TRIMOS

C-Line

Portable Coordinate Measuring Machine designed for the Workshop

Swiss Measuring Instruments

1.

PRESENTATION

Trimos new C-Line is the world's first truly portable Coordinate Measuring Machines designed for the workshop. This product line is part of the new TRIMOS 3D product group.

- Portable for the maximum of flexibility (works on batteries)
- Small foot print
- High precision using Renishaw TP20 probe
- Ease of use thanks to the Aberlink software
- Fully CNC combined with manual operation
- Logical 3D complement to the height gage 1D/2D
- Designed for workshop operation
- Ethernet communication or wireless (WiFi/Bluetooth)

Portable
At only 13,5 kg, the C4 goes with you wherever you need it. No longer are you required to take the part to the CMM, from a surface plate, to a table on the shop floor or on a large part itself, the C4 can be deplyed directly in the manufacturing process.

Easy-to-Use
The C4 is the easiest portable direct computer control CMM to use. Built with the intention of lowering the threshold of training needed to successfully operate and even program a DCC CMM, every component, from the mechanics to the software, hase been examinded for optimal user experience and ease-of-use.

Software
C-Line's software is built in and easy-to-use. It is controlled throught an intuitive, icon based touchscreen computer. From shop technicians to dedicated CMM operators, anyone can feel comfortable operating the teach and learn programming the C4.

In North America the C-Line is commercialized under the Z Cat model name.

2.

MODELS

C3

The C3, entry model of our new portable CMMs, has 3 axes motorized (X, C, Z). It allows basic 3D measurements.

C4

The C4 is the premium model of our new portable CMMs. It has 4 axes motorized. (X, C, Z, P). The C4 allows high performance measurements in 3D.

3.

FLEXIBILITY AND PROBABILITY

The C3 and C4 may be provided with a wireless Bluetooth device, batteries or the two options for a complete wireless portability.
At normal use the autonomy on battery is 4 hours.

4.

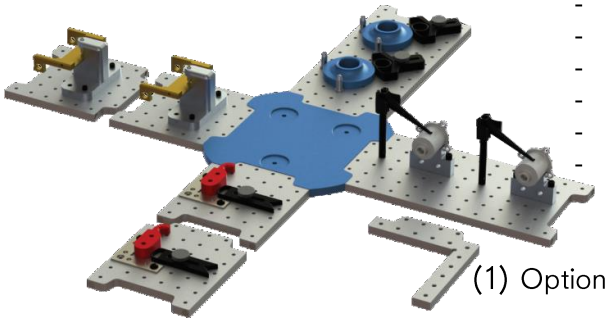
COMPONENTS AND ACCESSORIES

Standard delivery

- C-Line CMM – 3 or 4 Axes
- Renishaw probe
- Demo part
- Battery with charging unit
- Cover

Accessories

- C-Line test/calibration block
- C-Line dustcover
- C-Line AC adaptor
- C-Line Retrofit Ethernet to Bluetooth
- Shipping box for C-Line (no foam insert)
- Foam insert for C-Line ship box
- Replacement stylus for C-line probe 2 mm
- Special C-Line Ball Probe Module TP20
- Vertical Only 2mm C-Line Probe
- 6mm Ball, 75mm Length Carbon Fiber C-Line Probe
- 1mm Ball Probe C-Line Module
- Horizontal Only 2mm ball C-Line Probe
- Fixtures



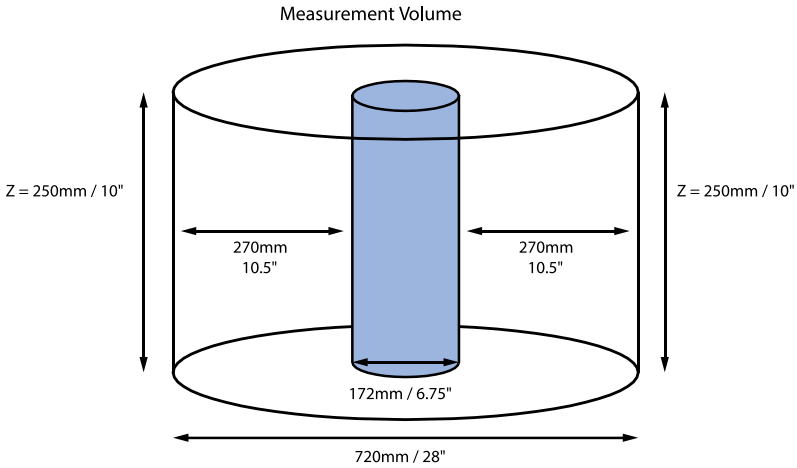
(1) Optional Fixture System

5.

TECHNICAL SPECIFICATIONS

Dimensions

Working Volume



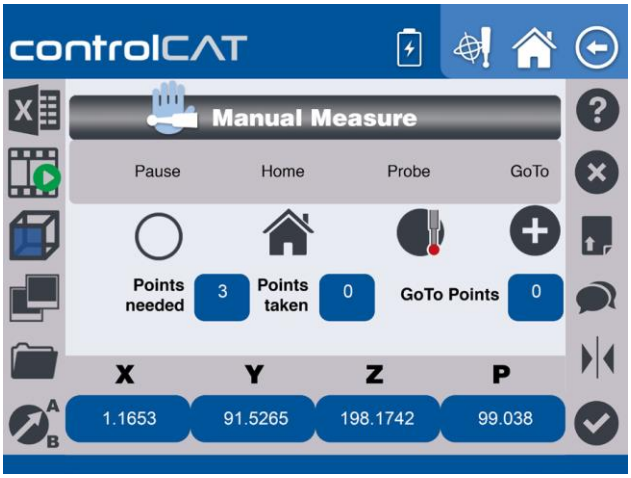
C3 &C4		
Working volume	mm	X and Y Ø 700, Z 250
Diametral Accuracy	µm	3.0 + D(mm)/100
Linear Accuracy	µm	5.0 + L(mm)/100
Fixturing accuracy requirement	mm	5
Machine speed	mm/s	User controlled to 150
Machine air requirement		None required
Construction		Stainless steel for all structural components
Machine power requirements		100-240 V AC±10%, 50-60Hz
Autonomy	h	Normal: 4 /peak: 3
Power consumption	W	Normal: 10 / Peak 15
Manual motion control		User controlled by hand movement of probe
Controller		Onboard PCB provides motion control, error mapping, I++ interface and ControlCAT metrology software
Temperature compensation		Onboard monitoring and compensation
Probe Type		Renishaw TP20 probe
Machine weight	kg (lbs)	13.6 (30)
Machine dimensions (W x D x H)	mm	420 x 172 x 620
Operational Temperature	°C	+10 ÷ +40
Storage Temperature	°C	+10 ÷ +40
Relative Humidity (operation and storage)	%	HR 5 ÷ 75% (non-condensing)

** Specifications subject to change without notice*

6.

SOFTWARE

The C-Line is delivered standard with the ControlCAT software, which allows you to perform many type of measurements: distance, circle, plane, line, point…



The C-Line works with the following softwares:

- Aberlink
- CMM Manager
- Verisurf
- PolyWorks

To take full benefit of the performance of the C-Line, we recommend to use the Aberlink software (optional).

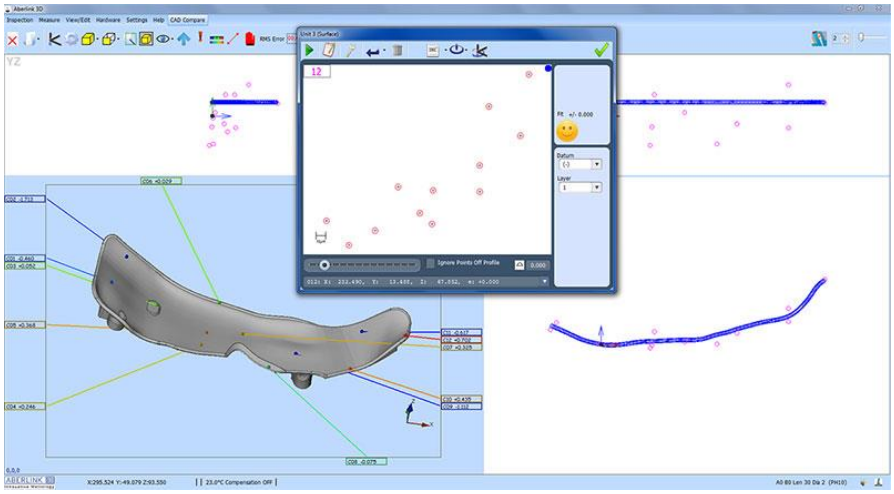
Aberlink 3D Measurement is the software used with our C-line instruments. The philosophy for Aberlink is to make measurement easy. Aberlink 3D software has been written by engineers for engineers and sets the industry standard for simple-to-use software.

Designed around a graphical interface, Aberlink 3D can work in 2D or 3D, on manual or CNC CMMs and is equally at home when used with either touch, scanning or vision systems.

Additional Aberlink software module:

CAD Comparison

The CAD Comparison module gives the capability to compare measured points to a CAD model. This is the best way to measure complex geometries, or to inspect parts for which drawings do not exist.



Key Features

Feature Inspection :

- Automatic measurement routines
- Powerful interactive graphics window
- Automatic feature recognition
- 2D and 3D inspection
- Geometric feature inspection
- Free form curve inspection

Programming Tools :

- Teach & repeat programming
- Drag and drop program editor
- Run programs from any point
- Measure a subset of features
- Simple object-based programming
- No complex programming language

Report Formats :

- Engineering drawing GD&T
- Simple PASS/FAIL
- Form plots
- Batch summary
- Tabulated reports
- Graphical fly-out labels
- Drag & drop reporting
- Real-time SPC
- Export to Excel
- Historical data reporting

Supported Machines :

- Coordinate Measuring Machines
- Portable arms

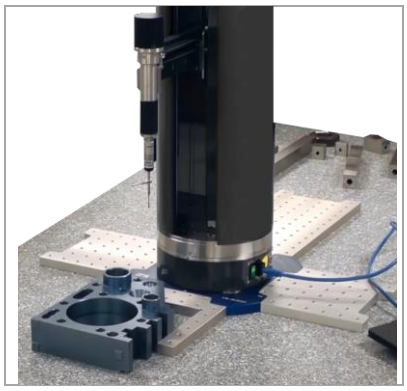
Supported Probes :

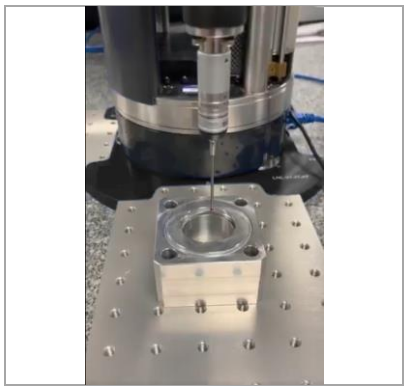
- Manual probe heads
- Rigid probes
- Touch trigger probes

Software Aberlink	
3D SOFTWARE	Option
CAD COMP	Option
OFFLINE	Option

7.

APPLICATIONS





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