

1. ARES NT-L 7/7/5 CMM

CNC COORDINATE MEASURING MACHINE



photo may look slightly different
Due to size or accessories

Specifications : see more info in separate Spec-sheet

PROBE CONFIG	MPE _E (µm)	MPE _P (µm)	MPE _{THP} (µm)	TEMPERATURE RANGE
PH10T/M/PH20-TP20	2,5 + 3,3 L/1000	2,5		18÷22°C; 0,5°K/h; 2,0°K/24h; 0,5°K/m

2. UCC T3 / T5 Fusion Control

The UCC T3, latest addition to the Renishaw controller and amplifier portfolio, uses high quality DSP motion control and digital drive tuning. These attributes combined produce superior reliability and excellent performance. Designed specifically for 3-axis CMMs, the UCC T3 utilizes an innovative and flexible external power supply with considerable associated cost savings.



Features:

- Digital tuning
- 3-axis control at 24 V - 80 V / 5.7 A nominal 9.7 A peak
- Easy to use configuration and diagnostic tools
- I++ DME compatible interface to application software
- Supports high density error maps
- Supports PH10 and TP200 via separate interfaces

Benefits:

- Ultra-compact: at only 440 mm (17.3 in) wide, 180 mm (7.1 in) deep and 44 mm (1.73 in) high, the Renishaw UCC T3 combines a 3-axis CMM controller with a powerful power amplifier.
- Robust and reliable: The UCC T3 continues Renishaw's high standards for reliability and is designed to operate under shop floor conditions
- Simple installation: The UCC T3 is easily installed and configuration is simplified through Renishaw's UCCAssist-2 software.

MCULite-2

The MCULite-2 is a basic joystick. It has the controls necessary to control a 3-axis touch-trigger CMM without a LCD display screen.

Features:

- 3-axis joystick
- Emergency stop
- Speed override
- Slow speed enable buttons
- Fast speed enable buttons
- Probe disabled LED (red)
- MCU status LED (tri-colour)
- Joystick locks (three separate buttons)
- Probe disable button
- Servo engage button
- Take point/cancel last point button
- F1-F2 function buttons



UNITABLE Control Cabinet and system desk

UNITABLE Control Cabinet and system desk MOT CMM equipped with CC3-NT/Fusion T3/5 Desk for PC, Fusion T3/5 controllers, PHC10-3 plus, desk 120 x 80 cm., 72 cm height

3. TOUCHDMIS™ SW

Smart, Simple, Intuitive, Powerful and Productive

Touch technology is revolutionizing human interaction to complex devices providing faster, simpler, more intuitive user solutions.

Touch technology is now available for Coordinate Measuring Machines with the next generation of metrology software. **TouchDMIS** is a full feature CMM software offering an intuitive and simple touch interface providing an unparalleled user experience and offering benchmark measuring productivity. Conventional CMM software's are criticized for being overly complex requiring long training periods and extended learning curves. TouchDMIS is a game changer offering the world's first all touch CMM software. Developed for both Manual and CNC CMM's, and available with optional TouchCAD module, TouchDMIS is loaded with innovative time saving features and requires just a few hours to learn.

Inbuilt intellect provides the user with screen dynamics minimizing selection choices and eliminating traditional function searches. Rich screen graphics display every action before execution guiding the measuring process and eliminating potential user errors.

User Interface Not Software Interface

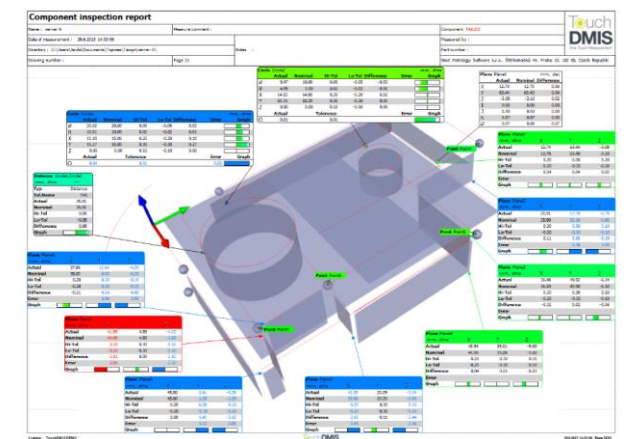
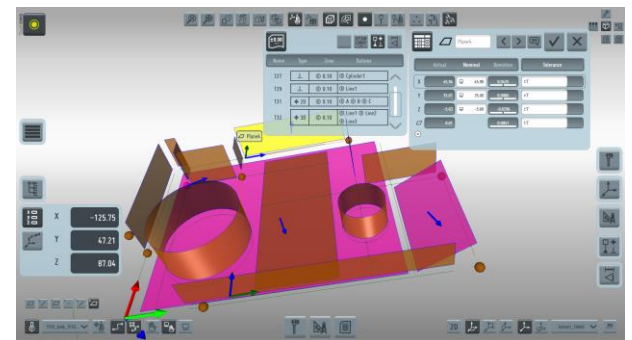
Traditional CMM software's have a user interface providing access to functionality through complex toolbars, drop-down menus and tedious window selections. TouchDMIS offers a true USER interface where all functionality is dynamically presented requiring user selection only. Searching for software functions just became obsolete minimizing learning time to just a few short hours with immediate measuring productivity benefits.

Thru-View Technology with 'Flip Windows'

All open windows offer 'thru-view' technology allowing through sight of the displayed graphics. Many windows offer the 'flip button' enabling the open window to be flipped to display further functions and capabilities for advanced operations; for example flipping of the Result Window provides access to Output Comments and Operator Text Message input fields.

Touch Input – Fast & Convenient

Touch of any input field launches the context sensitive Alpha or Numeric virtual keypads providing a quick and easy solution to edit feature labels, input new tolerances, change # measure points etc



4. Standard Probe head set

4.1 - Motorized Indexable Probe Head PH20

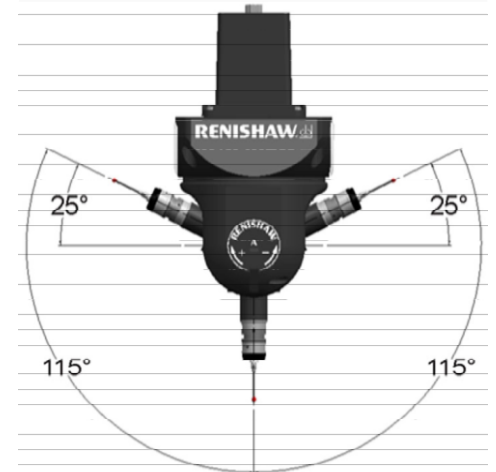
PH20 is a dynamic measuring head and probe system. It is a revolutionary product designed to maximise measurement throughput whilst maintaining high system accuracy for basic entry level measurement systems. PH20 incorporates Renishaw's long established TP20 probe system into a revolutionary motorised head system to give unprecedented touch trigger measurement capability. Unlike conventional touch trigger measurement methods which rely on speeding up the motion of the CMM's 3 axes to measure quickly PH20 uses head motion to minimise the dynamic errors of the CMM at ultra high measurement speeds.

PH20 key features:

- Infinite positioning – not restricted to defined index angles
- Rapid head touches – where the CMM is stationary and the head moves and takes a touch point
- Rapid 5 axis moves – synchronised motion of the head and CMM between measurements

Specifications:

- Weight (excluding module and cables): 810 g (28.6 oz)
- Operating Temperature range: 15 °C to 35 °C (59 °F to 95 °F)
- Maximum movement speed: 3 revs/s (1281 mm/s with standard module & 10 mm stylus)
- Maximum head touch speed: 50 mm/s
- Rotation angles A axis: -115° to 115°
- Rotation angles B axis: ∞
- Angular resolution: 0.4 μRadians
- Bearings: Mechanical
- Change rack system: MCR20 NI and MCR20



4.2 - TP20 Touch Trigger Probe

The TP20 is a touch-trigger probe that gives its users the ability to change stylus configurations manually or automatically, without re-qualification. The TP20 is widely accepted as the industry standard replacement for the TP2-5W probe, offering a range of new benefits. It can be easily retrofitted to manual and DCC co-ordinate measuring machines (CMMs). The TP20 probe comprises two parts: a probe body and a detachable stylus module which contains the kinematic touch sensor and carries the stylus assembly.

The probe body has a standard M8 screw connector, which enables direct fitting to all CMMs with a Renishaw PH1, PH6, MH8 or PH10T probe head. Fitment to PH10M/PH10MQ and MIH probe heads is simply achieved using a Renishaw PAA adaptor. The probe body also contains a magnetic proximity switch to inhibit triggering of the probe during automatic module changing with the MCR20 module change rack.

The stylus module is connected to the probe body by a highly repeatable magnetic coupling. This enables the exchange of modules without the need to re-qualify the stylus tips, giving significant time savings for inspection routines. The kinematic coupling between the probe body and module affords some crash protection in the X and Y axes.



A range of seven, application specific, stylus modules is available:

- LF - Low force stylus module (green cap)
- SF - Standard force stylus module (black cap)
- MF - Medium force stylus module (grey cap)
- EF - Extended force stylus module (brown cap)
- 6W - 6-way stylus module (blue cap)
- EM1 SF - Standard force extension module
- EM2 SF - Standard force extension module combinations permit good reach and access to part features.

Renishaw - TP20 Electronic Probe with SF modules kit including:

- 1 x TP20 probe body,
- 1 x SF modules (Standard Force)

4.4 - KIT 23 styli Kit

1 x Stylus PS23R - A-5000-7808
2 x Styli PS2R - A-5000-3603
1 x Stylus PS16R - A-5000-4160
1 x Stylus PS17R - A-5000-4161
2 x Styli PS9R - A-5000-7806
6 x Styli PS8R - A-5000-7807
2 x Styli PS1R - A-5000-3604
2 x Styli PS12R - A-5000-4154
1 x Stylus PS7R - A-5000-3626
1 x Stylus Centre SC2 - A-5000-3627
2 x Extensions SE4 - M-5000-3647
1 x Extension SE5 - M-5000-3648
1 x Stylus Knuckle SK2 - A-5000-7534
1 x Mahogany box - A-1015-7652

4.5 - Certified Calibration Sphere dia. 25 mm

5. Sales Terms & Conditions

This proposal by COORD3 Industries contains proprietary commercial, financial and technical information and is being furnished to you only for the purpose of evaluating this proposal. Further use by you or disclosure to, or use by others of the information in this proposal, except as required by law is strictly prohibited without prior consent of COORD3 Industries.

COORD3 Industries standard international Sales Terms & Conditions apply. All COORD3 machines are produced to the strictest Quality Control procedures guided by ISO 9001 and are subject to standard system inspection prior to dispatch. System pass-off (buy-off) at customer's plant will also be performed following installation.

5.1 - Installation at End-user Site (Optional)

- The system installation (when declared "Included") includes assembly, start-up and metrology testing. During the installation, the presence of the end-user personnel is not required unless otherwise agreed. However, local support for supply connections, internal transportation, lifting and unpacking is to be provided by the end-user. The metrology test will be performed according to the declared ISO International CMM performance standard by means of COORD3 Industries approved procedures.
- Before the machine installation can begin the following has to be confirmed. (At end-user or Agent/Distributor care):
 - a) The installation site is clean
 - b) The environmental specifications of Temperature, Ambient Vibration, Air Humidity, Foundations (when required) or existing ground support of the CMM are according to the Product specifications
 - c) Clean and dry air supply if required is available according to COORD3 Industries specifications
 - d) Power supply to the electronic control is provided according to COORD3 Industries specifications
 - e) Fork lift truck and or suitable lifting equipment is available for the machine assembly and Installation
- If one or more conditions of points b) and c) are not met, the Customer can not claim against COORD3 Industries for the failure to achieve the accuracy / performance of the system
- Crate opening and handling operations of the single parts of the CMM must be carried out in the presence of the COORD3 Industries or authorized Agent/Distributors Technician. COORD3 Industries declines any direct or indirect liability deriving from the failure to heed this cautions.
- In the event that special installation tools are required and are being shipped temporarily to the end-user site for the installation, temporary import /export and customs clearance formalities and their related costs are in the responsibility of the end-user. Logistic support and domestic transportation to and from the nearest port of entry to the installation site are to be provided by the end-user.

5.2 - Operations, Programming Training

The training is designed to teach operators theoretical instructions in class and on the job training (OJT) in the system for operation of the measuring system and the use of the basic software functionality. Operators attending this class are expected to have competence and understanding with technical drawings and geometric dimensioning and tolerancing methods.

Duration	: 3 Working Days
Place	: At End-user Site after Machine Installation.
Attendees	: 3 operators

5.7- Excluded from the Scope of Supply

- Metrology Pre-acceptance at COORD3 Industries plant for the assembled CMM and configuration using Customer run-off procedure or the ISO 10360-2/10360-4 International standards are not included unless explicitly specified in this proposal. Will be evaluated and quoted on request.
- Foundations execution and Foundation Materials if such should be required
- Masonry, Electrical Supply, Wiring, Cabling and Plumbing
- Anything else not specifically mentioned in this Quotations

5.8 - Documentation on CD-Rom Media

- Operation Manual
- Installation drawings
- Maintenance manual
- Programming manual

Unless expressly stated otherwise

- User and Maintenance Manuals, scheme drawings, SW interface and User manual will be supplied in English or Italian Language unless explicitly specified in this proposal
- Equipment specifications (electrical, mechanical, safety) are Coord3 Industries Standard
- All machine accuracy/performance are stated in the Proposal
- Any part programming, application support or alternative training is provided outside the standard training course and warranty unless explicitly specified in this proposal
- Any fixtures and tooling are supplied beside the ones explicitly specified in the quotation
- Except where stated, Coord3 Industries International Sales Terms apply
- COORD3 Industries reserves the right to change product specifications and standard supply configuration without prior notice or update of this system proposal Machine pictures shown in this proposal and in our standard literature may show the machine with optional accessory not explicitly offered nor supplied as per this proposal.

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