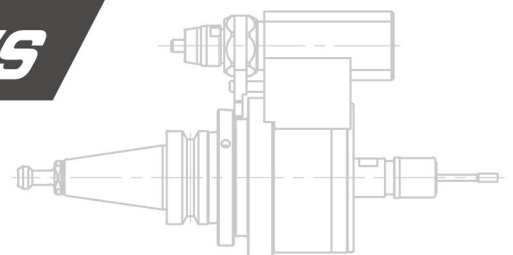




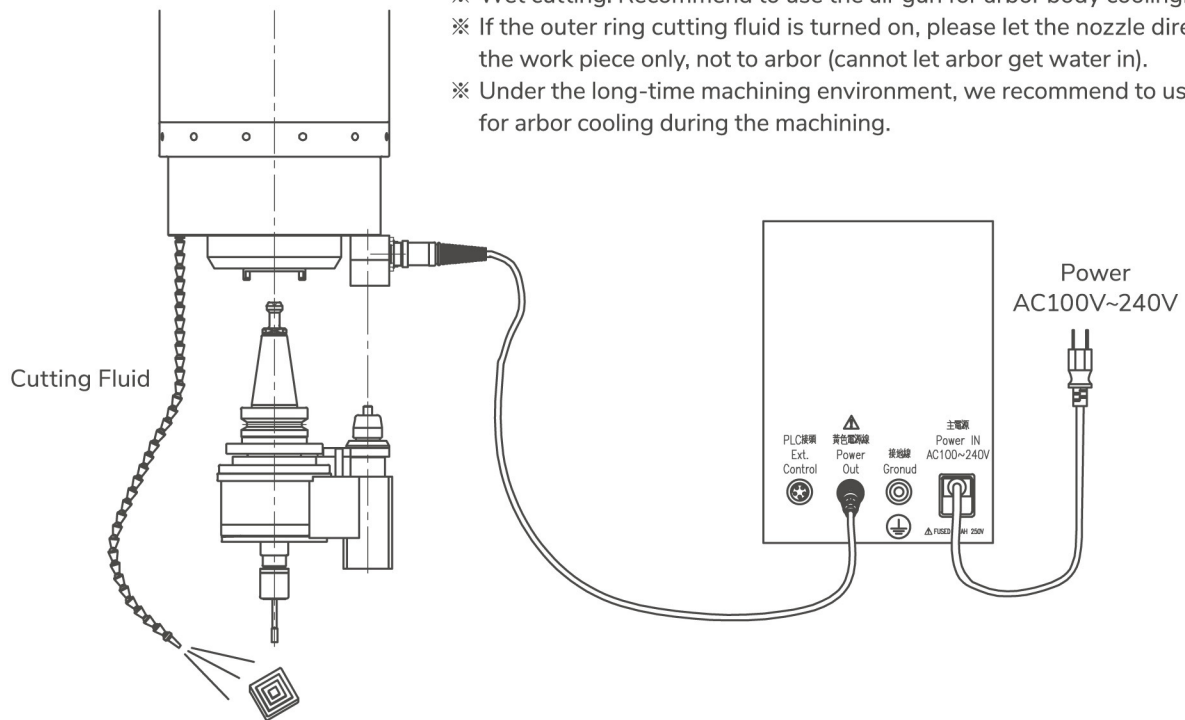
HARD BRITTLE MATERIALS & MICRO HOLE DRILLING

Ultrasonic Tool Holders



Ultrasonic Connect & Cooling

ULTRASONIC TOOL HOLDERS



- ※ Dry cutting: Recommend to add the air gun for arbor body & working point cooling.
- ※ Wet cutting: Recommend to use the air gun for arbor body cooling.
- ※ If the outer ring cutting fluid is turned on, please let the nozzle direction aim to the work piece only, not to arbor (cannot let arbor get water in).
- ※ Under the long-time machining environment, we recommend to use the air gun for arbor cooling during the machining.

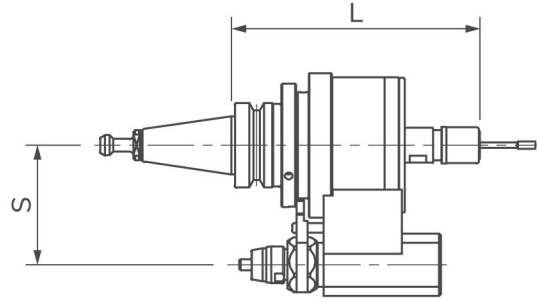
⚙️ What is Ultrasonic Assisted Machining (UAM)?

- ※ The ultrasonic high-frequency vibration characteristics could let ultrasonic tool holder provide the tool with a tiny (few micro meters) and high-frequency vibration (17~24 KHz) in the Z-axis during machining.
- ※ High-frequency vibration can help chip removal, heat dissipation during machining; can improve machining efficiency, lower down the heat and workpiece cutting resistance force.

Advantage

- Suitable for Automatic Tool Change (ATC).
- Toolholder can support the coolant function.
- Clamping accuracy under 5 μ m with spring collets.
- No need for special machine.
- Easy to operate and install.
- Micro hole machining minimum \varnothing 0.05mm.
- Reduce cutting resistance; improve surface roughness.
- Increase tool life.





Specification

S could be 65/75/80, depends on customer spindle.

Part No.	L	S	Recommended Speed	T.I.R	Frequency	Amplitude Range
BT30-ULTNR06-135-75	135	75	8000rpm	5μm	18~24k Hz	2~10μm
BT40-ULTNR06-140-65	140	65				
CV40-ULTNR06-140-65						
DV40-ULTNR06-140-65						
HSK63A-ULTNR06-170-65						
HSK50E-ULTNR06-160-65						
HSK40E-ULTNR06-150-65						
BT40-ULTNR10-160-65	160	65	6000rpm	5μm	17~23k Hz	2~12μm
BT50-ULTNR10-165-80	165	80	5000rpm			
DV40-ULTNR10-165-65	165	65	6000rpm			
HSK63A-ULTNR10-190-65	190					

Straight Type

ST32-OLNR06-120	120	-	-	5μm	18~24k Hz	2~10μm
ST50-OLNR10-170	170	-	-		17~23k Hz	2~12μm

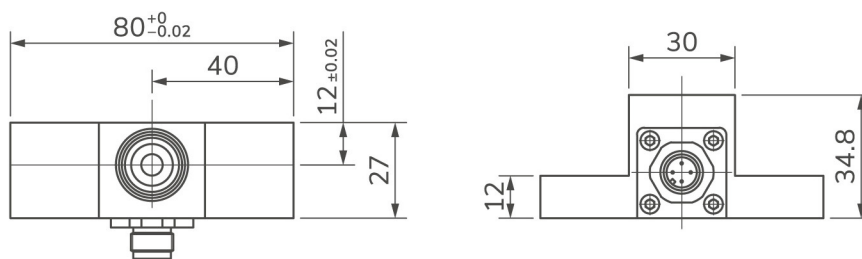


Ultrasonic Generator with Automatic Frequency Detection & Tracking

Part No.	Frequency
UE.WB020-020-24K	18~24k Hz
UE.D10-100W-19K	17~23k Hz

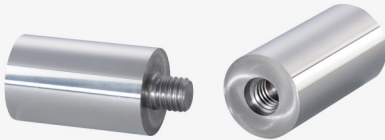
- There are two specifications of Ultrasonic generator: 30W/100W. Our design focuses on the high flexibility and stability.
- The generator is suitable for high precision and continuous operations with its new integrated electronic circuit.
- Designed with multiple protect functions for durability and reliability.
- Working voltage: auto switching power supply for AC100~240V & 50/60 Hz.

Stop Block Dimension



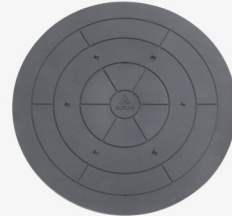


Material Carbide



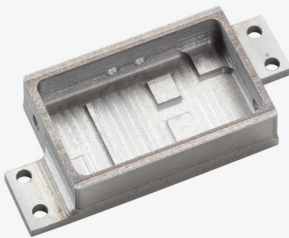
- Scope of work: Drilling, milling.
- Application Industry: Stamping mold, highly wear-resisting workpiece.

Material Aluminum Nitride (ALN)



- Scope of work: Drilling, forming, grooving.
- Application Industry: Semi-conductor industry, aerospace industry.

Material AISiC



- Scope of work: Forming.
- Application Industry: 5G IC Packaging, aerospace industry.

Material Silicon Carbide (SiC)



- Scope of work: Drilling, forming, grooving.
- Application Industry: Semi-conductor industry, aerospace industry.

Material Quartz



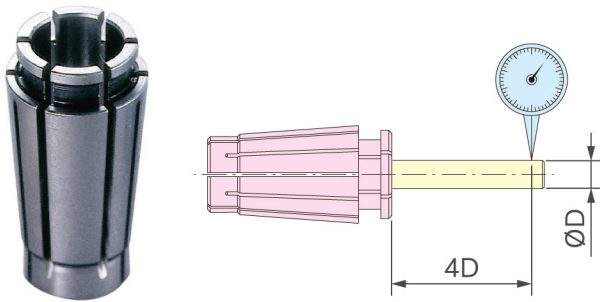
- Scope of work: Deep hole machining ($\text{Ø}1.5 \times 400\text{mm}$).
- Application Industry: Fiber optic equipment, semicon industry.

Material Zerodur



- Scope of work: Drilling, forming, grooving.
- Application Industry: Aerospace industry, defence industry.

NR Precision Collets (for End-Mill)



Ø Range	Part No.	
3.0	NR06AA-E030	
3.175	NR06AA-E03175	
4.0	NR06AA-E040	
5.0	NR06AA-E050	
6.0	NR06AA-E060	NR10AA-E060
8.0		NR10AA-E080
10.0		NR10AA-E100

TIR: AA grade ≤ 0.005mm

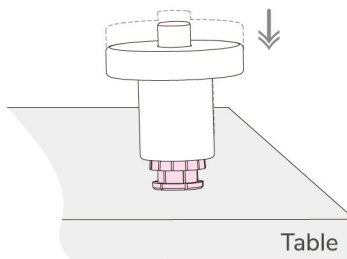
Attaching & Detaching Collet



NR Collet Extractors

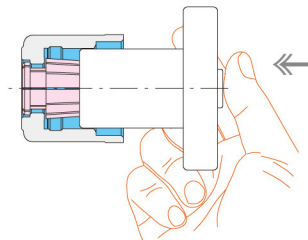
Part No.	Collets
NR06E	NR06
NR10E	NR10

1 Attaching collet.

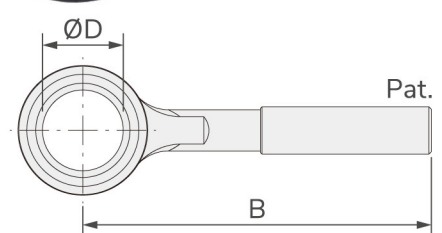
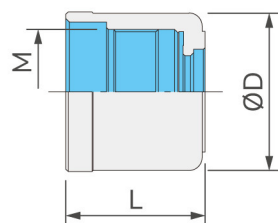
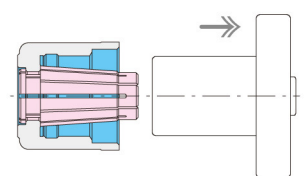


■ Detaching: reverse step.

2 Attaching the collet to correct position of the nut.



3 Take extractor out.



NR Nuts

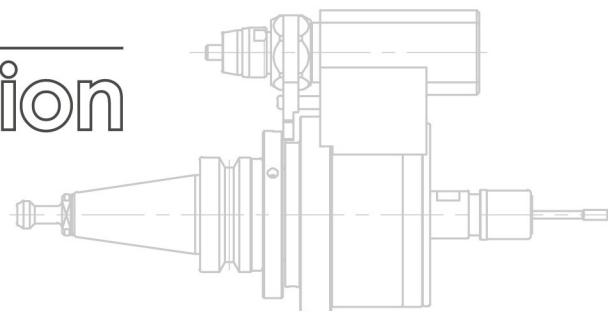
Part No.	M	ØD	L
NR06N	M15.5*P1.00	19.5	21
NR10N	M21.5*P1.00	27.0	24

High Speed Tooling Wrenches

Part No.	ØD	B	Nuts
W-D19.5	19.5	105	NR06
W-D27	27.1	115	NR10

ACROW

Product application



Semiconductor Industry

Monocrystalline silicon machining, Filter equipment machining, Ceramic packaging machining, High heat dissipation machining.

Optical Display Panel Machining

CVD Target forming machining, Phone case machining (tempered glass, ceramics, composite material), Panel cover machining, LED substrate machining.

Mechanical Structure Components

Ceramic bearings, Brake pads, Cylinder liners, Injection nozzle, Valves.

Medical Components Industry

Sprayers, Bone nails, Ceramic teeth, Blood analyzers, Venous indwelling needle.

Aerospace Industry

Composite material machining, Honeycomb panel machining, Titanium alloy machining, Inconel machining, AISiC machining.

General Commercial Commodity

Watches, Jewelry, Ornaments, Special glass products, Plastic, PMMA.

Other Special Machining

Special glass, Ceramics, Super hard alloy machining, Micro hole machining, Deep hole machining, Surface roughness raising, Surface stress relieving.



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