



Single setup grinding of micro taps

TapXmicro

TapXmicro is the one stop solution for micro tap production, delivering high quality, precision taps used in the manufacture of watches, glasses, electronics and more.



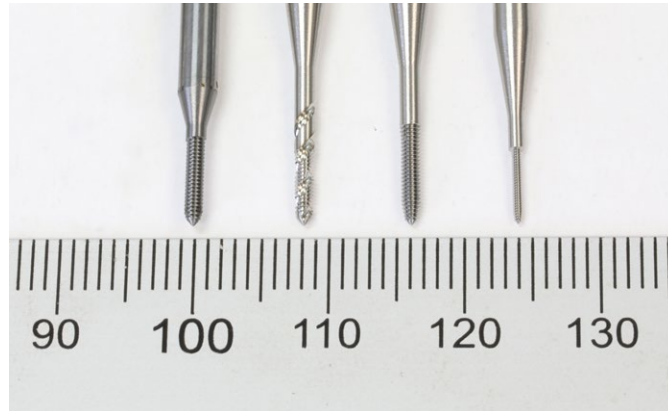
ANCA
CNC MACHINES

The ANCA TapXmicro has been designed as a specialised solution for grinding micro taps.



Grinding taps M3 and under poses unique challenges. Unmanned mass production of complex tools maintained to micron tolerances requires a unique solution to ensure the return on your investment is realised.

The 5-axis TapXmicro includes all the necessary features to support unmanned micro tap production. Additionally, ANCA's iTap software allows virtually any tap geometry to be programmed. This is complemented by CIMulator3D, that validates tool geometry and machine moves before grinding. The result is a versatile solution that gives total confidence in producing micro taps for your most demanding customer.



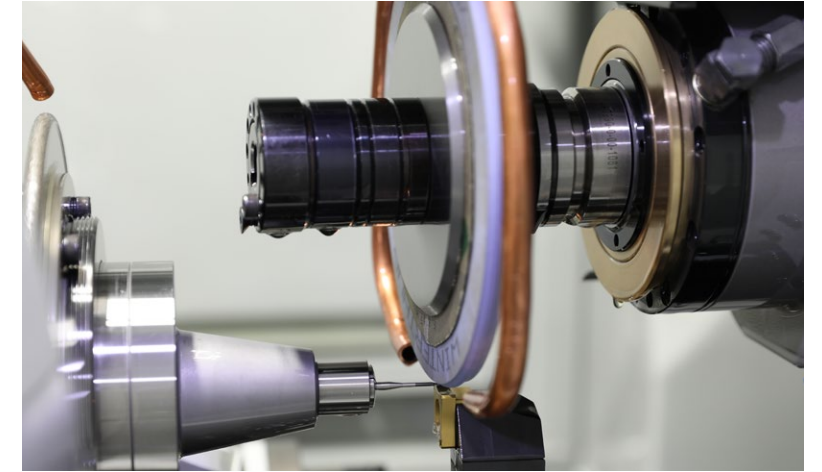
Key Benefits

- Produce a complete micro tap in one cycle and single setup
- Single setup grinding reduces capital investment and improves production flexibility
- Work-holding options for holding taps on the square tang or cylindrical shank
- Grinding between centres ensures low run out and repeatable grinding results
- In process dressing for all wheels ensures production consistency in unmanned grinding
- Proven iTap software for quick and flexible programming of all tap types
- Tool loading solutions for high volume, unmanned production reduces running costs
- Short cycle times and high productivity



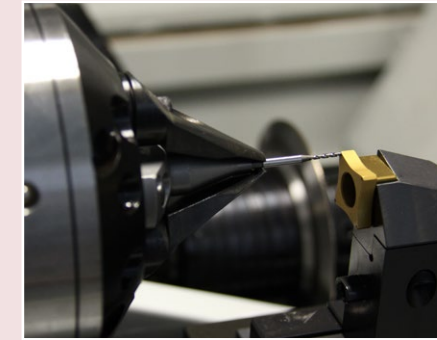
TapXmicro Overview

- Tap size range: M3 – M0.8
- Forming or helical cutting taps
- HSS or carbide tap material
- 2 wheel pack changer with option for 6
- Dedicated work-holding with compensating chuck or collet
- CNC controlled tailstock
- Two integrated wheel dressing options
- iTap software's dedicated tap grinding programs



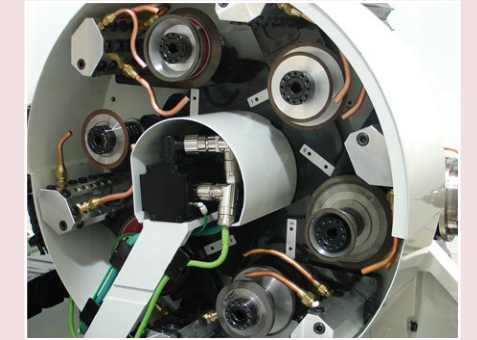
LinX linear motors

LinX linear motors and linear scales on X and Y axis for proven and unsurpassed long term reliability and accuracy.



Dedicated tap work holding

CNC tailstock with dedicated micro tap centres, plus compensating chuck or collet system to drive the tap in the centre.



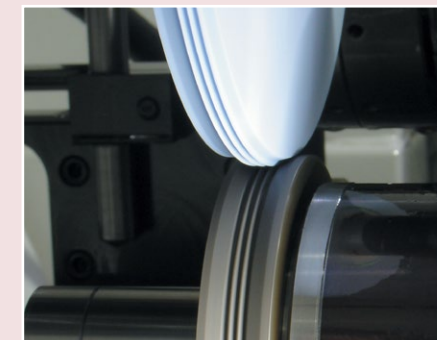
Wheel pack changer options

Standard 2 wheel pack changer with option for up to 6, provides machine flexibility to quickly change from one tool setup to another



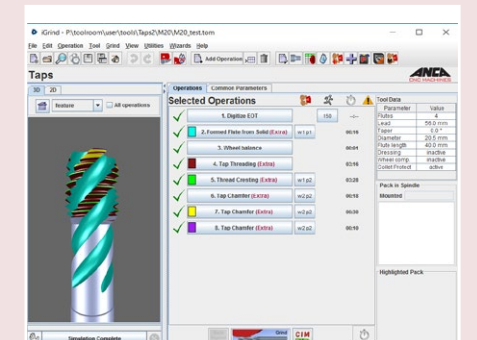
Automatic tool loading

RoboMate loader with Fanuc robot delivers hours of reliable unmanned production. Standard with 2 pallets, and option for up to 4.



Wheel dressing options

Two integrated rotary dressers allow dressing of all grinding wheels. Primary dresser is for flute and chamfer wheels. Secondary dresser with its quick change HSK arbor is or threading wheels.

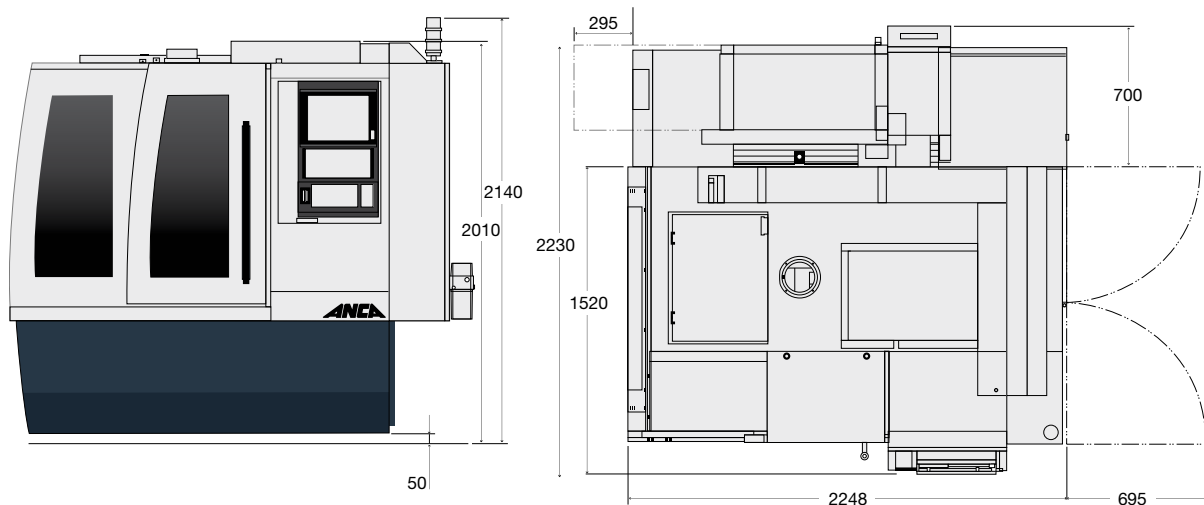


Dedicated software

Using parametric input of tap geometry, ANCA's iTap software includes cycles for complete grinding of all types of taps. CIMulator3D works with iTap, giving perfect visualisation of the machine moves and completed tool.

Technical Specifications

Standard inclusions on TapXmicro	iTap software iBalance software Wheel dresser software CNC Tailstock Headstock and secondary dresser Compensating chuck
Axis Configuration	X-axis: 540mm / 21.2" (LinX linear motor) Y-axis: 510mm / 20.1" (LinX linear motor) Z axis: 215mm / 8.4" (direct drive ballscrew) C-axis: 264 degrees (direct drive rotary axis) A-axis: 360 degrees (direct drive rotary axis) Q-axis: 360 degrees (direct drive rotary axis)
Spindle Type	Single ended permanent magnet with HSK50F 4.2kW S1 9.5kW peak
Wheel pack change	Standard: 2 (max. wheel diameter 203mm/8") Option: 6 (max. wheel diameter 152mm/6")
Loader	RoboMate with Fanuc 200iD robot
CNC data	ANCA AMC5, EtherCAT, high performance CNC, 8GB RAM, H/D 64GB SSD, Processor i7, Windows 8 and touch screen HMI
Other Data Machine structure Machine base Colour Weight Power requirements Probe type	Bi-symmetrical gantry ANCAcrete (polymer concrete) RAL 7035 / RAL 5008 5500kg (12,125lbs) 25 kVA Renishaw



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