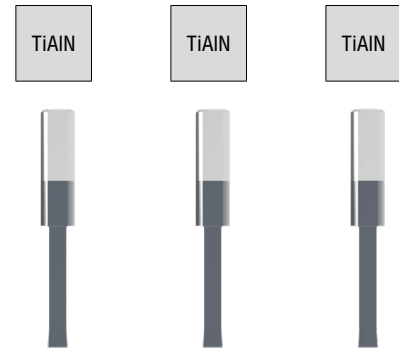
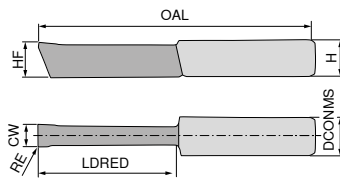


Size	Designation	a mm	DCONMS mm	OAL mm	LDRED mm	Left-hand		Right-hand	
						73 523 ...		73 524 ...	
14	14,0/16. R/L .25.1,0	13.5	16	90	25	£ Y5		£ Y5	
	14,0/16. R/L .45.1,0	13.5	16	110	45	247.45 263.33	025 145	247.45 263.33	025 145

Spare parts

Size	Key D		Clamping screw	
14	T15	80 950 ... £ Y7 12.87 113	M4	73 082 ... £ Y5 7.50 004

SlotCut – Inserts – DIN 138

▲ b_1 = Groove width

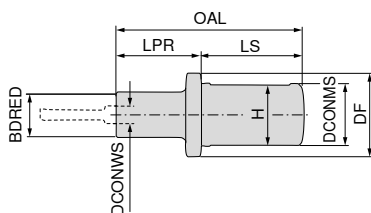
Designation	b_1 P9/JS9/C11 mm	CW mm	HF mm	RE mm	OAL mm	LDRED mm	DMIN mm	DCONMS _{h6} mm	H mm	clamping holder	73 600 ...	73 601 ...	73 602 ...
											£ Y5	£ Y5	£ Y5
NPU.0198.01.1	2	1.98	5.5	0.10	38	12.5	6	7	6.3	NHU			
NPU.0200.01.1	2	2.01	5.5	0.10	38	12.5	6	7	6.3	NHU			
NPU.0210.03.1	2	2.10	5.5	0.35	38	12.5	6	7	6.3	NHU	85.29	098	85.29 099
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	85.29	099	85.29 100
NPU.0310.05.1	3	3.10	6.2	0.50	38	12.5	7	7	6.3	NHU	85.29	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	74.83	101	74.83 101
NPU.0410.05.2	4	4.10	6.2	0.50	50	25.0	7	7	6.3	NHU	98.18	102	98.18 102
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			

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:

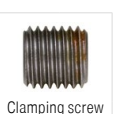
Tool holder with clamping screw, without insert



Designation	DCONWS mm	BDRED mm	DCONMS _{g6} mm	DF mm	OAL mm	LS mm	LPR mm	H mm	Inserts	73 610 ...
										£ Y5
NHU.25	7	18	25	33	73	40	33	23	NPU	408.80 025
NHU.32	7	20	32	40	73	40	33	30	NPU	428.38 032



Key I

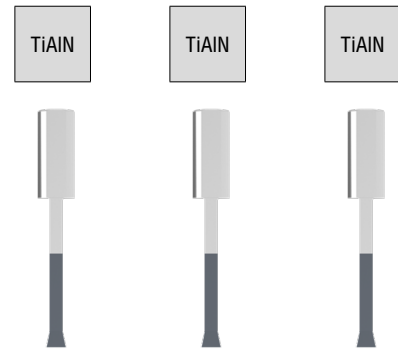
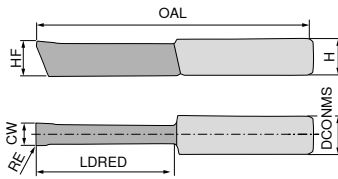


Clamping screw

Spare parts
for Article no.

		70 950 ...	73 082 ...
73 610 025	SW2,5	£ 2.34 175	£ Y5 6.03 001
73 610 032	SW2,5	£ 2.34 175	£ Y5 6.03 001

SlotCut – Inserts – DIN 138

▲ b₁ = Groove width

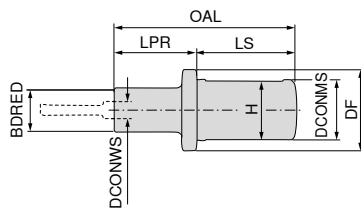
Designation	b ₁ JS9/P9/C11 mm	CW mm	HF mm	RE mm	OAL mm	LDRED mm	DMIN mm	DCONMS _{g6} mm	H mm	clamping holder	73 606 ...	73 607 ...	73 608 ...
											£ Y5	£ Y5	£ Y5
NP10.398.02.2	4	3.98	9	0.2	50	25	10	10	9.2	NH 10			
NP10.398.02.3	4	3.98	9	0.2	66	41	10	10	9.2	NH 10		119.71 149.63	101 102
NP10.400.02.2	4	4.01	9	0.2	50	25	10	10	9.2	NH 10			119.71 149.63
NP10.400.02.3	4	4.01	9	0.2	66	41	10	10	9.2	NH 10			101 102
NP10.410.05.2	4	4.10	9	0.5	50	25	10	10	9.2	NH 10	119.71 149.63	101 102	
NP10.410.05.3	4	4.10	9	0.5	66	41	10	10	9.2	NH 10			
NP10.498.02.2	5	4.98	9	0.2	50	25	10	10	9.2	NH 10		119.71 149.63	103 104
NP10.498.02.3	5	4.98	9	0.2	66	41	10	10	9.2	NH 10			
NP10.500.02.2	5	5.01	9	0.2	50	25	10	10	9.2	NH 10			119.71 149.63
NP10.500.02.3	5	5.01	9	0.2	66	41	10	10	9.2	NH 10			103 104
NP10.510.05.2	5	5.10	9	0.5	50	25	10	10	9.2	NH 10	119.71 149.63	103 104	
NP10.510.05.3	5	5.10	9	0.5	66	41	10	10	9.2	NH 10			

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

SlotCut – Toolholder for Cutting Inserts

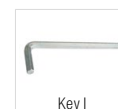
Scope of supply:

Tool holder with clamping screw, without insert



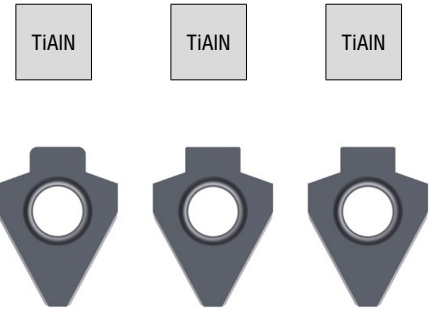
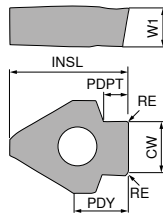
12

Designation	DCONWS mm	BDRED mm	DCONMS _{g6} mm	DF mm	OAL mm	LS mm	LPR mm	H mm	Inserts	73 612 ...
										£ Y5
NH10.0025.1	10	20	25	33	73	40	33	23	NP10	465.34 025
NH10.0032.1	10	20	32	40	73	40	33	30	NP10	465.34 032

Spare parts
for Article no.

73 612 032	SW3	£ 2A/28	176	M6x5,5	£ Y5	031
73 612 025	SW3	2.34	176	M6x5,5	7.50	031

SlotCut – Inserts – DIN 138

▲ b₁ = Groove width

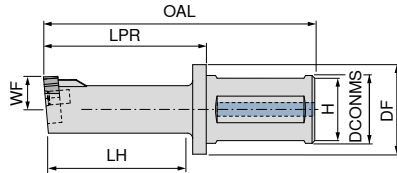
Designation	b ₁ P9/JS9/C11 mm	CW mm	RE mm	PDY mm	INSL mm	PDPT mm	DMIN mm	W1 mm	clamping holder	73 603 ...		73 604 ...		73 605 ...	
										£ Y5		£ Y5		£ Y5	
NV15.0398.02	4	3.98	0.20	6.5	13.0	2.3	15	3.2	NHV 15					78.58	110
NV15.0401.02	4	4.01	0.20	6.5	13.0	2.3	15	3.2	NHV 15			78.58	110		
NV15.0410.050	4	4.10	0.50	6.5	13.0	2.2	15	3.2	NHV 15	78.58	108			78.58	111
NV15.0498.02	5	4.98	0.20	6.5	13.0	2.8	15	3.2	NHV 15						
NV15.0501.02	5	5.01	0.20	6.5	13.0	2.8	15	3.2	NHV 15			78.58	111		
NV15.0510.050	5	5.10	0.50	6.5	13.0	2.5	15	3.2	NHV 15	78.58	109			78.58	112
NV15.0598.02	6	5.98	0.20	6.5	13.0	3.3	15	3.2	NHV 15						
NV15.0601.02	6	6.01	0.20	6.5	13.0	3.3	15	3.2	NHV 15			78.58	112		
NV15.0612.085	6	6.12	0.85	6.5	13.0	2.6	15	3.2	NHV 15	78.58	110				
NPV.0498.02	5	4.98	0.20	8.0	17.3	2.7	22	5.3	NHV 22					76.32	100
NPV.0501.02	5	5.01	0.20	8.0	17.3	2.7	22	5.3	NHV 22			76.32	100		
NPV.0598.02	6	5.98	0.20	8.0	17.3	3.4	22	5.3	NHV 22					69.12	101
NPV.0601.02	6	6.01	0.20	8.0	17.3	3.4	22	5.3	NHV 22			69.12	101		
NPV.0612.085	6	6.12	0.85	8.0	17.3	2.6	22	5.3	NHV 22	69.12	101				
NPV.0713.085	7	7.13	0.85	8.0	17.3	3.3	22	5.3	NHV 22	69.12	102				
NPV.0798.02	8	7.98	0.20	8.0	17.3	4.1	22	5.3	NHV 22/30					69.12	102
NPV.0801.02	8	8.01	0.20	8.0	17.3	4.1	22	5.3	NHV 22/30			69.12	102		
NPV.0813.105	8	8.13	1.05	8.0	17.3	3.4	22	5.3	NHV 22/30	69.12	103				
NPV.0998.03	10	9.98	0.30	8.0	17.3	4.2	30	5.3	NHV 30					69.12	103
NPV.1001.03	10	10.01	0.30	8.0	17.3	4.2	30	5.3	NHV 30			69.12	103		
NPV.1013.105	10	10.13	1.05	10.9	20.2	4.2	40	5.3	NHV 38	69.12	104				
NPV.1197.03	12	11.97	0.30	10.9	20.2	5.7	40	5.3	NHV 38					76.32	104
NPV.1202.05	20	12.02	0.50	10.9	20.2	8.5	40	5.3	NHV 38			76.32	105		
NPV.1202.03	12	12.02	0.30	10.9	20.2	5.7	40	5.3	NHV 38			76.32	104		
NPV.1215.135	12	12.15	1.35	10.9	20.2	5.1	40	5.3	NHV 38	76.32	105				
NPV.1215.175	16	12.15	1.75	10.9	20.2	6.6	40	5.3	NHV 38	76.32	106				
NPV.1215.225	24	12.15	2.25	10.9	20.2	8.5	40	5.3	NHV 38	76.32	107				
NPV.1397.03	14	13.97	0.30	10.9	20.1	7.5	45	5.3	NHV 45					89.03	106
NPV.1402.03	14	14.02	0.30	10.9	20.1	7.5	45	5.3	NHV 45			89.03	106		
NPV.1597.03	16	15.97	0.30	10.9	20.1	7.5	45	5.3	NHV 45					89.03	107
NPV.1602.03	16	16.02	0.30	10.9	20.1	7.5	45	5.3	NHV 45			89.03	107		
NPV.1797.05	18	17.97	0.50	10.9	20.1	9.5	45	5.3	NHV 45					89.03	108
NPV.1802.05	18	18.02	0.50	10.9	20.1	9.5	45	5.3	NHV 45			89.03	108		
NPV.1997.05	20	19.97	0.50	10.9	20.1	10.0	45	5.3	NHV 45					89.03	109
NPV.2002.05	20	20.02	0.50	10.9	20.1	10.0	45	5.3	NHV 45			89.03	109		

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 _{g6} mm	DMIN mm	DF mm	OAL mm	LH mm	LPR mm	H mm	WF mm	Inserts
NHV.15.1	25	15	33	75	25	35	23	8.4	NV15
NHV.15.2	25	15	33	90	40	50	23	8.4	NV15
NHV.15.3	25	15	33	110	60	70	23	8.4	NV15

73 613 ...

£

Y5

399.54

438.13

499.43

025

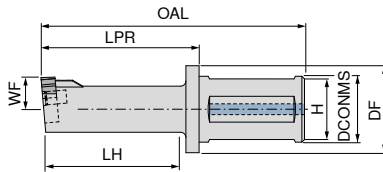
125

225

SlotCut – Toolholder for inserts

Scope of supply:

Tool holder with clamping screw, without insert



Designation	DCONMS _{g6} mm	DMIN mm	DF mm	OAL mm	LH mm	LPR mm	H mm	WF mm	Inserts
NHV.22	25	22	33	100	50	60	23	12.0	NPV
NHV.30	32	30	45	100	50	60	30	16.5	NPV
NHV.30	32	30	45	125	75	85	30	16.5	NPV
NHV.38	32	38	45	100	50	60	30	22.0	NPV
NHV.38	32	38	45	125	75	85	30	22.0	NPV
NHV.45	40	45	55	120	50	60	38	24.0	NPV
NHV.45	40	45	55	175	105	115	38	24.0	NPV
NHV.45	40	45	55	225	155	165	38	24.0	NPV

73 611 ...

£

Y5

383.32

383.32

436.94

383.32

436.94

590.25

799.08

901.24

025

032

532

132

632

040

140

240

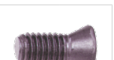
Spare parts

DCONMS_{g6}

25	T20	13.77	114	M5x13	7.88	007
32	T20	13.77	114	M5x13	7.88	007
40	T20	13.77	114	M5x13	7.88	007



Key D



Clamping screw

80 950 ...

73 082 ...

£

Y7

13.77

13.77

13.77

£

Y5

7.88

7.88

7.88

Material examples for cutting data tables

	Material sub-group	Index	Composition / Structure / Heat treatment	Tensile strength N/mm ² / HB / HRC	Material number	Material designation	Material number	Material designation
P	Unalloyed steel	P.1.1	< 0,15 % C	Annealed	420 N/mm ² / 125 HB	1.0401	C15	1.1141 Ck15
		P.1.2	< 0,45 % C	Annealed	640 N/mm ² / 190 HB	1.1191	C45E	1.0718 9SMnPb28
		P.1.3		Tempered	840 N/mm ² / 250 HB	1.1191	C45E	1.0535 C55
		P.1.4	< 0,75 % C	Annealed	910 N/mm ² / 270 HB	1.1223	C60R	1.0535 C55
		P.1.5		Tempered	1010 N/mm ² / 300 HB	1.1223	C60R	1.0727 45S20
	Low-alloy steel	P.2.1		Annealed	610 N/mm ² / 180 HB	1.7131	16MnCr5	1.6587 17CrNiMo6
		P.2.2		Tempered	930 N/mm ² / 275 HB	1.7131	16MnCr5	1.6587 17CrNiMo6
		P.2.3		Tempered	1010 N/mm ² / 300 HB	1.7225	42CrMo4	1.3505 100Cr6
		P.2.4		Tempered	1200 N/mm ² / 375 HB	1.7225	42CrMo4	1.3505 100Cr6
	High-alloy steel and high-alloy tool steel	P.3.1		Annealed	680 N/mm ² / 200 HB	1.4021	X20Cr13	1.4034 X46Cr13
		P.3.2		Hardened and tempered	1100 N/mm ² / 300 HB	1.2343	X38CrMoV5-1	1.4034 X46Cr13
		P.3.3		Hardened and tempered	1300 N/mm ² / 400 HB	1.2343	X38CrMoV5-1	1.4034 X46Cr13
	Stainless steel	P.4.1	Ferritic / martensitic	Annealed	680 N/mm ² / 200 HB	1.4016	X6Cr17	1.2316 X36CrMo16
		P.4.2	Martensitic	Tempered	1010 N/mm ² / 300 HB	1.4112	X90CrMoV18	1.2316 X36CrMo16
M	Stainless steel	M.1.1	Austenitic / austenitic-ferritic	Quenched	610 N/mm ² / 180 HB	1.4301	X5CrNi18-10	1.4571 X6CrNiMoTi17-12-2
		M.2.1	Austenitic	Tempered	300 HB	1.4841	X15CrNiSi25-21	1.4539 X1NiCrMoCu25-20-5
		M.3.1	Austenitic / ferritic (Duplex)		780 N/mm ² / 230 HB	1.4462	X2CrNiMoN22-5-3	1.4501 X2CrNiMoCuWN25-7-4
K	Grey cast iron	K.1.1	Pearlitic / ferritic		350 N/mm ² / 180 HB	0.6010	GG-10	0.6025 GG-25
		K.1.2	Pearlitic (martensitic)		500 N/mm ² / 260 HB	0.6030	GG-30	0.6045 GG-45
	Spherulitic graphite cast iron	K.2.1	Ferritic		540 N/mm ² / 160 HB	0.7040	GGG-40	0.7060 GGG-60
		K.2.2	Pearlitic		845 N/mm ² / 250 HB	0.7070	GGG-70	0.7080 GGG-80
	Malleable iron	K.3.1	Ferritic		440 N/mm ² / 130 HB	0.8035	GTW-35-04	0.8045 GTW-45
		K.3.2	Pearlitic		780 N/mm ² / 230 HB	0.8165	GTS-65-02	0.8170 GTS-70-02
N	Aluminium wrought alloy	N.1.1	Non-hardenable		60 HB	3.0255	Al99,5	3.3315 AlMg1
		N.1.2	Hardenable	Age-hardened	340 N/mm ² / 100 HB	3.1355	AlCuMg2	3.2315 AlMgSi1
	Cast aluminium alloy	N.2.1	≤ 12 % Si, non-hardenable		250 N/mm ² / 75 HB	3.2581	G-AlSi12	3.2163 G-AlSi9Cu3
		N.2.2	≤ 12 % Si, hardenable	Age-hardened	300 N/mm ² / 90 HB	3.2134	G-AlSi5Cu1Mg	3.2373 G-AlSi9Mg
		N.2.3	> 12 % Si, non-hardenable		440 N/mm ² / 130 HB		G-AlSi17Cu4Mg	G-AlSi18CuNiMg
	Copper and copper alloys (bronze/brass)	N.3.1	Free-machining alloys, PB > 1 %		375 N/mm ² / 110 HB	2.0380	CuZn39Pb2 (Ms58)	2.0410 CuZn44Pb2
		N.3.2	CuZn, CuSnZn		300 N/mm ² / 90 HB	2.0331	CuZn15	2.4070 CuZn28Sn1As
		N.3.3	CuSn, lead-free copper and electrolytic copper		340 N/mm ² / 100 HB	2.0060	E-Cu57	2.0590 CuZn40Fe
	Magnesium alloys	N.4.1	Magnesium and magnesium alloys		70 HB	3.5612	MgAl6Zn	3.5312 MgAl3Zn
S	Heat-resistant alloys	S.1.1	Fe - basis	Annealed	680 N/mm ² / 200 HB	1.4864	X12NiCrSi 36-16	1.4865 G-X40NiCrSi38-18
		S.1.2		Age-hardened	950 N/mm ² / 280 HB	1.4980	X6NiCrTiMoVB25-15-2	1.4876 X10NiCrAlTi32-20
		S.2.1		Annealed	840 N/mm ² / 250 HB	2.4631	NiCr20TiAl (Nimonic80A)	3.4856 NiCr22Mo9Nb
		S.2.2	Ni or Co basis	Age-hardened	1180 N/mm ² / 350 HB	2.4668	NiCr19Nb5Mo3 (Inconel 718)	2.4955 NiFe25Cr20NbTi
		S.2.3		Cast	1080 N/mm ² / 320 HB	2.4765	CoCr20W15Ni	1.3401 G-X120Mn12
	Titanium alloys	S.3.1	Pure titanium		400 N/mm ²	3.7025	Ti99,8	3.7034 Ti99,7
		S.3.2	Alpha + beta alloys	Age-hardened	1050 N/mm ² / 320 HB	3.7165	TiAl6V4	Ti-6246 Ti-6Al-2Sn-4Zr-6Mo
		S.3.3	Beta alloys		1400 N/mm ² / 410 HB	Ti555.3	Ti-5Al-5V-5Mo-3Cr	R56410 Ti-10V-2Fe-3Al
H	Hardened steel	H.1.1		Hardened and tempered	46-55 HRC			
		H.1.2		Hardened and tempered	56-60 HRC			
		H.1.3		Hardened and tempered	61-65 HRC			
		H.1.4		Hardened and tempered	66-70 HRC			
	Chilled iron	H.2.1		Cast	400 HB			
	Hardened cast iron	H.3.1		Hardened and tempered	55 HRC			
O	Non-metal materials	O.1.1	Plastics, duroplastic		≤ 150 N/mm ²			
		O.1.2	Plastics, thermoplastic		≤ 100 N/mm ²			
		O.2.1	Aramid fibre-reinforced		≤ 1000 N/mm ²			
		O.2.2	Glass/carbon-fibre reinforced		≤ 1000 N/mm ²			
		O.3.1	Graphite					

* Tensile strength

Cutting data standard values

	UltraMini K10F uncoated	UltraMini K10F-TiN	UltraMini K10-TiAlN	UltraMini DPX 57S	MiniCut CWX500	UltraMini TiAlN+	MiniCut CBN
Index	v _c in m/min						
P.1.1		90	110	110	160	110	
P.1.2		80	100	100	140	100	
P.1.3		60	80	80	140	80	
P.1.4		60	80	80	110	80	
P.1.5		60	60	60	100	60	
P.2.1		60	80	80	110	80	
P.2.2		60	60	60	100	60	
P.2.3		50	60	60	90	60	
P.2.4		50	60	60	80	60	
P.3.1		50	60	60	80	60	
P.3.2		30	50	50	70	50	
P.3.3		30	30	30	50	30	
P.4.1		60	70	70	100	70	
P.4.2		50	60	60	90	60	
M.1.1		60	80	80	80	80	
M.2.1		50	60	60	70	60	
M.3.1		40	50	50	60	50	
K.1.1		80	100	100	90	100	
K.1.2		60	70	70	100	70	
K.2.1		60	60	60	80	60	
K.2.2		50	60	60	70	60	
K.3.1		80	100	100	120	100	
K.3.2		70	80	80	100	80	
N.1.1	100	200	230	230	290	230	
N.1.2	100	180	220	220	280	220	
N.2.1	90	160	190	190	240	190	
N.2.2	70	140	170	170	200	170	
N.2.3	50	80	100	100	120	100	
N.3.1	80	140	170	170	210	170	
N.3.2	70	120	140	140	180	140	
N.3.3	50	100	120	120	130	120	
N.4.1	50	100	120	120	100	120	
S.1.1		30	50	50	50	50	
S.1.2		30	30	30	30	30	30
S.2.1		30	50	50	50	50	50
S.2.2		30	30	30	40	30	30
S.2.3			30	30	30	30	30
S.3.1		30	50	50	50	50	
S.3.2		20	30	30	40	30	
S.3.3			20	20	30	20	20
H.1.1		30	40	40	50	40	40
H.1.2			30	30	40	30	30
H.1.3				20		30	30
H.1.4							
H.2.1							
H.3.1		20	30	30	40	30	30
O.1.1	50	90	110	110	150	110	
O.1.2	50	100	120	120	150	120	
O.2.1		90	110	110	130	110	
O.2.2		60	80	80	100	80	
O.3.1	50	100	120	120	150	120	

	UltraMini	MiniCut
	f in mm/rev.	

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



The cutting data is strongly influenced by external conditions, such as the stability of the tool and workpiece clamping, material and type of machine. The specified values represent guideline cutting data that can be adjusted by approx. **±20%** according to the usage conditions.

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

Index	UltraMini DPX77S v _c in m/min	Roughing										
		Ø ≤ 2 mm Corner radius in mm			Ø 2,5–4 mm Corner radius in mm				Ø ≥ 5 mm Corner radius in mm			
		0,05	0,1	0,15	0,05	0,1	0,15	0,2 / 0,4	0,05	0,1	0,15	0,2 / 0,4
		f in mm/rev.			f in mm/rev.				f in mm/rev.			
P.1.1	110	0,026–0,076	0,029–0,082	0,031–0,088	0,053–0,151	0,058–0,165	0,062–0,176	0,064–0,184	0,099–0,284	0,108–0,309	0,116–0,33	0,121–0,345
P.1.2	100	0,026–0,076	0,029–0,082	0,031–0,088	0,053–0,151	0,058–0,165	0,062–0,176	0,064–0,184	0,099–0,284	0,108–0,309	0,116–0,33	0,121–0,345
P.1.3	80	0,026–0,076	0,029–0,082	0,031–0,088	0,053–0,151	0,058–0,165	0,062–0,176	0,064–0,184	0,099–0,284	0,108–0,309	0,116–0,33	0,121–0,345
P.1.4	80	0,023–0,065	0,025–0,071	0,026–0,076	0,046–0,13	0,05–0,142	0,053–0,151	0,055–0,158	0,085–0,244	0,093–0,266	0,099–0,284	0,104–0,297
P.1.5	60	0,024–0,068	0,026–0,074	0,028–0,079	0,048–0,136	0,052–0,148	0,055–0,158	0,058–0,166	0,089–0,255	0,097–0,278	0,104–0,297	0,109–0,311
P.2.1	80	0,024–0,068	0,026–0,074	0,028–0,079	0,048–0,136	0,052–0,148	0,055–0,158	0,058–0,166	0,089–0,255	0,097–0,278	0,104–0,297	0,109–0,311
P.2.2	60	0,021–0,06	0,023–0,066	0,025–0,07	0,042–0,121	0,046–0,132	0,049–0,141	0,052–0,147	0,079–0,227	0,087–0,247	0,092–0,264	0,097–0,276
P.2.3	60	0,019–0,054	0,021–0,059	0,022–0,063	0,038–0,109	0,042–0,119	0,044–0,127	0,046–0,132	0,071–0,204	0,078–0,222	0,083–0,238	0,087–0,248
P.2.4	60	0,018–0,051	0,02–0,056	0,021–0,06	0,036–0,103	0,039–0,112	0,042–0,12	0,044–0,125	0,067–0,193	0,074–0,21	0,079–0,224	0,082–0,235
P.3.1	60	0,021–0,06	0,023–0,066	0,025–0,07	0,042–0,121	0,046–0,132	0,049–0,141	0,052–0,147	0,079–0,227	0,087–0,247	0,092–0,264	0,097–0,276
P.3.2	50	0,02–0,057	0,022–0,063	0,023–0,067	0,04–0,115	0,044–0,125	0,047–0,134	0,049–0,14	0,075–0,215	0,082–0,235	0,088–0,251	0,092–0,262
P.3.3	30	0,016–0,045	0,017–0,049	0,018–0,053	0,032–0,091	0,035–0,099	0,037–0,106	0,039–0,11	0,06–0,17	0,065–0,185	0,069–0,198	0,072–0,207
P.4.1	70	0,022–0,064	0,024–0,069	0,026–0,074	0,044–0,127	0,048–0,138	0,052–0,148	0,054–0,155	0,083–0,238	0,091–0,26	0,097–0,277	0,101–0,29
P.4.2	60	0,021–0,06	0,023–0,066	0,025–0,07	0,042–0,121	0,046–0,132	0,049–0,141	0,052–0,147	0,079–0,227	0,087–0,247	0,092–0,264	0,097–0,276
M.1.1	80	0,015–0,042	0,016–0,046	0,017–0,049	0,03–0,085	0,032–0,092	0,034–0,099	0,036–0,103	0,056–0,159	0,061–0,173	0,065–0,185	0,068–0,193
M.2.1	60	0,013–0,038	0,014–0,041	0,015–0,044	0,026–0,076	0,029–0,082	0,031–0,088	0,032–0,092	0,05–0,142	0,054–0,155	0,058–0,165	0,06–0,173
M.3.1	50	0,014–0,039	0,015–0,043	0,016–0,046	0,028–0,079	0,03–0,086	0,032–0,092	0,033–0,096	0,052–0,147	0,056–0,161	0,06–0,172	0,063–0,179
K.1.1	100	0,026–0,076	0,029–0,082	0,031–0,088	0,053–0,151	0,058–0,165	0,062–0,176	0,064–0,184	0,099–0,284	0,108–0,309	0,116–0,33	0,121–0,345
K.1.2	70	0,024–0,068	0,026–0,074	0,028–0,079	0,048–0,136	0,052–0,148	0,055–0,158	0,058–0,166	0,089–0,255	0,097–0,278	0,104–0,297	0,109–0,311
K.2.1	60	0,024–0,068	0,026–0,074	0,028–0,079	0,048–0,136	0,052–0,148	0,055–0,158	0,058–0,166	0,089–0,255	0,097–0,278	0,104–0,297	0,109–0,311
K.2.2	60	0,021–0,059	0,022–0,064	0,024–0,069	0,041–0,118	0,045–0,129	0,048–0,137	0,05–0,144	0,077–0,221	0,084–0,241	0,09–0,257	0,094–0,269
K.3.1	100	0,025–0,073	0,028–0,079	0,03–0,084	0,051–0,145	0,055–0,158	0,059–0,169	0,062–0,177	0,095–0,272	0,104–0,297	0,111–0,317	0,116–0,331
K.3.2	80	0,021–0,06	0,023–0,066	0,025–0,07	0,042–0,121	0,046–0,132	0,049–0,141	0,052–0,147	0,079–0,227	0,087–0,247	0,092–0,264	0,097–0,276
N.1.1	230	0,032–0,091	0,035–0,099	0,037–0,106	0,064–0,181	0,069–0,198	0,074–0,211	0,077–0,221	0,119–0,34	0,13–0,371	0,139–0,396	0,145–0,414
N.1.2	220	0,031–0,089	0,034–0,097	0,036–0,104	0,062–0,178	0,068–0,194	0,073–0,208	0,076–0,217	0,117–0,335	0,128–0,365	0,136–0,389	0,142–0,407
N.2.1	190	0,03–0,085	0,032–0,092	0,034–0,099	0,059–0,169	0,065–0,185	0,069–0,197	0,072–0,206	0,111–0,318	0,121–0,346	0,129–0,37	0,135–0,386
N.2.2	170	0,029–0,083	0,032–0,091	0,034–0,097	0,058–0,166	0,063–0,181	0,068–0,194	0,071–0,202	0,109–0,312	0,119–0,34	0,127–0,363	0,133–0,38
N.2.3	100	0,029–0,082	0,031–0,089	0,033–0,095	0,057–0,163	0,062–0,178	0,067–0,19	0,07–0,199	0,107–0,306	0,117–0,334	0,125–0,356	0,13–0,373
N.3.1	170	0,03–0,085	0,032–0,092	0,034–0,099	0,059–0,169	0,065–0,185	0,069–0,197	0,072–0,206	0,111–0,318	0,121–0,346	0,129–0,37	0,135–0,386
N.3.2	140	0,028–0,08	0,031–0,087	0,033–0,093	0,056–0,16	0,061–0,175	0,065–0,187	0,068–0,195	0,105–0,301	0,115–0,328	0,122–0,35	0,128–0,366
N.3.3	120	0,027–0,077	0,029–0,084	0,031–0,09	0,054–0,154	0,059–0,168	0,063–0,18	0,066–0,188	0,101–0,289	0,11–0,315	0,118–0,337	0,123–0,352
N.4.1	120	0,027–0,077	0,029–0,084	0,031–0,09	0,054–0,154	0,059–0,168	0,063–0,18	0,066–0,188	0,101–0,289	0,11–0,315	0,118–0,337	0,123–0,352
S.1.1	50	0,024–0,068	0,026–0,074	0,028–0,079	0,048–0,136	0,052–0,148	0,055–0,158	0,058–0,166	0,089–0,255	0,097–0,278	0,104–0,297	0,109–0,311
S.1.2	30	0,019–0,053	0,02–0,058	0,022–0,062	0,037–0,106	0,04–0,115	0,043–0,123	0,045–0,129	0,069–0,198	0,076–0,216	0,081–0,231	0,085–0,242
S.2.1	50	0,018–0,051	0,02–0,056	0,021–0,06	0,036–0,103	0,039–0,112	0,042–0,12	0,044–0,125	0,067–0,193	0,074–0,21	0,079–0,224	0,082–0,235
S.2.2	30	0,014–0,039	0,015–0,043	0,016–0,046	0,028–0,079	0,03–0,086	0,032–0,092	0,033–0,096	0,052–0,147	0,056–0,161	0,06–0,172	0,063–0,179
S.2.3	30	0,015–0,042	0,016–0,046	0,017–0,049	0,03–0,085	0,032–0,092	0,034–0,099	0,036–0,103	0,056–0,159	0,061–0,173	0,065–0,185	0,068–0,193
S.3.1	50	0,024–0,068	0,026–0,074	0,028–0,079	0,048–0,136	0,052–0,148	0,055–0,158	0,058–0,166	0,089–0,255	0,097–0,278	0,104–0,297	0,109–0,311
S.3.2	30	0,019–0,054	0,021–0,059	0,022–0,063	0,038–0,109	0,042–0,119	0,044–0,127	0,046–0,132	0,071–0,204	0,078–0,222	0,083–0,238	0,087–0,248
S.3.3	20	0,013–0,038	0,014–0,041	0,015–0,044	0,026–0,076	0,029–0,082	0,031–0,088	0,032–0,092	0,05–0,142	0,054–0,155	0,058–0,165	0,06–0,173
H.1.1	40	0,013–0,038	0,014–0,041	0,015–0,044	0,026–0,076	0,029–0,082	0,031–0,088	0,032–0,092	0,05–0,142	0,054–0,155	0,058–0,165	0,06–0,173
H.1.2	30	0,011–0,03	0,012–0,033	0,012–0,035	0,021–0,06	0,023–0,066	0,025–0,07	0,026–0,074	0,036–0,102	0,039–0,111	0,042–0,119	0,043–0,124
H.1.3												
H.1.4												
H.2.1	30	0,014–0,041	0,016–0,044	0,017–0,048	0,029–0,082	0,031–0,089	0,033–0,095	0,035–0,099	0,054–0,153	0,058–0,167	0,062–0,178	0,065–0,186
H.3.1	30	0,013–0,036	0,014–0,04	0,015–0,042	0,025–0,073	0,028–0,079	0,03–0,084	0,031–0,088	0,048–0,136	0,052–0,148	0,055–0,158	0,058–0,166
O.1.1	110	0,031–0,089	0,034–0,097	0,036–0,104	0,062–0,178	0,068–0,194	0,073–0,208	0,076–0,217	0,117–0,335	0,128–0,365	0,136–0,389	0,142–0,407
O.1.2	120	0,028–0,079	0,03–0,086	0,032–0,092	0,055–0,157	0,06–0,171	0,064–0,183	0,067–0,191	0,103–0,295	0,112–0,321	0,12–0,343	0,126–0,359
O.2.1	110	0,017–0,05	0,019–0,054	0,02–0,058	0,035–0,1	0,038–0,109	0,041–0,116	0,043–0,121	0,065–0,187	0,071–0,204	0,076–0,218	0,08–0,228
O.2.2	80	0,017–0,048	0,018–0,053	0,02–0,056	0,034–0,097	0,037–0,105	0,039–0,113	0,041–0,118	0,064–0,181	0,069–0,198	0,074–0,211	0,077–0,221
O.3.1	120											



The cutting data is strongly influenced by external conditions, such as the stability of the tool and workpiece clamping, material and type of machine. The specified values represent guideline cutting data that can be adjusted by approx. **±20%** according to the usage conditions.

Finishing														
Index	$\varnothing \leq 2$ mm Corner radius in mm				$\varnothing 2,5-4$ mm Corner radius in mm					$\varnothing \geq 5$ mm Corner radius in mm				
	0,05	0,1	0,15		0,05	0,1	0,15	0,2	0,4	0,05	0,1	0,15	0,2	0,4
	f in mm/rev.				f in mm/rev.					f in mm/rev.				
P.1.1	0,007-0,019	0,008-0,022	0,009-0,025		0,017-0,049	0,02-0,058	0,023-0,065	0,025-0,072	0,032-0,092	0,027-0,076	0,031-0,089	0,035-0,1	0,039-0,11	0,05-0,142
P.1.2	0,007-0,019	0,008-0,022	0,009-0,025		0,017-0,049	0,02-0,058	0,023-0,065	0,025-0,072	0,032-0,092	0,027-0,076	0,031-0,089	0,035-0,1	0,039-0,11	0,05-0,142
P.1.3	0,007-0,019	0,008-0,022	0,009-0,025		0,017-0,049	0,02-0,058	0,023-0,065	0,025-0,072	0,032-0,092	0,027-0,076	0,031-0,089	0,035-0,1	0,039-0,11	0,05-0,142
P.1.4	0,006-0,016	0,007-0,019	0,008-0,022		0,015-0,042	0,017-0,05	0,02-0,056	0,022-0,061	0,028-0,079	0,023-0,065	0,027-0,077	0,03-0,086	0,033-0,095	0,043-0,122
P.1.5	0,006-0,017	0,007-0,02	0,008-0,023		0,016-0,044	0,018-0,052	0,02-0,059	0,023-0,064	0,029-0,083	0,024-0,068	0,028-0,08	0,032-0,09	0,035-0,099	0,045-0,128
P.2.1	0,006-0,017	0,007-0,02	0,008-0,023		0,016-0,044	0,018-0,052	0,02-0,059	0,023-0,064	0,029-0,083	0,024-0,068	0,028-0,08	0,032-0,09	0,035-0,099	0,045-0,128
P.2.2	0,005-0,015	0,006-0,018	0,007-0,02		0,014-0,04	0,016-0,046	0,018-0,052	0,02-0,057	0,026-0,074	0,021-0,061	0,025-0,071	0,028-0,08	0,031-0,088	0,04-0,114
P.2.3	0,005-0,014	0,006-0,016	0,006-0,018		0,012-0,036	0,015-0,042	0,016-0,047	0,018-0,051	0,023-0,066	0,019-0,055	0,022-0,064	0,025-0,072	0,028-0,079	0,036-0,102
P.2.4	0,005-0,013	0,005-0,015	0,006-0,017		0,012-0,034	0,014-0,039	0,015-0,044	0,017-0,049	0,022-0,063	0,018-0,052	0,021-0,061	0,024-0,068	0,026-0,075	0,034-0,097
P.3.1	0,005-0,015	0,006-0,018	0,007-0,02		0,014-0,04	0,016-0,046	0,018-0,052	0,02-0,057	0,026-0,074	0,021-0,061	0,025-0,071	0,028-0,08	0,031-0,088	0,04-0,114
P.3.2	0,005-0,014	0,006-0,017	0,007-0,019		0,013-0,038	0,015-0,044	0,017-0,049	0,019-0,054	0,025-0,07	0,02-0,058	0,024-0,068	0,027-0,076	0,029-0,084	0,038-0,108
P.3.3	0,004-0,011	0,005-0,013	0,005-0,015		0,01-0,03	0,012-0,035	0,014-0,039	0,015-0,043	0,019-0,055	0,016-0,046	0,019-0,053	0,021-0,06	0,023-0,066	0,03-0,085
P.4.1	0,006-0,016	0,007-0,019	0,007-0,021		0,015-0,041	0,017-0,049	0,019-0,055	0,021-0,06	0,027-0,078	0,022-0,064	0,026-0,075	0,029-0,084	0,032-0,092	0,042-0,119
P.4.2	0,005-0,015	0,006-0,018	0,007-0,02		0,014-0,04	0,016-0,046	0,018-0,052	0,02-0,057	0,026-0,074	0,021-0,061	0,025-0,071	0,028-0,08	0,031-0,088	0,04-0,114
M.1.1	0,004-0,011	0,004-0,012	0,005-0,014		0,01-0,028	0,011-0,032	0,013-0,036	0,014-0,04	0,018-0,052	0,015-0,043	0,017-0,05	0,02-0,056	0,022-0,062	0,028-0,08
M.2.1	0,003-0,01	0,004-0,011	0,004-0,013		0,009-0,025	0,01-0,029	0,011-0,033	0,013-0,036	0,016-0,046	0,013-0,038	0,016-0,045	0,018-0,05	0,019-0,055	0,025-0,071
M.3.1	0,003-0,01	0,004-0,012	0,005-0,013		0,009-0,026	0,011-0,03	0,012-0,034	0,013-0,037	0,017-0,048	0,014-0,04	0,016-0,046	0,018-0,052	0,02-0,057	0,026-0,074
K.1.1	0,007-0,019	0,008-0,022	0,009-0,025		0,017-0,049	0,02-0,058	0,023-0,065	0,025-0,072	0,032-0,092	0,027-0,076	0,031-0,089	0,035-0,1	0,039-0,11	0,05-0,142
K.1.2	0,006-0,017	0,007-0,02	0,008-0,023		0,016-0,044	0,018-0,052	0,02-0,059	0,023-0,064	0,029-0,083	0,024-0,068	0,028-0,08	0,032-0,09	0,035-0,099	0,045-0,128
K.2.1	0,006-0,017	0,007-0,02	0,008-0,023		0,016-0,044	0,018-0,052	0,02-0,059	0,023-0,064	0,029-0,083	0,024-0,068	0,028-0,08	0,032-0,09	0,035-0,099	0,045-0,128
K.2.2	0,005-0,015	0,006-0,017	0,007-0,02		0,013-0,039	0,016-0,045	0,018-0,051	0,02-0,056	0,025-0,072	0,021-0,059	0,024-0,069	0,027-0,078	0,03-0,086	0,039-0,111
K.3.1	0,006-0,018	0,007-0,021	0,008-0,024		0,017-0,047	0,019-0,056	0,022-0,062	0,024-0,069	0,031-0,089	0,026-0,073	0,03-0,085	0,034-0,096	0,037-0,106	0,048-0,136
K.3.2	0,005-0,015	0,006-0,018	0,007-0,02		0,014-0,04	0,016-0,046	0,018-0,052	0,02-0,057	0,026-0,074	0,021-0,061	0,025-0,071	0,028-0,08	0,031-0,088	0,04-0,114
N.1.1	0,008-0,023	0,009-0,027	0,011-0,03		0,02-0,058	0,024-0,068	0,027-0,077	0,03-0,084	0,038-0,109	0,027-0,076	0,031-0,089	0,035-0,1	0,039-0,11	0,05-0,142
N.1.2	0,008-0,022	0,009-0,026	0,01-0,03		0,02-0,058	0,024-0,068	0,027-0,077	0,03-0,084	0,038-0,109	0,027-0,076	0,031-0,089	0,035-0,1	0,039-0,11	0,05-0,142
N.2.1	0,007-0,021	0,009-0,025	0,01-0,028		0,019-0,055	0,023-0,065	0,025-0,073	0,028-0,08	0,036-0,103	0,027-0,076	0,031-0,089	0,035-0,1	0,039-0,11	0,05-0,142
N.2.2	0,007-0,021	0,009-0,024	0,01-0,028		0,019-0,054	0,022-0,064	0,025-0,072	0,028-0,079	0,036-0,102	0,027-0,076	0,031-0,089	0,035-0,1	0,039-0,11	0,05-0,142
N.2.3	0,007-0,021	0,008-0,024	0,009-0,027		0,019-0,053	0,022-0,062	0,025-0,07	0,027-0,077	0,035-0,1	0,027-0,076	0,031-0,089	0,035-0,1	0,039-0,11	0,05-0,142
N.3.1	0,007-0,021	0,009-0,025	0,01-0,028		0,019-0,055	0,023-0,065	0,025-0,073	0,028-0,08	0,036-0,103	0,027-0,076	0,031-0,089	0,035-0,1	0,039-0,11	0,05-0,142
N.3.2	0,007-0,02	0,008-0,024	0,009-0,027		0,018-0,052	0,021-0,061	0,024-0,069	0,027-0,076	0,034-0,098	0,027-0,076	0,031-0,089	0,035-0,1	0,039-0,11	0,05-0,142
N.3.3	0,007-0,019	0,008-0,023	0,009-0,026		0,018-0,05	0,021-0,059	0,023-0,066	0,026-0,073	0,033-0,094	0,027-0,076	0,031-0,089	0,035-0,1	0,039-0,11	0,05-0,142
N.4.1	0,007-0,019	0,008-0,023	0,009-0,026		0,018-0,05	0,021-0,059	0,023-0,066	0,026-0,073	0,033-0,094	0,027-0,078	0,032-0,091	0,036-0,102	0,039-0,112	0,051-0,145
S.1.1	0,006-0,017	0,007-0,02	0,008-0,023		0,016-0,044	0,018-0,052	0,02-0,059	0,023-0,064	0,029-0,083	0,024-0,068	0,028-0,08	0,032-0,09	0,035-0,099	0,045-0,128
S.1.2	0,005-0,013	0,005-0,016	0,006-0,018		0,012-0,035	0,014-0,04	0,016-0,046	0,018-0,05	0,023-0,065	0,019-0,053	0,022-0,062	0,025-0,07	0,027-0,077	0,035-0,099
S.2.1	0,005-0,013	0,005-0,015	0,006-0,017		0,012-0,034	0,014-0,039	0,015-0,044	0,017-0,049	0,022-0,063	0,018-0,052	0,021-0,061	0,024-0,068	0,026-0,075	0,034-0,097
S.2.2	0,003-0,01	0,004-0,012	0,005-0,013		0,009-0,026	0,011-0,03	0,012-0,034	0,013-0,037	0,017-0,048	0,014-0,04	0,016-0,046	0,018-0,052	0,02-0,057	0,026-0,074
S.2.3	0,004-0,011	0,004-0,012	0,005-0,014		0,01-0,028	0,011-0,032	0,013-0,036	0,014-0,04	0,018-0,052	0,015-0,043	0,017-0,05	0,02-0,056	0,022-0,062	0,028-0,08
S.3.1	0,006-0,017	0,007-0,02	0,008-0,023		0,016-0,044	0,018-0,052	0,02-0,059	0,023-0,064	0,029-0,083	0,024-0,068	0,028-0,08	0,032-0,09	0,035-0,099	0,045-0,128
S.3.2	0,005-0,014	0,006-0,016	0,006-0,018		0,012-0,036	0,015-0,042	0,016-0,047	0,018-0,051	0,023-0,066	0,019-0,055	0,022-0,064	0,025-0,072	0,028-0,079	0,036-0,102
S.3.3	0,003-0,01	0,004-0,011	0,004-0,013		0,009-0,025	0,01-0,029	0,011-0,033	0,013-0,036	0,016-0,046	0,013-0,038	0,016-0,045	0,018-0,05	0,019-0,055	0,025-0,071
H.1.1	0,003-0,01	0,004-0,011	0,004-0,013		0,009-0,025	0,01-0,029	0,011-0,033	0,013-0,036	0,016-0,046	0,013-0,038	0,016-0,045	0,018-0,05	0,019-0,055	0,025-0,071
H.1.2	0,003-0,008	0,003-0,009	0,004-0,01		0,007-0,02	0,008-0,023	0,009-0,026	0,01-0,029	0,013-0,037	0,011-0,03	0,012-0,036	0,014-0,04	0,015-0,044	0,02-0,057
H.1.3														
H.1.4														
H.2.1	0,004-0,01	0,004-0,012	0,005-0,014		0,009-0,027	0,011-0,031	0,012-0,035	0,014-0,039	0,017-0,05	0,014-0,041	0,017-0,048	0,019-0,054	0,021-0,059	0,027-0,077
H.3.1	0,003-0,009	0,004-0,011	0,004-0,012		0,008-0,024	0,01-0,028	0,011-0,031	0,012-0,034	0,016-0,044	0,013-0,036	0,015-0,043	0,017-0,048	0,018-0,053	0,024-0,068
O.1.1	0,008-0,022	0,009-0,026	0,01-0,03		0,02-0,058	0,024-0,068	0,027-0,077	0,03-0,084	0,038-0,109	0,027-0,076	0,031-0,089	0,035-0,1	0,039-0,11	0,05-0,142
O.1.2	0,007-0,02	0,008-0,023	0,009-0,026		0,018-0,051	0,021-0,06	0,024-0,068	0,026-0,074	0,034-0,096	0,028-0,079	0,032-0,093	0,036-0,104	0,04-0,114	0,052-0,148
O.2.1	0,004-0,013	0,005-0,015	0,006-0,017		0,011-0,033	0,013-0,038	0,015-0,043	0,017-0,047	0,021-0,061	0,018-0,05	0,021-0,059	0,023-0,066	0,025-0,073	0,033-0,094
O.2.2	0,004-0,012	0,005-0,014	0,006-0,016		0,011-0,032	0,013-0,037	0,015-0,042	0,016-0,046	0,021-0,059	0,017-0,049	0,02-0,057	0,022-0,064	0,025-0,07	0,032-0,091
O.3.1														

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.

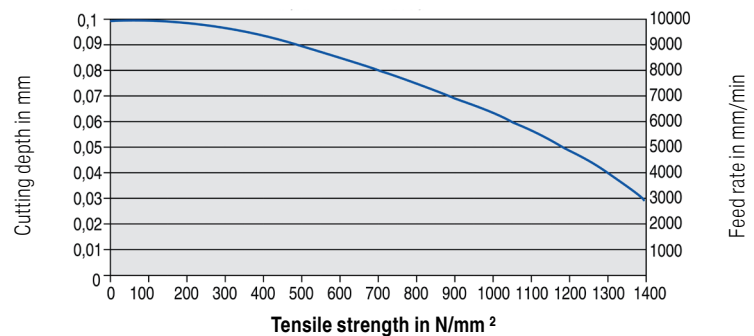
The SlotCut system can produce grooves with the most common groove tolerances.

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



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



Internal turning and profiling



High-feed turning



Turning and profile turning – super alloys



Internal turning



Back boring



Turning and chamfering



Pre-parting and chamfering



Groove turning



Internal Undercuts



Groove and profile turning



Internal thread turning



Axial grooving

MiniCut



Internal turning and profiling



Internal turning



Back boring



Turning and chamfering



Pre-parting and chamfering



Groove turning



Internal Undercuts



Groove and profile turning



Internal thread turning



Axial grooving

Coatings

TiAlN+

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

CWX500

- ▲ Carbide, TiAlN-coated
- ▲ The universal carbide grade for almost all materials

TiN

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

DXP77S

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

TiAlN

- ▲ TiAlN multilayer 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

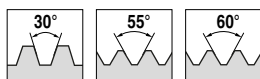
G

Whitworth thread

Tr

Metric ISO trapezoidal fine thread

Thread flank angle



Cooling



with thro' coolant