

Inspection of large components on 3 axis Coordinate Measuring Machines requires a blend of large volume measuring capability and high accuracy performance.

With over 30 years of experience in design and construction of machines tailored for such applications, Coord3 is able to provide a wide range of Gantry style CMM's in two classes of machine : the MCT PLUS and the MCT STARLIGHT. Both are characterized by supreme mechanical design and stability that ensure long term accuracy and reduced calibration costs.

THE Z AXIS CARRIAGE AND THE RAM

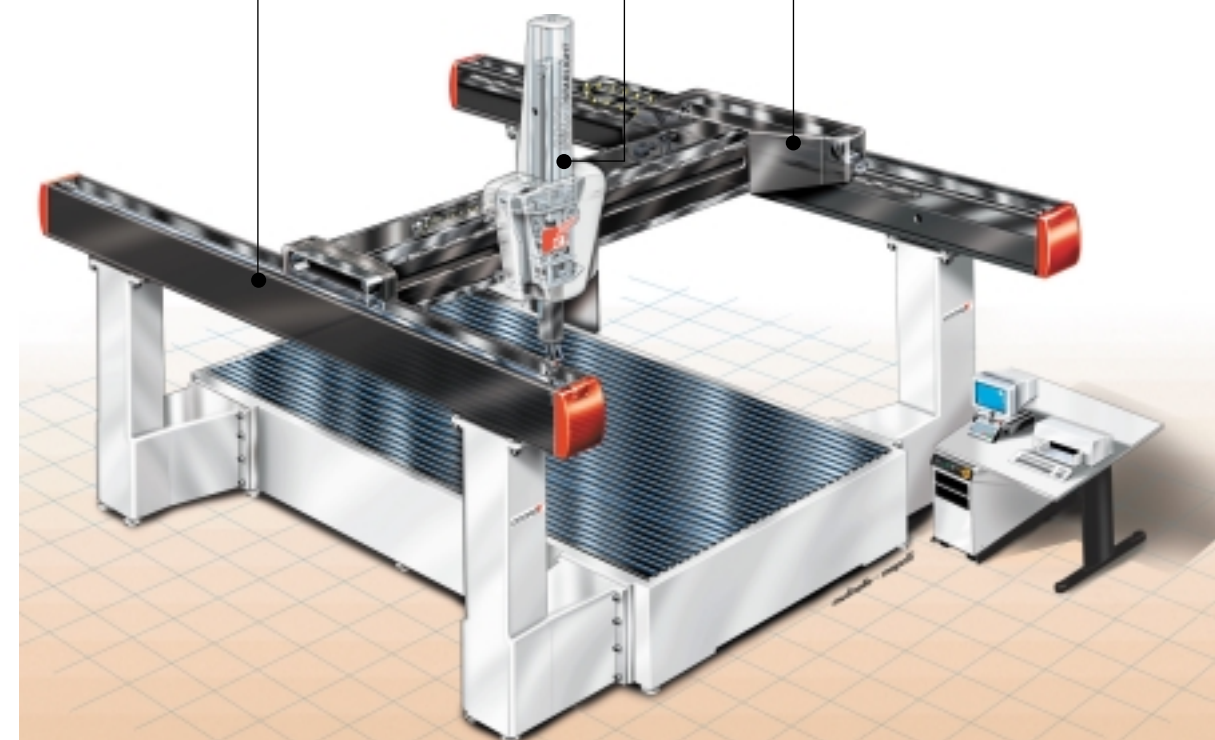
- **Lightness and rigidity**
- **Large ram section**
- **Pneumatic balancing**
- The Z axis carriage is a cast aluminum frame reinforced with structural ribs providing excellent rigidity in a lightweight frame. The ram, which travels inside the carriage and provides Z axis motion, is an extruded square profile arm manufactured from the same material.
- The wide bearing surfaces of the ram, 115mm for the STARLIGHT and 150mm for the PLUS, enable the Coord3 gantry to maintain the highest accuracies throughout the entire range of Z axis strokes.
- A pneumatic counterbalance cylinder located inside the ram balances the weight of the ram and all of the various measuring, scribing or light milling tools that can be used.

THE X AXIS MAIN CARRIAGE

- **Optimal bearing spread ratio**
- **Anti-Deformation design**
- **Rack and Pinion Drives**
- The distance between the X axis guideways combined with the spread of the air bearings on the main carriage are designed to provide a ratio which is at the top of its class. These bearing spreads ensure that accuracies are preserved during high speed motion and heavy duty operations such as scribing and milling.
- The main carriage is designed in two shapes, round for MCT STARLIGHT and square for the MCT PLUS. This design combines light weight and high strength to ensure maximum carriage rigidity and minimal X axis roll during machine motion.
- The X and Y axes utilize rack and pinion drives, which provide maximum rigidity of motion and backlash free performance. The smooth motion obtained through the use of these drive systems ensures maximum accuracy during general inspection and continuous scanning.

THE X AXIS GUIDE RAILS

- **Construction**
- **Structural rigidity**
- **Linear thermal stability**
- **Contrast air bearings**
- Constructed with fabricated steel, stabilized and ribbed, with a wide cross section.
- The PLUS series is designed with square guideways which provide high rigidity for wide carriages, while the STARLIGHT series uses a "V" shaped scheme which enhances rigidity during high speed motion.
- The X axis guide rails are mounted to the base pillars and utilize an anchoring system which allows horizontal displacement due to temperature without creating stress or accuracy degradation.
- Air bearings are utilized for contrast providing enhanced rigidity and non friction machine motion on all axes.



The PLUS series includes models with superior accuracies and longer strokes, while the STARLIGHT series is designed to achieve the same results while reducing mass and cost for certain components. The STARLIGHT series can be equipped with disengageable drives for manual operation of the machine during measuring or scribing operations. Customized versions are also available for both MCT PLUS and STARLIGHT, such as dual-reader or dual-drive in case of very large Y axis strokes. In both series, operational safety is highly considered: all 3 axes are fitted with a quick-stop device that is automatically triggered by low air pressure or other emergencies

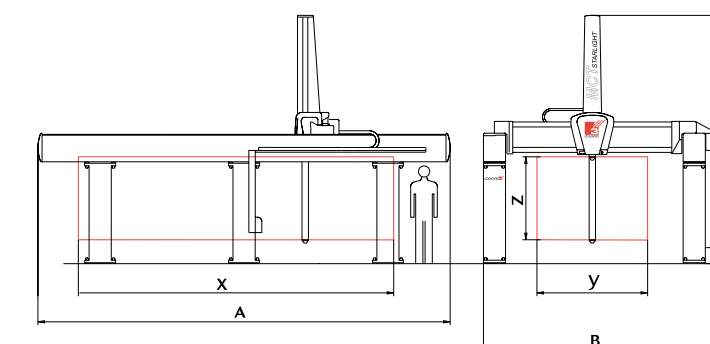


STARLIGHT



PLUS

MCT STARLIGHT



	Strokes (mm)			Overall Dimensions (mm)		
	X	Y	Z	A	B	C
min.	2500	1500	1000	4250	3654	3987
max.	6000	2500	2000	7750	4654	5387

ACCURACY

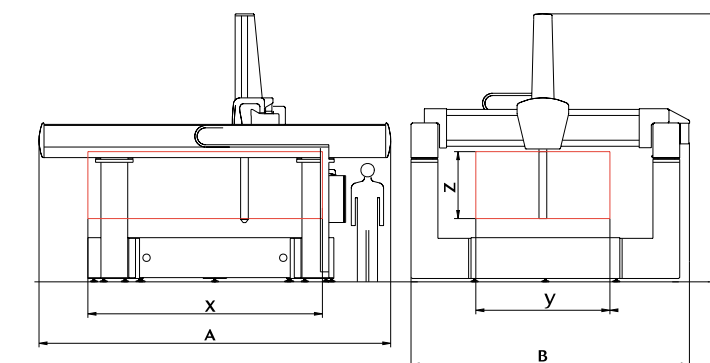
According to ISO 10360-2 standard

$$E=(5+5L^*) \mu\text{m}$$

*L= measured length in meters
Accuracy refers to the model 2500-1500-1000

• Available in manual or with disengageable drives in sizes up to y=2500 - z=1500 mm. - z=1500mm.

MCT STARLIGHT MONOLITHIC



	Strokes (mm)			Overall Dimensions (mm)		
	X	Y	Z	A	B	C
min.	2500	1500	1000	4250	3654	4000
max.	4000	2000	1500	5750	4154	5000

ACCURACY

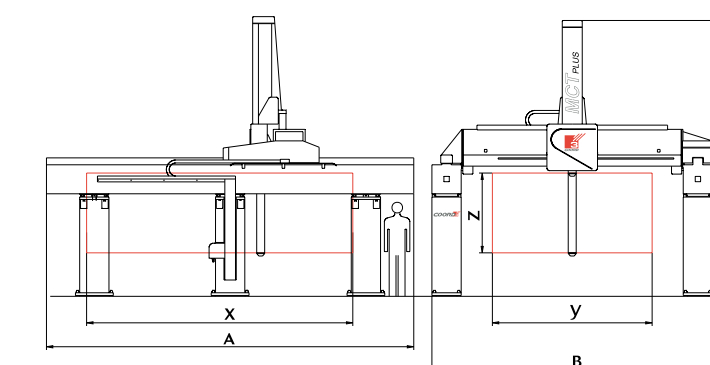
According to ISO 10360-2 standard

$$E=(5+5L^*) \mu\text{m}$$

*L= measured length in meters
Accuracy refers to the model 2500-1500-1000

• Available in manual or with disengageable drives

MCT PLUS



	Strokes (mm)			Overall Dimensions (mm)		
	X	Y	Z	A	B	C
min.	5000	2500	2000	6900	4920	6033
max.	12000	3500	2500	13900	5920	6833

ACCURACY

According to ISO 10360-2 standard

$$E=(7+8L^*) \mu\text{m}$$

*L= measured length in meters
Accuracy refers to the model 5000-2500-2000

STARLIGHT



Coord3 MCT Gantry machines are fixed to the floor anchoring the pillars to steel plates in the foundation. The Coord3 technical department provides the user with installation drawings indicating the foundation requirements, customized for each machine. Special requirements can be taken into account, such as a foundation designed to provide a surface table flush with the floor or a rail system for loading and unloading of large components.



The STARLIGHT series is also available as a monolithic base system with the pillars rigidly connected to a structural steel base that eliminates the need for a foundation, stands freely on the floor and provides an integrated worktable.

MCT: engineering and technology in a perfect match

COORD3 IN ITALY

TORINO
MILANO
VERONA
PISTOIA
BARI



COORD3 IN THE WORLD



www.coord3.com

Italian branches

COORD3 S.p.A.

Production and Administration
S.S. del Moncenisio, Km. 42,200
10050 BRUZOLO (TO)
Tel +39 011 9635511
Fax +39 011 9635566
info@coord3.com

Coord3 Milano

Via G. di Vittorio, 9
20017 Mazzo di RHO (MI)
Tel +39 02 93906040
Fax +39 02 93907803

info_milano@coord3.com

Coord3 Verona

c/o Istituto Salesiano
San Zeno
Via Don Minzoni, 50
37038 VERONA

info_verona@coord3.com

Coord3 Pistoia

Via degli Oleandri, 8
51030 PISTOIA
Tel +39 0573 935058
Fax +39 0573 539970

info_pistoia@coord3.com

Coord3 Bari

Via Don Giuseppe Mazzone, 30
70010 CASAMASSIMA (BA)
Tel +39 080 4531399
Fax +39 080 4531400

info_bari@coord3.com

Coord3 worldwide

Coord3 Beijing

Room 1903 - 1 Bright China Changan
Building - 7 Janguo Mennei Street
Beijing - P.R. China - ZIP: 100005
Tel. +86 10 65102926
Fax +86 10 65102925
E-mail: coordcn@public3.bta.net.cn

Coord3 Brasil

Rua da Moóca, 3682
Moóca - São Paulo - SP
CEP 03165-000
Tel. +55 11 66042277
Fax +55 11 66042303
E-mail: coord3@coord3.com.br

Representative offices

Coord3 Inc.

info_usa@coord3.com

Coord3 K.K.

info_kk@coord3.com

Coord3

All specifications listed in this brochure are subject to change without notice. Further information available on data sheet.

Ed. May 2003, inc. E 2000

