

TapXcell



*eXcellence in cellular
tap manufacturing*

ANCA[®]

TapXcell Cellular tap manufacturing

One machine for complete tap grinding from blank to finished tool – ANCA's ground breaking TapX was first to respond to this market need.

Why grind taps in a single set-up?

ANCA's single set-up tap grinding eliminates production lines of single process grinders and introduced new levels of production flexibility for tap manufacturers. One machine for total tap grinding means reduced tool cost by reducing capital investment, factory floor space requirements, inventory, manual tool handling and machine set-up time. Whilst also giving you the flexibility to respond to your most demanding customer.

Now ANCA introduces the TXcell for the next step in unparalleled tap grinding flexibility and productivity. With its robot cell seamlessly integrated with the TapX machine, TXcell offers:

Super fast set-up time

Eliminate time wasted by changing from one tool to the next. Having nine wheel packs as standard enables one grinding wheel per arbor. Not only does this simplify the machine set-up, it also enables multiple wheel sets to be available for instant change over from one tool size or type to the next. All without having to reconfigure the

machine. This flexibility can be further expanded as the TXcell is able to hold up to 24 wheel packs.

Increased productivity

Apply different wheels for roughing and finishing by taking advantage of the multiple wheel packs. Automatic tool loading is integrated with the TXcell – 2 pallets are included as standard, with the option to expand up to 4 pallets for extended, unmanned batch runs. RoboMate software enables programming of mixed batches of tools within one pallet.

You can also use the robot for post-process operations such as brush honing or laser etching.

Superior accuracy

Availability of 300 mm grinding wheels ensures greater wheel life and size stability, and less wheel dressing. The new spindle orientation feature ensures the wheels return to exactly the same position in the spindle when being changed, enabling micron accuracy on your tightest tolerances.

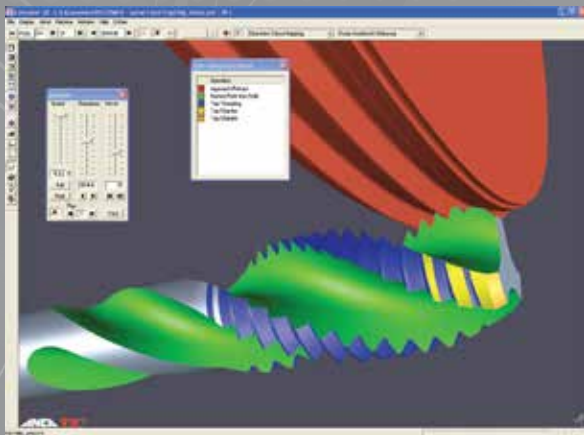


TXcell at a glance

- Includes TX7+ machine: an industry benchmark for precision and productivity
- Robot cell covers wheel pack and tool loading



TXcell's single set-up tap grinding offers new heights of flexibility and productivity, making you more responsive to the market!



This is all offered on the back of TapX's proven features and performance.

- Compensating chuck holds a variety of tool sizes between centres in one set-up
- P-axis tailstock with programmable force control for clamping between centres
- Dual wheel dressers for threading and other wheels
- Auto adjusting coolant nozzles for changing wheel size, reducing tool burn
- iTap software's dedicated tap grinding programs

- CIMulator3D for complete off-line program setting and checking
- iBalance for on-machine wheel balancing
- iFlute software for flute and wheel form calculation that imports data directly into the machine's wheel dressing software

Whether grinding carbide or HSS taps, TXcell delivers unequalled flexibility, productivity and accuracy. TXcell will change your business, putting you one step ahead of your most demanding customer. Contact your nearest ANCA representative for a demonstration today.

- Options of up to 24 wheel pack stations with wheel diameters up to 300 mm means total production flexibility and productivity without having to reset the machine in between tool types
- Up to 4 pallet stations, extends your unmanned grinding production with zero retooling inbetween batches

- Flexible tooling and software simplifies the manufacture of varying tool diameters and types
- Cellular concept enables the robot to be used for additional operations. For example, laser etching, tool finishing and fine brush honing



TapXcell

technical specifications

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CNC Data

ANCA 5DX, Core 2 Duo min., 3 GB RAM, 15" touch screen, DVD RW, USB connectivity

Mechanical Axes

	X-axis	Y-axis	Z-axis	A-axis	C-axis	P-axis
Position Feedback Resolution	0.0001 mm	0.0001 mm	0.0001 mm	0.0001 mm	0.0001 deg	0.0001 deg
	0.0000039"	0.0000039"	0.0000039"	0.0000039"		
Programming Resolution	0.001 mm	0.001 mm	0.001 mm	0.001 mm	0.001 deg	0.001 deg
	0.000039"	0.000039"	0.000039"	0.000039"		

Software Axes: (patented) B, V, U, W

Workpiece: Diameter 300 mm (12") max., length for OD and end-face grinding 400 mm (16") max, weight 25 kg (55 lbs) max*

Drive System: ANCA Digital (Sercos standard). Direct drive on linear and rotary axes

Machine Data

Grinding Spindle: ANCA direct drive 37 kW (49 HP) induction motor; 10, 000 RPM standard (15,000 RPM optional)

Wheel Arbor: BigPlus BT 40 Taper

Electrical Power: 25 kVA

Probe System: Renishaw

Base Material: ANCAcrete polymer concrete

Colour: RAL 7035 / RAL 5008

Cell Data

Robot: Fanuc M20i/A

Power: 3 kVA

Wheel Changer: Standard nine wheel packs expandable up to 24. Up to four wheels per pack, 15s change time

Wheel Diameter: Up to 300 mm on selected wheel pack stations

Tool Loading: Standard two pallets, expandable up to four, tool diam. range 3-32 mm, max. tool length 325 mm, 15s change time

Dimensions

Large Cell**: W 2530 mm x D 3540 mm x H 2260 mm. Weight 10 000 kg

Compact Cell**: W 2530 mm x D 3075 mm x H 2260 mm. Weight 9500 kg

** excludes stand alone robot controller - W 750 mm x D 550 mm x H 1100 mm

*Depending upon tool set-up

AUSTRALIA

ANCA Pty. Ltd.
25 Gatwick Road
Baywater North
Victoria 3153
AUSTRALIA
Tel +61 3 9751 8200
ozinfo@anca.com

USA

ANCA Inc.
31129 Century Drive
Wixom
Michigan 48393
USA
Tel +1 248 926 4466
usainfo@anca.com

UNITED KINGDOM

ANCA Ltd.
2 Eastwood Business Village
Harry Weston Road
Coventry CV3 2UB
UNITED KINGDOM
Tel +44 2476 44 7000
ukinfo@anca.com

JAPAN

ANCA Japan
3-60-1 Sakuragaoka-cho
Owariasahi-shi
Aichi-Ken 488-0859
JAPAN
Tel +81 561 53 8543
japinfo@anca.com

CHINA

ANCA Machine Tool (Shanghai) Co. Ltd
West Wing, 1/F, Building 4,
475 Fu Te No.1 Road(W)
Waigaoqiao FTZ, Shanghai, 200131
CHINA
Tel +86 21 5868 2940
chininfo@anca.com

INDIA

ANCA Machine Tools Private Ltd
#64, Parimala Towers
MES Rd
Yeshwantpur
Bangalore - 560 022
INDIA
Tel +91 80 4219 8107/108
indiainfo@anca.com

BRAZIL

ANCA do Brasil
Rua Francisco Ferreira Leão 377
Sorocaba 18040 330
São Paulo
BRAZIL
Tel +55 15 3221 5512
brinfo@anca.com

GERMANY

ANCA GmbH
Alois-Senefelder-Str. 4
68167 Mannheim
GERMANY
Tel +49 621 338100
gerinfo@anca.com

THAILAND

ANCA (Thailand) Ltd
Eastern Seaboard Industrial Estate,
No. 109/20 Moo 4
Tambon Pluakdaeng,
Amphur Pluakdaeng,
Rayong 21140
THAILAND
Tel +66 3895 9252
thainfo@anca.com



www.anca.com