

Maximize your work

**Highest metal
removal rate.
Adaptive cooling
ring 10-30°.
Safety of processing
with Pin-Lock.**

ALBRECHT
Germany

Ultra metal removal rate.
Ultra-Gripping.
Ultra-Dampening.
Ultra-Safe due to Pin-Lock.
In addition peripheral cooling which
adapts perfectly to every task.

Up to 33.000 rpm.
Runout $\leq 3 \mu\text{m}$.
Cooling-Ring 10-30°.

Albrecht Ultra - The basis for
record-setting.

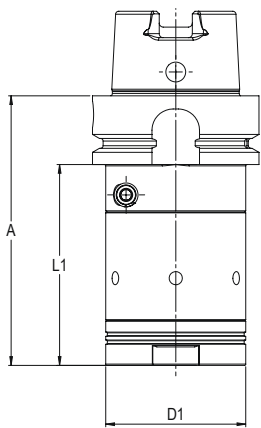
Albrecht Ultra Chuck

Compact Design. D=16-25 mm.
For highest Metal-Removal-
Rates Finebalancing 6xM6.
Integratet Pin-Lock.
Adjustable peripheral coolant.



HSK

Ultra Chuck, DIN 69893 (DIN ISO 12164)
Easy exchange of tools by setting of hex-key (see page 45). Maintenance free. Sealed against coolant and contamination. Slow collet taper angle. Collet with special coating (see page 44). System-Runout-Accuracy 3 µm at 2,5 x D. Clamping of tool shanks according to DIN 1835 A, B and DIN 6535 HB, HA as well as HE up to D = 25 mm. Pin-lock safety, balancing holes 6xM6. Changeable cooling ring for peripheral coolant supply (see page 45).



HSK63 A 16 – 20 mm						
A	Part.No.	Form	L1	D1	Balanced	kg
102	360 020A 663 0	A	76	53	20.000 G=2,5	1,5
HSK80 A						
108	360 020A 680 0	A	82	53	20.000 G=2,5	2,0
HSK100 A						
110	360 020A 610 0	A	81	53	20.000 G=2,5	2,9



HSK63 A 20 – 25 mm						
A	Part.No.	Form	L1	D1	Balanced	kg
110	360 025A 663 0	A	84	53	20.000 G=2,5	1,4
HSK80 A						
116	360 025A 680 0	A	90	53	20.000 G=2,5	2,0
HSK100 A						
118	360 025A 610 0	A	89	53	20.000 G=2,5	2,9

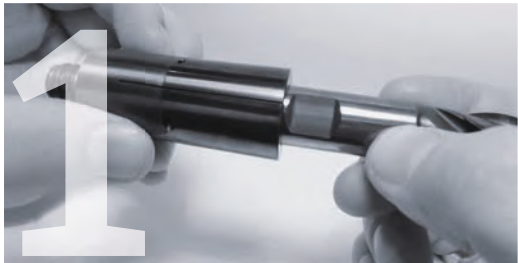


Collets with Pin-Lock

Ultra Chuck Collet for tools with internal coolant.
Collets are supplied with 3 pins and assembly tools.

Collet Ultra Chuck 2016 – 20 mm			
D	Coolant	Part.No.	kg
16	Central	166 2016 OLO T	0,19
20	Central	166 2020 OLO T	0,15

Collet Ultra Chuck 2520 – 25 mm			
D	Coolant	Part.No.	kg
20	Central	166 2520 OLO T	0,30
25	Central	166 2525 OLO T	0,23



Positioning tool
Remove the length setting screw, than position the Weldon-clamping surface on the side of the bore. Now insert the tool into the collet until the Weldon-clamping surface lies in the range of the bore.



Positioning pin
The locking-pin has to be inserted with the help of the pin punch into the bore of the collet up to the block.
Caution: The Pin must not stick out of the collet.



Free from backlash
With the assembly tool the length stop screw has to be screwed, so that the cutting tool is free of backlash.
Caution: Mounting without axial pressure. The collet with the secured tool can now be placed into the APC chuck (see APC operation manual).

Accessories

Standard- Key	Part.No.
with marking approx. 12 Nm	139 0000 906 0



Torque Key	Part.No.
corr. ISO 6789 at 12 Nm	139 0012 900 0
corr. ISO 6789 at 14 Nm	139 0014 900 0
Spare bit 1/4"	139 0000 901 4



Peripheral-Cap Ultra Chuck 20/25		
Cool-Jet	AF	Part.No.
4 x 10° (1 piece)	50	161 2025 000 1
6 x 20° (1 piece)	50	161 2025 000 2
6 x 30° (1 piece)	50	161 2025 000 3
Set (3 pieces)	50	161 2025 S00 0



Spare part	Part.No.
Worm Set Ultra	139 0000 004 0



Spare Pins for Pin-Lock		
DxL	for	Part.No.
Ø3x14 (3 pieces)	UC 20 Ø16	139 3020 314 0
Ø4x20 (3 pieces)	UC 25 Ø20	139 3025 420 0
Ø4x16 (3 pieces)	UC 25 Ø25	139 3025 416 0



Balancing Screws

Balancing Screws- Set, incl. case, key, difference-table and 180 pieces of fine-balancing-screws

Universal use, fits in all brands. 9 different screws in fine graduation. 20 screws each size, including Torx key. Different colours for visual idendification. Precise balancing together with the clamped tool. Easy handling with Torx. Supplied with Torx ISR15 screwdriver. No need for screw locking. The balancing machine gives position and weight. Multiple use.

Typ	Part.No.
M6x4,0-8,0	139 4006 000 0



Balancing Screws			
Typ	Part.No.	Amount	Colour
M6x4,0	139 4006 040 0	20	black
M6x4,5	139 4006 045 0	20	silver
M6x5,0	139 4006 050 0	20	red
M6x5,2	139 4006 052 0	20	yellow
M6x6,0	139 4006 060 0	20	black
M6x6,5	139 4006 065 0	20	silver
M6x7,0	139 4006 070 0	20	red
M6x7,2	139 4006 072 0	20	yellow
M6x8,0	139 4006 080 0	20	black

Accessories HSK

Coolant tubes DIN 69893 (HSK)	Part. No
Coolant tube HSK-A50	139 0002 650 0
Coolant tube HSK-A63	139 0002 663 0
Coolant tube HSK-A80	139 0002 680 0
Coolant tube HSK-A100	139 0002 610 0



Key with T-handle	Part. No
for Coolant tube HSK-A50	139 0020 650 0
for Coolant tube HSK-A63	139 0020 663 0
für for Coolant tube HSK-A80	139 0020 680 0
for Coolant tuber HSK-A100	139 0020 610 0



Mountingsystem

flexible, vertical/horizontal, locked



Mouting System- Base Unit	Part.No.
	730 1000 000 0



Adaptor	Part.No.
ISO 7388-1 + ISO7388-2	
SK30 + BT30	730 1000 230 0
SK40 + BT40	730 1000 240 0
SK50 + BT50	730 1000 250 0
DIN 69893	
HSK50	730 1000 650 0
HSK63	730 1000 663 0
HSK80	730 1000 680 0
HSK100	730 1000 610 0
ISO 26623-1	
PSC50	730 1000 9C5 0
PSC63	730 1000 9C6 0
PSC80	730 1000 9C8 0



Handling APC and Ultra

The Albrecht chuck is high precision toolholder with clamping gear. Its unique design provides a very high clamping force, run-out accuracy as well as a positive dampening feature for machining (milling, drilling, reaming, tapping, heavy-duty cutting, finish milling, HSC operations). The Chuck uses a special collet to clamp the cutting tool and is operated by a hex key on the periphery.

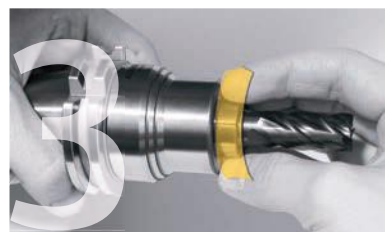


Cleaning, insert the Collet

Before each use, clean the inner cone chuck free cloth and chuck cone cleaner. Attention, do not work with compressed air during the cleaning process, as otherwise dissolved dirt particles can get into parts of the gearbox.



For maximum clamping forces, the bore, the tool shank, the cone of the clamping sleeve and the inner cone chuck must be degreased each time the tool is changed.



Insert the cleaned and undamaged tool shank into the clamping sleeve, observing the minimum clamping depth, see page 73. Screw the clamping sleeve with tool into the chuck manually until the clamping sleeve touches the cone.



Clamping

The chucking procedure starts by engaging the screw on the side of the chuck and rotating the hex key clockwise. Max. clamping torque see product-marking. Use only Albrecht keys, see page 41. Put in the hex key as far as possible. Hex tool surface is to be inspected about damages!



Match the two arrowheads when clamping.



Releasing

Open the Spannfutter by turning the hex key counter-clockwise. Note: when opening the chuck you must overcome two resistance points. First, you will overcome the friction torque and then the collet is loosened. Then open until the tool can be taken out, respectively the collet can be unscrewed manually.



Length adjustment

A length stop screw is located in the collet and can be adjusted with a hex key (size 5/32 hex). For operation from the back through the chuck with taper shank a bolt with a through hole is necessary (form AD). The range of the length adjustment: 11mm.

Technical Data Typ	Clamping-Diameter, Ø-Tolerance h6, Ø mm / Ø inch		Min. Clampingdepth	Max. Clampingdepth
14/20	2 - 5	1/8" - 3/16"	17	66
	6	1/4"	22	40
	7 - 10	5/16" - 3/8"	30	50
	11 - 15	7/16" - 9/16"	38	50
20	16 - 20	5/8" - 3/4"	38	48,5
25	12,7	1/2"	47	54,5
	16 - 32	5/8" - 11/4"	47	60

Balancing grade

Each Albrecht Chuck is fine-balanced without collet and tool according to the laser marking. Higher balancing quality and rpm on request. The use of shanks with recesses influences the balancing grade and run-out accuracy of the whole system.

Maintenance

The Chuck is maintenance free over his lifetime. Clean chuck (especially the inner cone) and collet including thread after usage with a solvent base cleaner. According to contamination the cleaning cycles have to be adjusted. After cleaning, apply a thin coat of anticorrosive.

Repairs

In order to guarantee the precision of the tool, any chuck in need of repair has to be sent to the manufacturer or to an authorized national agent only. We recommend checking the chuck and the collet for run-out deviations and gripping torque periodic, especially after a tool break or crash.