

UP2DATE

Maximum Performance!

Outstanding concentricity and vibration damping thanks to advanced hydraulic technology.

... AND SOME OTHER PRODUCTS

- ▲ **MaxiMill – 273-08** shell mill inspires with highest feed rates during roughing
- ▲ Economical and sustainable drilling with the efficient **WPC – Change** indexable insert drilling system



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

Tooling a Sustainable Future

ceratizit.com

 CERATIZIT
GROUP

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

<https://cuttingtools.ceratizit.com>



On-site technical support

Your Local Technical Sales Engineer

Your customer number

HyPower: the name says it all



WNT

Two new high pressure chucks with maximum clamping force

We are expanding our range of hydraulic chucks to include two high-performance adapters that deliver outstanding radial run-out accuracy and optimal vibration damping:

- ▲ **HyPower – Rough** for demanding rough machining operations
- ▲ **HyPower – Access 4.5°** for optimum accessibility in the machining zone



Further information on the product can
be found on → page 48–61



cutting.tools/gb/en/hypower

HyPower – Rough

Robust performance during roughing operations

Application

- ▲ For highly dynamic milling operations
- ▲ Best results when using tools with a HA shank
- ▲ Maximum process security, even for high-quality components
- ▲ Developed for the requirements of a wide range of markets
(including tool and die production, aerospace and the automotive sector)



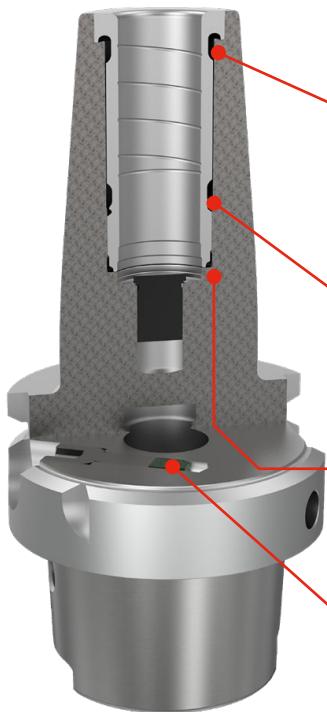
Resistant to temperatures of up to 210°C

Advantage/benefit

- ▲ Ideally suited to withstand high temperatures (80°C to 210°C)
- ▲ Even during long milling cycles (> 240 minutes)
- ▲ Handles high-performance milling cutting operations at up to 33,000 revolutions per minute
- ▲ Maximum process security and service life thanks to award-winning industrial design
- ▲ Perfectly balanced combination of geometric and functional properties



Maximum performance and productivity



New chamber design makes it possible to reverse the force at critical solder joints (from tensile to compression load), enabling significantly higher radial loads during machining.

New chamber design significantly reduces the technology's susceptibility to temperature (up to 80°C even during milling operations lasting up to 240 minutes)

If there are multiple instances of unintended shrinking, the soldering system includes an emergency outlet to prevent potential injuries.

Double-lip sealing system dramatically increases the service life of the hydraulic chuck (over 10,000 clamping cycles under laboratory conditions)

HyPower – Access 4,5°

Precision for critical contours

Application

- ▲ For reaming and drilling applications as well as finishing during milling operations
- ▲ Maximum flexibility when machining components critical to contours
- ▲ Developed for the requirements of a wide range of markets (including tool and die production, aerospace and the automotive sector)



Original shrink chuck dimension

Advantage/benefit

- ▲ Provides original shrink chuck dimensions (DIN contour with 4.5°), application-oriented system layout
- ▲ Maximum process security and service life thanks to award-winning industrial design
- ▲ Perfectly balanced combination of geometric and functional properties
- ▲ Achieves best surface quality, stands out for maximum ease of handling

The right hydraulic chuck for so many different machining scenarios!

Are you looking for higher cutting speeds to enhance productivity and facilitate handling? The entire range of **HyPower** high pressure chucks and the range of **HyTens** hydraulic chucks from CERATIZIT guarantee easy, process-secure tool clamping for every application.



You can find our full range of hydraulic chucks at:
cutting.tools/gb/en/toolholders

HyPower – High pressure chuck

Rough	Milling with strong forces > roughing	▼▼▼ ▼▼ ▼
Complus	All-rounder	▼▼▼ ▼▼ ▼
Access 3°	Optimum accessibility	▼▼▼
Access 4,5°	Optimum accessibility thanks to same interference contour as heat shrink adapter, latest technology	▼▼▼ ▼▼

HyTens – Hydraulic chuck

Fit	All-rounder	▼▼▼ ▼▼
Turn	Perfect for turning operations	▼▼▼ ▼▼
Compact	Our affordable all-round alternative	▼▼▼ ▼▼

Main Application



Finishing



Roughing -
Finishing



Roughing

Extended application

Sustainable and efficient at the same time!

Quick changeovers and minimal material usage with the exchangeable insert drilling system

WNT

Efficient drilling thanks to exchangeable inserts

The WPC – Change makes it possible

Think you can't have high-quality machining at an affordable price?

Think again: Our WPC – Change and the matching WPC – Change UNI exchangeable inserts give you both. We achieved this by combining the advantages of our WPC high-performance drill with the flexibility of an exchange system – for quicker changeovers and the lowest possible material usage.



cutting.tools/gb/en/wpc-change

Advantage/benefit

- ▲ Produces precise holes with diameters of 14–30 mm and hole depths of 3xD and 5xD on all machines
- ▲ Exchangeable insert drilling system at an attractive price
- ▲ Wear-resistant holder suitable for multiple uses
- ▲ Universal application
- ▲ Option to exchange the cutting edge in the machine
- ▲ WPC – Change UNI exchangeable insert is ideal for steel and casting materials

“

With the WPC – Change we are adding an economic, sustainable exchangeable insert drilling system with an **efficiency promise** and universal applications to our portfolio.

Manuel Keller, Product Manager for drilling tools



”



Further information on the product can be found on → page 12–15

Added sustainability

Thanks to the exchangeable cutting insert, the WPC – Change is also extremely resource-friendly and cost-effective. Ultimately, the carbide is limited to the exchangeable insert. If you're concerned this will mean reduced performance, don't worry: The WPC – Change delivers the same high performance as a comparable option made of solid carbide.



Armed to the teeth

MaxiMill 273-08 face mill delivers maximum feed rate



cutting.tools/gb/en/maximill-273

CERATIZIT

MaxiMill 273-08 – the turbo roughing tool gets under the surface

Face mill with 16 cutting edges per indexable insert

The proven MaxiMill 273 face mill from CERATIZIT has a new addition. To meet market requirements when roughing steel and cast iron with a cost-effective and high-performance tool system, the MaxiMill 273 now has an update for a_p depths of cut of up to 5 mm or 6 mm. With its double-sided octagon milling inserts, the MaxiMill 273-08 sets standards when it comes to cost-effectiveness.



Further information on the product can be found on → page 42–47

The CERATIZIT MaxiMill 273-08 tool system covers all the key criteria for face milling tools:

- ▲ Maximum number of cutting edges
- ▲ Stability
- ▲ Cost-effectiveness
- ▲ Lower cutting forces
- ▲ Reduced vibration
- ▲ Clean tool surfaces

MaxiMill 273-08 test report

Process Milling (face milling)

Material Grey cast iron

Cooling no

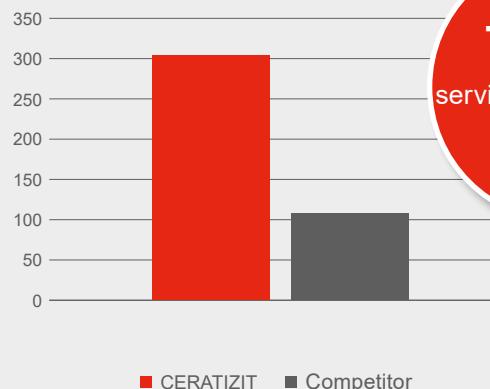
NUMBER OF FINISHED PARTS

CERATIZIT	304
Competitor	108

DEPTH OF CUT [MM]

CERATIZIT	5
Competitor	3

Number of finished parts



+ 180 %

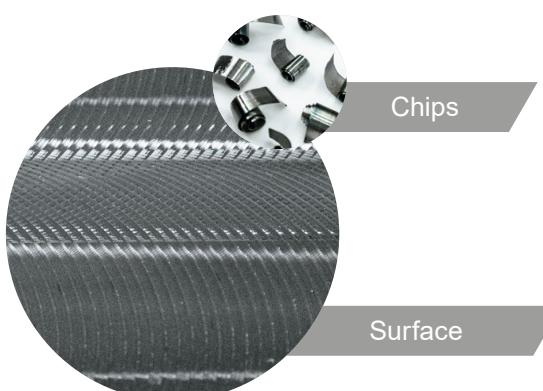
service life more than doubled

The entire MaxiMill 273 series combines precision, high cutting speeds, long tool service lives and clean surfaces. This is the ideal choice for efficient face milling!

Roughing and roughing-finish machining



-08 insert
Roughing and
rough-finishing
operations



Roughing
(-08 INSERT)

Cutting Data

V_c	200
a_e	70%
a_p mm	6
f_z mm	0,3

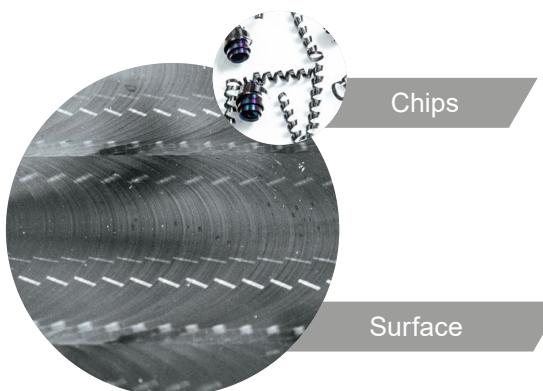


-06 insert
Roughing and
rough-finishing
operations

Roughing-finishing and finish machining



-06 insert
Roughing and
rough-finishing
operations



Roughing -
Finishing
(-06 INSERT -06
MASTERFINISH INSERT)

Cutting Data

V_c	200
a_e	70%
a_p mm	3
f_z mm	0,3



-06
Masterfinish
insert
Finishing



WPC – Change

Table of contents

WNT Solid carbide drilling

-
- 12 WPC – Change – Drill with replaceable cutting head
13 WPC – Change – holders

KOMET Indexable insert drills

-
- 16 SOGX -21 – indexable inserts for KUB Pentron/KUB Pentron CS

CERATIZIT Turning Tools

-
- 18–22 CTCM – negative indexable inserts
23–28 CTCM – positive indexable inserts

CERATIZIT Multi-function tool – EcoCut

-
- 32 EcoCut – HSK-T
33 EcoCut – PSC

WNT Solid Carbide milling cutters

-
- 34 MonsterMill NCR – ball-nosed end mill
38 HPC-UNI end mill 3xDC

MaxiMill

273-08

CERATIZIT Milling tools with indexable inserts

-
- 42** MaxiMill 273-08 – shell mill
 - 43** MaxiMill 273-08 – indexable inserts
 - 44** MaxiMill 252 – shell mill
 - 45** MaxiMill 252 – indexable inserts

WNT Adapters and accessories

-
- 48–50** HyPower Rough – SK/BT/HSK-A
 - 51–53** HyPower Access 4.5° – SK/BT/HSK-A
 - 54–57** HyPower Complus – SK/BT/BT-FC/HSK-A
 - 58** HyTens Fit – HSK-A
 - 59** Square shank holders – DirectCooling – PSC
 - 61** easyTorque® – handle

HyPower

Rough & Access 4,5°

Continue to the product pages

WPC – Indexable insert for indexable insert drill

Scope of supply:

Indexable insert (clamping screws can be ordered separately, if necessary)



NEW

Change
UNI
TPX74S

11 910 ...

£
TS

DC mm	OAL mm	LPR mm	S mm	
20.0	18.2	11.33	7.20	102.33 20000
20.1	18.2	11.33	7.20	102.33 20100
20.2	18.2	11.33	7.20	102.33 20200
20.3	18.2	11.33	7.20	102.33 20300
20.4	18.2	11.33	7.20	102.33 20400
20.5	18.5	11.43	7.20	102.33 20500
20.6	18.5	11.43	7.20	102.33 20600
20.7	18.5	11.43	7.20	102.33 20700
20.8	18.5	11.43	7.20	105.20 20800
20.9	18.5	11.43	7.20	105.20 20900
21.0	18.8	11.54	7.20	105.20 21000
21.1	18.8	11.54	7.20	105.20 21100
21.2	18.8	11.54	7.20	105.20 21200
21.3	18.8	11.54	7.20	105.20 21300
21.4	18.8	11.54	7.20	105.20 21400
21.5	19.1	11.65	7.20	105.20 21500
21.6	19.1	11.65	7.20	105.20 21600
21.7	19.1	11.65	7.20	105.20 21700
21.8	19.1	11.65	7.20	107.66 21800
21.9	19.1	11.65	7.20	107.66 21900
22.0	20.2	12.56	7.90	107.66 22000
22.1	20.2	12.56	7.90	107.66 22100
22.2	20.2	12.56	7.90	107.66 22200
22.3	20.2	12.56	7.90	107.66 22300
22.4	20.2	12.56	7.90	107.66 22400
22.5	20.5	12.67	7.90	107.66 22500
22.6	20.5	12.67	7.90	107.66 22600
22.7	20.5	12.67	7.90	107.66 22700
22.8	20.5	12.67	7.90	111.73 22800
22.9	20.5	12.67	7.90	111.73 22900
23.0	20.8	12.78	7.90	111.73 23000
23.1	20.8	12.78	7.90	111.73 23100
23.2	20.8	12.78	7.90	111.73 23200
23.3	20.8	12.78	7.90	111.73 23300
23.4	20.8	12.78	7.90	111.73 23400
23.5	21.1	12.88	7.90	111.73 23500
23.6	21.1	12.88	7.90	111.73 23600
23.7	21.1	12.88	7.90	111.73 23700
23.8	21.1	12.88	7.90	117.76 23800
23.9	21.1	12.88	7.90	117.76 23900
24.0	22.1	13.69	8.60	117.76 24000
24.1	22.1	13.69	8.60	117.76 24100
24.2	22.1	13.69	8.60	117.76 24200
24.3	22.1	13.69	8.60	117.76 24300
24.4	22.1	13.69	8.60	117.76 24400
24.5	22.4	13.80	8.60	117.76 24500
24.6	22.4	13.80	8.60	117.76 24600
24.7	22.4	13.80	8.60	117.76 24700
24.8	22.4	13.80	8.60	124.52 24800
24.9	22.4	13.80	8.60	124.52 24900
25.0	22.7	13.91	8.60	124.52 25000
25.1	22.7	13.91	8.60	124.52 25100
25.2	22.7	13.91	8.60	124.52 25200
25.3	22.7	13.91	8.60	124.52 25300
25.4	22.7	13.91	8.60	124.52 25400
25.5	23.0	14.02	8.60	124.52 25500
25.6	23.0	14.02	8.60	124.52 25600
25.7	23.0	14.02	8.60	124.52 25700
25.8	23.0	14.02	8.60	130.97 25800
25.9	23.0	14.02	8.60	130.97 25900
26.0	24.1	14.92	9.40	130.97 26000
26.5	24.4	15.03	9.40	130.97 26500
27.0	24.7	15.14	9.40	140.85 27000
27.5	25.0	15.25	9.40	140.85 27500
28.0	25.3	15.36	9.40	140.85 28000
28.5	25.6	15.47	9.40	146.87 28500
29.0	25.9	15.57	9.40	146.87 29000
29.5	26.2	15.68	9.40	152.35 29500
30.0	26.2	15.49	9.40	152.35 30000

P	●
M	
K	●
N	
S	
H	
O	

→ v. Page 14



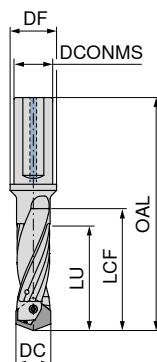
When changing inserts, please observe the specified tightening torque.

WPC – Holder for indexable insert drill

- ▲ Easy handling
- ▲ Insert can be changed in the machine
- ▲ Precise and stable insert seat, clamping via Torx Plus® screw

Scope of supply:

Holder incl. clamping screw

**11 903 ...**

DC mm	DCONMS mm	OAL mm	LCF mm	LU mm	DF mm	torque moment Nm	£ TT	14000
14,00 - 14,49	16	108.9	50.8	43.5	20	0.9	251.18	14000
14,50 - 14,99	16	111.0	52.5	45.0	20	0.9	251.18	14500
15,00 - 15,49	20	115.1	54.3	46.5	25	0.9	251.18	15000
15,50 - 15,99	20	117.2	56.0	48.0	25	0.9	251.18	15500
16,00 - 16,49	20	119.3	57.8	49.5	25	1.2	275.60	16000
16,50 - 16,99	20	121.4	59.5	51.0	25	1.2	275.60	16500
17,00 - 17,49	20	123.5	61.3	52.5	25	1.2	275.60	17000
17,50 - 17,99	20	125.6	63.0	54.0	25	1.2	275.60	17500
18,00 - 18,49	20	127.7	64.8	55.5	25	2.2	293.82	18000
18,50 - 18,99	20	129.8	66.5	57.0	25	2.2	293.82	18500
19,00 - 19,49	25	137.9	68.3	58.5	30	2.2	293.82	19000
19,50 - 19,99	25	140.0	70.0	60.0	30	2.2	293.82	19500
20,00 - 20,49	25	142.1	71.8	61.5	30	2.2	312.04	20000
20,50 - 20,99	25	144.2	73.5	63.0	30	2.2	312.04	20500
21,00 - 21,49	25	146.3	75.3	64.5	30	2.2	339.38	21000
21,50 - 21,99	25	148.4	77.0	66.0	30	2.2	344.29	21500
22,00 - 22,49	25	150.5	78.8	67.5	30	3.2	349.09	22000
22,50 - 22,99	25	152.6	80.5	69.0	30	3.2	353.87	22500
23,00 - 23,49	25	154.7	82.3	70.5	30	3.2	358.89	23000
23,50 - 23,99	25	156.8	84.0	72.0	30	3.2	363.69	23500
24,00 - 24,49	32	162.9	85.8	73.5	39	5	368.48	24000
24,50 - 24,99	32	165.0	87.5	75.0	39	5	373.37	24500
25,00 - 25,49	32	167.1	89.3	76.5	39	5	378.16	25000
25,50 - 25,99	32	169.2	91.0	78.0	39	5	383.08	25500
26,00 - 26,49	32	171.3	92.8	79.5	39	6	387.87	26000
26,50 - 26,99	32	173.4	94.5	81.0	39	6	392.77	26500
27,00 - 27,49	32	175.5	96.3	82.5	39	6	397.56	27000
27,50 - 27,99	32	177.6	98.0	84.0	39	6	402.35	27500
28,00 - 28,49	32	179.7	99.8	85.5	39	6	407.37	28000
28,50 - 28,99	32	181.8	101.5	87.0	39	6	412.17	28500
29,00 - 29,49	32	183.9	103.3	88.5	39	6	416.95	29000
29,50 - 30,00	32	186.0	105.0	90.0	39	6	421.86	29500



Screwdriver



TORX® blade



Torque screwdrivers



Clamping screw

80 950 ...

Spare parts

DC

£ Y7

DC	T08 - IP	10.55	060	T08 - IP	8.49	043	0,5 - 2,0 Nm	207.73	191	M2,2x13 - 08IP	11.00	00100
14,00 - 15,99	T08 - IP	10.55	060	T08 - IP	8.49	043	0,5 - 2,0 Nm	207.73	191	M2,5x15 - 08IP	11.00	00200
16,00 - 17,99	T08 - IP	10.55	060	T10 - IP	8.49	053	2,0 - 7,0 Nm	232.67	193	M3,0x17 - 10IP	11.76	00300
18,00 - 21,99	T10 - IP	10.34	062	T10 - IP	8.49	053	2,0 - 7,0 Nm	232.67	193	M3,5x21 - 10IP	11.76	00400
22,00 - 23,99	T10 - IP	10.34	062	T15 - IP	8.49	054	2,0 - 7,0 Nm	232.67	193	M4,0x23 - 15IP	11.76	00500
24,00 - 25,99	T15 - IP	10.91	063	T20 - IP	8.49	055	2,0 - 7,0 Nm	232.67	193	M4,5x25 - 20IP	13.86	00600
26,00 - 30,00	T20 - IP	12.14	064	T20 - IP	8.49	055	2,0 - 7,0 Nm	232.67	193			

Cutting data standard values – WPC – Change

		11 910 ...						
	Material sub-group	Index	Tensile strength N/mm ^{2*} / HB / HRC	with through coolant v_c (m/min)	UNI			f (mm/rev)
					\varnothing 14–16	> \varnothing 16–20	> \varnothing 20–25	
P	Unalloyed steel	P.1.1	420 N/mm ² / 125 HB	100	0,22	0,25	0,28	0,32
		P.1.2	640 N/mm ² / 190 HB	100	0,27	0,31	0,35	0,39
		P.1.3	840 N/mm ² / 250 HB	100	0,27	0,31	0,35	0,39
		P.1.4	910 N/mm ² / 270 HB	90	0,25	0,28	0,32	0,35
		P.1.5	1010 N/mm ² / 300 HB	90	0,25	0,28	0,32	0,35
	Low-alloy steel	P.2.1	610 N/mm ² / 180 HB	100	0,25	0,28	0,32	0,35
		P.2.2	930 N/mm ² / 275 HB	100	0,25	0,28	0,32	0,35
		P.2.3	1010 N/mm ² / 300 HB	100	0,25	0,28	0,32	0,35
		P.2.4	1200 N/mm ² / 375 HB	80	0,21	0,24	0,27	0,30
	High-alloy steel and high-alloy tool steel	P.3.1	680 N/mm ² / 200 HB	70	0,20	0,22	0,25	0,28
		P.3.2	1100 N/mm ² / 300 HB	70	0,18	0,21	0,24	0,26
		P.3.3	1300 N/mm ² / 400 HB	60	0,17	0,19	0,22	0,24
	Stainless steel	P.4.1	680 N/mm ² / 200 HB	55	0,17	0,19	0,22	0,24
		P.4.2	1010 N/mm ² / 300 HB	55	0,17	0,19	0,22	0,24
M	Stainless steel	M.1.1	610 N/mm ² / 180 HB					
		M.2.1	300 HB					
		M.3.1	780 N/mm ² / 230 HB					
K	Grey cast iron	K.1.1	350 N/mm ² / 180 HB	110	0,37	0,42	0,47	0,53
		K.1.2	500 N/mm ² / 260 HB	100	0,31	0,35	0,39	0,44
	Spherulitic graphite cast iron	K.2.1	540 N/mm ² / 160 HB	100	0,37	0,42	0,47	0,53
		K.2.2	845 N/mm ² / 250 HB	90	0,31	0,35	0,39	0,44
	Malleable iron	K.3.1	440 N/mm ² / 130 HB	100	0,37	0,42	0,47	0,53
		K.3.2	780 N/mm ² / 230 HB	90	0,31	0,35	0,39	0,44
N	Aluminium wrought alloy	N.1.1	60 HB					
		N.1.2	340 N/mm ² / 100 HB					
	Cast aluminium alloy	N.2.1	250 N/mm ² / 75 HB					
		N.2.2	300 N/mm ² / 90 HB					
		N.2.3	440 N/mm ² / 130 HB					
	Copper and copper alloys (bronze/brass)	N.3.1	375 N/mm ² / 110 HB					
		N.3.2	300 N/mm ² / 90 HB					
		N.3.3	340 N/mm ² / 100 HB					
	Magnesium alloys	N.4.1	70 HB					
S	Heat-resistant alloys	S.1.1	680 N/mm ² / 200 HB					
		S.1.2	950 N/mm ² / 280 HB					
		S.2.1	840 N/mm ² / 250 HB					
		S.2.2	1180 N/mm ² / 350 HB					
		S.2.3	1080 N/mm ² / 320 HB					
	Titanium alloys	S.3.1	400 N/mm ²					
		S.3.2	1050 N/mm ² / 320 HB					
		S.3.3	1400 N/mm ² / 410 HB					
H	Hardened steel	H.1.1	46–55 HRC					
		H.1.2	56–60 HRC					
		H.1.3	61–65 HRC					
		H.1.4	66–70 HRC					
	Chilled iron	H.2.1	400 HB					
	Hardened cast iron	H.3.1	55 HRC					
O	Non-metal materials	O.1.1	≤ 150 N/mm ²					
		O.1.2	≤ 100 N/mm ²					
		O.2.1	≤ 1000 N/mm ²					
		O.2.2	≤ 1000 N/mm ²					
		O.3.1						

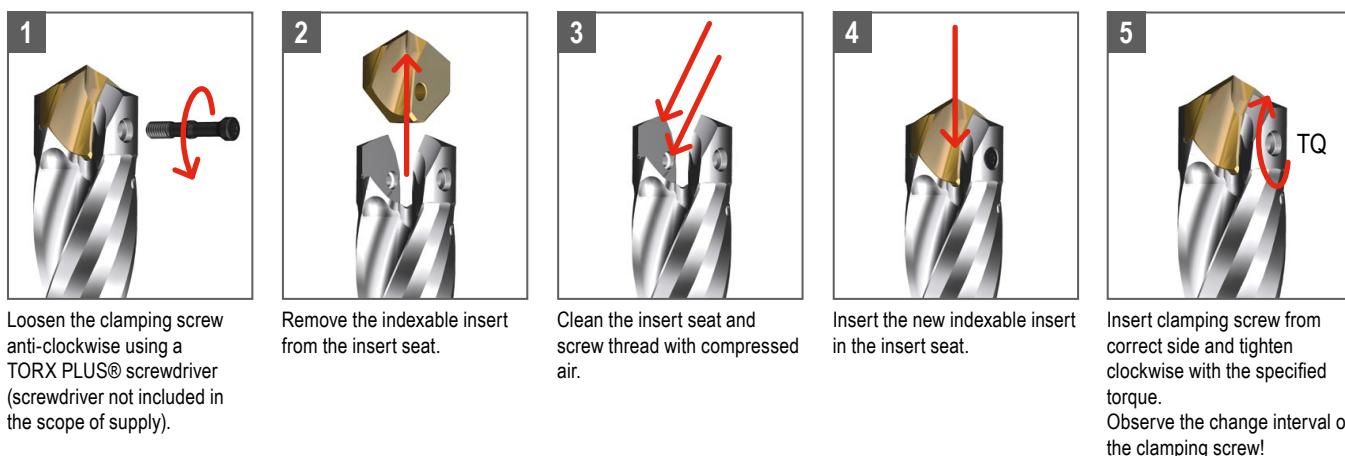
* Tensile strength



The cutting data is highly dependent on external conditions, such as stability of the tool and workpiece clamping, material and machine type!
The values indicated represent possible cutting data which may need to be corrected depending on operating conditions!

Application notes for WPC – Change indexable insert drill

Assembly of the indexable insert



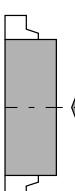
Notes

- ▲ Only insert indexable inserts in the diameter range designated for the respective holder.
- ▲ The clamping screw must also be replaced upon every fifth replacement of the indexable insert.
- ▲ The tightening torque and item number of the clamping screw are labelled on the holder.
- ▲ Use only original spare parts.

Clamping screws and tightening torques

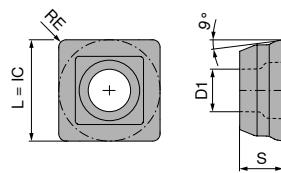
Diameter range	Article no. Clamping screw	Drive	Torque moment TQ
14,00–15,99 mm	11 950 00100	08IP	0,9 Nm
16,00–17,99 mm	11 950 00200	08IP	1,2 Nm
18,00–21,99 mm	11 950 00300	10IP	2,2 Nm
22,00–23,99 mm	11 950 00400	10IP	3,2 Nm
24,00–25,99 mm	11 950 00500	15IP	5,0 Nm
26,00–30,00 mm	11 950 00600	20IP	6,0 Nm

Notes on drilling technology

-
- 
Solid drilling
-
- 
Stack plate drilling: stable clamping of closely spaced stack plates required.
-
- 
When drilling into angled surfaces < 3°, reduce the feed by approx. 50%.
For an angled drill entrance > 3°, prior spot facing is required.
-
- 
When exiting at an angle < 3°, reduce the feed by approx. 50%.
Machining angled drill exits > 3° is not recommended.
-
- 
When machining with a stationary tool (turning machines), a precise centre position of the tool in relation to the rotational axis of the workpiece must be ensured. Maximum permissible offset ± 0,02 mm.
-
- 
To achieve the optimal results, it is recommended to use the tool with thro' coolant only. The recommended minimum coolant pressure should be 12 bar.

SOGX

Designation	L mm	IC mm	D1 mm	S mm
SOGX 0402..	4.8	4.8	2.05	2.20
SOGX 0502..	5.5	5.5	2.30	2.40
SOGX 0602..	6.2	6.2	2.60	2.75
SOGX 07T2..	7.1	7.1	2.60	2.97
SOGX 0803..	8.0	8.0	2.85	3.40
SOGX 09T3..	8.9	8.9	3.40	3.90
SOGX 1004..	9.8	9.8	4.10	4.20
SOGX 1104..	10.9	10.9	4.10	4.50
SOGX 1204..	12.0	12.0	5.20	4.80
SOGX 1305..	13.2	13.2	5.20	5.20



SOGX



ISO	KOMET no.	RE mm	£ 1A/3#	£ 1A/3#	10 820 ...	10 820 ...
040204	W80 10210.047935	0.4		18.91	00421	18.91
040204	W80 10210.048430	0.4				50421
050204	W80 12210.047935	0.4		19.02	00521	19.02
050204	W80 12210.048430	0.4				50521
060206	W80 18210.067935	0.6		19.16	00621	19.16
060206	W80 18210.068430	0.6				50621
07T208	W80 20210.087935	0.8		19.27	00721	19.27
07T208	W80 20210.088430	0.8				50721
080308	W80 24210.087935	0.8		19.40	00821	19.40
080308	W80 24210.088430	0.8				50821
09T308	W80 28210.087935	0.8		20.13	00921	20.13
09T308	W80 28210.088430	0.8				50921
100408	W80 32210.087935	0.8		20.74	01021	20.74
100408	W80 32210.088430	0.8				51021
110408	W80 38210.087935	0.8		21.35	01121	21.35
110408	W80 38210.088430	0.8				51121
120408	W80 42210.087935	0.8		22.45	01221	22.45
120408	W80 42210.088430	0.8				51221
130508	W80 46210.087935	0.8		26.12	01321	26.12
130508	W80 46210.088430	0.8				51321

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

 You can find suitable holders and feed rate values (KUB Pentron and KUB Pentron CS) in the 2023 main catalogue → Chapter 3 – Indexable insert drilling

Cutting data standard values

		10 820 ...			
		Material sub-group	Index	Tensile strength N/mm ² / HB / HRC	
P	Unalloyed steel	P.1.1	420 N/mm ² / 125 HB	260	250
		P.1.2	640 N/mm ² / 190 HB	260	220
		P.1.3	840 N/mm ² / 250 HB	270	270
		P.1.4	910 N/mm ² / 270 HB	250	250
		P.1.5	1010 N/mm ² / 300 HB	270	200
	Low-alloy steel	P.2.1	610 N/mm ² / 180 HB	270	270
		P.2.2	930 N/mm ² / 275 HB	260	260
		P.2.3	1010 N/mm ² / 300 HB	180	160
		P.2.4	1200 N/mm ² / 375 HB	150	130
	High-alloy steel and high-alloy tool steel	P.3.1	680 N/mm ² / 200 HB	160	140
		P.3.2	1100 N/mm ² / 300 HB	130	120
		P.3.3	1300 N/mm ² / 400 HB	120	110
	Stainless steel	P.4.1	680 N/mm ² / 200 HB	180	150
		P.4.2	1010 N/mm ² / 300 HB	130	120
M	Stainless steel	M.1.1	610 N/mm ² / 180 HB	150	160
		M.2.1	300 HB	150	160
		M.3.1	780 N/mm ² / 230 HB	140	150
K	Grey cast iron	K.1.1	350 N/mm ² / 180 HB	160	150
		K.1.2	500 N/mm ² / 260 HB	120	120
	Spherulitic graphite cast iron	K.2.1	540 N/mm ² / 160 HB	160	150
		K.2.2	845 N/mm ² / 250 HB	100	90
	Malleable iron	K.3.1	440 N/mm ² / 130 HB	120	110
		K.3.2	780 N/mm ² / 230 HB	100	90
N	Aluminium wrought alloy	N.1.1	60 HB	400	400
		N.1.2	340 N/mm ² / 100 HB	400	400
	Cast aluminium alloy	N.2.1	250 N/mm ² / 75 HB	250	250
		N.2.2	300 N/mm ² / 90 HB	250	250
		N.2.3	440 N/mm ² / 130 HB	230	230
	Copper and copper alloys (bronze/brass)	N.3.1	375 N/mm ² / 110 HB	200	200
		N.3.2	300 N/mm ² / 90 HB	220	220
		N.3.3	340 N/mm ² / 100 HB	330	330
	Magnesium alloys	N.4.1	70 HB	200	200
	S	S.1.1	680 N/mm ² / 200 HB	60	60
		S.1.2	950 N/mm ² / 280 HB	50	50
		S.2.1	840 N/mm ² / 250 HB	60	60
		S.2.2	1180 N/mm ² / 350 HB	50	50
		S.2.3	1080 N/mm ² / 320 HB	30	30
	Titanium alloys	S.3.1	400 N/mm ²	100	100
		S.3.2	1050 N/mm ² / 320 HB	80	80
		S.3.3	1400 N/mm ² / 410 HB	50	50
H	Hardened steel	H.1.1	46–55 HRC	100	
		H.1.2	56–60 HRC	80	
		H.1.3	61–65 HRC	50	
		H.1.4	66–70 HRC		
	Chilled iron	H.2.1	400 HB	100	
	Hardened cast iron	H.3.1	55 HRC	80	
O	Non-metal materials	O.1.1	≤ 150 N/mm ²		100
		O.1.2	≤ 100 N/mm ²		100
		O.2.1	≤ 1000 N/mm ²		
		O.2.2	≤ 1000 N/mm ²		100
		O.3.1			100

* Tensile strength



During the drilling operation on through holes a sharp disk will be produced. Safety precautions must be observed.
A safety guard has to be provided as protection.



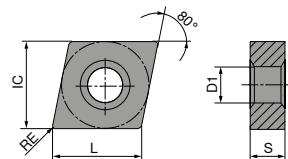
A detailed grade description can be found in the 2023 main catalogue → Chapter 3 – Indexable insert drilling



BK7935 -21 is exclusively recommended for use on the peripheral cutting edge!

CNMG

Designation	L mm	S mm	D1 mm	IC mm
CNMG 1204..	12.9	4.76	5.16	12.70
CNMG 1606..	16.1	6.35	6.35	15.87
CNMG 1906..	19.3	6.35	7.94	19.05

**CNMG**

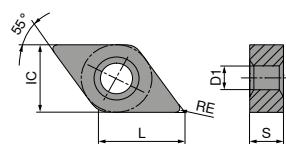
NEW	NEW
-42 CTCM130	-M70 CTCM130
DRAGOSKIN	DRAGOSKIN
○ ○ ○	○ ○ ○
M CNMG	M CNMG
75 030 ...	75 037 ...
£ 1A/08 13.59	£ 1A/08 13.59
33000	33000
	13.59
	33200
	21.95
	34400
	31.00
	35600
	31.00
	35800

ISO	RE mm
120408EN	0.8
120412EN	1.2
160612EN	1.2
190612EN	1.2
190616EN	1.6

P	○	○
M	●	●
K		
N		
S	○	○
H		
O		

DNMG

Designation	L mm	S mm	D1 mm	IC mm
DNMG 1104..	11.6	4.76	3.81	9.52
DNMG 1504..	15.5	4.76	5.16	12.70
DNMG 1506..	15.5	6.35	5.16	12.70



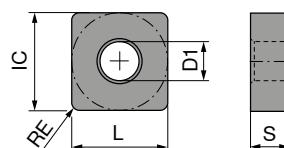
DNMG

NEW		NEW	
-M42	CTCM130	-M70	CTCM130
DRAGONSkin		DRAGONSkin	
(○)	(○)	(○)	(○)
M	DNMG	M	DNMG
75 027 ...		75 038 ...	
£ 1A/08	30400	£ 1A/08	30600
14.50	30400	14.50	30600
17.57	31600	17.57	31800
19.03	32800	19.03	33000

ISO	RE mm			
110404EN	0.4			
110408EN	0.8			
150404EN	0.4			
150408EN	0.8			
150604EN	0.4			
150608EN	0.8			
P		○	○	
M		●	●	
K				
N				
S		○	○	
H				
O				

SNMG

Designation	L mm	S mm	D1 mm	IC mm
SNMG 1204..	12.70	4.76	5.16	12.70
SNMG 1906..	19.05	6.35	7.94	19.05

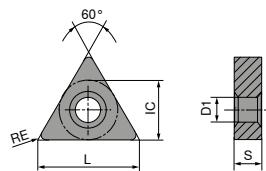


SNMG

		NEW		NEW	
ISO	RE mm	-M42	CTCM130	-M70	CTCM130
120408EN	0.8	DRAGONSkin		DRAGONSkin	
120412EN	1.2				
190616EN	1.6				
P		75 034 ...	£ 1A/08 13.83 31800	75 039 ...	£ 1A/08 13.83 31800
M			13.83 32000		13.83 32000
K					
N					
S					
H					
O					
			31.00 34600		

TNMG

Designation	L mm	S mm	D1 mm	IC mm
TNMG 1604..	16.5	4.76	3.81	9.52
TNMG 2204..	22.0	4.76	5.16	12.70

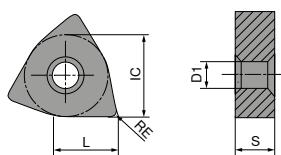


TNMG

ISO	RE mm	NEW		NEW	
		-M42	CTCM130	-M70	CTCM130
160404EN	0.4	DRAGONSkin		DRAGONSkin	
160408EN	0.8				
160412EN	1.2				
220412EN	1.2				
P		M	M		
M		TNMG	TNMG		
K		75 035 ...	75 040 ...		
N					
S		£ 12.12	31600	£ 12.12	31800
H		12.12	31800	12.12	32000
O				16.37	33200

WNMG

Designation	L mm	S mm	D1 mm	IC mm
WNMG 0604..	6.5	4.76	3.81	9.52
WNMG 0804..	8.6	4.76	5.16	12.70



WNMG

NEW	NEW
-M42 CTCM130	-M70 CTCM130
DRAGOSKIN	DRAGOSKIN
M WNMG	M WNMG
75 036 ...	75 041 ...
£ 1A/08	£ 1A/08
11.84 30400	
11.84 30600	11.84 30600
14.91 31600	14.91 31800
14.91 31800	14.91 31800
14.91 32000	14.91 32000
○	○
●	●
○	○
○	○

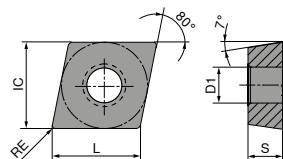
ISO	RE mm
060404EN	0.4
060408EN	0.8

080404EN	0.4	14.91	31600
080408EN	0.8	14.91	31800
080412EN	1.2	14.91	32000

P	○	○
M	●	●
K		
N		
S	○	○
H		
O		

CCMT

Designation	L mm	S mm	D1 mm	IC mm
CCMT 0602..	6.4	2.38	2.8	6.35
CCMT 09T3..	9.7	3.97	4.4	9.52
CCMT 1204..	12.9	4.76	5.5	12.70

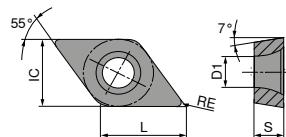


CCMT

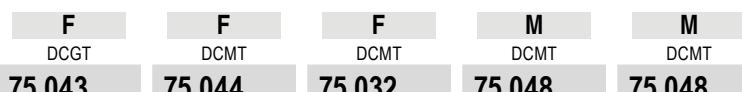
ISO	RE mm	F CCMT			F CCMT			M CCMT					
		£ 1A/08	20400	£ 1A/08	21600	£ 1A/08	31600	£ 1A/08	31800	£ 1A/08	32800	£ 1A/08	33000
060204EN	0.4												
09T304EN	0.4												
09T308EN	0.8												
120404EN	0.4												
120408EN	0.8												
P		○		○		○		○		○		○	
M			●			●						●	
K													
N													
S								○		○			
H													
O													

DCMT / DCGT

Designation	L mm	S mm	D1 mm	IC mm
DC.T 0702..	7.75	2.38	2.8	6.35
DCMT 11T3..	11.60	3.97	4.4	9.52



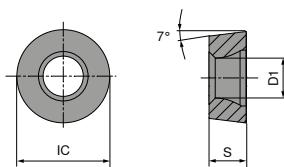
DCGT / DCMT



ISO	RE mm	F DCGT	F DCMT	DCMT	M DCMT	M DCMT
070202EN	0.2		£ 1A/08 16.48	20200		
070204EN	0.4		£ 1A/08 9.25	20400		
070208EN	0.8				£ 1A/08 9.25	30400
11T302EN	0.2				£ 1A/08 9.25	30600
11T304EN	0.4		£ 1A/08 13.00	21600		
11T308EN	0.8		£ 1A/08 13.00	21800	£ 1A/08 13.00	31600
				£ 1A/08 13.00	21800	£ 1A/08 13.00
P		○	○	○	○	○
M		●	●	●	●	●
K						
N						
S				○		
H						
O					○	

RCMT

Designation	S mm	D1 mm	IC mm
RCMT 2507..	7.94	7.2	25



RCMT

NEW

-SM
CTPM125

DRAGOSKIN



M

RCMT

75 221 ...

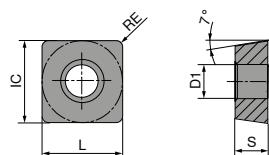
£
1A/08
47.79 26200

ISO	RE mm
2507MOSN	12.5

P	○
M	●
K	
N	
S	
H	
O	

SCMT

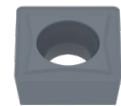
Designation	L mm	S mm	D1 mm	IC mm
SCMT 09T3..	9.52	3.97	4.4	9.52
SCMT 1204..	12.70	4.76	5.5	12.70



SCMT

NEW**-SM**
CTPM125

DRAGOSKIN

**M**
SCMT**75 049 ...**

£
1A/08
11.54 20600

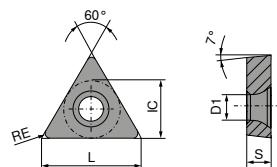
16.25 21800

ISO	RE mm
09T308EN	0.8
120408EN	0.8

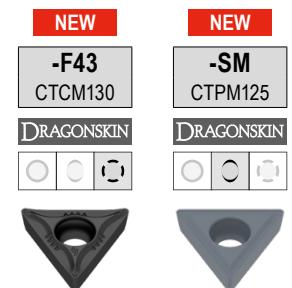
P	○
M	●
K	
N	
S	
H	
O	

TCMT

Designation	L mm	S mm	D1 mm	IC mm
TCMT 0902..	9.6	2.38	2.50	5.56
TCMT 1102..	11.0	2.38	2.80	6.35
TCMT 16T3..	16.5	3.97	4.40	9.52
TCMT 2204..	22.0	4.76	5.16	12.70



TCMT

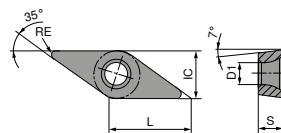


ISO	RE mm	F TCMT	M TCMT
090204EN	0.4	£ 9.08 1A/08	£ 9.08 20400
110204EN	0.4	9.08 31600	9.08 21600
16T304EN	0.4	13.13 32800	13.13 22800
16T308EN	0.8	13.13 33000	13.13 23000
220408EN	0.8		18.89 24200
220412EN	1.2		18.89 24400

P	○	○
M	●	●
K		
N		
S	○	
H		
O		

VCMT / VCGT

Designation	L mm	S mm	D1 mm	IC mm
VCGT 1103..	11.1	3.18	2.9	6.35
VCMT 1604..	16.6	4.76	4.4	9.52



VCGT / VCMT

ISO	RE mm
110302EN	0.2
110304EN	0.4
160404EN	0.4
160408EN	0.8

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

NEW		NEW		NEW	
-SF	CTPM125	-SF	CTPM125	-SM	CTPM125
DRAGONSkin		DRAGONSkin		DRAGONSkin	
○ ○ ○		○ ○ ○		○ ○ ○	
F VCGT		F VCMT		M VCMT	
75 045 ...		75 046 ...		75 051 ...	
£ 1A/08		£ 1A/08		£ 1A/08	
19.03 21400		19.03 21600		19.03 22800	
19.03 21600				19.03 23000	
				19.03 23000	

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
	High-alloy steel and high-alloy tool steel	P.2.4		Tempered	1200 N/mm ² / 375 HB	1.7225	42CrMo4	1.3505	100Cr6
		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
	Stainless steel	P.3.3		Hardened and tempered	1300 N/mm ² / 400 HB	1.2343	X38CrMoV5-1	1.4034	X46Cr13
		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	Ni or Co basis	Annealed	840 N/mm ² / 250 HB	2.4631	NiCr20TiAl (Nimonic80A)	3.4856	NiCr22Mo9Nb
		S.2.2		Age-hardened	1180 N/mm ² / 350 HB	2.4668	NiCr19Nb5Mo3 (Inconel 718)	2.4955	NiFe25Cr20NbTi
	Titanium alloys	S.2.3	Cast		1080 N/mm ² / 320 HB	2.4765	CoCr20W15Ni	1.3401	G-X120Mn12
		S.3.1			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.1.1		Hardened and tempered	46–55 HRC				
H	Hardened steel	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				
		H.2.1		Cast	400 HB				
	Chilled 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

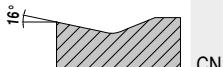
Cutting data standard values

Index	DRAGONSKIN	
	CTPM125	CTCM130
	v_c (m/min)	
P.1.1	200	185
P.1.2	170	150
P.1.3	140	125
P.1.4	130	115
P.1.5	120	100
P.2.1	175	160
P.2.2	130	110
P.2.3	120	100
P.2.4	80	60
P.3.1	140	125
P.3.2	100	80
P.3.3	50	40
P.4.1	140	125
P.4.2	120	100
M.1.1	140	125
M.2.1	100	80
M.3.1	130	110
K.1.1		
K.1.2		
K.2.1		
K.2.2		
K.3.1		
K.3.2		
N.1.1		
N.1.2		
N.2.1		
N.2.2		
N.2.3		
N.3.1		
N.3.2		
N.3.3		
N.4.1		
S.1.1		35
S.1.2		25
S.2.1		20
S.2.2		20
S.2.3		20
S.3.1		110
S.3.2		65
S.3.3		45
H.1.1		
H.1.2		
H.1.3		
H.1.4		
H.2.1		
H.3.1		
O.1.1		
O.1.2		
O.2.1		
O.2.2		
O.3.1		



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. $\pm 20\%$ according to the usage conditions.

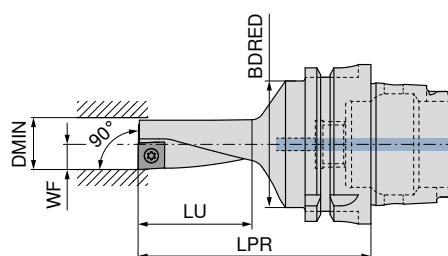
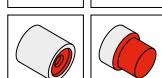
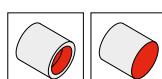
Standard chip breakers / application notes

Negative	Model	Smooth cut	Irregular cutting depth	Interrupted cut	Sectional illustration		Geometry
					a_p mm	f mm	
Main and Extended Application	-42				CTCM130		
					CTCM130		
					CTCM130		
							
		M				0,50–4,50	0,05–0,35
	-M42				CTCM130		
					CTCM130		
					CTCM130		
		M				1,00–3,50	0,15–0,40
Positive	-M70				CTCM130		
					CTCM130		
					CTCM130		
		M				1,50–4,50	0,20–0,80
		R					
	-SF			CTPM125			
				CTPM125			
		F				0,05–2,50	0,05–0,25
	-F43			CTCM130			
Main and Extended Application				CTCM130			
				CTCM130			
		F				0,50–2,50	0,05–0,25
	-SM			CTPM125	CTCM130		
				CTPM125	CTCM130		
		M				0,05–5,00	0,15–0,45

EcoCut – HSK-T 2.25xD

Scope of supply:

Toolholder with 1 clamping screw + 2 spare screws and screwdriver



Illustrations show right-hand versions

ISO designation	Adapter							Insert	NEW	
		LPR mm	LU mm	BDRED mm	WF mm	DMIN mm	torque moment Nm		Left-hand	Right-hand
HSK-T 63 ECC 16 R/L 2,25D 08	HSK-T 63	84	36.00	50	8.0	16	2,2	XC.T 0803..	£ 362.03	51637
HSK-T 63 ECC 20 R/L 2,25D 10	HSK-T 63	92	45.00	50	10.0	20	3,2	XC.T 10T3..	£ 434.06	52037
HSK-T 63 ECC 25 R/L 2,25D 13	HSK-T 63	104	56.25	50	12.5	25	5,0	XC.T 1304..	£ 504.05	52537
HSK-T 63 ECC 32 R/L 2,25D 17	HSK-T 63	120	72.00	50	16.0	32	5,0	XC.T 1705..	£ 566.71	53237
74 591 ...										
74 590 ...										
Key D										
Clamping screw										
80 950 ...										
70 950 ...										
£ Y7										
£ 2A/28										
18.76 126										
20.03 128										
21.03 129										
21.03 129										
3.61 819										
3.61 859										
3.61 864										
3.61 864										

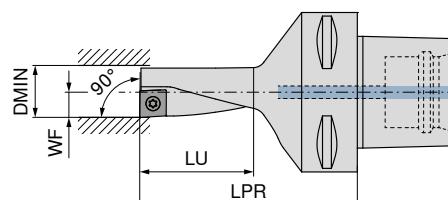
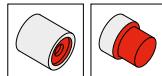
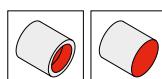
**Spare parts
for Article no.**74 590 51637 / 74 591 51637
74 590 52037 / 74 591 52037
74 590 52537 / 74 590 53237
74 591 52537 / 74 591 53237

Suitable indexable inserts and cutting data can be found in the catalogue Cutting tools → Chapter 10

EcoCut – Classic PSC 2,25xD

Scope of supply:

Toolholder with 1 clamping screw + 2 spare screws and screwdriver



Illustrations show right-hand versions

	NEW Left-hand	NEW Right-hand
	74 591 ...	74 590 ...
	£ 2D/80	£ 2D/80
PSC 50 ECC 16 R/L 2,25D 08	362.03 51694	362.03 51694
PSC 50 ECC 20 R/L 2,25D 10	434.06 52094	434.06 52094
PSC 50 ECC 25 R/L 2,25D 13	504.05 52594	504.05 52594
PSC 50 ECC 32 R/L 2,25D 17	566.71 53294	566.71 53294
PSC 63 ECC 16 R/L 2,25D 08	362.03 51693	362.03 51693
PSC 63 ECC 20 R/L 2,25D 10	434.06 52093	434.06 52093
PSC 63 ECC 25 R/L 2,25D 13	504.05 52593	504.05 52593
PSC 63 ECC 32 R/L 2,25D 17	566.71 53293	566.71 53293

ISO designation	Adapter	LPR mm	LU mm	WF mm	DMIN mm	torque moment Nm	Insert		£ 2D/80
PSC 50 ECC 16 R/L 2,25D 08	PSC 50	70	36.00	8.0	16	2,2	XC.T 0803..	362.03 51694	362.03 51694
PSC 50 ECC 20 R/L 2,25D 10	PSC 50	81	45.00	10.0	20	3,2	XC.T 10T3..	434.06 52094	434.06 52094
PSC 50 ECC 25 R/L 2,25D 13	PSC 50	93	56.25	12.5	25	5,0	XC.T 1304..	504.05 52594	504.05 52594
PSC 50 ECC 32 R/L 2,25D 17	PSC 50	110	72.00	16.0	32	5,0	XC.T 1705..	566.71 53294	566.71 53294
PSC 63 ECC 16 R/L 2,25D 08	PSC 63	75	36.00	8.0	16	2,2	XC.T 0803..	362.03 51693	362.03 51693
PSC 63 ECC 20 R/L 2,25D 10	PSC 63	86	45.00	10.0	20	3,2	XC.T 10T3..	434.06 52093	434.06 52093
PSC 63 ECC 25 R/L 2,25D 13	PSC 63	97	56.25	12.5	25	5,0	XC.T 1304..	504.05 52593	504.05 52593
PSC 63 ECC 32 R/L 2,25D 17	PSC 63	114	72.00	16.0	32	5,0	XC.T 1705..	566.71 53293	566.71 53293

**80 950 ...****70 950 ...**

£ Y7	£ 2A/28
18.76 126	3.61 819
20.03 128	3.61 859
21.03 129	3.61 864
21.03 129	3.61 864
18.76 126	3.61 819
20.03 128	3.61 859
21.03 129	3.61 864
21.03 129	3.61 864

**Spare parts
for Article no.**

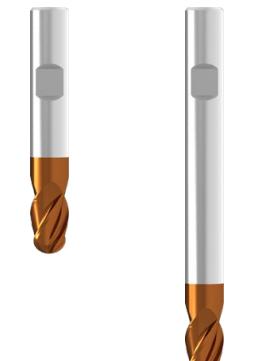
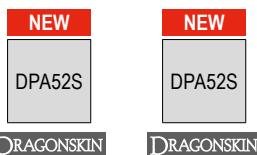
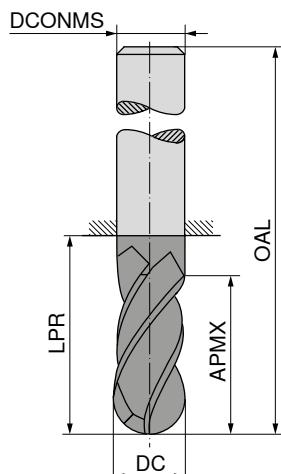
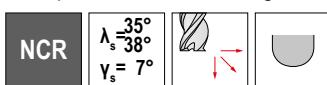
74 590 51694 / 74 590 51693	18.76 126
74 590 52094 / 74 590 52093	20.03 128
74 590 52594 / 74 590 53294	21.03 129
74 590 52593 / 74 590 53293	21.03 129
74 591 51694 / 74 591 51693	18.76 126
74 591 52094 / 74 591 52093	20.03 128
74 591 52594 / 74 591 53294	21.03 129
74 591 52593 / 74 591 53293	21.03 129



Suitable indexable inserts and cutting data can be found in the catalogue Cutting tools → Chapter 10

MonsterMill – Ball Nosed Cutter

The specialist for machining nickel-based alloys



Factory standard Factory standard

53 032 ... 53 033 ...

	£ V1	£ V1
71.68 02210	74.42 02410	
66.95 03215	69.38 03415	
66.95 04220	69.38 04420	
68.32 05225	70.75 05425	
66.02 06230	68.62 06430	
87.53 08240	90.89 08440	
114.06 10250	118.33 10450	
179.64 12260	186.72 12460	
283.56 16280	294.36 16480	

DC $\pm 0,01$ mm	APMX mm	LPR mm	OAL mm	DCONMS mm	ZEFP
2	4	18	54	6	4
2	4	44	80	6	4
3	5	18	54	6	4
3	5	44	80	6	4
4	8	18	54	6	4
4	8	44	80	6	4
5	9	18	54	6	4
5	9	44	80	6	4
6	10	18	54	6	4
6	10	44	80	6	4
8	12	22	58	8	4
8	12	64	100	8	4
10	14	26	66	10	4
10	14	60	100	10	4
12	16	28	73	12	4
12	16	55	100	12	4
16	20	34	82	16	4
16	20	52	100	16	4

P			
M			○ ○
K			
N			
S		● ●	
H			
O			

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	
	High-alloy steel and high-alloy tool steel	P.2.4		Tempered	1200 N/mm ² / 375 HB	1.7225	42CrMo4	1.3505	100Cr6	
		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	
	Stainless steel	P.3.3		Hardened and tempered	1300 N/mm ² / 400 HB	1.2343	X38CrMoV5-1	1.4034	X46Cr13	
		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	Ni or Co basis	Annealed	840 N/mm ² / 250 HB	2.4631	NiCr20TiAl (Nimonic80A)	3.4856	NiCr22Mo9Nb	
		S.2.2		Age-hardened	1180 N/mm ² / 350 HB	2.4668	NiCr19Nb5Mo3 (Inconel 718)	2.4955	NiFe25Cr20NbTi	
	Titanium alloys	S.2.3	Cast		1080 N/mm ² / 320 HB	2.4765	CoCr20W15Ni	1.3401	G-X120Mn12	
		S.3.1			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					
O	Non-metal materials	H.3.1		Hardened and tempered	55 HRC					
		O.1.1	Plastics, duroplastic		≤ 150 N/mm ²					
O		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							

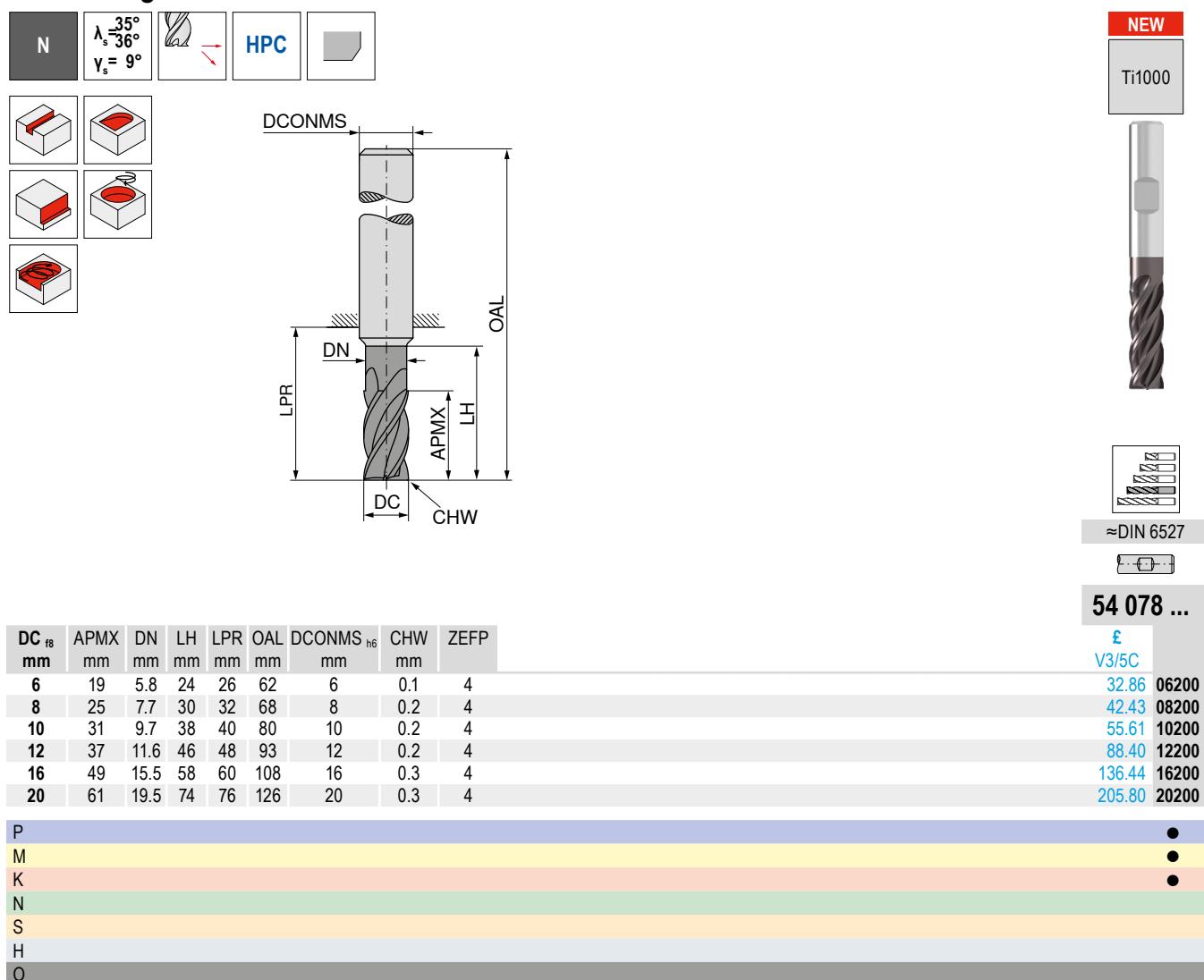
* Tensile strength

Cutting data standard values – MonsterMill – NCR – ball-nosed end mill

Index	Type long	Type extra long	$a_p \text{ max.} \times DC$	53 032 ... / 53 033 ...													
				$\emptyset DC (\text{mm}) =$													
				2		3		4		5		6		8			
				a_e 0,01–0,02 $\times DC$	a_e 0,03–0,05 $\times DC$												
P.1.1																	
P.1.2																	
P.1.3																	
P.1.4																	
P.1.5																	
P.2.1																	
P.2.2																	
P.2.3																	
P.2.4																	
P.3.1																	
P.3.2																	
P.3.3																	
P.4.1																	
P.4.2																	
M.1.1	120	90	0.020	0.020	0.015	0.030	0.020	0.035	0.025	0.040	0.030	0.055	0.040	0.070	0.050		
M.2.1	100	80	0.020	0.020	0.015	0.030	0.020	0.035	0.025	0.040	0.030	0.055	0.040	0.070	0.050		
M.3.1	120	90	0.020	0.020	0.015	0.030	0.020	0.035	0.025	0.040	0.030	0.055	0.040	0.070	0.050		
K.1.1																	
K.1.2																	
K.2.1																	
K.2.2																	
K.3.1																	
K.3.2																	
N.1.1																	
N.1.2																	
N.2.1																	
N.2.2																	
N.2.3																	
N.3.1																	
N.3.2																	
N.3.3																	
N.4.1																	
S.1.1	60	50	0.020	0.015	0.010	0.025	0.015	0.030	0.020	0.040	0.025	0.050	0.030	0.060	0.040		
S.1.2	60	50	0.020	0.015	0.010	0.025	0.015	0.030	0.020	0.040	0.025	0.050	0.030	0.060	0.040		
S.2.1	50	40	0.020	0.015	0.010	0.025	0.015	0.030	0.020	0.040	0.025	0.050	0.030	0.060	0.040		
S.2.2	50	40	0.020	0.015	0.010	0.025	0.015	0.030	0.020	0.040	0.025	0.050	0.030	0.060	0.040		
S.2.3	50	40	0.020	0.015	0.010	0.025	0.015	0.030	0.020	0.040	0.025	0.050	0.030	0.060	0.040		
S.3.1	100	80	0.020	0.020	0.015	0.030	0.020	0.035	0.025	0.040	0.030	0.055	0.040	0.070	0.050		
S.3.2	90	70	0.020	0.020	0.015	0.030	0.020	0.035	0.025	0.040	0.030	0.055	0.040	0.070	0.050		
S.3.3	90	70	0.020	0.020	0.015	0.030	0.020	0.035	0.025	0.040	0.030	0.055	0.040	0.070	0.050		
H.1.1																	
H.1.2																	
H.1.3																	
H.1.4																	
H.2.1																	
H.3.1																	
O.1.1																	
O.1.2																	
O.2.1																	
O.2.2																	
O.3.1																	

Index	53 032 ... / 53 033 ...							● 1st choice	
								○ suitable	
	$\emptyset DC$ (mm) =								
	10		12		16				
	a_e 0.01–0.02 x DC	a_e 0.03–0.05 x DC	a_e 0.01–0.02 x DC	a_e 0.03–0.05 x DC	a_e 0.01–0.02 x DC	a_e 0.03–0.05 x DC	Emulsion	Compressed air	MMS
	f_z (mm)								
P.1.1									
P.1.2									
P.1.3									
P.1.4									
P.1.5									
P.2.1									
P.2.2									
P.2.3									
P.2.4									
P.3.1									
P.3.2									
P.3.3									
P.4.1									
P.4.2									
M.1.1	0.080	0.060	0.090	0.070	0.120	0.100	●	○	
M.2.1	0.080	0.060	0.090	0.070	0.120	0.100	●	○	
M.3.1	0.080	0.060	0.090	0.070	0.120	0.100	●	○	
N.1.1									
N.1.2									
N.2.1									
N.2.2									
N.2.3									
N.3.1									
N.3.2									
N.3.3									
N.4.1									
S.1.1	0.070	0.050	0.080	0.060	0.100	0.080	●		
S.1.2	0.070	0.050	0.080	0.060	0.100	0.080	●		
S.2.1	0.070	0.050	0.080	0.060	0.100	0.080	●		
S.2.2	0.070	0.050	0.080	0.060	0.100	0.080	●		
S.2.3	0.070	0.050	0.080	0.060	0.100	0.080	●		
S.3.1	0.080	0.060	0.090	0.070	0.120	0.100	●		
S.3.2	0.080	0.060	0.090	0.070	0.120	0.100	●		
S.3.3	0.080	0.060	0.090	0.070	0.120	0.100	●		
H.1.1									
H.1.2									
H.1.3									
H.1.4									
H.2.1									
H.3.1									
O.1.1									
O.1.2									
O.2.1									
O.2.2									
O.3.1									

End milling cutter



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	
	High-alloy steel and high-alloy tool steel	P.2.4		Tempered	1200 N/mm ² / 375 HB	1.7225	42CrMo4	1.3505	100Cr6	
		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	
	Stainless steel	P.3.3		Hardened and tempered	1300 N/mm ² / 400 HB	1.2343	X38CrMoV5-1	1.4034	X46Cr13	
		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	Ni or Co basis	Annealed	840 N/mm ² / 250 HB	2.4631	NiCr20TiAl (Nimonic80A)	3.4856	NiCr22Mo9Nb	
		S.2.2		Age-hardened	1180 N/mm ² / 350 HB	2.4668	NiCr19Nb5Mo3 (Inconel 718)	2.4955	NiFe25Cr20NbTi	
	Titanium alloys	S.2.3	Cast		1080 N/mm ² / 320 HB	2.4765	CoCr20W15Ni	1.3401	G-X120Mn12	
		S.3.1			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					
O	Non-metal materials	H.3.1		Hardened and tempered	55 HRC					
		O.1.1	Plastics, duroplastic		≤ 150 N/mm ²					
O		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 – End mill

Index	Type long		54 078 ...															
	v _c (m/min)	a _{pmax} x DC	Ø DC (mm) =															
			6				8				10				12			
			a _e 0.1–0.2 x DC	a _e 0.3–0.4 x DC	a _e 0.6–1.0 x DC	a _e 0.1–0.2 x DC	a _e 0.3–0.4 x DC	a _e 0.6–1.0 x DC	a _e 0.1–0.2 x DC	a _e 0.3–0.4 x DC	a _e 0.6–1.0 x DC	a _e 0.1–0.2 x DC	a _e 0.3–0.4 x DC	a _e 0.6–1.0 x DC	a _e 0.1–0.2 x DC	a _e 0.3–0.4 x DC	a _e 0.6–1.0 x DC	
P.1.1	120	1xDC	0.048	0.038	0.024	0.062	0.050	0.031	0.075	0.060	0.038	0.089	0.071	0.045	0.110	0.088	0.055	
P.1.2	110	1xDC	0.041	0.033	0.021	0.054	0.043	0.027	0.066	0.053	0.033	0.079	0.063	0.040	0.099	0.079	0.050	
P.1.3	110	1xDC	0.041	0.033	0.021	0.054	0.043	0.027	0.066	0.053	0.033	0.079	0.063	0.040	0.099	0.079	0.050	
P.1.4	110	1xDC	0.041	0.033	0.021	0.054	0.043	0.027	0.066	0.053	0.033	0.079	0.063	0.040	0.099	0.079	0.050	
P.1.5	110	1xDC	0.041	0.033	0.021	0.054	0.043	0.027	0.066	0.053	0.033	0.079	0.063	0.040	0.099	0.079	0.050	
P.2.1	110	1xDC	0.041	0.033	0.021	0.054	0.043	0.027	0.066	0.053	0.033	0.079	0.063	0.040	0.099	0.079	0.050	
P.2.2	110	1xDC	0.041	0.033	0.021	0.054	0.043	0.027	0.066	0.053	0.033	0.079	0.063	0.040	0.099	0.079	0.050	
P.2.3	110	1xDC	0.041	0.033	0.021	0.054	0.043	0.027	0.066	0.053	0.033	0.079	0.063	0.040	0.099	0.079	0.050	
P.2.4	95	1xDC	0.041	0.033	0.021	0.054	0.043	0.027	0.066	0.053	0.033	0.079	0.063	0.040	0.099	0.079	0.050	
P.3.1	95	1xDC	0.041	0.033	0.021	0.054	0.043	0.027	0.066	0.053	0.033	0.079	0.063	0.040	0.099	0.079	0.050	
P.3.2	95	1xDC	0.041	0.033	0.021	0.054	0.043	0.027	0.066	0.053	0.033	0.079	0.063	0.040	0.099	0.079	0.050	
P.3.3																		
P.4.1	70	1xDC	0.041	0.033	0.021	0.054	0.043	0.027	0.066	0.053	0.033	0.079	0.063	0.040	0.099	0.079	0.050	
P.4.2	60	1xDC	0.041	0.033	0.021	0.054	0.043	0.027	0.066	0.053	0.033	0.079	0.063	0.040	0.099	0.079	0.050	
M.1.1	70	1xDC	0.041	0.033	0.021	0.054	0.043	0.027	0.066	0.053	0.033	0.079	0.063	0.040	0.099	0.079	0.050	
M.2.1	70	1xDC	0.041	0.033	0.021	0.054	0.043	0.027	0.066	0.053	0.033	0.079	0.063	0.040	0.099	0.079	0.050	
M.3.1	70	1xDC	0.041	0.033	0.021	0.054	0.043	0.027	0.066	0.053	0.033	0.079	0.063	0.040	0.099	0.079	0.050	
K.1.1	130	1xDC	0.078	0.062	0.039	0.100	0.080	0.050	0.122	0.098	0.061	0.144	0.115	0.072	0.177	0.142	0.089	
K.1.2	120	1xDC	0.078	0.062	0.039	0.100	0.080	0.050	0.122	0.098	0.061	0.144	0.115	0.072	0.177	0.142	0.089	
K.2.1	130	1xDC	0.058	0.046	0.029	0.072	0.058	0.036	0.086	0.069	0.043	0.102	0.082	0.051	0.124	0.099	0.062	
K.2.2	120	1xDC	0.058	0.046	0.029	0.072	0.058	0.036	0.086	0.069	0.043	0.102	0.082	0.051	0.124	0.099	0.062	
K.3.1	130	1xDC	0.078	0.062	0.039	0.100	0.080	0.050	0.122	0.098	0.061	0.144	0.115	0.072	0.177	0.142	0.089	
K.3.2	130	1xDC	0.078	0.062	0.039	0.100	0.080	0.050	0.122	0.098	0.061	0.144	0.115	0.072	0.177	0.142	0.089	
N.1.1																		
N.1.2																		
N.2.1																		
N.2.2																		
N.2.3																		
N.3.1																		
N.3.2																		
N.3.3																		
N.4.1																		
S.1.1																		
S.1.2																		
S.2.1																		
S.2.2																		
S.2.3																		
S.3.1																		
S.3.2																		
S.3.3																		
H.1.1																		
H.1.2																		
H.1.3																		
H.1.4																		
H.2.1																		
H.3.1																		
O.1.1																		
O.1.2																		
O.2.1																		
O.2.2																		
O.3.1																		

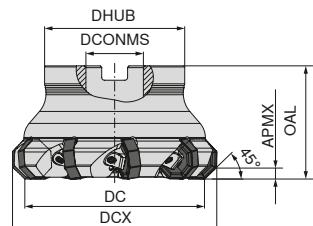
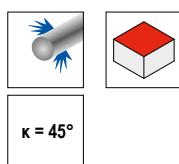
 Plunging angle for ramping and helical milling: 3°

 At an a_e of < 0.3xDC, an a_p of 3xDC may be used.

Index	54 078 ...			● 1st choice ○ suitable		
	\emptyset DC (mm) = 20			Emulsion	Compressed air	MMS
	a_b 0.1–0.2 x DC	a_s 0.3–0.4 x DC	a_e 0.6–1.0 x DC			
	f_z (mm)					
P.1.1	0.123	0.098	0.062	●	●	○
P.1.2	0.111	0.089	0.056	●	●	○
P.1.3	0.111	0.089	0.056	●	●	○
P.1.4	0.111	0.089	0.056	●	●	○
P.1.5	0.111	0.089	0.056	●	●	○
P.2.1	0.111	0.089	0.056	●	●	○
P.2.2	0.111	0.089	0.056	●	●	○
P.2.3	0.111	0.089	0.056	●	●	○
P.2.4	0.111	0.089	0.056	●	●	○
P.3.1	0.111	0.089	0.056	●	●	○
P.3.2	0.111	0.089	0.056	●	●	○
P.3.3						
P.4.1	0.111	0.089	0.056	●		
P.4.2	0.111	0.089	0.056	●		
M.1.1	0.111	0.089	0.056	●		
M.2.1	0.111	0.089	0.056	●		
M.3.1	0.111	0.089	0.056	●		
K.1.1	0.200	0.160	0.100		●	●
K.1.2	0.200	0.160	0.100		●	●
K.2.1	0.139	0.111	0.070		●	●
K.2.2	0.139	0.111	0.070		●	●
K.3.1	0.200	0.160	0.100		●	●
K.3.2	0.200	0.160	0.100		●	●
N.1.1						
N.1.2						
N.2.1						
N.2.2						
N.2.3						
N.3.1						
N.3.2						
N.3.3						
N.4.1						
S.1.1						
S.1.2						
S.2.1						
S.2.2						
S.2.3						
S.3.1						
S.3.2						
S.3.3						
H.1.1						
H.1.2						
H.1.3						
H.1.4						
H.2.1						
H.3.1						
O.1.1						
O.1.2						
O.2.1						
O.2.2						
O.3.1						

MaxiMill – 273-08 Shell mill

▲ 16 cutting edges per insert



NEW

NEW

50 779 ...**50 779 ...**

£ 2B/40

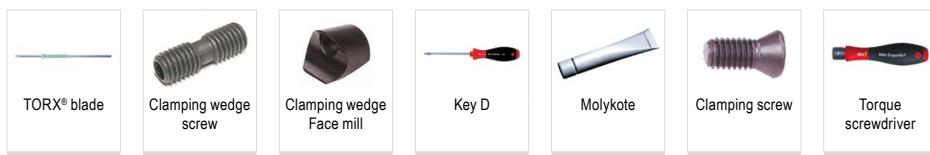
£ 2B/40

Designation	DC mm	DCX mm	ZNF mm	APMX mm	OAL mm	DCONMS H6 mm	DHUB mm	torque moment Nm	Insert	£ 2B/40	£ 2B/40
A273.63.R.05-08	63	76.7	5	5	50	22	48	5	ONKU 0806	559.58	06300
A273.63.R.06-08	63	76.7	6	5	50	22	48	5	ONKU 0806	817.32	16300 ¹⁾
A273.80.R.06-08	80	93.7	6	5	50	27	58	5	ONKU 0806	680.12	08000
A273.80.R.08-08	80	93.7	8	5	50	27	58	4	ONKU 0806	1,032.92	18000 ¹⁾
A273.100.R.07-08	100	113.7	7	5	63	32	78	5	ONKU 0806	707.56	10000
A273.100.R.09-08	100	113.7	9	5	63	32	78	4	ONKU 0806	1,076.04	20000 ¹⁾
A273.125.R.08-08	125	138.7	8	5	63	40	88	5	ONKU 0806	823.20	12500
A273.125.R.11-08	125	138.7	11	5	63	40	88	4	ONKU 0806	1,337.70	22500 ¹⁾
A273.160.R.10-08	160	173.7	10	5	63	40	98	5	ONKU 0806	1,274.00	16000 ³⁾
A273.160.R.14-08	160	173.7	14	5	63	40	98	4	ONKU 0806	1,626.80	26000 ²⁾

1) Version with Wedge

2) Version with Wedge, without internal coolant supply / With threaded holes M12 on the front face, pitch circle diameter = 66.7 mm

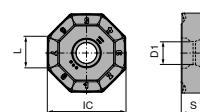
3) With threaded holes M12 on the front face, pitch circle diameter = 66.7 mm / Without Through Coolant

**80 950 ...****70 950 ...****70 950 ...****80 950 ...****70 950 ...****70 950 ...****80 950 ...**

Spare parts for Article no.	£ Y7	£ 2A/28	£ 2A/28	£ Y7	£ 2A/28	£ 2A/28	£ Y7
50 779 06300	8.49 055			21.03 129	5.06 303	4.89 821	232.67 193
50 779 16300	8.49 036	6.81 844	27.19 845	15.56 113	5.06 303		232.67 193
50 779 08000	8.49 055			21.03 129	5.06 303	4.89 821	232.67 193
50 779 18000	8.49 036	6.81 844	27.19 845	15.56 113	5.06 303		232.67 193
50 779 10000	8.49 055			21.03 129	5.06 303	4.89 821	232.67 193
50 779 20000	8.49 036	6.81 844	27.19 845	15.56 113	5.06 303		232.67 193
50 779 12500	8.49 055			21.03 129	5.06 303	4.89 821	232.67 193
50 779 22500	8.49 036	6.81 844	27.19 845	15.56 113	5.06 303		232.67 193
50 779 16000	8.49 055			21.03 129	5.06 303	4.89 821	232.67 193
50 779 26000	8.49 036	6.81 844	27.19 845	15.56 113	5.06 303		232.67 193

ONKU

Designation	IC mm	D1 mm	L mm	S mm
ONKU 0806..	22	5.8	8.45	6.45



ONKU

NEW	NEW	NEW	NEW	NEW
-M50 CTCP230	-M50 CTPP235	-M50 CTPM240	-M50 CTCK215	-M50 CTPK220
DRAGONSkin	DRAGONSkin	DRAGONSkin	DRAGONSkin	DRAGONSkin

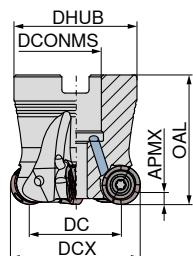
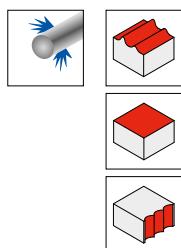
ISO	RE mm				
080608SN	0.8				
		£ 1B/61 30.77 00800	£ 1B/61 30.77 10800	£ 1B/61 30.77 20800	£ 1B/61 30.77 50800
P		●	●	○	
M			○	●	
K		○	○		●
N					
S					
H					
O					

ONKU

NEW	NEW	NEW	NEW
-R50 CTCP230	-R50 CTPP235	-R50 CTCK215	-R50 CTPK220
DRAGONSkin	DRAGONSkin	DRAGONSkin	DRAGONSkin

ISO	RE mm				
080608SN	0.8				
		£ 1B/61 30.77 00800	£ 1B/61 30.77 10800	£ 1B/61 30.77 50800	£ 1B/61 30.77 60800
P		●	●		
M			○		
K		○	○	●	●
N					
S					
H					
O					

MaxiMill – 252 Shell mill



NEW

50 689 ...

Designation	DC mm	DCX mm	ZNF	APMX mm	OAL mm	DCONMS mm	DHUB mm	torque moment Nm	Insert	£ 2B/40
A252.40.R.05-10	30	40	5	2.5	40	16	38	2	RNUH 1004..	472.72
A252.42.R.05-10	32	42	5	2.5	40	16	38	2	RNUH 1004..	542.12
A252.50.R.06-10	40	50	6	2.5	40	22	43	2	RNUH 1004..	562.09
A252.52.R.07-10	42	52	7	2.5	40	22	43	2	RNUH 1004..	610.47
A252.63.R.08-10	53	63	8	2.5	40	22	48	2	RNUH 1004..	691.84
A252.80.R.10-10	70	80	10	2.5	50	27	58	2	RNUH 1004..	786.98
										18000
A252.40.R.04-12	28	40	4	3.0	40	16	38	3.2	RNUH 1205..	434.30
A252.50.R.05-12	38	50	5	3.0	40	22	43	3.2	RNUH 1205..	527.33
A252.52.R.05-12	40	52	5	3.0	40	22	43	3.2	RNUH 1205..	528.60
A252.63.R.06-12	51	63	6	3.0	40	22	48	3.2	RNUH 1205..	651.43
A252.66.R.07-12	54	66	7	3.0	40	22	48	3.2	RNUH 1205..	686.18
A252.80.R.08-12	68	80	8	3.0	50	27	58	3.2	RNUH 1205..	749.44
A252.100.R.10-12	88	100	10	3.0	50	32	78	3.2	RNUH 1205..	891.89
A252.125.R.12-12	113	125	12	3.0	63	40	88	3.2	RNUH 1205..	1,079.04
										32500

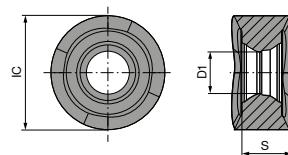
	TORX® blade		Clamping key - T		Key D		Power Screw		Molykote		Clamping screw		Torque screwdriver
	80 950 ...		80 397 ...		80 950 ...		70 950 ...		70 950 ...		70 950 ...		80 950 ...

Spare parts
Insert

	£ Y7		£ Y7		£ Y7		£ 2A/28		£ 2A/28		£ 2A/28		£ Y7
RNUH 1004.. (Ø40 – Ø80)	8.49	053			19.45	127			5.06	303	3.57	710	195.92
RNUH 1205.. (Ø40)	8.49	054	6.07	040	20.03	128	15.12	151	5.06	303	3.67	839	195.92
RNUH 1205.. (Ø50 – Ø125)	8.49	054			20.03	128			5.06	303	3.67	839	195.92
													192

RNHU

Designation	IC mm	D1 mm	S mm
RNHU 1004..	10	3.4	4.60
RNHU 1205..	12	4.4	5.30



RNHU



ISO	£	1B/61		£	1B/61		£	1H/17										
1004M4ER	21.17	12000		21.17	42000		28.64	470		28.64	470		28.64	550		31.35	552	
1205M4ER				22.93	42500		31.35	475		31.35	475							
1205M4SR	22.93	12500																

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

Cutting data standard values

			CTCP230	CTPP235	CTPM240	CTPM245	CTCK215	CTPK220	CTC5240				
			DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN				
			Cutting Material hard ($v_c \uparrow$) → tough ($v_c \downarrow$)										
			v_c (m/min)										
P	Unalloyed steel	P.1.1	420 N/mm ² / 125 HB	286	150	246	137	226	141	244	139		
		P.1.2	640 N/mm ² / 190 HB	242	133	208	121	188	126	207	124		
		P.1.3	840 N/mm ² / 250 HB	202	118	172	106	152	112	173	109		
		P.1.4	910 N/mm ² / 270 HB	189	112	160	101	140	107	161	104		
		P.1.5	1010 N/mm ² / 300 HB	169	105	143	94	123	100	144	97		
	Low-alloy steel	P.2.1	610 N/mm ² / 180 HB	249	136	214	123	194	128	212	126		
		P.2.2	930 N/mm ² / 275 HB	185	111	157	100	137	106	158	103		
		P.2.3	1010 N/mm ² / 300 HB	169	105	143	94	123	100	144	97		
		P.2.4	1200 N/mm ² / 375 HB	118	85	98	76	78	83	101	78		
	High-alloy steel and high-alloy tool steel	P.3.1	680 N/mm ² / 200 HB	140	87	121	97	126	105	155	107		
		P.3.2	1100 N/mm ² / 300 HB	90	55	108	83	112	95	143	93		
		P.3.3	1300 N/mm ² / 400 HB	40	22	96	69	98	85	131	79		
	Stainless steel	P.4.1	680 N/mm ² / 200 HB	140	87	121	97	126	105	155	107		
		P.4.2	1010 N/mm ² / 300 HB	115	71	114	90	119	100	149	100		
M	Stainless steel	M.1.1	610 N/mm ² / 180 HB			121	97	126	105	155	107		
		M.2.1	300 HB			108	83	112	95	143	93		
		M.3.1	780 N/mm ² / 230 HB			117	93	121	102	152	103		
K	Grey cast iron	K.1.1	350 N/mm ² / 180 HB	310	190	160	110			360	210	320	190
		K.1.2	500 N/mm ² / 260 HB	160	100	150	110			220	130	170	100
	Spherulitic graphite cast iron	K.2.1	540 N/mm ² / 160 HB	200	120	150	110			230	140	210	130
		K.2.2	845 N/mm ² / 250 HB	130	80	150	110			160	100	140	90
	Malleable iron	K.3.1	440 N/mm ² / 130 HB	190	115					250	150	200	120
		K.3.2	780 N/mm ² / 230 HB	160	100					210	130	170	100
N	Aluminium wrought alloy	N.1.1	60 HB										
		N.1.2	340 N/mm ² / 100 HB										
	Cast aluminium alloy	N.2.1	250 N/mm ² / 75 HB										
		N.2.2	300 N/mm ² / 90 HB										
		N.2.3	440 N/mm ² / 130 HB										
	Copper and copper alloys (bronze/brass)	N.3.1	375 N/mm ² / 110 HB										
		N.3.2	300 N/mm ² / 90 HB										
		N.3.3	340 N/mm ² / 100 HB										
	Magnesium alloys	N.4.1	70 HB										
S	Heat-resistant alloys	S.1.1	680 N/mm ² / 200 HB								80		
		S.1.2	950 N/mm ² / 280 HB								70		
		S.2.1	840 N/mm ² / 250 HB								35		
		S.2.2	1180 N/mm ² / 350 HB								25		
		S.2.3	1080 N/mm ² / 320 HB								30		
	Titanium alloys	S.3.1	400 N/mm ²								80		
		S.3.2	1050 N/mm ² / 320 HB								50		
		S.3.3	1400 N/mm ² / 410 HB								40		
H	Hardened steel	H.1.1	46–55 HRC										
		H.1.2	56–60 HRC										
		H.1.3	61–65 HRC										
		H.1.4	66–70 HRC										
	Chilled iron	H.2.1	400 HB										
O	Non-metal materials	H.3.1	55 HRC										
		O.1.1	≤ 150 N/mm ²										
		O.1.2	≤ 100 N/mm ²										
		O.2.1	≤ 1000 N/mm ²										
		O.2.2	≤ 1000 N/mm ²										
		O.3.1											

* Tensile strength



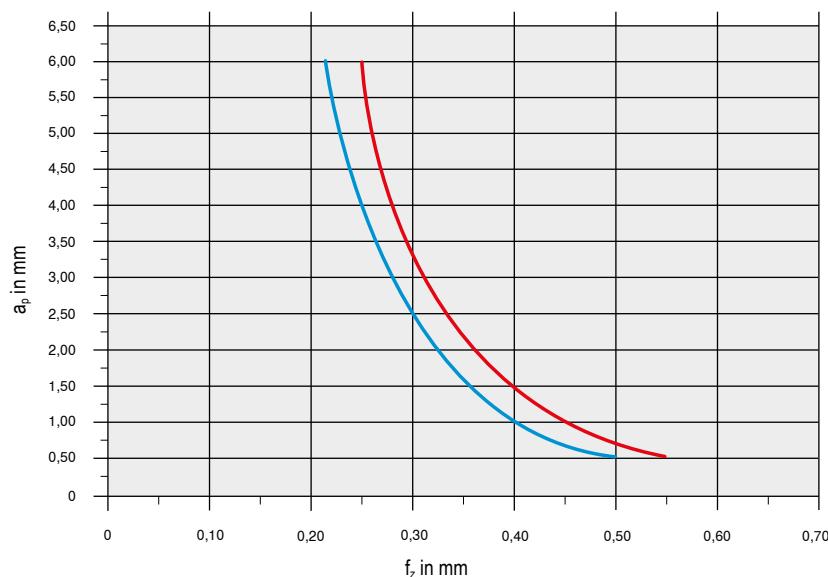
The cutting data is strongly influenced by external conditions, such as the stability of the tool and workpiece clamping, material and type of machine. The specified values represent guideline cutting data that can be adjusted by approx. $\pm 20\%$ according to the usage conditions.

MaxiMill 273-08 system

Starting Parameter



ONKU



Material	Inserts			v_c in m/min	Cooling
Steel P.4.1 40CrMnMoS 8-6	ONKU 080608SR-M50	CTPP235	180	Dry	
Cast iron K.1.1 EN-GJL-250 (GG25)	ONKU 080608SR-R50	CTCK215	250	Dry	

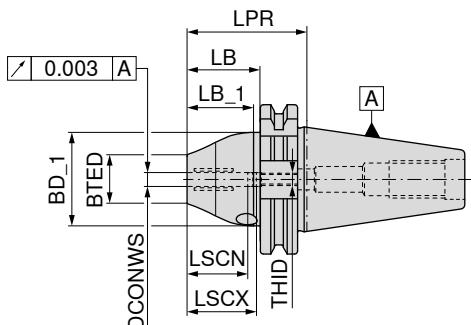
Detailed information on cutting speed for each grade can be found on → [page 46](#)From $v_c > 400$ m/min, the tool must be balanced!

HyPower – Rough

- ▲ High pressure chuck – especially for milling
- ▲ Ideal for HSC and HPC applications
- ▲ High temperature resistance
- ▲ Also available with Balluff chip on request

Scope of supply:

Base body with backstop screw and pressure screw



NEW



AD/B

G 2,5 n_{max} 25000**84 254 ...**

Adapter	DCONWS mm	LPR mm	BTED mm	BD_1 mm	LB_1 mm	LB mm	LSCX mm	LSCN mm	THID	£ Y8
SK 40	6	50.0	26	42	27.1	30.9	37	27	M5	658.80 10679
SK 40	8	50.0	28	42	27.1	30.9	37	27	M6	658.80 10879
SK 40	10	50.0	30	42	27.1	30.9	41	31	M8x1	658.80 11079
SK 40	12	50.0	32	49	27.1	30.9	46	36	M10x1	658.80 11279
SK 40	16	64.5	38	49	41.6	45.4	49	39	M12x1	658.80 11679
SK 40	20	64.5	38	49	41.6	45.4	51	41	M16x1	658.80 12079



Clamping key - T



Pressure screw



Stop screw IK

80 397 ...**83 950 ...****83 950 ...**

Spare parts DCONWS

		£ Y7		£ Y8		£ Y7
6	SW5	7.73	050	M10x12	12.96	55000 M5x12,5 - SW2,5 23.98 418
8	SW5	7.73	050	M10x12	12.96	55000 M6x12,5 - SW3 23.98 419
10	SW5	7.73	050	M10x12	12.96	55000 M8x1x13,5 - SW3 23.98 420
12	SW5	7.73	050	M10x12	12.96	55000 M10x1x13,5 - SW5 23.98 421
16	SW5	7.73	050	M10x12	12.96	55000 M12x1x13,5 - SW5 23.98 422
20	SW5	7.73	050	M10x12	12.96	55000 M16x1x13,5 - SW8 27.66 424

Accessories



→ 57, 59



→ 278

Pull stud

Others

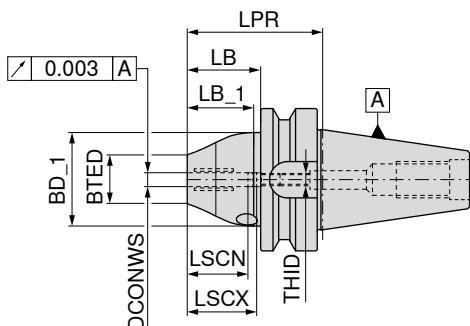
The accessories can be found in our online catalogue
→ Chapter 16, Adapters and accessories

HyPower – Rough

- ▲ High pressure chuck – especially for milling
- ▲ Ideal for HSC and HPC applications
- ▲ High temperature resistance
- ▲ Also available with Balluff chip on request

Scope of supply:

Base body with backstop screw and pressure screw



NEW

AD/B
G 2,5 n_{max} 25000

84 254 ...

Adapter	DCONWS mm	LPR mm	BTED mm	BD_1 mm	LB_1 mm	LB mm	LSCX mm	LSCN mm	THID	£ Y8
BT 40	6	58.0	26	42	27.2	33.0	37	27	M5	658.80 10669
BT 40	8	58.0	28	42	27.2	33.0	37	27	M6	658.80 10869
BT 40	10	58.0	30	42	27.2	33.0	41	31	M8x1	658.80 11069
BT 40	12	58.0	32	49	27.2	33.0	46	36	M10x1	658.80 11269
BT 40	16	72.5	38	49	41.7	47.5	49	38	M12x1	658.80 11669
BT 40	20	72.5	38	49	41.7	47.5	51	41	M16x1	658.80 12069



Clamping key - T



Pressure screw



Stop screw IK

80 397 ...

83 950 ...

83 950 ...

Spare parts DCONWS	£ Y7	£ Y8	£ Y7
6	SW5	7.73	050 M10x12
8	SW5	7.73	050 M10x12
10	SW5	7.73	050 M10x12
12	SW5	7.73	050 M10x12
16	SW5	7.73	050 M10x12
20	SW5	7.73	050 M10x12

Accessories



→ 108+109



→ 278

Pull stud

Others

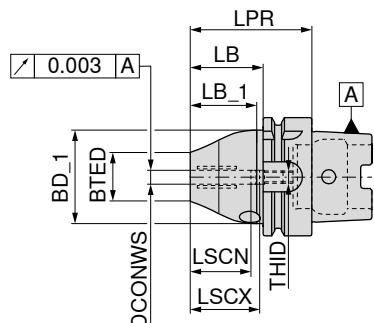
The accessories can be found in our online catalogue
→ Chapter 16, Adapters and accessories

HyPower – Rough

- ▲ High pressure chuck – especially for milling
- ▲ Ideal for HSC and HPC applications
- ▲ High temperature resistance
- ▲ Also available with Balluff chip on request

Scope of supply:

Base body with backstop screw and pressure screw



NEW

AD
G 2,5 n_{max} 25000

84 254 ...

Adapter	DCONWS mm	LPR mm	BTED mm	BD_1 mm	LB_1 mm	LB mm	LSCX mm	LSCN mm	THID	£ Y8
HSK-A 63	6	65	26	50.0	35.2	39	37	27	M5	666.00 10657
HSK-A 63	8	65	28	50.0	35.2	39	37	27	M6	666.00 10857
HSK-A 63	10	75	30	50.0	45.2	49	41	31	M8x1	666.00 11057
HSK-A 63	12	75	32	52.5	45.2	49	46	36	M8x1	666.00 11257
HSK-A 63	16	79	38	52.5	49.2	53	49	39	M8x1	666.00 11657
HSK-A 63	20	79	38	52.5	49.2	53	51	41	M8x1	666.00 12057
HSK-A 100	6	73	26	50.0	40.2	44	37	27	M5	909.00 10655
HSK-A 100	8	73	28	50.0	40.2	44	37	27	M6	909.00 10855
HSK-A 100	10	83	30	50.0	50.2	54	41	31	M8x1	909.00 11055
HSK-A 100	12	83	32	52.5	50.2	54	46	36	M8x1	909.00 11255
HSK-A 100	16	87	38	52.5	54.2	58	49	39	M8x1	909.00 11655
HSK-A 100	20	87	38	52.5	54.2	58	51	41	M8x1	909.00 12055



Clamping key – T



Pressure screw



Stop screw IK

80 397 ...

83 950 ...

83 950 ...

Spare parts

DCONWS	£ Y7	050	M10x12	12.96	55000	M5x12,5 - SW2,5	23.98	418
6	7.73	050	M10x12	12.96	55000	M6x12,5 - SW3	23.98	419
8	7.73	050	M10x12	12.96	55000	M8x1x13,5 - SW3	23.98	420
10	7.73	050	M10x12	12.96	55000	M8x1x13,5 - SW3	23.98	420
12	7.73	050	M10x12	12.96	55000	M8x1x13,5 - SW3	23.98	420
16	7.73	050	M10x12	12.96	55000	M8x1x13,5 - SW3	23.98	420
20	7.73	050	M10x12	12.96	55000	M8x1x13,5 - SW3	23.98	420

Accessories



→ 152



→ 278

Coolant transfer pipe

Others

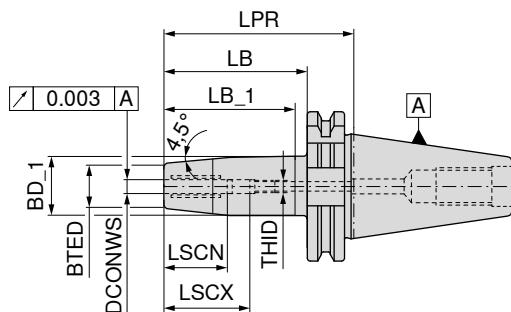
The accessories can be found in our online catalogue
→ Chapter 16, Adapters and accessories

HyPower – Access 4.5°

- ▲ High pressure chuck with slim contour, original dimensions of a 4.5° shrink contour
- ▲ Especially for reaming and drilling applications
- ▲ Ideal for tool and die production
- ▲ Also available with Balluff chip on request

Scope of supply:

Base body with backstop screw and pressure screw



NEW

AD/B
G 2,5 n_{max} 25000

84 255 ...

Adapter	DCONWS mm	LPR mm	BTED mm	BD_1 mm	LB_1 mm	LB mm	LSCX mm	LSCN mm	THID	£ Y8
SK 40	6	80	21	27	55.7	60.9	37	27	M5	788.40 10679
SK 40	8	80	21	27	55.7	60.9	37	27	M6	788.40 10879
SK 40	10	80	24	32	55.7	60.9	41	31	M8x1	788.40 11079
SK 40	12	80	24	32	55.7	60.9	46	36	M10x1	788.40 11279
SK 40	16	80	27	34	55.8	60.9	49	39	M12x1	788.40 11679
SK 40	20	80	33	42	57.2	60.9	51	41	M16x1	788.40 12079



Clamping key – T



Pressure screw



Stop screw IK

80 397 ...

83 950 ...

83 950 ...

Spare parts DCONWS

		£ Y7		£ Y8		£ Y7
6	SW5	7.73	050	M10x12	12.96	55000 M5x12,5 - SW2,5
8	SW5	7.73	050	M10x12	12.96	55000 M6x12,5 - SW3
10	SW5	7.73	050	M10x12	12.96	55000 M8x1x13,5 - SW3
12	SW5	7.73	050	M10x12	12.96	55000 M10x1x13,5 - SW5
16	SW5	7.73	050	M10x12	12.96	55000 M12x1x13,5 - SW5
20	SW5	7.73	050	M10x12	12.96	55000 M16x1x13,5 - SW8

Accessories



→ 57, 59



→ 278

Pull stud

Others

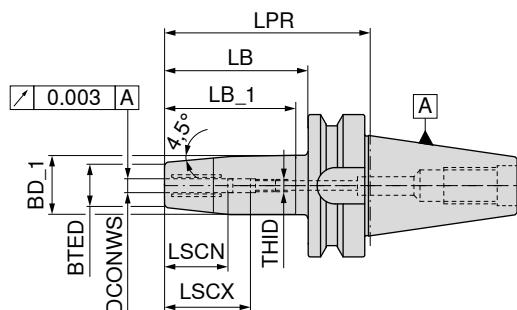
The accessories can be found in our online catalogue
→ Chapter 16, Adapters and accessories

HyPower – Access 4.5°

- ▲ High pressure chuck with slim contour, original dimensions of a 4.5° shrink contour
- ▲ Especially for reaming and drilling applications
- ▲ Ideal for tool and die production
- ▲ Also available with Balluff chip on request

Scope of supply:

Base body with backstop screw and pressure screw



NEW

AD/B
G 2,5 n_{max} 25000

84 255 ...

Adapter	DCONWS mm	LPR mm	BTED mm	BD_1 mm	LB_1 mm	LB mm	LSCX mm	LSCN mm	THID	£ Y8
BT 40	6	90	21	27	57.7	80	37	27	M5	788.40 10669
BT 40	8	90	21	27	57.7	80	37	27	M6	788.40 10869
BT 40	10	90	24	32	57.7	80	41	31	M8x1	788.40 11069
BT 40	12	90	24	32	57.7	80	46	36	M10x1	788.40 11269
BT 40	16	90	27	34	57.2	80	49	39	M12x1	788.40 11669
BT 40	20	90	33	42	57.5	80	51	41	M16x1	788.40 12069



Clamping key – T



Pressure screw



Stop screw IK

80 397 ...

83 950 ...

83 950 ...

Spare parts DCONWS

		£ Y7		£ Y8		£ Y7
6	SW5	7.73	050	M10x12	12.96	55000 M5x12,5 - SW2,5
8	SW5	7.73	050	M10x12	12.96	55000 M6x12,5 - SW3
10	SW5	7.73	050	M10x12	12.96	55000 M8x1x13,5 - SW3
12	SW5	7.73	050	M10x12	12.96	55000 M10x1x13,5 - SW5
16	SW5	7.73	050	M10x12	12.96	55000 M12x1x13,5 - SW5
20	SW5	7.73	050	M10x12	12.96	55000 M16x1x13,5 - SW8

Accessories



→ 108+109



→ 278

Pull stud

Others

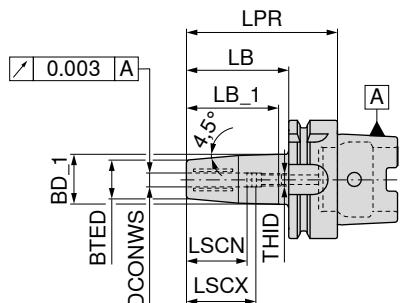
The accessories can be found in our online catalogue
→ Chapter 16, Adapters and accessories

HyPower – Access 4.5°

- ▲ High pressure chuck with slim contour, original dimensions of a 4.5° shrink contour
- ▲ Especially for reaming and drilling applications
- ▲ Ideal for tool and die production
- ▲ Also available with Balluff chip on request

Scope of supply:

Base body with backstop screw and pressure screw



NEW

AD G 2,5 n_{max} 25000

84 255 ...

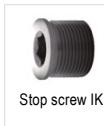
Adapter	DCONWS	LPR	BTED	BD_1	LB_1	LB	LSCX	LSCN	THID	£ Y8
HSK-A 63	6	80	21	27	48.9	54	37	27	M5	810.00 10657
HSK-A 63	8	80	21	27	48.9	54	37	27	M6	810.00 10857
HSK-A 63	10	85	24	32	53.7	59	41	31	M8x1	810.00 11057
HSK-A 63	12	90	24	32	58.6	64	46	36	M10x1	810.00 11257
HSK-A 63	16	95	27	34	63.1	69	49	39	M12x1	810.00 11657
HSK-A 63	20	100	33	42	68.9	74	51	41	M16x1	810.00 12057
HSK-A 100	6	85	21	27	38.7	56	37	27	M5	1,047.60 10655
HSK-A 100	8	85	21	27	38.7	56	37	27	M6	1,047.60 10855
HSK-A 100	10	90	24	32	53.7	61	41	31	M8x1	1,047.60 11055
HSK-A 100	12	95	24	32	58.6	66	46	36	M10x1	1,047.60 11255
HSK-A 100	16	100	27	34	63.1	71	49	39	M12x1	1,047.60 11655
HSK-A 100	20	105	33	42	68.9	76	51	41	M16x1	1,047.60 12055



Clamping key – T



Pressure screw



Stop screw IK

80 397 ...

83 950 ...

83 950 ...

Spare parts for Article no.

	£ Y7		£ Y8		£ Y7
84 255 10657	SW5	7.73	050	M10x10	10.53 55100 M5x12,5 - SW2,5 23.98 418
84 255 10857	SW5	7.73	050	M10x10	10.53 55100 M6x12,5 - SW3 23.98 419
84 255 11057	SW5	7.73	050	M10x10	10.53 55100 M8x1x13,5 - SW3 23.98 420
84 255 11257	SW5	7.73	050	M10x10	10.53 55100 M10x1x13,5 - SW5 23.98 421
84 255 11657	SW5	7.73	050	M10x10	10.53 55100 M12x1x13,5 - SW5 23.98 422
84 255 12057	SW5	7.73	050	M10x10	10.53 55100 M16x1x13,5 - SW5 27.66 423
84 255 10655	SW5	7.73	050	M10x10	10.53 55100 M5x12,5 - SW2,5 23.98 418
84 255 10855	SW5	7.73	050	M10x12	12.96 55000 M6x12,5 - SW3 23.98 419
84 255 11055	SW5	7.73	050	M10x12	12.96 55000 M8x1x13,5 - SW3 23.98 420
84 255 11255	SW5	7.73	050	M10x12	12.96 55000 M10x1x13,5 - SW5 23.98 421
84 255 11655	SW5	7.73	050	M10x12	12.96 55000 M12x1x13,5 - SW5 23.98 422
84 255 12055	SW5	7.73	050	M10x12	12.96 55000 M16x1x13,5 - SW5 27.66 423

Accessories



→ 152



→ 278

Coolant transfer pipe

Others

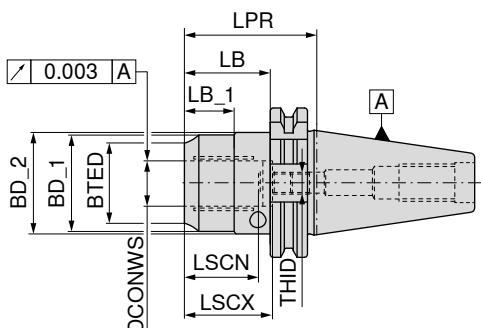
The accessories can be found in our online catalogue
→ Chapter 16, Adapters and accessories

HyPower – Complus

- ▲ High pressure chuck, short and stable version
- ▲ for solid carbide and HSS shanks with h6 tolerance or better
- ▲ also available with Balluff chip **on request**

Scope of supply:

Base body with backstop screw and pressure screw



NEW



AD/B

G 2,5 n_{max} 25000

83 427 ...

Adapter	DCONWS mm	LPR mm	BTED mm	BD_1 mm	BD_2 mm	LB mm	LB_1 mm	LSCX mm	LSCN mm	THID	£ Y8	
SK 40	32	81.0	57	63	70	61.9	26	61	51	M16x1x13,5	518.94	13279
SK 50	20	64.5	38	49		38.4		51	41	M16x1x13,5	616.50	12078
SK 50	32	81.0	57	68	72	54.9	35	61	51	M16x1x13,5	616.50	13278



Clamping key – T



Pressure screw



Stop screw IK

80 397 ...

83 950 ...

83 950 ...

Spare parts for Article no.

Article no.	Part	£ Y7	Article no.	Part	£ Y7	Article no.	Part	£ Y7	
83 427 13279	SW5	7.73	050	M10x1x14	10.98	429	M16x1x13,5 - SW8	27.66	424
83 427 12078	SW5	7.73	050	M10x1x14	10.98	429	M16x1x13,5 - SW8	27.66	424
83 427 13278	SW5	7.73	050	M10x1x14	10.98	429	M16x1x13,5 - SW8	27.66	424

Accessories



→ 276

Reduction sleeve



→ 57, 59

Coolant transfer pipe



→ 278

Others

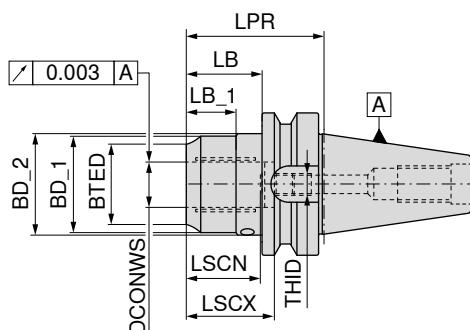
The accessories can be found in our online catalogue
→ Chapter 16, Adapters and accessories

HyPower – Complus

- ▲ High pressure chuck, short and stable version
- ▲ for solid carbide and HSS shanks with h6 tolerance or better
- ▲ also available with Balluff chip **on request**

Scope of supply:

Base body with backstop screw and pressure screw



NEW



AD/B

G 2,5 n_{max} 25000

83 513 ...

Adapter	DCONWS mm	LPR mm	BTED mm	BD_1 mm	BD_2 mm	LB mm	LB_1 mm	LSCX mm	LSCN mm	THID	£ Y8	
BT 40	32	90.0	54	63		65.0		61	51	M16x1x13,5	518.94	13269
BT 50	20	83.5	38	49		48.5		51	41	M16x1x13,5	644.94	12068
BT 50	32	90.0	57	68	72	55.0	35	61	51	M16x1x13,5	644.94	13268



Clamping key – T



Pressure screw



Stop screw IK

80 397 ...

83 950 ...

83 950 ...

Spare parts for Article no.

		£ Y7		£ Y7		£ Y7
83 513 13269	SW5	7.73	050	M10x1x14	10.98	429
83 513 12068	SW5	7.73	050	M10x1x14	10.98	429
83 513 13268	SW5	7.73	050	M10x1x14	10.98	429
				M16x1x13,5 - SW8	27.66	424
				M16x1x13,5 - SW8	27.66	424
				M16x1x13,5 - SW8	27.66	424

Accessories



→ 276



→ 108+109



→ 278

Reduction sleeve

Coolant transfer pipe

Others

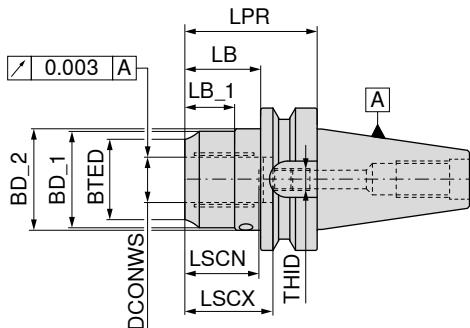
The accessories can be found in our online catalogue
→ Chapter 16, Adapters and accessories

HyPower – Complus

- ▲ High pressure chuck, short and stable version – BT-FC
- ▲ with face contact
- ▲ for solid carbide and HSS shanks with h6 tolerance or better
- ▲ also available with Balluff chip **on request**

Scope of supply:

Base body with backstop screw and pressure screw



NEW



AD

G 2,5 n_{max} 25000

83 527 ...

Adapter	DCONWS mm	LPR mm	BTED mm	BD_1 mm	BD_2 mm	LB mm	LB_1 mm	LSCX mm	LSCN mm	THID	£ Y8	
BT-FC 40	32	90.0	54	62	63	64.0	48	61	51	M16x1x13,5	558.00	13274
BT-FC 50	20	83.5	38	49		47.0		51	41	M16x1x13,5	667.80	12073
BT-FC 50	32	90.0	57	68	72	53.5	35	61	51	M16x1x13,5	667.80	13273



Pressure screw



Stop screw IK

83 950 ...

83 950 ...

£
Y7£
Y7

Spare parts for Article no.

83 527 13274	M10x1x14	10.98	429	M16x1x13,5 - SW8	27.66	424
83 527 12073	M10x1x14	10.98	429	M16x1x13,5 - SW8	27.66	424
83 527 13273	M10x1x14	10.98	429	M16x1x13,5 - SW8	27.66	424

Accessories



→ 276

Reduction sleeve



→ 108+109

Coolant transfer pipe



→ 278

Others

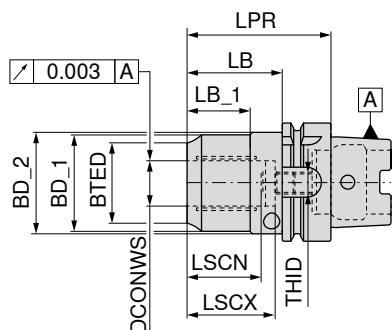
The accessories can be found in our online catalogue
→ Chapter 16, Adapters and accessories

HyPower – Complus

- ▲ High pressure chuck, short and stable version
- ▲ for solid carbide and HSS shanks with h6 tolerance or better
- ▲ also available with Balluff chip **on request**

Scope of supply:

Base body with backstop screw and pressure screw



NEW



AD

G 2,5 n_{max} 25000**83 722 ...**

Adapter	DCONWS mm	LPR mm	BTED mm	BD_1 mm	BD_2 mm	LB_1 mm	LB mm	LSCX mm	LSCN mm	THID	£ Y8	
HSK-A 63	32	105	54	63	52.5	55	79	61	51	M16x1	564.66	13257
HSK-A 100	20	85	38	49	52.5	36	56	51	41	M8x1	763.38	12055
HSK-A 100	32	100	57	68	72.0	42	71	61	51	M8x1	763.38	13255



Pressure screw



Stop screw IK

83 950 ...**83 950 ...**

Spare parts for Article no.

83 722 12055	M10x1x10	21.84	158	M8x1x13,5 - SW3	23.98	420
83 722 13255	M10x1x10	21.84	158	M8x1x13,5 - SW3	23.98	420
83 722 13257	M10x1x10	21.84	158	M16x1x13,5 - SW8	27.66	424

Accessories



→ 276

Reduction sleeve



→ 152

Coolant transfer pipe



→ 278

Others

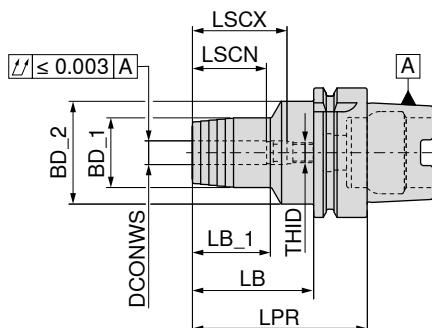
The accessories can be found in our online catalogue
→ Chapter 16, Adapters and accessories

HyTens – Fit

- ▲ Hydraulic chuck, short and slim version
- ▲ for solid carbide and HSS shanks to h6 tolerance or better
- ▲ also available with Balluff chip **on request**

Scope of supply:

Base body with backstop screw and pressure screw

**NEW**

AD

G 2,5 n_{max} 25000**83 726 ...**

	Adapter	DCONWS mm	LPR mm	BD_1 mm	BD_2 mm	LB_1 mm	LB mm	LSCX mm	LSCN mm	THID	£ Y8	
											10655	10855
short	HSK-A 100	6	75	26	50	26	46	37	27	M5	1,056.60	10655
	HSK-A 100	8	75	28	50	26	46	37	27	M6	1,056.60	10855
	HSK-A 100	10	90	30	50	42	61	41	31	M8x1	1,056.60	11055
	HSK-A 100	12	95	32	50	47	66	46	36	M10x1	1,056.60	11255
	HSK-A 100	16	100	38	50	53	71	49	39	M12x1	1,056.60	11655
	HSK-A 100	20	105	42	50	59	76	51	41	M16x1	1,056.60	12055
	HSK-A 100	25	110	57	63	62	81	57	47	M16x1	1,056.60	12555
	HSK-A 100	32	110	63	67	62	81	61	51	M16x1	1,056.60	13255



Pressure screw



Stop screw IK

83 950 ...**83 950 ...****Spare parts**
DCONWS

		£ Y7	£ Y7
6	M8x1x10	16.61	439
8	M10x1x12	16.61	440
10	M10x1x12	16.61	440
12	M10x1x12	16.61	440
16	M10x1x12	16.61	440
20 - 32	M10x1x12	16.61	440

Accessories

→ 276

Reduction sleeve



→ 152

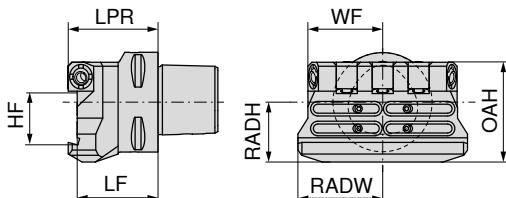
Coolant transfer pipe



Others

→ 278

The accessories can be found in our online catalogue
→ Chapter 16, Adapters and accessories

MonoClamp – PSC parting blade holder GX/LX/FX/SX with DirectCooling

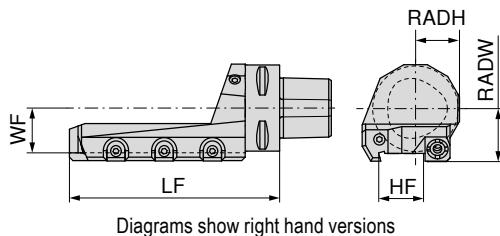
NEW



radial

84 617 ...

Adapter	LF mm	LPR mm	WF mm	HF mm	OAH mm	RADW mm	RADH mm	for parting blades	£ Y8	
PSC 40	40.5	45	37.5	26	50	42.5	30	XLCF N 26...	1,283.00	62695
PSC 50	40.5	45	37.5	26	50	42.5	30	XLCF N 26...	1,283.00	62694
PSC 63	45.5	50	40.0	32	57	45.0	35	XLCF N 32...	1,438.20	63293

MonoClamp – PSC parting blade holder GX/LX/FX/SX with DirectCooling

NEW



Left-hand

84 617 ...

NEW



Right-hand

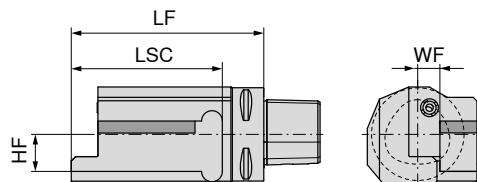
84 617 ...

Adapter	LF mm	WF mm	HF mm	RADW mm	RADH mm	for parting blades	£ Y8	£ Y8	
PSC 40	122	21	26	31	20.5	XLCF N 26...	1,283.00	32695	1,283.00 22695
PSC 50	122	26	26	31	22.5	XLCF N 26...	1,283.00	32694	1,283.00 22694
PSC 63	160	32	32	37	25.5	XLCF N 32...	1,438.20	33293	1,438.20 23293

PSC square shank holder 0° with DirectCooling

▲ Suitable for tool holders with PSC 40 HF = 20 mm / PSC 63 HF = 20 / 25 mm

▲ These HF values can be achieved by removing the clamping block



NEW



Left-hand

84 616 ...

NEW



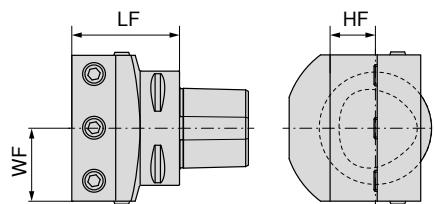
Right-hand

84 616 ...

Adapter	LF mm	WF mm	LSC mm	HF mm	£ Y8	£ Y8	
PSC 63	130	15	102	20 / 25	963.20	32593	963.20 22593
PSC 80	130	20	102	25	1,074.40	32586	1,074.40 22586

PSC square shank holder 90° with DirectCooling

- ▲ Suitable for tool holders with PSC 40 HF = 20 mm / PSC 63 HF = 20 / 25 mm
- ▲ These HF values can be achieved by removing the clamping block



NEW



Neutral

84 616 ...

£

Y8

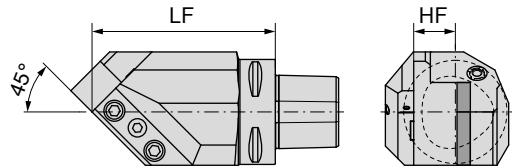
927.40 62095

Adapter	LF mm	WF mm	HF mm
PSC 40	55	40	20
PSC 63	71	40	20 / 25

963.20 62593

PSC square shank holder 45° with DirectCooling

- ▲ Suitable for tool holders with PSC 40 HF = 20 mm / PSC 63 HF = 20 / 25 mm
- ▲ These HF values can be achieved by removing the clamping block



Diagrams show right hand versions



Adapter	LF mm	HF mm
PSC 50	85	20
PSC 63	110	20 / 25

Left-hand

84 616 ...

£

Y8

1,012.20 12094

Right-hand

84 616 ...

£

Y8

1,012.20 02094

1,278.00 12593

1,278.00 02593

easyTorque® Handle

- ▲ with a fixed torque
- ▲ Accuracy: ± 10%
- ▲ Bits can only be clamped in the universal holder



NEW

80 024 ...

TQX Nm	DRVS mm	BD mm	OAL mm	WT kg	£ Y7	
0,5	4	34	130	0.950	78.00	00500
0,6	4	34	130	0.950	78.00	00600
0,9	4	34	130	0.940	78.00	00900
1,1	4	34	130	0.101	78.00	01100
1,2	4	34	130	0.990	78.00	01200
1,4	4	34	130	0.101	78.00	01400
2,0	4	34	130	0.101	82.00	02000
2,5	4	34	130	0.106	82.00	02500
3,0	4	34	130	0.104	82.00	03000
3,8	4	34	130	0.105	82.00	03800
4,0	4	34	130	0.105	84.00	04000
4,5	4	34	130	0.105	84.00	04500
5,0	4	34	130	0.105	84.00	05000

Technical Information

Transmittable torques for HyPower

Clamping diameter	6	8	10	12	14	16	18	20	mm
HyPower – Rough	22	47	85	130	240	350	430	520	Nm
HyPower – Access 4,5°	18	35	60	90	130	200	250	330	Nm



Rough

Access 4.5°

The new eCatalogue 2023

The complete cutting tool solution is now available in a digital version!



cutting.tools/uk/en/digitalcatalogue

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

Tooling a Sustainable Future

ceratizit.com

 CERATIZIT
GROUP

Our current valid terms and conditions apply which can be found on our website. Images and prices are valid, subject to corrections due to technical improvements or further developments as well as general mistakes and typographical errors.



JUST OUR THING

ENGINEERS FIRST AND FOREMOST.



TECHNICAL SUPPORT.
WHEN YOU NEED IT MOST.

OUR WAREHOUSE IN YOUR
MACHINE SHOP.

www.just-our-thing.com



THE Cutting Tool Solution

CERATIZIT UK & IRELAND LTD

Europa Link \ UK-Sheffield S9 1XU

Tel.: +44 114 242 8 820

info.uk@ceratizit.com \ www.ceratizit.com



Part of the Plansee Group