

UP **2** DATE

5-AXIS MACHINING TO PERFECTION

X5G-Z

... AND SOME MORE PRODUCTS

- ▲ Hydraulic expansion chucks with VDI and Straight shank connection
- ▲ Vibration dampened boring bar with interchangeable head system for turning
- ▲ Solid carbide high-performance reamer Fullmax in short version

TEAM CUTTING TOOLS



CUTTING SOLUTIONS BY
CERATIZIT



KOMET



KLENK

CERATIZIT is a high-technology engineering group specialised in cutting tools and hard material solutions.

Tooling the Future

www.ceratizit.com

Welcome!



Placing your order is quick and easy

Customer Service Centre

Freephone Number

UK: 0800 073 2073

Ireland: 1800 93 22 55

Freefax Number

UK: 0800 073 2074

E-Mail

info.uk@ceratizit.com



It couldn't be easier

Ordering via the Online Shop

<http://cuttingtools.ceratizit.com>



On-site technical support

Your Local Technical Sales Engineer

Your customer number

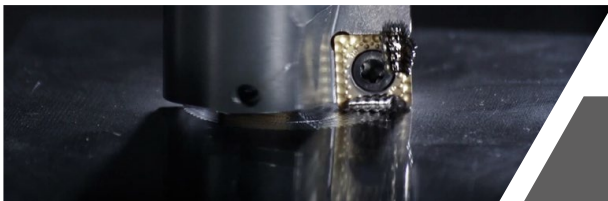
UNITED. EXPERIENCED. METAL CUTTING.

The Team Cutting Tools from the CERATIZIT Group.



**SPECIALIST FOR INDEXABLE INSERT TOOLS
FOR TURNING, MILLING AND GROOVING**

The product brand CERATIZIT stands for high-quality indexable insert tools. The products are characterized by their high quality and contain the DNA of many years of experience in the development and production of carbide tools.



**THE QUALITY LABEL FOR
EFFICIENT BORE PRODUCTION**

High-precision drilling, reaming, countersinking and boring is a matter of expertise: efficient tooling solutions for drilling and mechatronic tools are therefore part of the KOMET brand name.



**EXPERTS FOR ROTATING TOOLS,
TOOL HOLDERS AND CLAMPING SOLUTIONS**

WNT is synonymous with product diversity: solid carbide and HSS rotating tools, tool holders and efficient workholding solutions are all part of this brand.



CUTTING TOOLS FOR THE AEROSPACE INDUSTRY

Solid carbide drills specially developed for the aerospace industry bear the product name KLENK. The highly specialized products are specifically designed for machining lightweight materials.

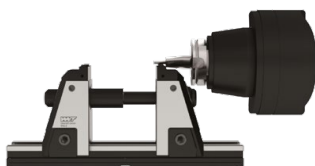
X5G-Z

5-axis machining
to perfection



X5G-Z, the 5-axis vice for demanding applications!

All the advantages that ensure optimum and simple 5- and 6-sided machining combined in a single clamping device.



Optimum accessibility from all sides

Experience real 5-axis machining!



Fast jaw changeover without tools

Reduces setup times significantly.

Comprehensive jaw system with 14 quick-change jaws
in widths of 40 mm / 65 mm / 80 mm / 125 mm



Spindle quick change system

Fast conversion without tools.

Maximum ease of handling and integrated pull-down action for 5- and 6-sided machining

Simple to extend up to a clamping range of 687 mm

Fully encapsulated, mechanical spindle

130 mm basic clamping stroke without the need for conversion

Quick adjustment of clamping range

Optimised against vibrations

Integrated, internal elastomer damping

5- and 6-sided machining possible

- ▲ Integrated pull-down action
- ▲ No force transmission across the seating surface



Further information on the product can be found on → Page 36–40



cuttingtools.ceratizit.com/gb/en/x5gz

Fullmax – short

Ideal for high-speed machining



CERATIZIT now also offers the universal solid carbide high-performance Fullmax reamer in a short version. The Fullmax range has been making an impression for some time with maximum cutting performance in a wide range of materials – including in hardened steels up to 62 HRC. The newly developed short version of the UNI Fullmax reamer is even more stable to use, allowing for higher cutting speeds. Furthermore, it benefits from a long service life and, for small bore depths, is even more attractive in terms of price than the long version.

Advantage/benefit

- ▲ Short overhang length for maximum stability and thus optimum results
- ▲ Maximum machining performance for maximum efficiency
- ▲ Minimal costs per hole thanks to high cutting values and the longest service life
- ▲ Maximum performance thanks to the special cutting edge geometry and high-performance coating
- ▲ Universal application in a wide range of materials
- ▲ Ex-stock availability in H7 and 1/100 mm dimensions
- ▲ In a straight and left-hand helix version for blind and through holes
- ▲ With 4, 6, and now, as of a diameter of 15.97 mm, 8 cutting edges





Optimum results despite time saved

Increase in cutting data for the material group steel (P) and cast iron (K)



13 %

faster cutting speed (v_c)

25 %

increased feed (f)

20 %

time savings



Further information on the product
can be found on → page 16–23

Vibration-damped boring bar

in a variable exchangeable head system for turning



Stable processes and smooth surfaces thanks to vibration-damped boring bars

Advantage/ benefit

- ▲ The boring bar concept with exchangeable cutting heads works perfectly with the vibration-damped boring bars especially for operations with long overhangs and a tendency to vibrate
- ▲ **Modular combination options**
High variability, flexibility and versatility
- ▲ **Tool wear occurs primarily on the exchangeable cutting head, a holder therefore lasts longer**
Costs are minimised
- ▲ **All exchangeable cutting heads are equipped with high-performance cooling**
Highly efficient cooling of the cutting edges, resulting in a longer tool life

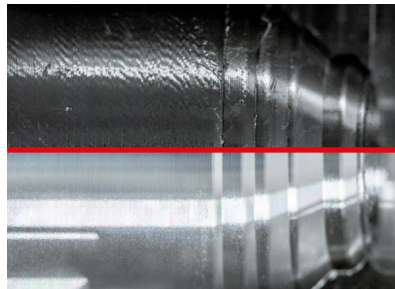


Increased productivity

Thanks to vibration-damped boring bars, vibrations are suppressed
→ this means cutting data can be significantly improved

- ▲ Improved surface quality
- ▲ Improved process security
- ▲ Improved chip clearance
- ▲ Greater tool service life
- ▲ Protection of the machine spindle

→ Reduced costs per component plus better quality!



Result with conventional boring bar

Result with vibration-damped boring bar

Variable system for a wealth of options



Hydraulic chuck

with VDI and cylindrical
shank connection



Master tool changes quickly and precisely – with hydro expansion technology!

CERATIZIT is extending its portfolio of clamping devices with a hydraulic chuck which brings the benefits of hydro expansion technology to turning/milling centres. It ensures highly accurate clamping of boring bars with a h7 shank tolerance and a repeatability of 3 µm. Tools are changed in a matter of seconds and this can be performed directly in the machine without auxiliary equipment.



cuttingtools.ceratzit.com/gb/en/hydraulic-chuck

Best connections, quick change

The hydraulic chuck from the WNT Performance series is available, on the one hand, with VDI interface as a complete solution for direct fitting in the turning machine turret with thro' coolant supply. The hydraulic chuck comes in a diameter of 20 mm for the VDI 30 and 40 interfaces as standard.

A cylindrical shank version is also available for turning/milling centres with thro' coolant. This comes in 16 and 20 mm diameters for a 32 mm cylinder diameter as well as in increments of 16, 20 and 25 mm for a 40 mm cylinder diameter.

Say goodbye to tedious fine adjustment: Thanks to hydraulic chucks, no auxiliary equipment is required for tool changes, all you need is a hexagon key to carry out the changeover in the machine – in a matter of seconds!

Features



Clamping with hydraulic sleeve

Screw for securing the tool

One screw for locking the boring bar

Available as

- ▲ VDI 30/40
- ▲ Cylindrical shank 32/40

Reducing bushing for flexible clamping diameter



Further information on the product can be found on → [page 34+35](#)



KOMflex

Combined system with precision adjustment head and BLUM measuring probe technology

Unique, automated compensation system

In conjunction with the BLUM measuring probe, the KOMflex enables automated diameter correction for precision holes in unmanned closed-loop operation. The KOMflex precision adjustment head communicates with the BLUM wireless machine equipment.

Compensation of cutting edge wear, e.g. in the case of steel

System usage

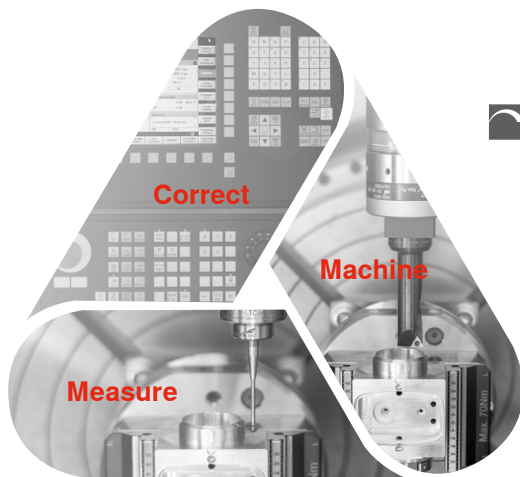
Temperature compensation, e.g. in the case of aluminium

Advantages Benefits

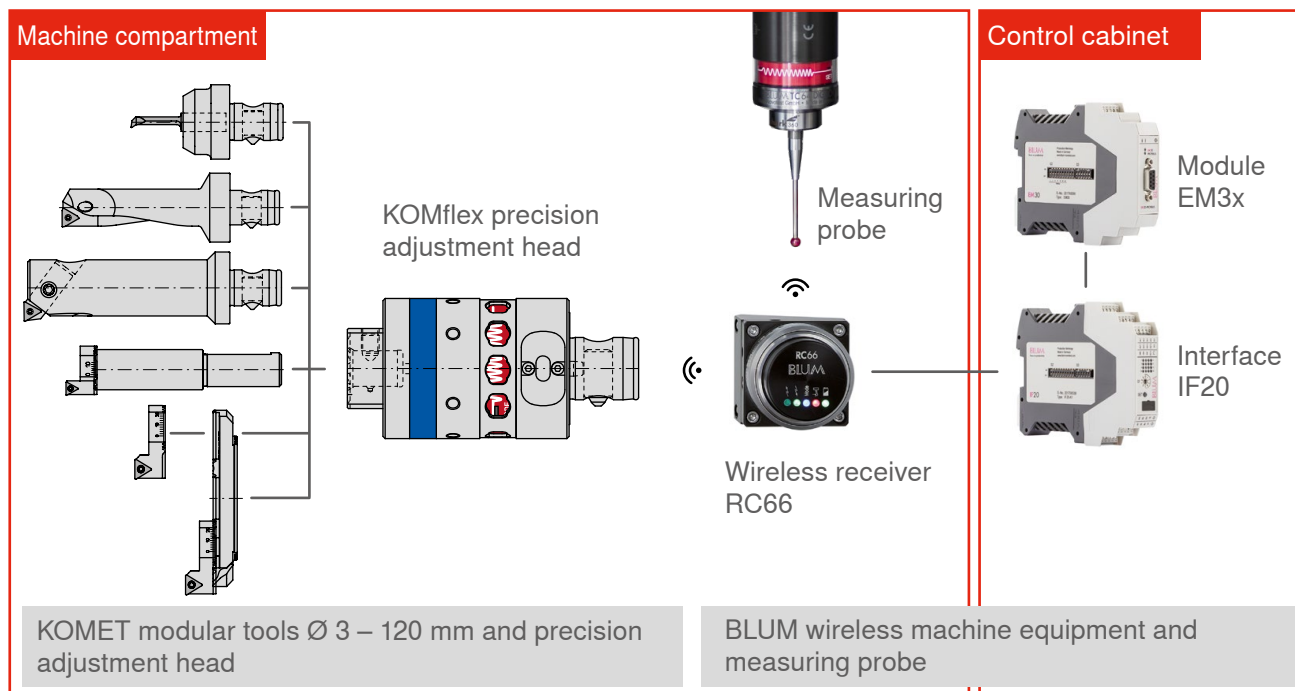
- ▲ **Automated production of precision holes**
Thanks to closed-loop operation, the KOMflex guarantees process-secure machining, even in the case of unmanned operations.
- ▲ **Significant time savings**
Thanks to automated measurement with the BLUM measuring probe and correction with the precision adjustment head.
- ▲ **Ensures the defined quality requirements for the workpiece are met**
Thanks to accurate movement of the precision adjustment head for μm -precise machining with closed-loop operation.

Technical data

Adjustment accuracy	1 μm in radius
Adjustment range	$\pm 0,25 \text{ mm}$
Boring range	$\varnothing 1 - 120 \text{ mm}$
Outer diameter	63 mm
Height	100 mm
Max. RPM	8,000 rpm in centre position
Combined tool interface	ABS 32 / dia. 16 mm / teeth
Interface	ABS 50



**Combines the production steps
from machining to quality
assurance in a closed-loop
system**



The ongoing automation of our production processes will enable us to continue to manufacture our products cost-effectively in future. The KOMflex is the ideal solution for closed-loop operation. This is where we need innovative, forward-thinking partners like CERATIZIT.

Michael Renz, Head of the Actuating Tools product line at KOMET Deutschland GmbH (left),
Alexander Schweiher, Senior Manager at Schweiher Werkzeugbau GmbH & Co. KG (right)

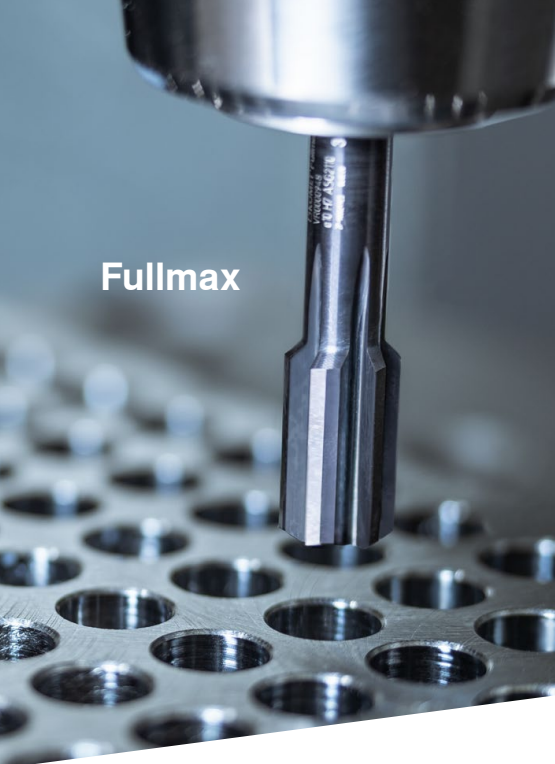




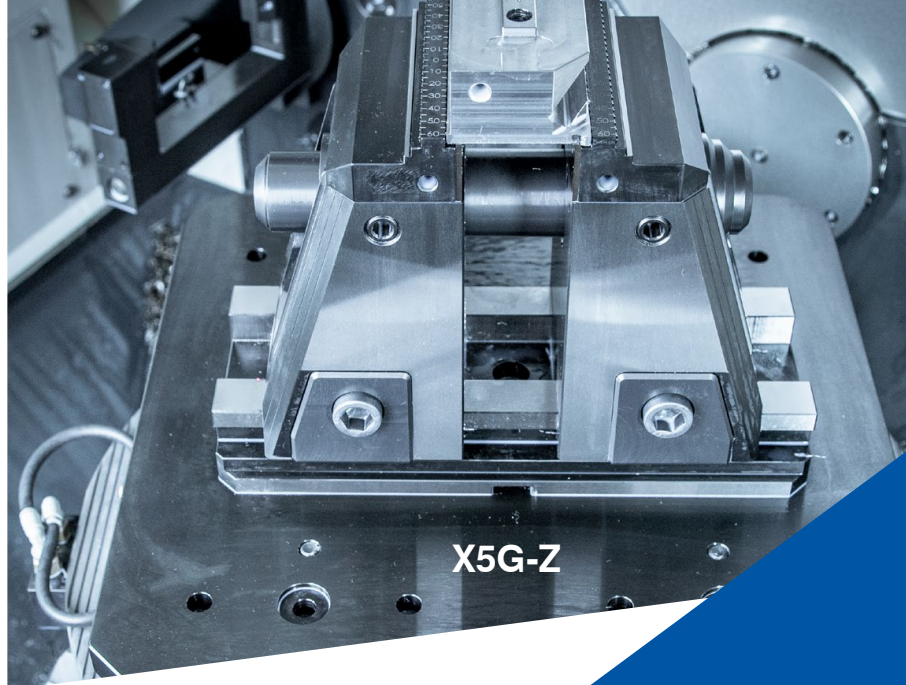
Exchangeable head system



Hydraulic chuck



Fullmax



X5G-Z

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Turning Tools

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Adapters

34+35 Hydraulic chucks with VDI and cylindrical shank connection

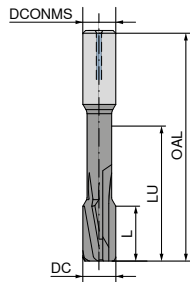


Vices

36–40 X5G-Z – mechanical 5-axis vice

Fullmax – High-performance machine reamers, short

- ▲ extremely irregular pitch
- ▲ designed for high-speed machining
- ▲ specialised geometries and coatings



DBG-U



51P.57

HA

Left Hand Helix

◁ 30°

ASG2210
Solid carbide
Through hole

NEW U4

Article no.

40 483 ...

£

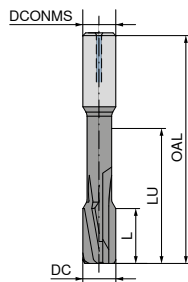
DC _{H7}	OAL	L	LU	DCONMS _{H6}	ZEFP	
mm	mm	mm	mm	mm		
4	50	12	22	4	4	96.73 04000
5	64	12	28	6	4	98.18 05000
6	64	12	28	6	4	100.36 06000
7	70	16	34	8	6	104.73 07000
8	70	16	34	8	6	104.73 08000
9	80	16	40	10	6	148.00 09000
10	80	16	40	10	6	148.00 10000
11	90	20	45	12	6	196.36 11000
12	90	20	45	12	6	196.36 12000
16	93	20	45	16	8	291.18 16000

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

→ v_c Page 23

Fullmax – High-performance machine reamers, short

- ▲ extremely irregular pitch
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- ▲ tolerance: Ø 2,96 – 5,96 mm = +0,004 mm
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DBG-U



51P.57

HA

Left Hand Helix

30°

ASG2210

Solid carbide

Through hole

NEW U4

Article no.

40 489 ...

£

DC +0,004/+0,005	OAL	L	LU	DCONMS _{h6}	ZEFP	
mm	mm	mm	mm	mm		
2,96 - 3,96	50	12	22	4	4	120.91 xxxxx ¹⁾
3,97	50	12	22	4	4	102.55 03970
3,98	50	12	22	4	4	102.55 03980
3,99	50	12	22	4	4	102.55 03990
4,00	50	12	22	4	4	102.55 04000
4,01	50	12	22	4	4	102.55 04010
4,02	50	12	22	4	4	102.55 04020
4,03	50	12	22	4	4	102.55 04030
4,04 - 4,05	50	12	22	4	4	120.91 xxxxx ¹⁾
4,06 - 4,96	64	12	28	6	4	122.73 xxxxx ¹⁾
4,97	64	12	28	6	4	104.73 04970
4,98	64	12	28	6	4	104.73 04980
4,99	64	12	28	6	4	104.73 04990
5,00	64	12	28	6	4	104.73 05000
5,01	64	12	28	6	4	104.73 05010
5,02	64	12	28	6	4	104.73 05020
5,03	64	12	28	6	4	104.73 05030
5,04 - 5,96	64	12	28	6	4	122.73 xxxxx ¹⁾
5,97	64	12	28	6	4	105.55 05970
5,98	64	12	28	6	4	105.55 05980
5,99	64	12	28	6	4	105.55 05990
6,00	64	12	28	6	4	105.55 06000
6,01	64	12	28	6	4	105.55 06010
6,02	64	12	28	6	4	105.55 06020
6,03	64	12	28	6	4	105.55 06030
6,04 - 6,05	64	12	28	6	4	124.55 xxxxx ¹⁾
6,06 - 7,96	70	16	34	8	6	129.18 xxxxx ¹⁾
7,97	70	16	34	8	6	110.64 07970
7,98	70	16	34	8	6	110.64 07980
7,99	70	16	34	8	6	110.64 07990
8,00	70	16	34	8	6	110.64 08000
8,01	70	16	34	8	6	110.64 08010

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

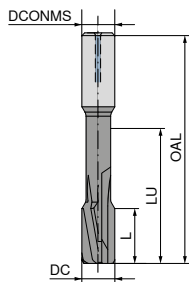
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DBG-U



51P.57

HA

Left Hand Helix

 $\angle 30^\circ$

ASG2210

Solid carbide

Through hole

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£

DC $+0,004/+0,005$	OAL	L	LU	DCONMS h_6	ZEFP	
mm	mm	mm	mm	mm		
8,02	70	16	34	8	6	110.64 08020
8,03	70	16	34	8	6	110.64 08030
8,04 - 8,05	70	16	34	8	6	129.18 xxxxx ¹⁾
8,06 - 9,96	80	16	40	10	6	160.36 xxxxx ¹⁾
9,97	80	16	40	10	6	157.55 09970
9,98	80	16	40	10	6	157.55 09980
9,99	80	16	40	10	6	157.55 09990
10,00	80	16	40	10	6	157.55 10000
10,01	80	16	40	10	6	157.55 10010
10,02	80	16	40	10	6	157.55 10020
10,03	80	16	40	10	6	157.55 10030
10,04 - 10,05	80	16	40	10	6	160.36 xxxxx ¹⁾
10,06 - 11,96	90	20	45	12	6	241.82 xxxxx ¹⁾
11,97	90	20	45	12	6	209.55 11970
11,98	90	20	45	12	6	209.55 11980
11,99	90	20	45	12	6	209.55 11990
12,00	90	20	45	12	6	209.55 12000
12,01	90	20	45	12	6	209.55 12010
12,02	90	20	45	12	6	209.55 12020
12,03	90	20	45	12	6	209.55 12030
12,04 - 12,05	90	20	45	12	6	241.82 xxxxx ¹⁾
12,06 - 14,05	90	20	45	14	6	282.09 xxxxx ¹⁾
14,06 - 15,96	93	20	48	16	6	321.55 xxxxx ¹⁾
15,97 - 16,05	93	20	48	16	8	363.09 xxxxx ¹⁾
16,06 - 18,05	100	20	52	18	8	386.73 xxxxx ¹⁾
18,06 - 20,05	102	20	52	20	8	410.64 xxxxx ¹⁾

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

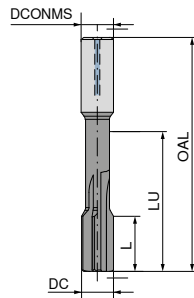
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→ v_c Page 23

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Fullmax – High-performance machine reamers, short

- ▲ extremely irregular pitch
- ▲ designed for high-speed machining
- ▲ specialised geometries and coatings



DBG-U



51M.57
HA straight flute
60°
ASG2110
Solid carbide
Blind hole

DC _{H7}	OAL	L	LU	DCNMS _{h6}	ZEFP		
mm	mm	mm	mm	mm			
4	50	12	22	4	4		
5	64	12	28	6	4		
6	64	12	28	6	4		
7	70	16	34	8	6		
8	70	16	34	8	6		
9	80	16	40	10	6		
10	80	16	40	10	6		
11	90	20	45	12	6		
12	90	20	45	12	6		
16	93	20	45	16	8		

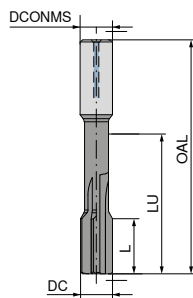
NEW	U4
Article no.	
40 481 ...	
£	
80.59	04000
82.08	05000
85.75	06000
90.11	07000
90.11	08000
128.91	09000
128.91	10000
171.45	11000
171.45	12000
260.64	16000

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

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DBG-U



51M.57

HA

straight flute

 $\angle 60^\circ$

ASG2110

Solid carbide

Blind hole

NEW U4

Article no.
40 488 ...

£

DC +0,004/+0,005	OAL	L	LU	DCONMS _{h6}	ZEFP		
mm	mm	mm	mm	mm			
2,96 - 3,96	50	12	22	4	4	100.73	xxxxx ¹⁾
3,97	50	12	22	4	4	86.45	03970
3,98	50	12	22	4	4	86.45	03980
3,99	50	12	22	4	4	86.45	03990
4,00	50	12	22	4	4	86.45	04000
4,01	50	12	22	4	4	86.45	04010
4,02	50	12	22	4	4	86.45	04020
4,03	50	12	22	4	4	86.45	04030
4,04 - 4,05	50	12	22	4	4	100.73	xxxxx ¹⁾
4,06 - 4,96	64	12	28	6	4	103.55	xxxxx ¹⁾
4,97	64	12	28	6	4	88.63	04970
4,98	64	12	28	6	4	88.63	04980
4,99	64	12	28	6	4	88.63	04990
5,00	64	12	28	6	4	88.63	05000
5,01	64	12	28	6	4	88.63	05010
5,02	64	12	28	6	4	88.63	05020
5,03	64	12	28	6	4	88.63	05030
5,04 - 5,96	64	12	28	6	4	103.55	xxxxx ¹⁾
5,97	64	12	28	6	4	90.11	05970
5,98	64	12	28	6	4	90.11	05980
5,99	64	12	28	6	4	90.11	05990
6,00	64	12	28	6	4	90.11	06000
6,01	64	12	28	6	4	90.11	06010
6,02	64	12	28	6	4	90.11	06020
6,03	64	12	28	6	4	90.11	06030
6,04 - 6,05	64	12	28	6	4	104.45	xxxxx ¹⁾
6,06 - 7,96	70	16	34	8	6	111.73	xxxxx ¹⁾
7,97	70	16	34	8	6	94.55	07970
7,98	70	16	34	8	6	94.55	07980
7,99	70	16	34	8	6	94.55	07990
8,00	70	16	34	8	6	94.55	08000
8,01	70	16	34	8	6	94.55	08010

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

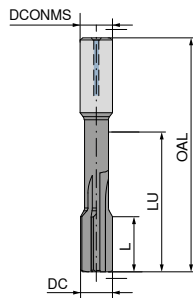
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DBG-U



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straight flute

 $\angle 60^\circ$

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Solid carbide

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NEW U4

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£

DC +0,004/+0,005	OAL	L	LU	DCONMS _{h6}	ZEFP	
mm	mm	mm	mm	mm		
8,02	70	16	34	8	6	94.55 08020
8,03	70	16	34	8	6	94.55 08030
8,04 - 8,05	70	16	34	8	6	111.73 xxxxx ¹⁾
8,06 - 9,96	80	16	40	10	6	142.00 xxxxx ¹⁾
9,97	80	16	40	10	6	137.73 09970
9,98	80	16	40	10	6	137.73 09980
9,99	80	16	40	10	6	137.73 09990
10,00	80	16	40	10	6	137.73 10000
10,01	80	16	40	10	6	137.73 10010
10,02	80	16	40	10	6	137.73 10020
10,03	80	16	40	10	6	137.73 10030
10,04 - 10,05	80	16	40	10	6	142.00 xxxxx ¹⁾
10,06 - 11,96	90	20	45	12	6	215.27 xxxxx ¹⁾
11,97	90	20	45	12	6	183.91 11970
11,98	90	20	45	12	6	183.91 11980
11,99	90	20	45	12	6	183.91 11990
12,00	90	20	45	12	6	183.91 12000
12,01	90	20	45	12	6	183.91 12010
12,02	90	20	45	12	6	183.91 12020
12,03	90	20	45	12	6	183.91 12030
12,04 - 12,05	90	20	45	12	6	215.27 xxxxx ¹⁾
12,06 - 14,05	90	20	45	14	6	250.09 xxxxx ¹⁾
14,06 - 15,96	93	20	48	16	6	289.45 xxxxx ¹⁾
15,97 - 16,05	93	20	48	16	8	326.73 xxxxx ¹⁾
16,06 - 18,05	100	20	52	18	8	346.55 xxxxx ¹⁾
18,06 - 20,05	102	20	52	20	8	375.45 xxxxx ¹⁾

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

1) Not available ex stock, articles are non-returnable and cannot be exchanged / Delivery time 25 working days

→ v_c Page 23

This tool concept covers countless tolerances. For the tolerances covered, please see the table in the main catalogue, Chapter 4 → page 75.
For xxxxx please specify the desired diameter when ordering (e.g. $\varnothing 8.82 \text{ mm}$ → Article no. 40 488 08820).

Material examples referring to the cutting data tables

	Index	Material	Strength N/mm ² / HB / HRC	Material number	Material designation	Material number	Material designation	Material number	Material designation
P	1.1	General construction steel	< 800 N/mm ²	1.0402	EN3B				
	1.2	Free cutting steel	< 800 N/mm ²	1.0711	EN1A				
	1.3	Hardened steel, non alloyed	< 800 N/mm ²	1.0401	EN32C				
	1.4	Alloyed hardened steel	< 1000 N/mm ²	1.7325	25 CD4				
	1.5	Tempering steel, unalloyed	< 850 N/mm ²	1.5752	EN36	1.0535	EN9		
	1.6	Tempering steel, unalloyed	< 1000 N/mm ²	1.6582	EN24				
	1.7	Tempering steel, alloyed	< 800 N/mm ²	1.7225	EN19				
	1.8	Tempering steel, alloyed	< 1300 N/mm ²	1.8515	EN40B				
	1.9	Steel castings	< 850 N/mm ²	0.9650	G-X 260 Cr 27	1.6750	GS-20 NiCrMo 3.7	1.6582	GS-34 CrNiMo 6
	1.10	Nitriding steel	< 1000 N/mm ²	1.8509	EN41B				
	1.11	Nitriding steel	< 1200 N/mm ²	1.1186	EN8	1.1160	EN14A		
	1.12	Roller bearing steel	< 1200 N/mm ²	1.3505	534A99				
	1.13	Spring steel	< 1200 N/mm ²		EN45		EN47		EN43
	1.14	High-speed steel	< 1300 N/mm ²	1.3343	M2	1.3249	M34		
	1.15	Cold working tool steel	< 1300 N/mm ²	1.2379	D2	1.2311	P20		
	1.16	Hot working tool steel	< 1300 N/mm ²	1.2344	H13				
M	2.1	Cast steel and sulphured stainless steel	< 850 N/mm ²	1.4581	318				
	2.2	Stainless steel, ferritic	< 750 N/mm ²	1.4000	403				
	2.3	Stainless steel, martensitic	< 900 N/mm ²	1.4057	EN57				
	2.4	Stainless steel, ferritic / martensitic	< 1100 N/mm ²	1.4028	EN56B				
	2.5	Stainless steel, austenitic / ferritic	< 850 N/mm ²	1.4542	17-4PH				
	2.6	Stainless steel, austenitic	< 750 N/mm ²	1.4305	303	1.4401	316	1.4301	304
	2.7	Heat resistant steel	< 1100 N/mm ²	1.4876	Incoloy 800				
K	3.1	Grey cast iron with lamellar graphite	100–350 N/mm ²	0.6015	Grade 150	0.6020	Grade 220	0.6025	Grade 260
	3.2	Grey cast iron with lamellar graphite	300–500 N/mm ²	0.6030	Grade 300	0.6035	Grade 350	0.6040	Grade 400
	3.3	Gray cast iron with spheroidal graphite	300–500 N/mm ²	0.7040	SG 400-12	0.7043	SG 370-17	0.7050	SG 500-7
	3.4	Gray cast iron with spheroidal graphite	500–900 N/mm ²	0.7060	SG 600-3	0.7070	SG 700-2	0.7080	SG 800-2
	3.5	White malleable cast iron	270–450 N/mm ²	0.8035	GTW-35	0.8045	GTW-45		
	3.6	White malleable cast iron	500–650 N/mm ²	0.8055	GTW-55	0.8065	GTW-65		
	3.7	Black malleable cast iron	300–450 N/mm ²	0.8135	GTS-35	0.8145	GTS-45		
	3.8	Black malleable cast iron	500–800 N/mm ²	0.8155	GTS-55	0.8170	GTS-70		
N	4.1	Aluminium (non alloyed, low alloyed)	< 350 N/mm ²	3.0255	1050 A	3.0275	1070 A	3.0285	1080 A (A8)
	4.2	Aluminium alloys < 0.5 % Si	< 500 N/mm ²	3.1325	2017 A (AU4G)	3.4335	7005 (AZ5G)	3.4365	7075 (AZ5GU)
	4.3	Aluminium alloy 0.5–10 % Si	< 400 N/mm ²	3.2315	A-G S1	3.2373	A-S9 G	3.2151	A-S 6 U4
	4.4	Aluminium alloys 10–15 % Si	< 400 N/mm ²	3.2581	A-S12	3.2583	A-S12 U		
	4.5	Aluminum alloys > 15 % Si	< 400 N/mm ²		A-S18		A-S17 U4		
	4.6	Copper (non alloyed, low alloyed)	< 350 N/mm ²	2.0040	Cu-c1	2.0060	Cu-a1	2.0090	Cu-b1
	4.7	Copper wrought alloys	< 700 N/mm ²	2.1247	Cub2 (Beryllium Copper)	2.0855	CuN2S (Nickel Copper)	2.1310	CU-Fe2P
	4.8	Special copper alloys	< 200 HB	2.0916	Cu-A5	2.1525	Cu-S3 M		Ampco 8 (Cu-A6Fe2)
	4.9	Special copper alloys	< 300 HB	2.0978	Cu-A11 Fe5 Ni5		Ampco 18 (Cu-A10 Fe3)		
	4.10	Special copper alloys	> 300 HB	2.1247	Cu Be2		Ampco M4		
	4.11	Short-chipping brass, bronze, red bronze	< 600 N/mm ²	2.0331	Cu Zn36 Pb1,5	2.0380	Cu Zn39 Pb2 (Ms 56)	2.0410	Cu Zn44 Pb2
	4.12	Long-chipping brass	< 600 N/mm ²	2.0335	Cu Zn 36 (Ms63)	2.1293	Cu Cr1 Zr		
	4.13	Thermoplastics		PE	PVC	PS	Polystyrene		Plexiglas
	4.14	Duroplastics		PF	Bakelite		Pertinax		
	4.15	Fibre-reinforced plastics			Carbon Fibre		Fibreglass		Aramid Fibre (Kevlar)
	4.16	Magnesium and magnesium alloys	< 850 N/mm ²	3.5812	Mg A7 Z1	3.5662	Mg A9	3.5105	Mg Tr3 Z2 Zn 1
	4.17	Graphite			R8500X		R8650		Technograph 15
	4.18	Tungsten and tungsten alloys			W-Ni Fe (Densimet)		W- Ni Cu (Inermet)		Denal
	4.19	Molybdenum and molybdenum alloys			TZM		MHQ		Mo W
S	5.1	Pure nickel		2.4066	Ni99 (Nickel 200)	2.4068	Lc Ni99 (Nickel 201)		
	5.2	Nickel alloys		1.3912	Fe-Ni36 (Invar)	1.3917	Fe-Ni42 (N42)	1.3922	Fe-Ni48 (N48)
	5.3	Nickel alloys	< 850 N/mm ²	2.4375	Ni Cu30 Al (Monel K500)	2.4360	Ni Cu30Fe (Monel 400)	2.4668	
	5.4	Nickel molybdenum alloys		2.4600	Ni Mo30Cr2 (Hastelloy B4)	2.4617	Ni Mo28 (Hastelloy B2)	2.4819	Ni Mo16Cr16 Hastell. C276
	5.5	Nickel-chromium alloys	< 1300 N/mm ²	2.4951	Ni Cr20TiAl (Nimonic 80A)	2.4858	Ni Cr21Mo (Inconel 825)	2.4856	Ni Cr22Mo9Nb Inconel 625
	5.6	Cobalt Chrome Alloys	< 1300 N/mm ²	2.4964	Co Cr20 W15 Ni10		Co Cr20 Ni16 Mo7		Co Cr28 Mo 6
	5.7	Heat resistant alloys	< 1300 N/mm ²	1.4718	Z45 C S 9-3	1.4747	Z80 CSN 20-02	1.4845	Z12 CN 25-20
	5.8	Nickel-cobalt-chromium alloys	< 1400 N/mm ²	2.4851	Ni Cr23Fe (Inconel 601)	2.4668	Ni Cr19NbMo (Inconel 718)	2.4602	Ni Cr21Mo14 Hastelloy C22
	5.9	Pure titanium	< 900 N/mm ²	3.7025	T35 (Titanium Grade 1)	3.7034	T40 (Titanium Grade 2)	3.7064	T60 (Titanium Grade 4)
	5.10	Titanium alloys	< 700 N/mm ²		T-A6-Nb7 (367)		T-A5-Sn2-Mo4-Cr4 (Ti17)		T-A3-V2,5 (Gr18)
	5.11	Titanium alloys	< 1200 N/mm ²	3.7165	T-A6-V4 (Ta6V)		T-A4-3V-Mo2-Fe2 (SP700)		T-A5-Sn1-Zr1-V1-Mo (Gr32)
H	6.1		< 45 HRC						
	6.2		46–55 HRC						
	6.3	Tempered steel	56–60 HRC						
	6.4		61–65 HRC						
	6.5		65–70 HRC						

Cutting data standard values for Fullmax, short

Type UNI		Ø 2,97–4,05		Ø 4,06–6,05		Ø 6,06–7,55		Ø 7,56–12,05		Ø 12,06–15,96		Ø 15,97–20,05	
Number of flutes		4		4		6		6		6		8	
Index	v_c m/min	f mm/rev.	Reaming allowance Ø mm	f mm/rev.	Reaming allowance Ø mm	f mm/rev.	Reaming allowance Ø mm	f mm/rev.	Reaming allowance Ø mm	f mm/rev.	Reaming allowance Ø mm	f mm/rev.	Reaming allowance Ø mm
1.1	200–250	0,65–0,80	0,10–0,20	0,75–0,90	0,10–0,20	1,40–1,60	0,20	1,65–1,80	0,20	1,65–1,90	0,20–0,30	2,56–3,00	0,30
1.2	200–250	0,65–0,80	0,10–0,20	0,75–0,90	0,10–0,20	1,40–1,60	0,20	1,65–1,80	0,20	1,65–1,90	0,20–0,30	2,56–3,00	0,30
1.3	200–250	0,65–0,80	0,10–0,20	0,75–0,90	0,10–0,20	1,40–1,60	0,20	1,65–1,80	0,20	1,65–1,90	0,20–0,30	2,56–3,00	0,30
1.4	200–250	0,65–0,80	0,10–0,20	0,75–0,90	0,10–0,20	1,40–1,60	0,20	1,65–1,80	0,20	1,65–1,90	0,20–0,30	2,56–3,00	0,30
1.5	200–250	0,65–0,80	0,10–0,20	0,75–0,90	0,10–0,20	1,40–1,60	0,20	1,65–1,80	0,20	1,65–1,90	0,20–0,30	2,56–3,00	0,30
1.6	200–250	0,65–0,80	0,10–0,20	0,75–0,90	0,10–0,20	1,40–1,60	0,20	1,65–1,80	0,20	1,65–1,90	0,20–0,30	2,56–3,00	0,30
1.7	200–250	0,65–0,80	0,10–0,20	0,75–0,90	0,10–0,20	1,40–1,60	0,20	1,65–1,80	0,20	1,65–1,90	0,20–0,30	2,56–3,00	0,30
1.8	90–130	0,45–0,50	0,10–0,20	0,45–0,60	0,10–0,20	1,00–1,10	0,20	1,20–1,30	0,20	1,20–1,40	0,20–0,30	1,90–2,10	0,30
1.9	90–130	0,45–0,50	0,10–0,20	0,45–0,60	0,10–0,20	1,00–1,10	0,20	1,20–1,30	0,20	1,20–1,40	0,20–0,30	1,90–2,10	0,30
1.10	90–130	0,45–0,50	0,10–0,20	0,45–0,60	0,10–0,20	1,00–1,10	0,20	1,20–1,30	0,20	1,20–1,40	0,20–0,30	1,90–2,10	0,30
1.11	90–130	0,45–0,50	0,10–0,20	0,45–0,60	0,10–0,20	1,00–1,10	0,20	1,20–1,30	0,20	1,20–1,40	0,20–0,30	1,90–2,10	0,30
1.12	65–110	0,45–0,50	0,10–0,20	0,45–0,60	0,10–0,20	1,00–1,10	0,20	1,20–1,30	0,20	1,20–1,40	0,20–0,30	1,90–2,10	0,30
1.13	65–110	0,45–0,50	0,10–0,20	0,45–0,60	0,10–0,20	1,00–1,10	0,20	1,20–1,30	0,20	1,20–1,40	0,20–0,30	1,90–2,10	0,30
1.14													
1.15	45–65	0,45–0,50	0,10–0,20	0,45–0,60	0,10–0,20	1,00–1,10	0,20	1,20–1,30	0,20	1,20–1,40	0,20–0,30	1,90–2,10	0,30
1.16	45–65	0,45–0,50	0,10–0,20	0,45–0,60	0,10–0,20	1,00–1,10	0,20	1,20–1,30	0,20	1,20–1,40	0,20–0,30	1,90–2,10	0,30
2.1	40–80	0,40–0,60	0,10–0,20	0,50–0,70	0,10–0,20	1,00–1,30	0,20	1,10–1,40	0,20	1,20–1,50	0,20–0,30	1,90–2,25	0,30
2.2	40–80	0,40–0,60	0,10–0,20	0,50–0,70	0,10–0,20	1,00–1,30	0,20	1,10–1,40	0,20	1,20–1,50	0,20–0,30	1,90–2,25	0,30
2.3	40–80	0,40–0,60	0,10–0,20	0,50–0,70	0,10–0,20	1,00–1,30	0,20	1,10–1,40	0,20	1,20–1,50	0,20–0,30	1,90–2,25	0,30
2.4	40–60	0,40–0,60	0,10–0,20	0,50–0,70	0,10–0,20	1,00–1,30	0,20	1,10–1,40	0,20	1,20–1,50	0,20–0,30	1,90–2,25	0,30
2.5	40–60	0,40–0,60	0,10–0,20	0,50–0,70	0,10–0,20	1,00–1,30	0,20	1,10–1,40	0,20	1,20–1,50	0,20–0,30	1,90–2,25	0,30
2.6	40–60	0,40–0,60	0,10–0,20	0,50–0,70	0,10–0,20	1,00–1,30	0,20	1,10–1,40	0,20	1,20–1,50	0,20–0,30	1,90–2,25	0,30
2.7	40–60	0,40–0,60	0,10–0,20	0,50–0,70	0,10–0,20	1,00–1,30	0,20	1,10–1,40	0,20	1,20–1,50	0,20–0,30	1,90–2,25	0,30
3.1	200–250	0,80–1,00	0,10–0,20	0,90–1,20	0,10–0,20	1,50–1,90	0,20	1,50–1,90	0,20	1,80–2,30	0,20–0,30	2,50–2,90	0,30
3.2	200–250	0,80–1,00	0,10–0,20	0,90–1,20	0,10–0,20	1,50–1,90	0,20	1,50–1,90	0,20	1,80–2,30	0,20–0,30	2,50–2,90	0,30
3.3	225–300	0,80–1,00	0,10–0,20	0,90–1,20	0,10–0,20	1,50–1,90	0,20	1,50–1,90	0,20	1,80–2,30	0,20–0,30	2,50–2,90	0,30
3.4	120–150	0,60–0,90	0,10–0,20	0,70–1,00	0,10–0,20	1,20–1,60	0,20	1,20–1,60	0,20	1,50–1,90	0,20–0,30	2,00–2,40	0,30
3.5	225–300	0,80–1,00	0,10–0,20	0,90–1,20	0,10–0,20	1,50–1,90	0,20	1,50–1,90	0,20	1,80–2,30	0,20–0,30	2,00–2,40	0,30
3.6	225–300	0,80–1,00	0,10–0,20	0,90–1,20	0,10–0,20	1,50–1,90	0,20	1,50–1,90	0,20	1,80–2,30	0,20–0,30	2,00–2,40	0,30
3.7	120–150	0,60–0,90	0,10–0,20	0,70–1,00	0,10–0,20	1,20–1,60	0,20	1,20–1,60	0,20	1,50–1,90	0,20–0,30	2,00–2,40	0,30
3.8	120–150	0,60–0,90	0,10–0,20	0,70–1,00	0,10–0,20	1,20–1,60	0,20	1,20–1,60	0,20	1,50–1,90	0,20–0,30	2,00–2,40	0,30
4.1													
4.2													
4.3													
4.4													
4.5													
4.6													
4.7													
4.8													
4.9													
4.10													
4.11	150–250	0,50–0,80	0,10–0,20	0,70–0,90	0,10–0,20	1,30–1,40	0,20	1,40–1,70	0,20	1,60–1,90	0,20–0,30	2,50–2,90	0,30
4.12	100–150	0,40–0,60	0,10–0,20	0,60–0,80	0,10–0,20	1,00–1,30	0,20	1,20–1,40	0,20	1,30–1,60	0,20–0,30	2,10–2,40	0,30
4.13													
4.14													
4.15													
4.16													
4.17													
4.18													
4.19													
5.1													
5.2													
5.3													
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5.7													
5.4													
5.5													
5.6													
5.7													
6.1	40–60	0,20–0,30	0,10–0,20	0,20–0,30	0,10–0,20	0,40–0,60	0,2	0,50–0,60	0,20	0,50–0,70	0,20	0,80–1,00	0,20
6.2	40–60	0,20–0,30	0,10–0,20	0,20–0,30	0,10–0,20	0,40–0,60	0,2	0,50–0,60	0,20	0,50–0,70	0,20	0,80–1,00	0,20
6.3	30–50	0,20–0,30	0,1	0,20–0,30	0,1	0,40–0,60	0,1	0,50–0,60	0,1	0,50–0,70	0,20	0,80–1,00	0,20
6.4	30–50	0,20–0,30	0,1	0,20–0,30	0,1	0,40–0,60	0,1	0,50–0,60	0,1	0,50–0,70	0,20	0,80–1,00	0,20
6.5													



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

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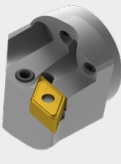
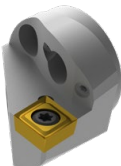
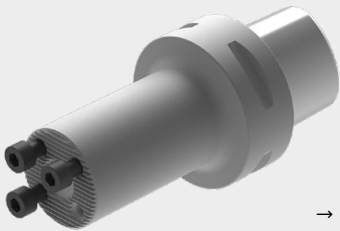
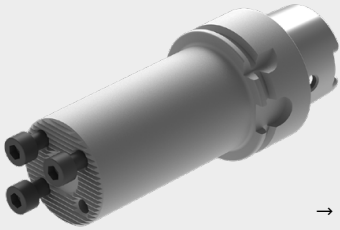
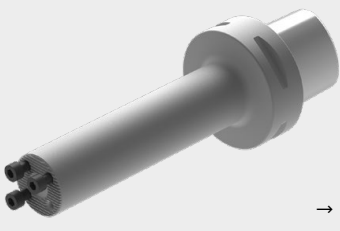
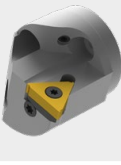
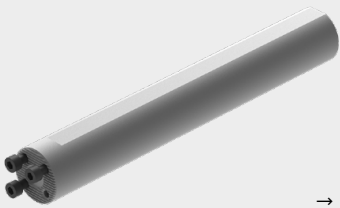
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Basic holder	25-27
Exchangeable heads	28-32

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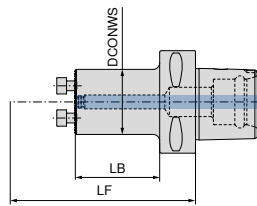
Overview – exchangeable head system

Exchangeable heads	Basic holder
PCLN 95° CN.. 1204 → 28  Suitable indexable inserts can be found in the main catalogue, Chapter 9 – Turning tools → Page 8-15	
PDUN 93° DN.. 1104 DN.. 1506 → 28  Suitable indexable inserts can be found in the main catalogue, Chapter 9 – Turning tools → Page 22-27	
PDQN 107,5° DN.. 1104 → 29  Suitable indexable inserts can be found in the main catalogue, Chapter 9 – Turning tools → Page 22-27	
PWLN 95° WN.. 0804 → 29  Suitable indexable inserts can be found in the main catalogue, Chapter 9 – Turning tools → Page 52-55	
SCLC 95° CC.. 1204 → 30  Suitable indexable inserts can be found in the main catalogue, Chapter 9 – Turning tools → Page 59-70	 PSC 40 PSC 50 PSC 63 → 25
	 HSK-T 40 HSK-T 63 HSK-T 100 → 26
	 PSC 63 vibration-damped → 27
SDUC 93° DC.. 11T3 → 30  Suitable indexable inserts can be found in the main catalogue, Chapter 9 – Turning tools → Page 80-90	
SDQC 107,5° DC.. 11T3 → 31  Suitable indexable inserts can be found in the main catalogue, Chapter 9 – Turning tools → Page 80-90	
For internal thread 16.. → 32  Suitable indexable inserts can be found in the main catalogue, Chapter 8 – Thread turning tools → Page 6-30	 cylindrical → 27

Base holder for exchangeable head system

Scope of supply:

including clamping screws



right / left

NEW Y8

Article no.

84 192 ...

£

Adapter	LF	LB	DCONWS		
	mm	mm	mm		
PSC 40	90	35	25	547.80	02595
PSC 40	110	55	32	547.80	03295
PSC 40	120		40	547.80	04095
PSC 50	90	35	25	616.44	02594
PSC 50	110	55	32	616.44	03294
PSC 50	140	80	40	616.44	04094
PSC 63	100	43	25	672.54	02593
PSC 63	125	68	32	672.54	03293
PSC 63	140	78	40	672.54	04093
PSC 63	160	68	32	672.54	13293
PSC 63	180	118	40	672.54	14093

Y8



Clamping Screw

Spare parts

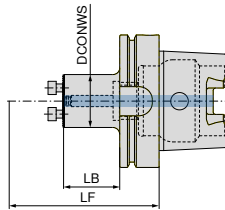
for Article no.

		Article no.
		84 950 ...
		£
84 192 02595	M4X12 (SW3)	3.61 30000
84 192 03295	M5X14 (SW4)	3.61 29900
84 192 04095	M6X16 (SW5)	3.61 29800
84 192 02594	M4X12 (SW3)	3.61 30000
84 192 03294	M5X14 (SW4)	3.61 29900
84 192 04094	M6X16 (SW5)	3.61 29800
84 192 02593	M4X12 (SW3)	3.61 30000
84 192 03293	M5X14 (SW4)	3.61 29900
84 192 04093	M6X16 (SW5)	3.61 29800
84 192 13293	M5X14 (SW4)	3.61 29900
84 192 14093	M6X16 (SW5)	3.61 29800

Base holder for exchangeable head system

Scope of supply:

including clamping screws



right / left

NEW Y8

Article no.

84 193 ...

£

Adapter	LF	LB	DCONWS		
	mm	mm	mm		
HSK-T 40	90	35	25	547.80	02539
HSK-T 40	110	55	25	547.80	12539
HSK-T 40	115	60	32	547.80	03239
HSK-T 40	120		40	547.80	04039
HSK-T 63	105	35	25	672.54	02537
HSK-T 63	125	64	32	672.54	03237
HSK-T 63	140	74	40	672.54	04037
HSK-T 63	160	99	32	672.54	13237
HSK-T 63	180	114	40	672.54	14037
HSK-T 100	180	111	40	887.48	04035

Y8



Clamping Screw

Spare parts

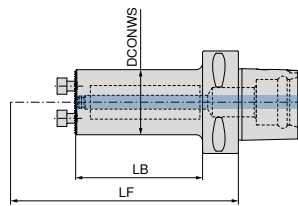
for Article no.

		Article no.	
		84 950 ...	
		£	
84 193 02539	M4X12 (SW3)	3.61	30000
84 193 12539	M4X12 (SW3)	3.61	30000
84 193 03239	M5X14 (SW4)	3.61	29900
84 193 04039	M6X16 (SW5)	3.61	29800
84 193 02537	M4X12 (SW3)	3.61	30000
84 193 03237	M5X14 (SW4)	3.61	29900
84 193 04037	M6X16 (SW5)	3.61	29800
84 193 13237	M5X14 (SW4)	3.61	29900
84 193 14037	M6X16 (SW5)	3.61	29800
84 193 04035	M6X16 (SW5)	3.61	29800

Base holder for exchangeable head system – vibration-damped

Scope of supply:

including clamping screws



right / left

NEW Y8

Article no.

84 195 ...

£

1,892.66

02593

2,091.98

03293

2,292.40

04093

Adapter	LF	LB	DCONWS
	mm	mm	mm
PSC 63	150	93	25
PSC 63	185	128	32
PSC 63	225	163	40

Y8



Clamping Screw

Spare parts

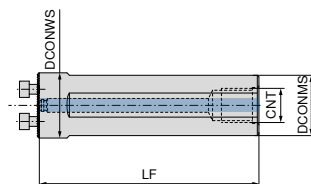
for Article no.

for Article no.		Article no.	
84 195 02593	M4X12 (SW3)	84 950 ...	£
84 195 03293	M5X14 (SW4)	3.61	30000
84 195 04093	M6X16 (SW5)	3.61	29900
		3.61	29800

Base holder for exchangeable head system – cylindrical

▲ Connection thread for thro' coolant

▲ 3 clamping flats



NEW Y8

Article no.

84 194 ...

£

531.30

02599

565.18

03299

689.92

04099

DCONWS	LF	DCONMS	CNT
mm	mm	mm	
25	200	23	1/4
32	218	30	3/8
40	283	37	1/2

Spare parts

for Article no.

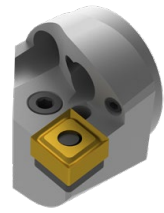
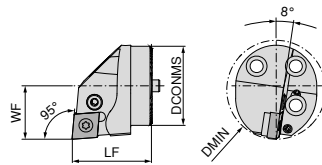
for Article no.		Article no.	
84 194 02599	M4X12 (SW3)	84 950 ...	£
84 194 03299	M5X14 (SW4)	3.61	30000
84 194 04099	M6X16 (SW5)	3.61	29900
		3.61	29800

Y8



Clamping Screw

Exchangeable cutting head PCLN 95°



Illustrations show right-hand versions

DCONMS	LF	DMIN	WF	Insert	Left-hand		Right-hand	
					NEW Y8		NEW Y8	
mm	mm	mm	mm		Article no.		Article no.	
25	35	32	17	CN.. 1204	84 159 ...		84 160 ...	
					£		£	
25	35	32	17	CN.. 1204	416.68	02500	416.68	02500
32	35	40	22	CN.. 1204	428.56	03200	428.56	03200
40	40	50	27	CN.. 1204	434.28	04000	434.28	04000

i Suitable indexable inserts can be found in the main catalogue, Chapter 9 – Turning tools → Page 8-15

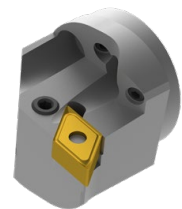
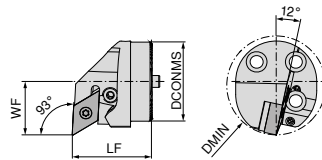
Spare parts

for Article no.

for Article no.	£	Article no.	£	Article no.	£	Article no.	£
84 160 02500 / 84 159 02500	2.42	29200	M8X1/L17 SW3	9.42	28700	27.96	29000
84 160 03200 / 84 159 03200	2.42	29200	M8X1/L17 SW3	9.42	28700	27.96	29000
84 160 04000 / 84 159 04000	2.42	29200	M8X1/L17 SW3	9.42	28700	27.96	29000

Y8	Y8	Y8	Y8
Shim	Elbow lever screw	Lever	Carbide type C
Article no.	Article no.	Article no.	Article no.
84 950 ...	84 950 ...	84 950 ...	84 950 ...
£	£	£	£

Exchangeable cutting head PDUN 93°



Illustrations show right-hand versions

DCONMS	LF	DMIN	WF	Insert	Left-hand		Right-hand	
					NEW Y8		NEW Y8	
mm	mm	mm	mm		Article no.		Article no.	
25	35	32	17	DN.. 1104	84 161 ...		84 162 ...	
					£		£	
25	35	32	17	DN.. 1104	416.68	02500	416.68	02500
32	35	40	22	DN.. 1104	428.56	03200	428.56	03200
32	35	40	22	DN.. 1506	428.56	13200	428.56	13200
40	40	50	27	DN.. 1104	434.28	04000	434.28	04000
40	40	50	27	DN.. 1506	434.28	14000	434.28	14000

i Suitable indexable inserts can be found in the main catalogue, Chapter 9 – Turning tools → Page 22-27

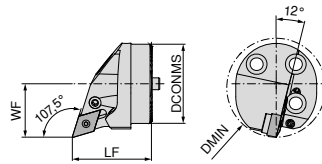
Spare parts

for Article no.

for Article no.	£	Article no.	£	Article no.	£	Article no.	£
84 162 02500 / 84 161 02500	2.42	29300	M6/ L14 SW2,5	9.42	28800	32.56	29100
84 162 03200 / 84 161 03200	2.42	29300	M6/ L14 SW2,5	9.42	28800	32.56	29100
84 162 13200 / 84 161 13200	2.42	29200	M8X1/L17 SW3	9.42	28700	32.56	28900
84 162 04000 / 84 161 04000	2.42	29300	M6/ L14 SW2,5	9.42	28800	32.56	29100
84 162 14000 / 84 161 14000	2.42	29200	M8X1/L17 SW3	9.42	28700	32.56	28900

Y8	Y8	Y8	Y8
Shim	Elbow lever screw	Lever	Solid Carbide Seat D
Article no.	Article no.	Article no.	Article no.
84 950 ...	84 950 ...	84 950 ...	84 950 ...
£	£	£	£

Exchangeable cutting head PDQN 107.5°



Illustrations show right-hand versions

DCONMS	LF	DMIN	WF	Insert
mm	mm	mm	mm	
25	35	32	17	DN.. 1104
32	35	40	22	DN.. 1104
40	40	50	27	DN.. 1104

Left-hand		Right-hand	
NEW	Y8	NEW	Y8
Article no.		Article no.	
84 163 ...		84 164 ...	
£		£	
416.68	02500	416.68	02500
428.56	03200	428.56	03200
434.28	04000	434.28	04000

i Suitable indexable inserts can be found in the main catalogue, Chapter 9 – Turning tools → Page 22-27

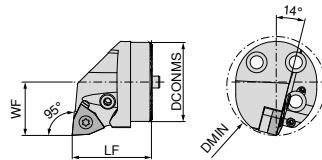
Spare parts

for Article no.

84 163 02500 / 84 164 02500
 84 163 03200 / 84 164 03200
 84 163 04000 / 84 164 04000

Y8	Y8	Y8	Y8
Shim	Elbow lever screw	Lever	Solid Carbide Seat D
Article no.	Article no.	Article no.	Article no.
84 950 ...	84 950 ...	84 950 ...	84 950 ...
£	£	£	£
2.42 29300	9.42 28800	32.56 29100	50.20 28100
2.42 29300	9.42 28800	32.56 29100	50.20 28100
2.42 29300	9.42 28800	32.56 29100	50.20 28100

Exchangeable cutting head PWLN 95°



Illustrations show right-hand versions

DCONMS	LF	DMIN	WF	Insert
mm	mm	mm	mm	
32	35	40	22	WN.. 0804
40	40	50	27	WN.. 0804

Left-hand		Right-hand	
NEW	Y8	NEW	Y8
Article no.		Article no.	
84 165 ...		84 166 ...	
£		£	
428.56	03200	428.56	03200
434.28	04000	434.28	04000

i Suitable indexable inserts can be found in the main catalogue, Chapter 9 – Turning tools → Page 52-55

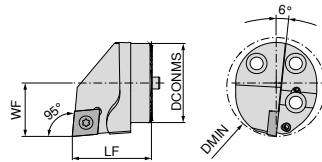
Spare parts

for Article no.

84 166 03200 / 84 165 03200
 84 166 04000 / 84 165 04000

Y8	Y8	Y8	Y8
Shim	Elbow lever screw	Lever	Solid Carbide Seat W
Article no.	Article no.	Article no.	Article no.
84 950 ...	84 950 ...	84 950 ...	84 950 ...
£	£	£	£
2.42 29200	9.42 28700	32.56 28900	50.20 27700
2.42 29200	9.42 28700	32.56 28900	50.20 27700

Exchangeable cutting head SCLC 95°



Illustrations show right-hand versions



DCONMS	LF	DMIN	WF	Insert
mm	mm	mm	mm	
25	35	32	17	CC.. 1204
32	35	40	22	CC.. 1204
40	40	50	27	CC.. 1204

Left-hand		Right-hand	
NEW	Y8	NEW	Y8
Article no.		Article no.	
84 147 ...		84 148 ...	
£		£	
340.34	02500	340.34	02500
346.28	03200	346.28	03200
352.22	04000	352.22	04000

i Suitable indexable inserts can be found in the main catalogue, Chapter 9 – Turning tools → **Page 59-70**

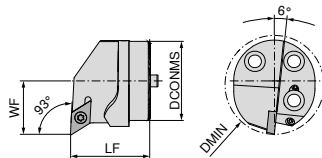
Spare parts

for Article no.

84 148 02500 / 84 147 02500
84 148 03200 / 84 147 03200
84 148 04000 / 84 147 04000

Y8	
	
Clamping screw	
Article no.	
84 950 ...	
£	
10.03	27500
10.03	27500
10.03	27500

Exchangeable cutting head SDUC 93°



Illustrations show right-hand versions



DCONMS	LF	DMIN	WF	Insert
mm	mm	mm	mm	
25	35	32	17	DC.. 11T3
32	35	40	22	DC.. 11T3
40	40	50	27	DC.. 11T3

Left-hand		Right-hand	
NEW	Y8	NEW	Y8
Article no.		Article no.	
84 143 ...		84 144 ...	
£		£	
340.34	02500	340.34	02500
346.28	03200	346.28	03200
352.22	04000	352.22	04000

i Suitable indexable inserts can be found in the main catalogue, Chapter 9 – Turning tools → **Page 80-90**

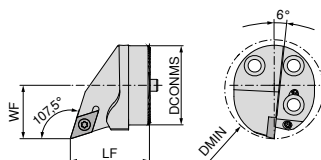
Spare parts

for Article no.

84 144 02500 / 84 143 02500
84 144 03200 / 84 143 03200
84 144 04000 / 84 143 04000

Y8	
	
Clamping screw	
Article no.	
84 950 ...	
£	
6.64	27600
6.64	27600
6.64	27600

Exchangeable cutting head SDQC 107.5°



Illustrations show right-hand versions

DCONMS	LF	DMIN	WF	Insert
mm	mm	mm	mm	
25	35	32	17	DC.. 11T3
32	35	40	22	DC.. 11T3
40	40	50	27	DC.. 11T3

Left-hand		Right-hand	
NEW	Y8	NEW	Y8
Article no.		Article no.	
84 145 ...		84 146 ...	
£		£	
340.34	02500	340.34	02500
346.28	03200	346.28	03200
352.22	04000	352.22	04000

i Suitable indexable inserts can be found in the main catalogue, Chapter 9 – Turning tools → **Page 80-90**

Spare parts

for Article no.

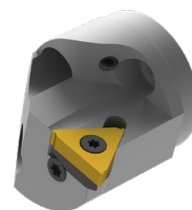
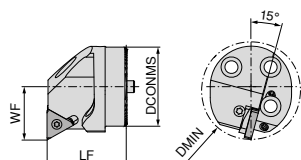
84 146 02500 / 84 145 02500

84 146 03200 / 84 145 03200

84 146 04000 / 84 145 04000

Y8	
	
Clamping screw	
Article no.	
84 950 ...	
£	
6.64	27600
6.64	27600
6.64	27600

Exchangeable cutting head for internal thread



Illustrations show right-hand versions

DCONMS	LF	DMIN	WF	Insert
mm	mm	mm	mm	
25	35	32	17	16 ..
32	35	40	22	16 ..
40	40	50	27	16 ..

Left-hand		Right-hand	
NEW	Y8	NEW	Y8
Article no. 84 167 ...		Article no. 84 168 ...	
£		£	
451.88	02500	451.88	02500
471.24	03200	471.24	03200
495.88	04000	495.88	04000

i Suitable indexable inserts can be found in the main catalogue, Chapter 8 – Thread turning tools → Page 6-30

Spare parts

for Article no.

	Y8			Y8			Y8	
								
	Shim			Screw-U			Clamping screw	
	Article no. 84 950 ...			Article no. 84 950 ...			Article no. 84 950 ...	
	£			£			£	
84 168 02500	59.11	29500	UNC5x7,3	11.90	29700	11.90	29400	
84 167 02500	59.11	29600	UNC5x7,3	11.90	29700	11.90	29400	
84 168 03200	59.11	29500	UNC5x7,3	11.90	29700	11.90	29400	
84 167 03200	59.11	29600	UNC5x7,3	11.90	29700	11.90	29400	
84 168 04000	59.11	29500	UNC5x7,3	11.90	29700	11.90	29400	
84 167 04000	59.11	29600	UNC5x7,3	11.90	29700	11.90	29400	



CERATIZIT is supporting manufacturers in the fight against coronavirus

We humans quickly learn to appreciate our health again, particularly when we are faced with dangerous situations such as pandemics. As an expert manufacturer of high-quality machining solutions, our top priority is to support manufacturing companies in the medical sector. CERATIZIT know-how and tools are required by manufacturers that produce fans for ventilators and face masks.

You can rely on us!

Although much has changed in the world since the outbreak of the COVID-19 pandemic, one thing has stayed the same: our commitment to you.

As the protection of people – from employees and their families to you, our valued customers and business partners – is the top priority, we are supporting manufacturing companies that are currently focussed on producing life-saving equipment in the fight against COVID-19. We are proud that our tools and wealth of experience in medical technology are allowing us to do our part.

For more information

<https://cutting.tools/ceratizit/en/medical>

Scan here!

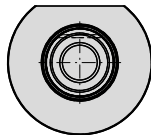
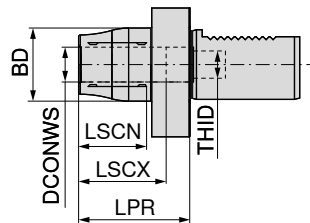


Hydraulic chuck

- ▲ For the hydraulic clamping of cylindrical tool shanks tol. h6, boring bars and cylindrical tool holders tol. h7, g6 in fixed base holders
- ▲ One screw for locking the boring bar
- ▲ With length setting screw – can also be removed, to enable the boring bar to be slid through
- ▲ High-precision clamping with a repeatability of 3 µm

Scope of supply:

Base body with backstop screw and pressure screw



AD

NEW Y8

Article no.
83 402 ...

£

745.02 02027

778.14 02026

Adapter	DCONWS	BD	LPR	LSCX	LSCN	THID
	mm	mm	mm	mm	mm	
VDI 30	20	42	64	51	41	M16x1
VDI 40	20	42	64	51	41	M16x1

Y7



Stop screw IK

Article no.
83 950 ...

£

24.61 48700

Spare parts
DCONWS

20

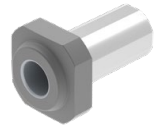
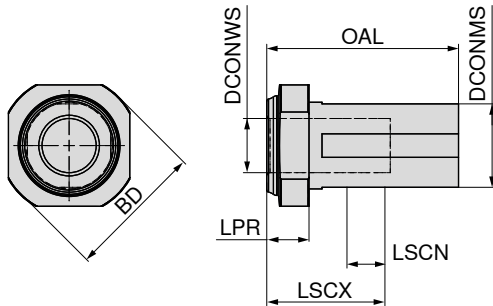
M16x1x31 - SW5

Hydraulic chuck with cylindrical shank

- ▲ For the hydraulic clamping of cylindrical tool shanks tol. h6, boring bars and cylindrical tool holders tol. h7, g6 in fixed base holders
- ▲ One screw for locking the boring bar
- ▲ With length setting screw – can also be removed, to enable the boring bar to be slid through
- ▲ High-precision clamping with a repeatability of 3 µm

Scope of supply:

Base body with backstop screw and pressure screw



AD

NEW Y8

Article no.
83 402 ...

£

529.20 31699
529.20 32099
545.76 41699
545.76 42099
545.76 42599

DCONMS	DCONWS	BD	LPR	OAL	LSCX	LSCN	THID
mm	mm	mm	mm	mm	mm	mm	
32	16	41	19.5	78.5	51	41	M22x1
32	20	41	19.5	78.5	51	41	M22x1
40	16	46	19.5	88.5	51	41	M22x1
40	20	46	19.5	88.5	51	41	M22x1
40	25	46	19.5	88.5	57	47	M27x1

Y7



Stop screw IK

Article no.
83 950 ...

£

38.66 48500
61.00 48600

DCONWS

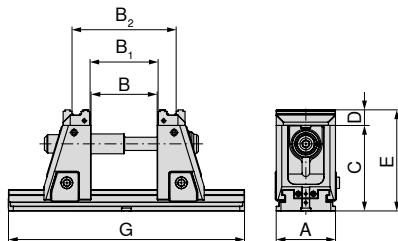
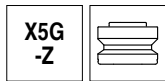
16 - 20
25

Mechanical 5-axis vice with movable fixed jaw, 181 mm height

- ▲ Optimum accessibility
- ▲ 5- and 6-sided machining possible
- ▲ Fast jaw changeover without tools
- ▲ Clamping on the machine table is possible with MNG/PNG, or directly through the base body with precision T-nuts

Scope of supply:

incl. 2 x quick-change jaws (grip, step 3 mm, width 125 mm), without operator key or clamping claws



A mm	B _{±0,015} mm	B ₁ mm	B ₂ mm	C mm	D mm	E _{±0,01} mm	G mm	SW mm	kg	
125	4 - 134	12 - 141	80 - 210	181	33	214	330	14	33.2	
125	4 - 234	12 - 241	80 - 310	181	33	214	430	14	36.1	
125	4 - 304	12 - 311	80 - 380	181	33	214	500	14	38.1	
125	4 - 434	12 - 441	80 - 510	181	33	214	630	14	41.8	
125	4 - 604	12 - 611	80 - 680	181	33	214	800	14	46.6	

NEW	Y4
Article no.	
80 908 ...	
£	
3,102.00	12500
3,285.00	12600
3,404.00	12700
3,618.00	12800
3,897.00	12900 ¹⁾

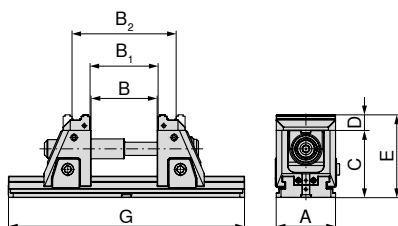
1) Not ex-stock

Mechanical 5-axis vice with movable fixed jaw, 142 mm height

- ▲ Optimum accessibility
- ▲ 5- and 6-sided machining possible
- ▲ Fast jaw changeover without tools
- ▲ Clamping on the machine table is possible with MNG/PNG, or directly through the base body with precision T-nuts

Scope of supply:

incl. 2 x quick-change jaws (grip, step 3 mm, width 125 mm), without operator key or clamping claws



A mm	B _{±0,015} mm	B ₁ mm	B ₂ mm	C mm	D mm	E _{±0,01} mm	G mm	SW mm	kg	
125	4 - 144	12 - 151	80 - 220	142	33	175	330	14	27.3	
125	4 - 234	12 - 241	80 - 310	142	33	175	430	14	30.2	
125	4 - 304	12 - 311	80 - 380	142	33	175	500	14	32.2	
125	4 - 434	12 - 441	80 - 510	142	33	175	630	14	35.9	
125	4 - 604	12 - 611	80 - 680	142	33	175	800	14	40.7	

NEW	Y4
Article no.	
80 908 ...	
£	
2,866.00	22500
3,049.00	22600
3,168.00	22700
3,384.00	22800
3,662.00	22900 ¹⁾

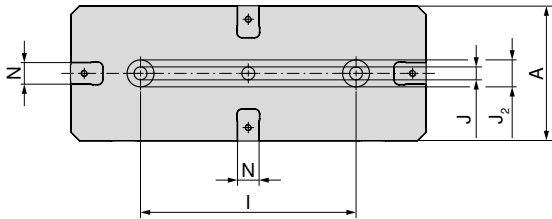
1) Not ex-stock

i The clamping ranges that can be attained with spindle extensions can be found on → **page 40**.

i The matching torque key and socket with article numbers 80 884 502/80 877 214 can be found in the workpiece clamping catalogue 2019 on → **page 101**.

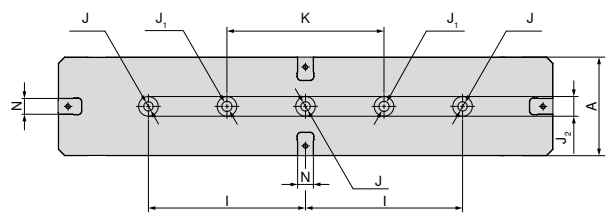
X5G-Z / -S underside dimensions

Base width 125 mm and 330 mm length



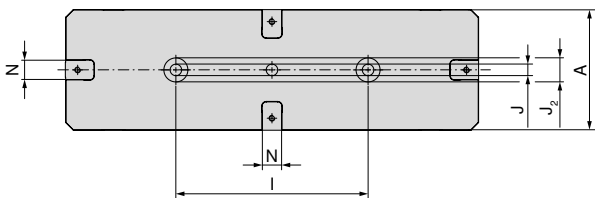
A	I	J	J ₂	N
mm	±0,02 mm	H7 mm	H6 mm	H7 mm
125	200	12	25	20

Base width 125 mm and 630 mm length



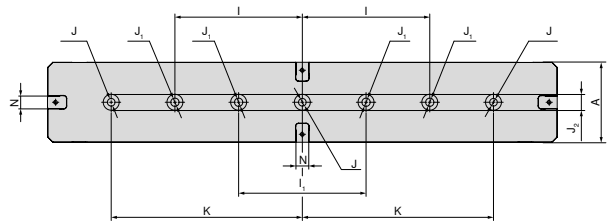
A	I	J	J ₁	J ₂	K	N
mm	±0,02 mm	H7 mm	mm	H6 mm	±0,02 mm	H7 mm
125	200	12	13	25	200	20

Base width 125 mm and 430 mm length



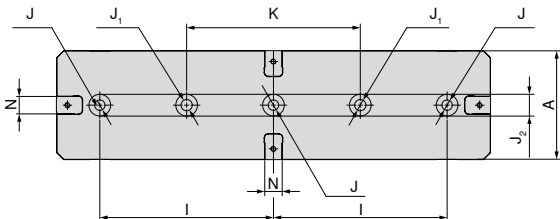
A	I	J	J ₂	N
mm	±0,02 mm	H7 mm	H6 mm	H7 mm
125	200	12	25	20

Base width 125 mm and 800 mm length



A	I	I ₁	J	J ₁	J ₂	K	N
mm	±0,02 mm	±0,02 mm	H7 mm	mm	H6 mm	±0,02 mm	H7 mm
125	200	200	12	13	25	300	20

Base width 125 mm and 500 mm length

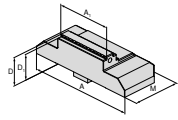


A	I	J	J ₁	J ₂	N	K
mm	±0,02 mm	H7 mm	mm	H6 mm	H7 mm	±0,02 mm
125	200	12	13	25	20	200

System jaws overview

Description	for width	A	A ₁	D	D ₁	M	price	Article no.	Type association
-------------	-----------	---	----------------	---	----------------	---	-------	-------------	------------------

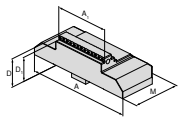
Indexable grip jaw, 3 mm



▲ Price per piece

						£	NEW Y4		NCG	H5G / -S / -Z	X5G-Z / -S	ESG 4	ESG 5	ESG mini	HDG 2	ZSG 4	ZSG 3	DSG 4	MSG 2
125	125	40	33	30	57	245.00	80 909 30300				●								
125	125	65	33	30	57	255.00	80 909 30200				●								
125	125	80	33	30	57	255.00	80 909 30100				●								
125	125	125	33	30	57	264.00	80 909 30000				●								

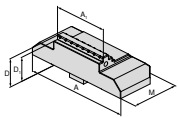
Indexable grip jaw, 5 mm



▲ Price per piece

						£	NEW Y4		NCG	H5G / -S / -Z	X5G-Z / -S	ESG 4	ESG 5	ESG mini	HDG 2	ZSG 4	ZSG 3	DSG 4	MSG 2
125	125	40	33	28	57	245.00	80 909 30700				●								
125	125	65	33	28	57	255.00	80 909 30600				●								
125	125	80	33	28	57	255.00	80 909 30500				●								
125	125	125	33	28	57	264.00	80 909 30400				●								

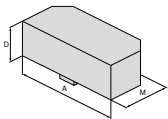
Stepped jaw, carbide, grip 5 mm



▲ Price per piece

						£	NEW Y4		NCG	H5G / -S / -Z	X5G-Z / -S	ESG 4	ESG 5	ESG mini	HDG 2	ZSG 4	ZSG 3	DSG 4	MSG 2
125	125	40	33	28	57	291.00	80 909 31100				●								
125	125	65	33	28	57	300.00	80 909 31000				●								
125	125	80	33	28	57	309.00	80 909 30900				●								
125	125	125	33	28	57	318.00	80 909 30800				●								

Soft jaws, steel



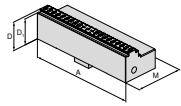
▲ Price per piece

						£	NEW Y4		NCG	H5G / -S / -Z	X5G-Z / -S	ESG 4	ESG 5	ESG mini	HDG 2	ZSG 4	ZSG 3	DSG 4	MSG 2
125	125		40		57	114.00	80 909 31200				●								

System jaws overview

Description	for width	A	D	D ₁	M	price	Article no.	Type association
-------------	-----------	---	---	----------------	---	-------	-------------	------------------

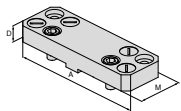
Indexable jaw embossed profile



- ▲ Price per piece
- ▲ suitable for LANG embossed profile

						£	NEW Y4												
125	125	33	30	57		264.00	80 909 31400	NCG	H66 / -S / -Z	X5G-Z / -S	ESG 4	ESG 5	ESG mini	HDG 2	ZSG 4	ZSG 3	DSG 4	MSG 2	

Adapter plate



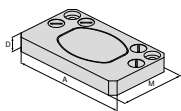
- ▲ for holding 6-function indexable jaws
- ▲ Price per piece
- ▲ incl. cover screws

						£	NEW Y4												
125	180	22		104		336.00	80 909 31500	NCG	H5G / -S / -Z	X5G-Z / -S	ESG 4	ESG 5	ESG mini	HDG 2	ZSG 4	ZSG 3	DSG 4	MSG 2	



The matching 6-function indexable jaw with article number 80 892 246 can be found in the workpiece clamping catalogue 2019 on → **page 23**.

Floating jaw



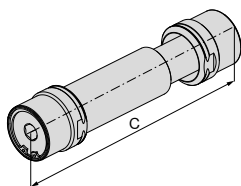
- ▲ for holding 6-function indexable jaws
- ▲ Price per piece
- ▲ incl. cover screws

						£	NEW Y4												
125	180	22		62		450.00	80 909 31300	NCG	H5G / -S / -Z	X5G-Z / -S	ESG 4	ESG 5	ESG mini	HDG 2	ZSG 4	ZSG 3	DSG 4	MSG 2	



The matching 6-function indexable jaw with article number 80 892 246 can be found in the workpiece clamping catalogue 2019 on → **page 23**.

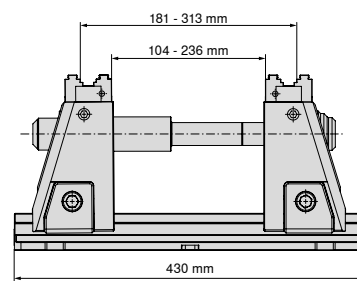
Spindle unit centric vice X5G-Z – mechanical



C mm	kg
227,5	2.5

NEW Y4
Article no.
80 908 ...
£
318.00 50100

Drawbar

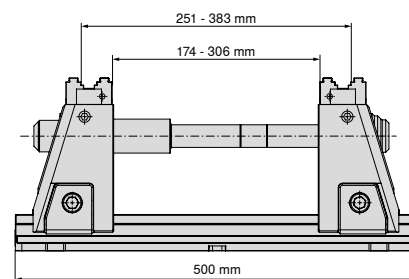


Base body G = 430 mm,
stroke 140 mm, with extension,
total clamping range 4–310 mm

for width mm	G mm
125	430

NEW Y4
Article no.
80 908 ...
£
132.73 80000

Drawbar

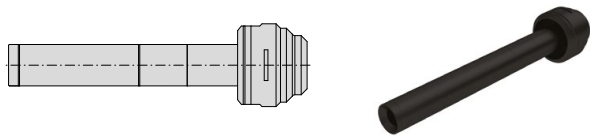


Base body G = 500 mm,
stroke 140 mm, with extension,
total clamping range 4–380 mm

for width mm	G mm
125	500

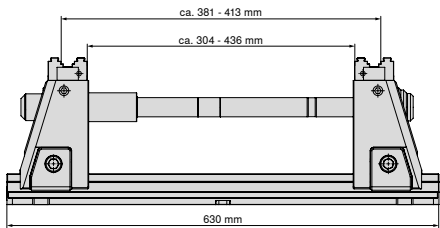
NEW Y4
Article no.
80 908 ...
£
143.64 80100

Drawbar



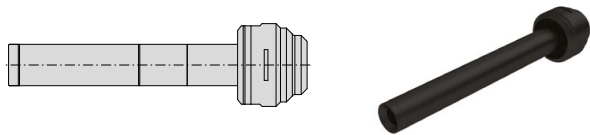
for width mm	G mm
125	630

NEW Y4
Article no.
80 908 ...
£
167.27 80200



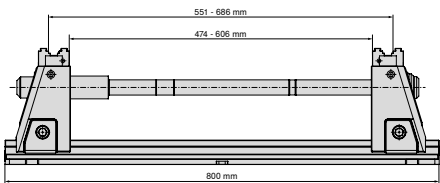
Base body G =630 mm,
stroke 140 mm, with extension,
total clamping range 4-510 mm

Drawbar



for width mm	G mm
125	800

NEW Y4
Article no.
80 908 ...
£
190.91 80300



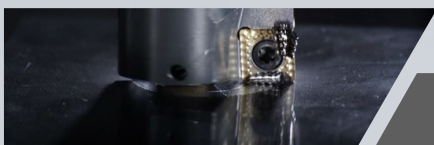
Base body G =800 mm,
stroke 140 mm, with extension,
total clamping range 4-680 mm

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