

EQ-ATS - Equator™ Auto Transfer System for EQ500 gauging system



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Safety and warnings

Noise emissions

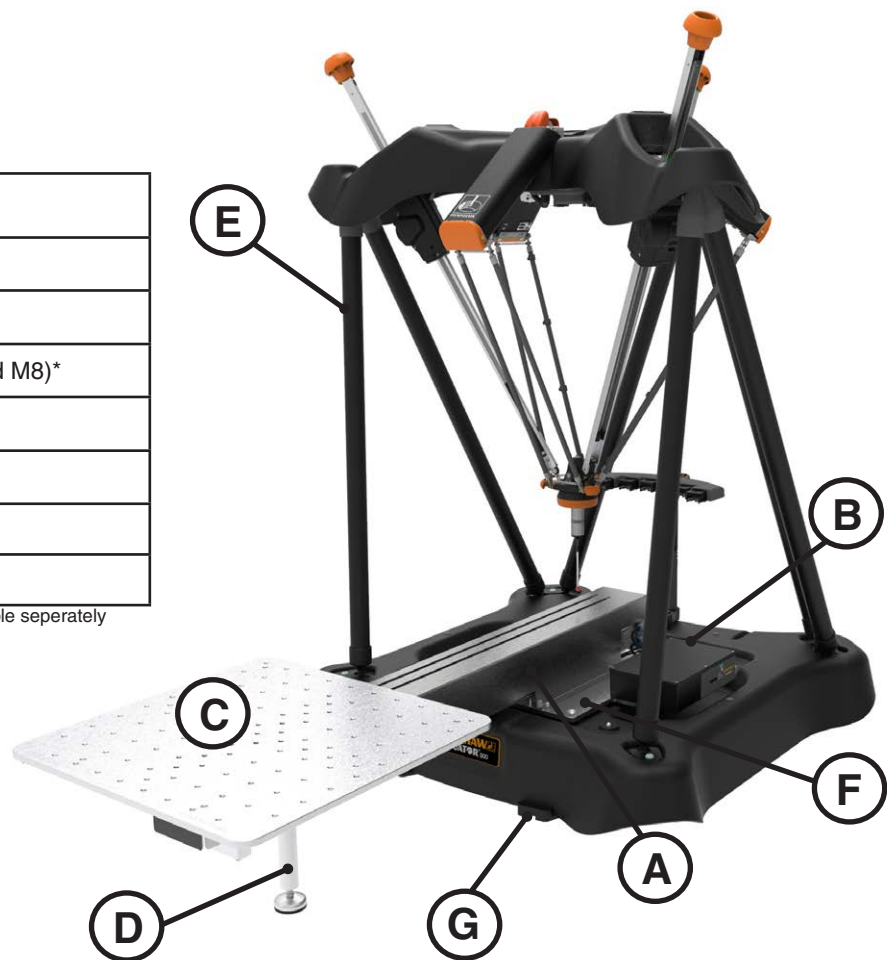
- Operates at 72.9 ±1.5 db
- It is the responsibility of the integrator to ensure a suitable noise assessment is performed when the equipment is put into use, as there may be a requirement for ear protection.

Residual Risk Summary

1. There is a potential crushing hazard between the rear corners of the EQ500 fixture plate (C) and the front support legs (E) of the EQ500.
2. There is a potential impact injury if a user stands in the area where the EQ-ATS extends to the out position.
3. The stop button mount (G) on the EQ500 is obscured when the EQ-ATS is fitted, therefore, the stop button must be moved to an alternative accessible position.

Item	Description
A	Cylinder
B	Control box
C	Fixture plate (M6 and M8)*
D	Support Leg
E	Support Strut
F	Base Plate
G	Stop Button Mount

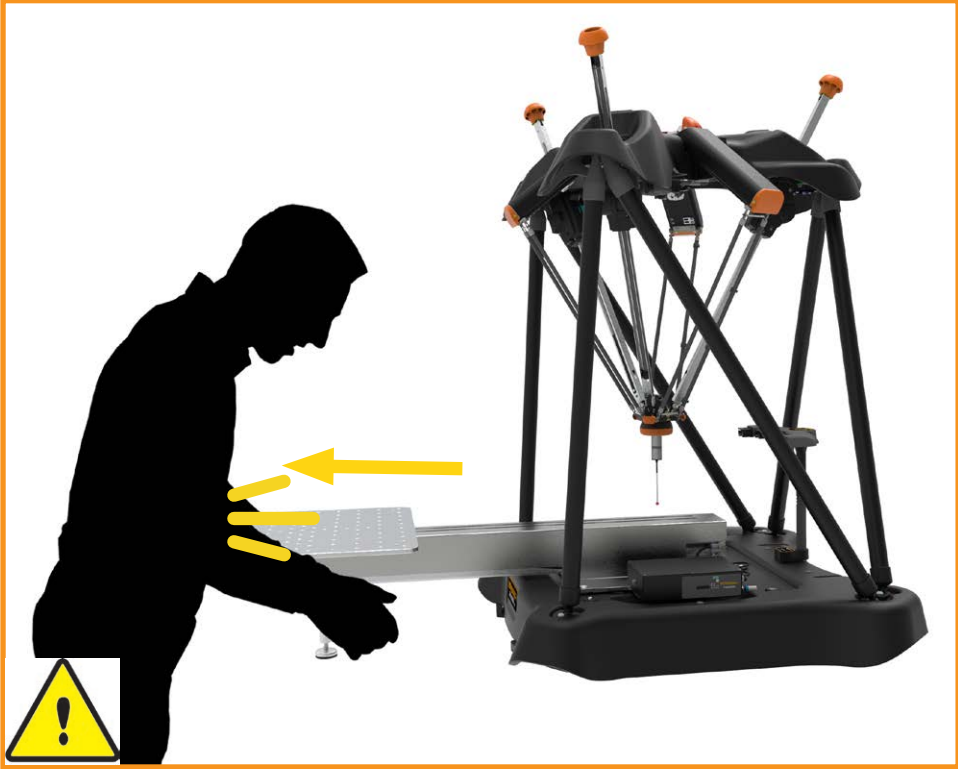
* M6 and M8 fixture plates are orderable separately



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2. There is a potential impact injury if a user stands in the area where the EQ-ATS extends to the out position.



3. The stop button mount (G) on the EQ500 is obscured when the EQ-ATS is fitted, therefore, the stop button must be moved to an alternative accessible position.



In order to mitigate these residual risks, the following can be purchased at an additional cost:

Part	Part Number
Table Extension and Wings	A-6242-0350
Equator 500 Enclosure Table	A-5924-0290
Equator 500 Enclosure Sides	A-5924-0400
Equator 500 Foot Kit	A-5924-0275

! Safety and warnings (continued)

Care should be taken when handling this product. If the product is dropped or receives an impact, it must be assumed that it is not suitable for use and Renishaw should be contacted with reference to a replacement.

Safety shoes and glasses should be worn at all times during installation and use of the EQ-ATS.

The Equator foot stud installation kit, included with the EQ-ATS, must be used to secure the Equator gauging system onto a fixed surface to ensure stability during use.

The weight of the EQ-ATS is 26.4 kg. The weight of the EQ-ATS with packaging is 32.4 kg.

When connecting or disconnecting the EQ-ATS to an Equator system, the Equator system must be shut down and disconnected from the mains power supply. Not doing so can cause damage to the electronics.

Users should ensure that parts are fixtured securely to the EQ-ATS before using the machine.

Due to risk of entanglement, loose items must not be worn near the equipment.

The user must not touch the EQ-ATS whilst it is in motion, as this may cause measurement errors.

Ensure parts are securely clamped and constrained in the Y axis.

If this equipment is not used in its intended manner, any protection provided may be impaired and the warranty may be voided.

All the pressurised parts used in the EQ-ATS Assemblies are used under manufacturers recommended operating instructions, with all of the parts operating below the maximum pressure stated by the manufactures.

Emergency situation information

If the system begins to behave in an unexpected manner, press the stop button to reduce the risk of damage or injury. In the case of fire, use fire extinguishers for electrical fires. There are no potential chemical leaks from the system.

Regulatory information

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Patents

Features of Renishaw's Equator and similar products are the subject of the following patents and patent applications: CNw 100402873C China 0516/CNw/0

- | | |
|---------------------------------------|---------------------------------------------|
| • CNw CN100464084C China 0584/CNw/0 | • JP 3,827,748 Japan 0317/JP/0 |
| • CNw CN1295484C China 0543/CNw/0 | • JPw 4062515 Japan 0495/JPw/0 |
| • EP 0470234 Europe 0187/EP/ | • WO 2009/027660 P.C.T. 0746/WO/0 |
| • EP 0501710 Europe 0243/EP/ | • USw 5,088,209 United States 0115/USw/0 |
| • EP 0543513 Europe 0226/EP/ | • US 5,302,820 United States 0226/US/2 |
| • EP 0564152 Europe 0249/EP/ | • US 5,323,540 United States 0243/US/2 |
| • EP 0674969 Europe 0317/EP/ | • USw 5,327,657 United States 0211/USw/0 |
| • EP 0748436 Europe 0344/EP/ | • US 5,339,535 United States 0243/US/0 |
| • EP 1086352 Europe 0439/EP/ | • US 5,402,981 United States 0249/US/0 |
| • EP 1147377 Europe 0449/EP/ | • USw 5,404,649 United States 0211/USw/2 |
| • EP 1368615 Europe 0495/EP/ | • US 5,505,005 United States 0243/US/3 |
| • EP 1407152 Europe 0516/EP/ | • US 5,813,287 United States 0317/US/2 |
| • EP 1446636 Europe 0543/EP/ | • USw 5,861,953 United States 0344/USw/0 |
| • EP 1505362 Europe 0439/EP/ | • USw 6,051,971 United States 0376/USw/0 |
| • EP 1528355 Europe 0543/EP/ | • US 6,145,405 United States 0317/US/3 |
| • EP 1585903 Europe 0584/EP/ | • US 6,336,375 B1 United States 0317/US/4 |
| • EP 1777423 Europe 0516/EP/ | • USw 6,430,833 B1 United States 0439/USw/0 |
| • EP 548328 B Europe 0211/EP/ | • USw 6,588,333 B1 United States 0449/USw/0 |
| • EP 826138 B Europe 0376/EP/ | • US 6,772,527 B1 United States 0590/US/0 |
| • EP TR 2009 02853 T4 Europe 0516/EP/ | • USw 6,909,983 B2 United States 0495/USw/0 |
| • JP 2,510,804 Japan 0243/JP/0 | • USw 7,079,969 B2 United States 0543/USw/0 |
| • JPw 2002-541,444 Japan 0439/JPw/0 | • USw 7146741 B2 United States 0439/USw/2 |
| • JPw 2003-512,611 Japan 0449/JPw/0 | • USw 7241070 B2 United States 0516/USw/0 |
| • JPw 2004-534,189 Japan 0516/JPw/0 | • US 7568854 B2 United States 0516/US/2 |
| • JPw 2005-519277 Japan 0543/JPw/0 | |
| • JPw 2006-513380 Japan 0584/JPw/0 | |
| • JPw 3,004,050 Japan 0187/JPw/0 | |
| • JPw 3,294,269 Japan 0211/JPw/0 | |
| • JP 3,341,922 Japan 0249/JP/0 | |
| • JPw 3,676,819 Japan 0376/JPw/0 | |

Trade marks

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All other brand names and product names used in this document are trade names, trade marks, or registered trade marks of their respective owners.

Warranty

Equipment requiring attention under warranty must be returned to your equipment supplier.

Unless otherwise specifically agreed in writing between you and Renishaw, if you purchased the equipment from a Renishaw company the warranty provisions contained in Renishaw's CONDITIONS OF SALE apply. You should consult these conditions in order to find out the details of your warranty but in summary the main exclusions from the warranty are if the equipment has been:

- neglected, mishandled or inappropriately used; or
- modified or altered in any way except with the prior written agreement of Renishaw.

If you purchased the equipment from any other supplier, you should contact them to find out what repairs are covered by their warranty.

Product information

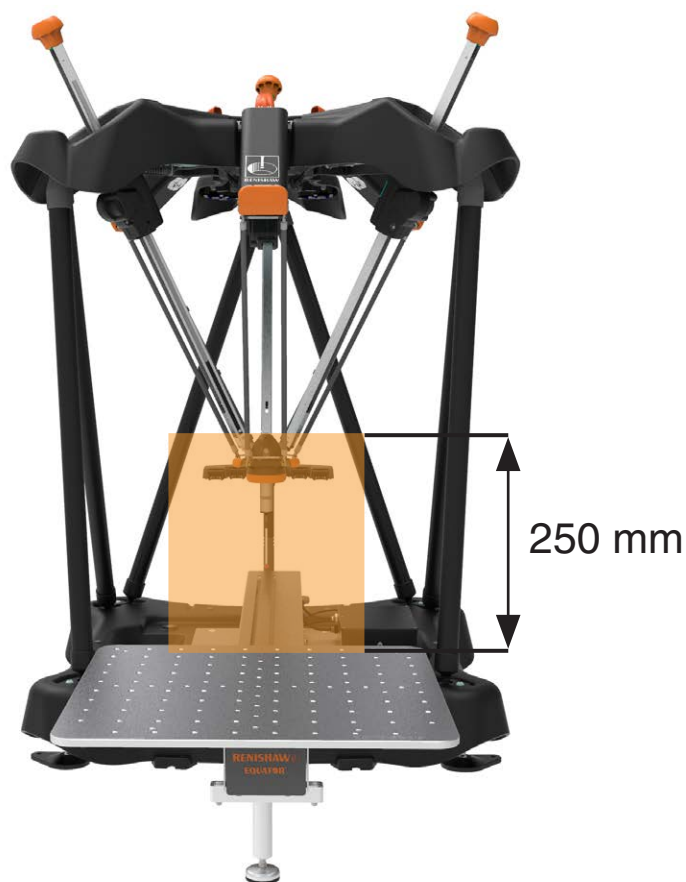
The EQ-ATS improves consistency and reliability of loading large parts into the working volume of the Equator™ gauging system, as well as offering better access for loading parts to fixture plates outside the working volume.

The EQ-ATS transfers the loaded part from outside the Equator working volume into the working volume for inspection to take place. Once inspected, the part is then transferred back outside the working volume to allow removal / replacement of the part.

The part can be loaded onto the EQ-ATS manually or by robot. The EQ-ATS suits parts and fixtures up to 50 kg. Please contact Renishaw if there is a requirement to support heavier parts.

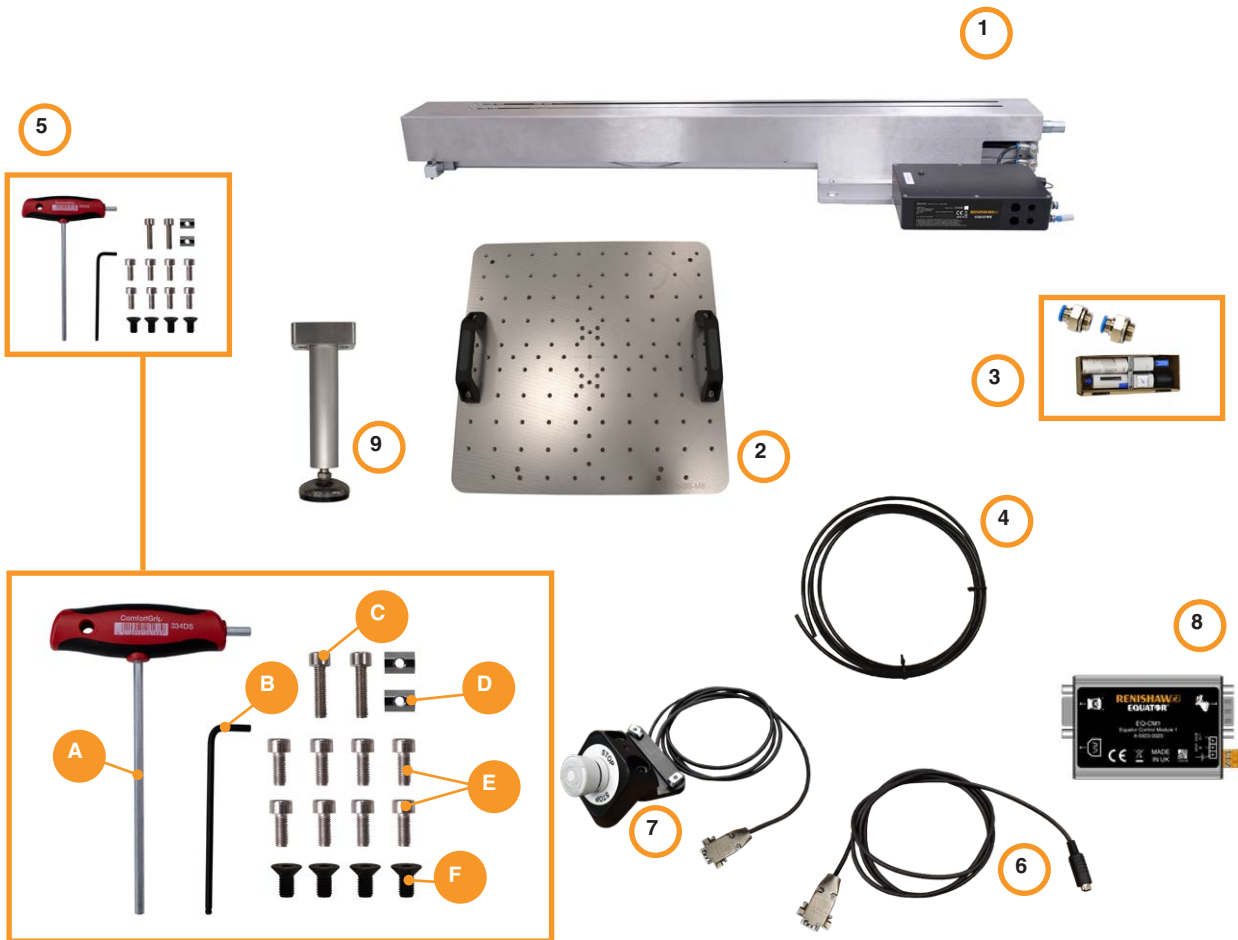
The distance from the fixture plate to the top of the working volume, with a standard Ø8 mm x 75 mm long stylus, is 250 mm for an Equator 500 extended height.

Equator 500 extended height



Hardware

EQ-ATS kit



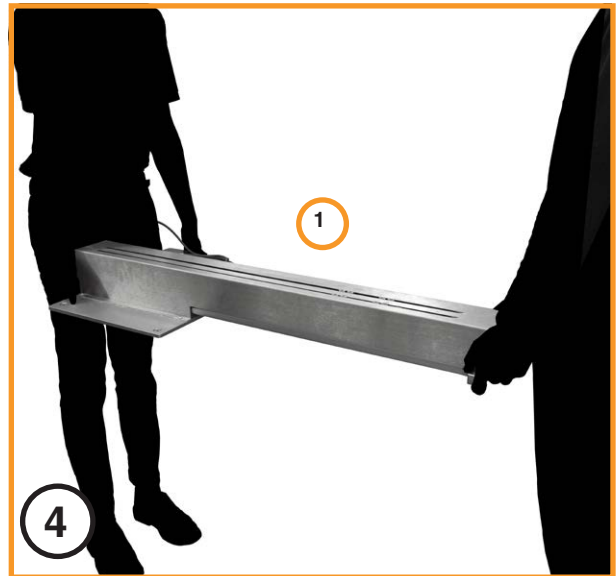
Item	Description
1	EQ-ATS
2	M8 Fixture Plate
3	Air pressure regulator
4	Pneumatic tube (2 m)
5	Hex key (5 mm A) (4 mm B) and bolts
6	PS/2 to 9-pin D-type cable (sold separately)*
7	Stop Button with 9-pin D-type connector (sold separately)*
8	EQ-CM1 (sold separately)
9	Support Leg (assembled)

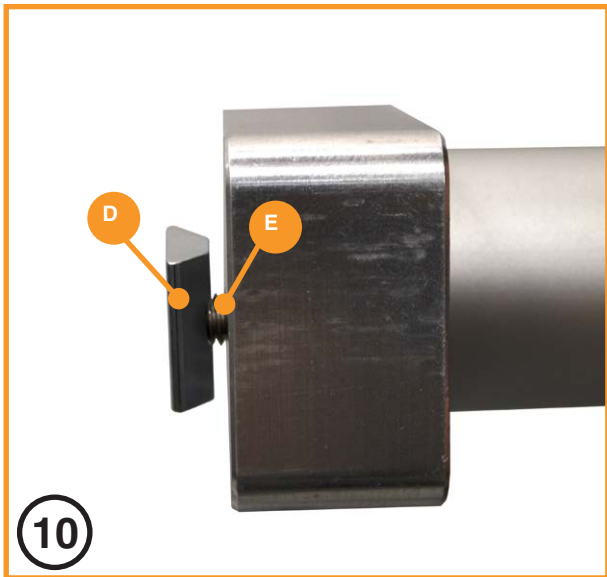
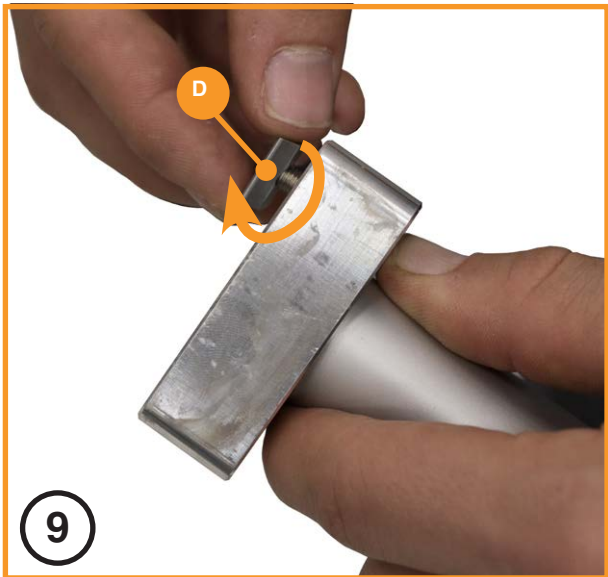
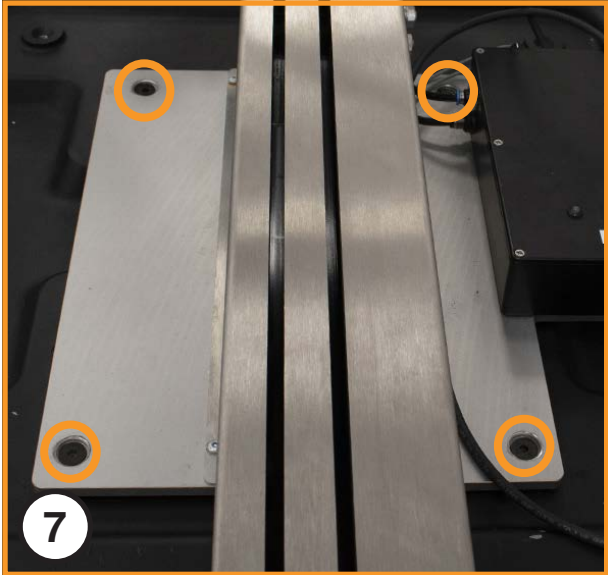
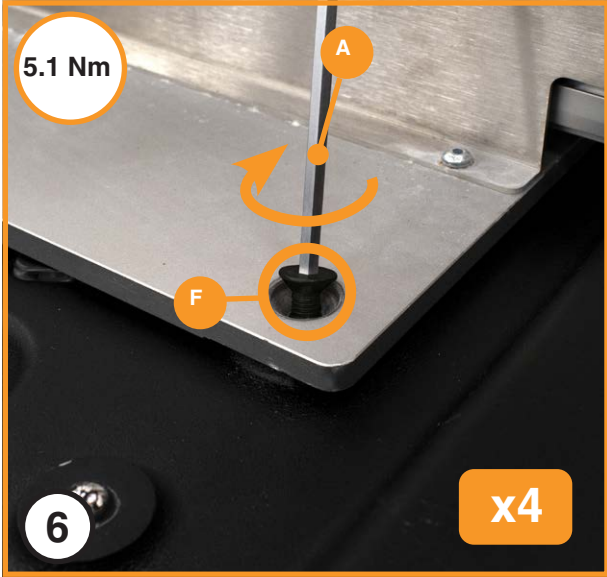
* Required for Equator 500 systems with a Stop Button (PS/2 connector) and no joystick

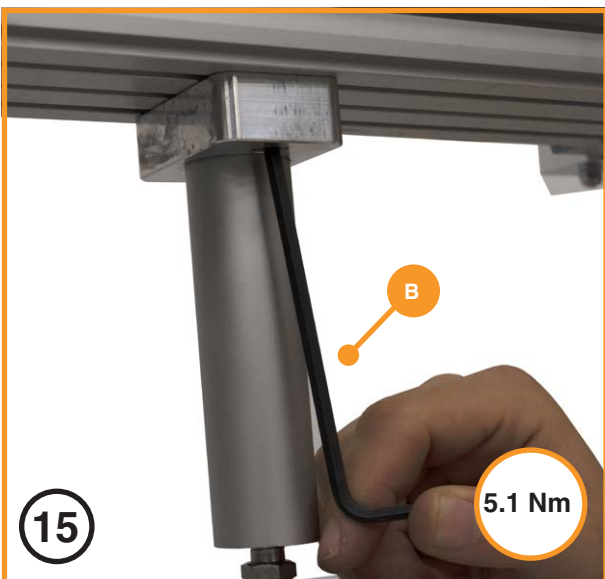
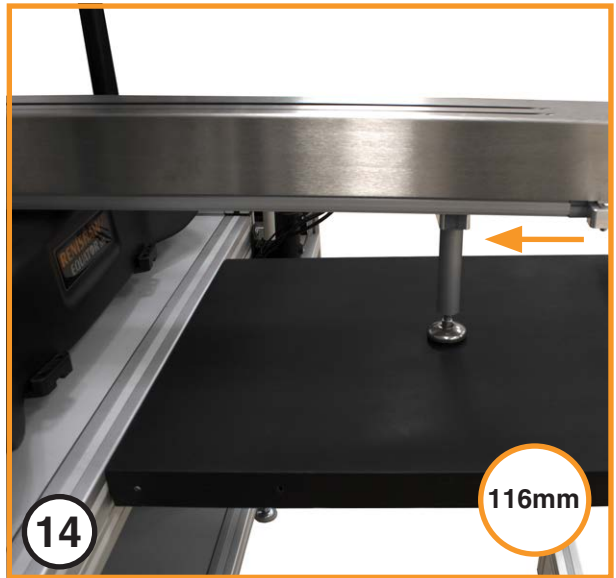
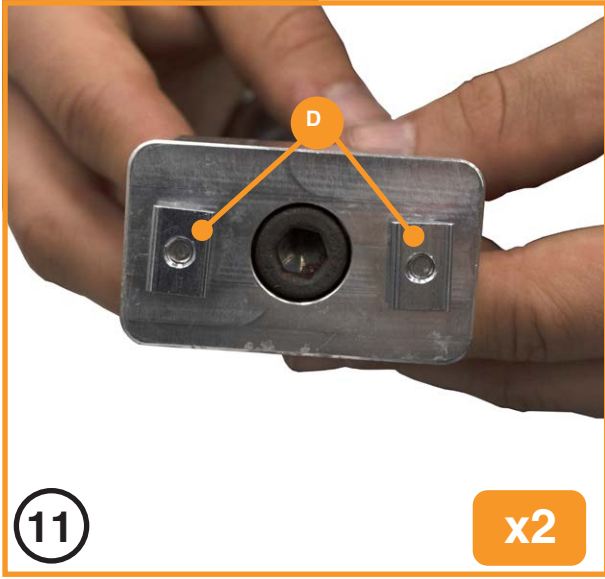
Product installation

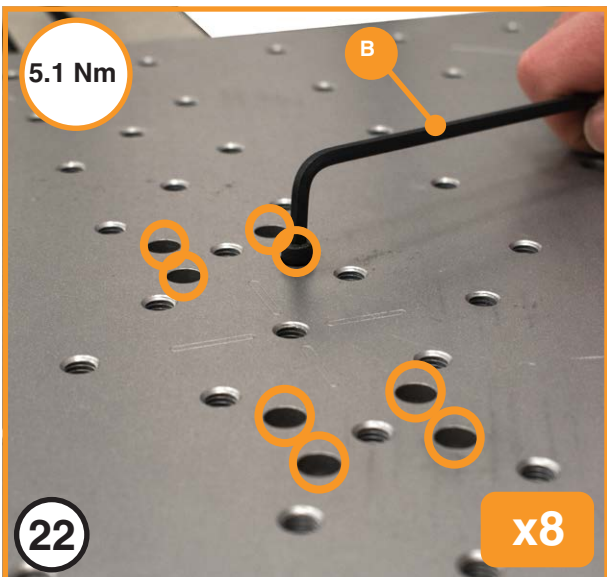
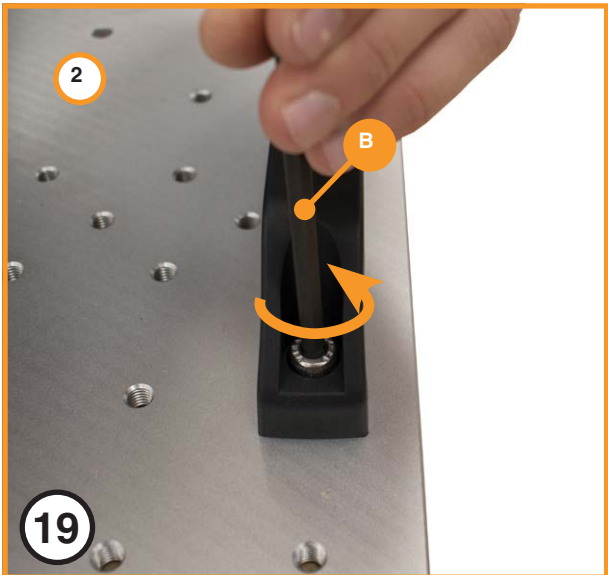
The Equator gauging system must be turned off prior to installation and fully secured to the surface of the Equator Enclosure, or equivalent table, using the Equator foot stud installation kit (7) supplied with the EQ-ATS. Please follow the instructions in the Equator foot stud installation kit.

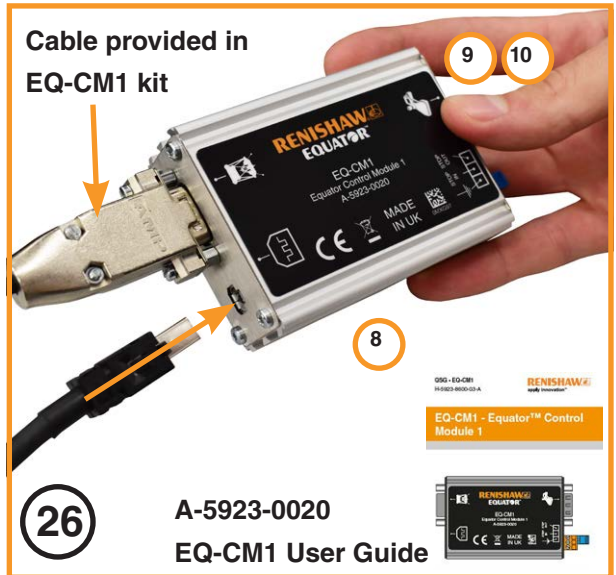
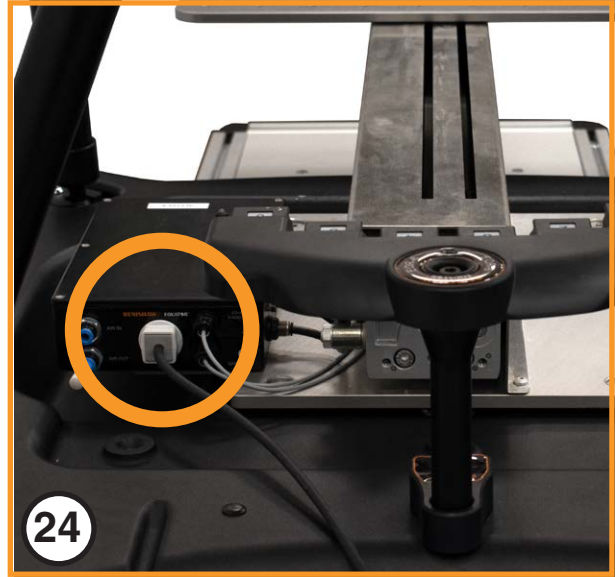
Assembling the EQ-ATS



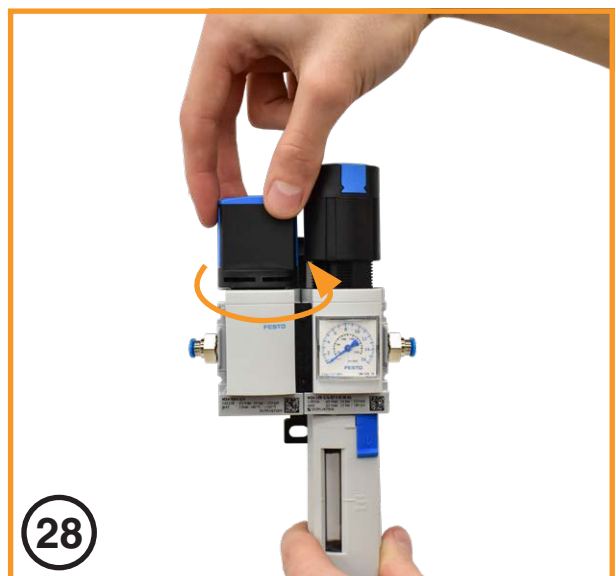
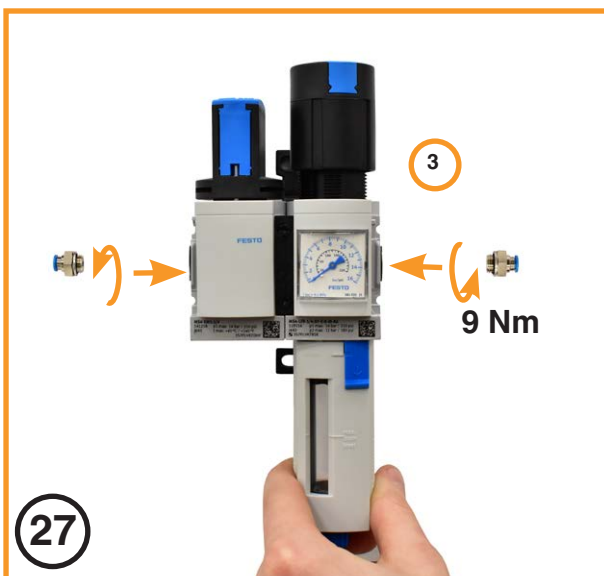


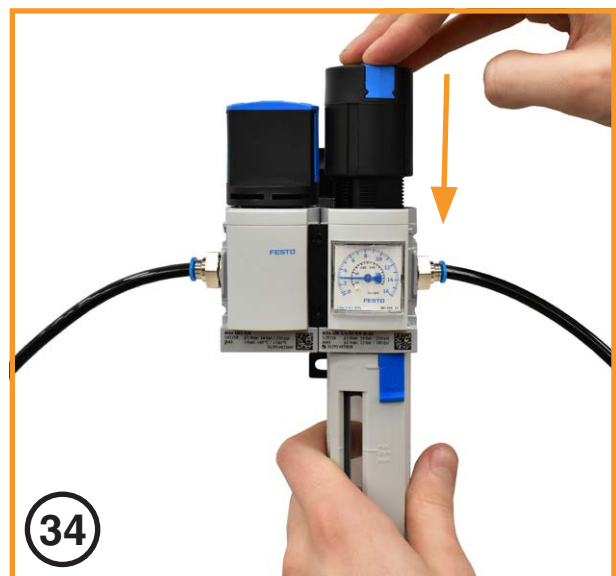
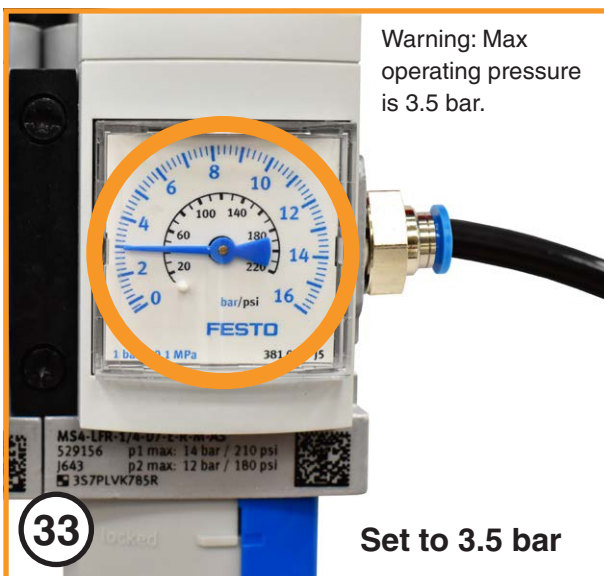
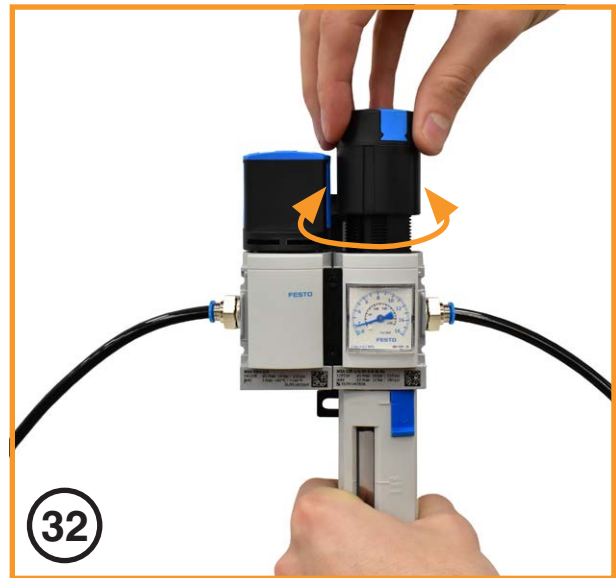
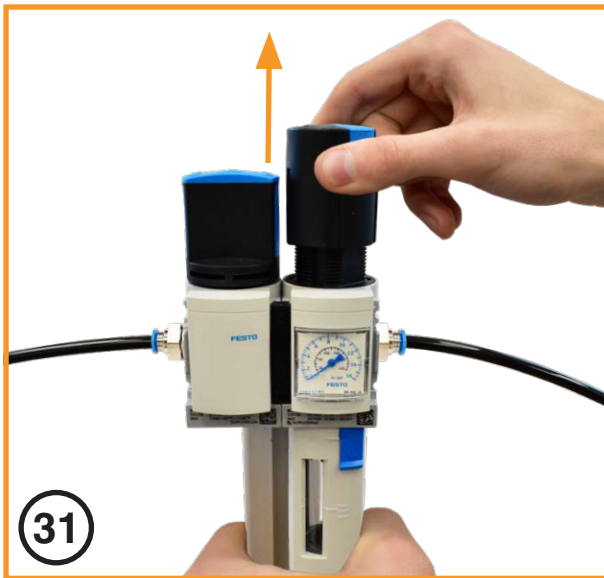
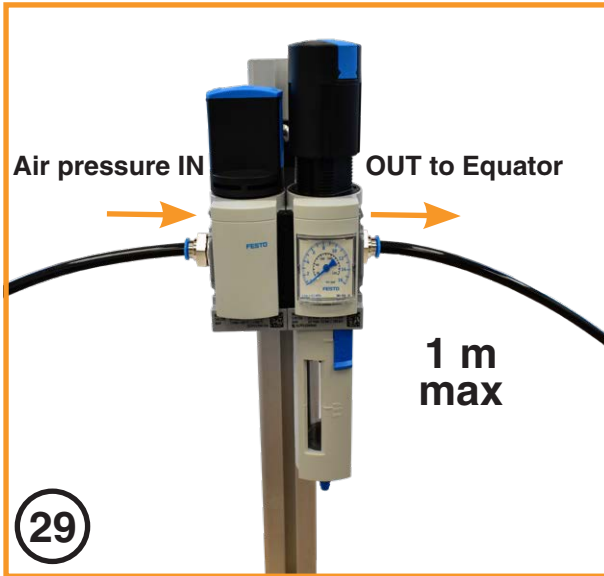






Un-mount cable from Equator joystick and connect to EQ-CM1. If a joystick cable is not available, please order cable (10) for use with a stop button (9).







Installation in Renishaw Enclosure



PLEASE NOTE: Additional base plates including M6, M8 and 1/4" are available. Please contact Renishaw for further information.

WARNING:

Parts should be clamped securely when in use.


Please ensure that the Equator has been turned off when disconnecting the EQ-ATS.

www.renishaw.com/gauging



#renishaw

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Original language instructions
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