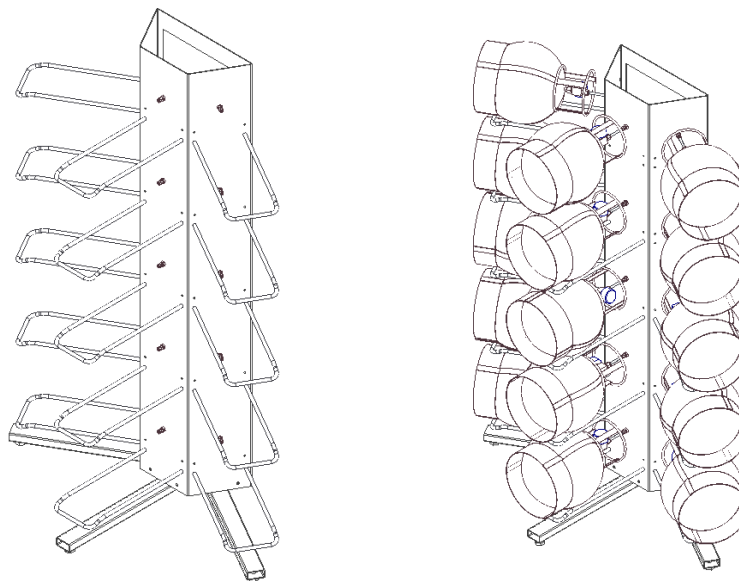


Installation Manual

Maxi Canister Rack for CIA Advantage™

Version 2.0
October 2013



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1. Preface

This manual provides instructions on the installation and use of the Maxi Canister Rack system. It is suitable for users with little or no prior experience of the system. This document details the installation steps required and basic operating steps

1.1 Warnings



- Due to the Canister Rack size, care must be taken to observe proper handling procedures to prevent injury
- The minimum recommended size of canister is 1 litre and the maximum recommended size is 6 litres (Bench Rack, U-RACK01 is available for Canisters of sizes of 400ml to 1 litre)

1.2 Technical support contact details

In the first instance please contact your supplier. If they are unable to resolve your query, please contact Markes International on the details below.

Address: Markes International
Gwaun Elai Medi Science Campus
LLANTRISANT
RCT
United Kingdom CF72 8XL

Website: www.markes.com
E-Mail: support@markes.com
Telephone: +44 (0) 1443 230935
Fax: +44 (0) 1443 231531

Please Quote Part Number: U-RACK02

2. Unpacking the Canister Rack

Take care when unpacking the Canister Rack and ensure all parts are present prior to assembly.

2.1.1 Parts List

- SERASX-5008 x 1

Shipping Kit, Floor Mounted Canister Rack; ASX-7008:

- SERASX-5503 x 2
- SERASX-5504 x 1
- SERASX-1066 x 15
- SERZ-0412 x 1
- SERTO-1248 x 4
- SERZ-SM820SCSS x 6
- SERZ-0040 x 15
- SERZ-SM512HXSS x 30
- SERZ-WM5PSS x 30
- SERZ-WM5ETSS x 30
- SERZ-NM8FSS x 6
- SERZ-WM8PSS x 6
- 1/8inch Nuts & Ferrules x 30

2.1.2 Tools required

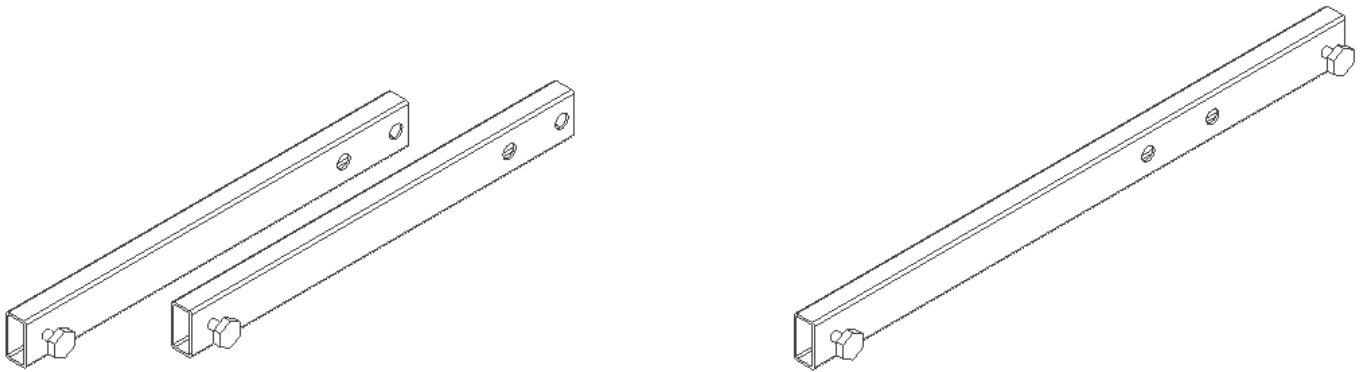
- A M8 Socket Cap Allen key is provided with the Rack.
- A 13mm Open Jaw Spanner is required to tighten the M8 Nuts.
- An 8mm Open Jaw Spanner is required to tighten the M5 Hex Head Screws.

3. Installation

3.1 Step 1 – Prepare the support legs

Fit SERTO-1248, Adjustable Foot to SERASX-5503, Capped Support Leg Short & ASX-5504 Capped Support Leg Long as shown.

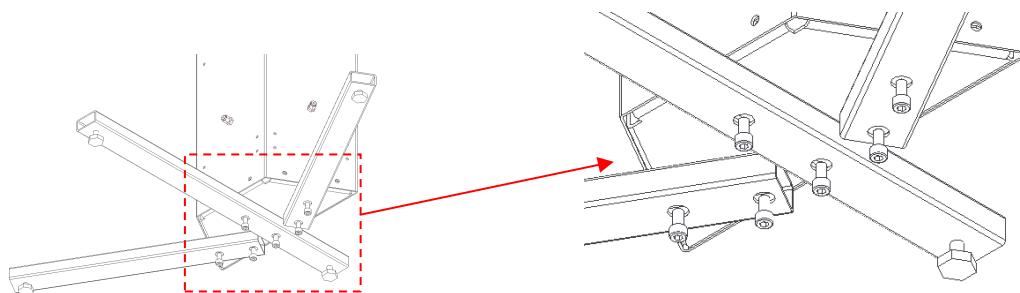
Screw in the feet until they contact the wall of the Leg



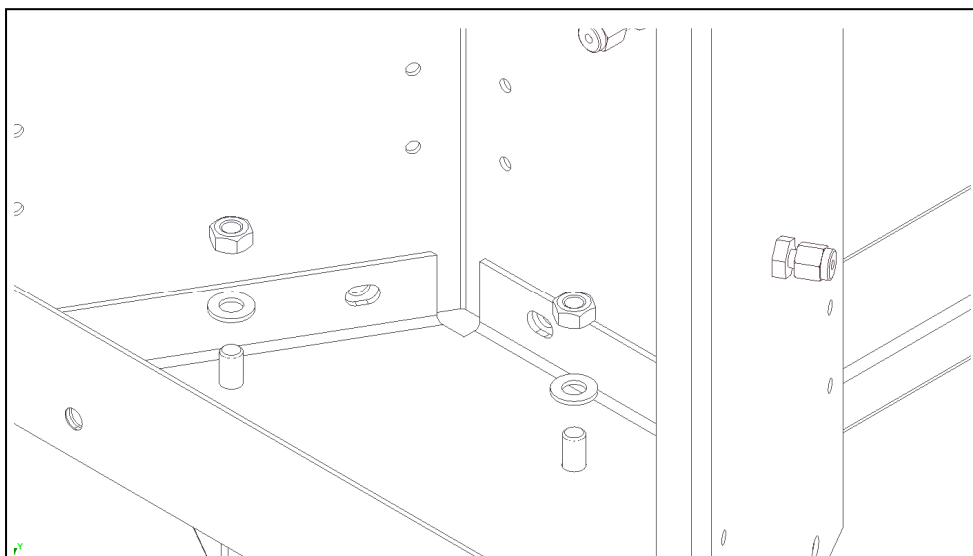
3.2 Step 2 – Fit the Support Legs

Fit the Support Legs to SERASX-5008, Floor Mounted Canister Rack using SERZ-SM820SCSS, Screw M8 x 20 Socket Cap, SERZ-WM8PSS, Washer M8 Plain and SERZ-NM8FSS.

Use the Nut & Washer on the inside and the screw through the support leg.
Use the M8 Socket Cap Allen Key to fully secure.



Rear of the Rack, at the base.



3.3 Step 3 – Fit the Canister Support Bars

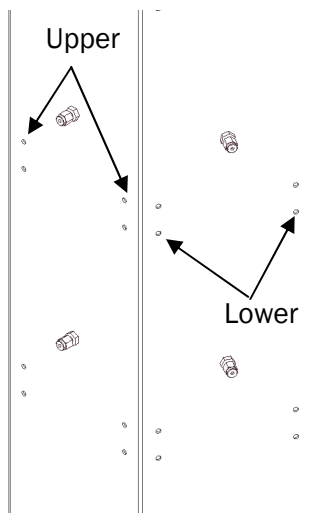
Fit SERASX-1066, Canister Support Bar to the Canister Rack in all 15 positions using SERZ-SM512HXSS, Screw M5 x 12 Hex Head, SERZ-WM5PSS, M5 Plain Washer & SERZ-WM5ETSS, M5 Shakeproof Washer.

Note. There two positions to fit the Support Bar;

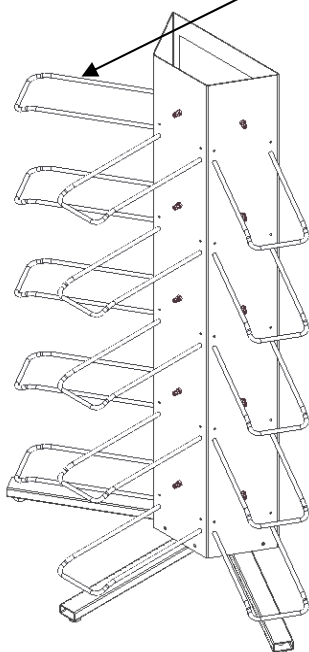
In the Upper Position canisters of size 1 litre to 3 litres can be accommodated

In the Lower Position canisters of size 3 litres to 6 litres can be accommodated

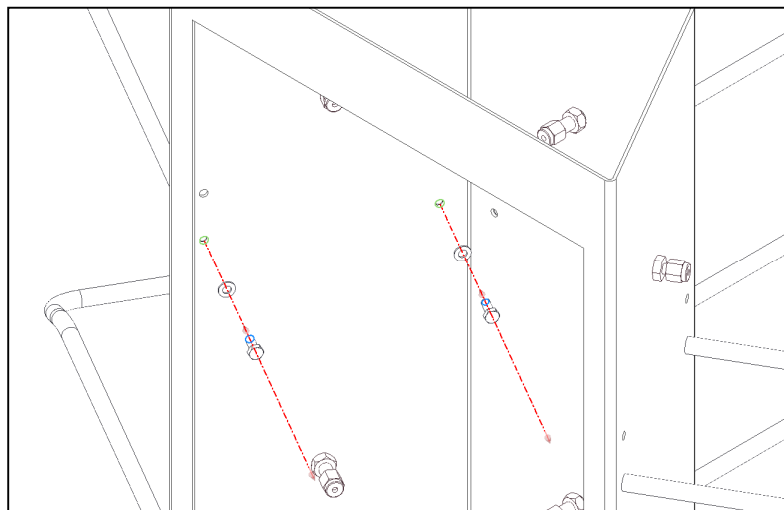
If canisters of both sizes are planned for use, it may be advisable to position half of the support bars to accommodate smaller canisters and the remainder for larger canisters.



Note how the Support Bars are pointing down



At the Rear of the Rack



4. Connecting to a CIA Advantage

4.1 Standard

The Canister Rack comes provided with 50 feet / 15.4 metres of 1/16" external diameter X 0.040" internal diameter Stainless Steel Tube.

To connect the Canister Rack, position the Rack within 1.0m of the CIA Advantage. Measure the distance required from each bulkhead to the appropriate union on the CIA Advantage Interface and cut the tubing. Ensure a clean cut and deburr all ends.

It is recommended that a flow test is completed on these lines prior to running sample to ensure the internal bore has not become deformed.

Fit the Tubing to the Bulkhead union using a SERZ-0040, Graphite Vespel® Ferrule, 1/8in to 1/16in to reduce the 1/8in Union to a 1/16in Union. It is only necessary to tighten the union nut finger tight plus ¾ turn, any further tightening may cause the ferrule to deform, which in turn will cause a leak or diminished flows.

Further Stainless Steel Tubing can be purchased using the part number SERZ-0412, this tubing is supplied in metre intervals starting with 1.0m.

4.2 Heated Sample Lines

The CIA Advantage has an accessory option of Heated Sample Lines (P/N: U-HTLNKT). These lines contain 16 tubing links in groups of four with an integrated thermocouple to ensure correct heating.

As there are only 15 positions available on the Rack & 14 positions on the CIA-A, there will be spare lines. These lines can be used as spares when the original lines become unusable.

7 of the lines fit to the Upper Plate with 1 spare. 8 of the lines fit to the Lower Bulkhead Plate with no spares. The labels fitted to each of the lines are for identification purposes only (they match up each end) and as such can be re-positioned if necessary.

These lines are supplied with the ends pre-cut and flow tested.

To fit, simply use the supplied SERZ-0040 (x30), Graphite Vespel Ferrule, 1/8in to 1/16in to reduce the Union to 1/16in diameter and tighten the union nut finger tight plus ¾ turn, any further tightening may cause the ferrule to deform, which in turn will cause a leak.

5. Connecting to a Canister

Prior to connecting, ensure the support bar is in the correct position for the canister being fitted. Use the upper position for canisters of sizes 1 litre to 3 litres and the lower position for canisters of sizes 3 litres to 6 litres.

Connect the Canister using a short length of tubing (depending on application) to the bulkhead union fitted to the Rack.

Note. The bulkhead is a 1/4in Tube Fitting Union; an adaptor may be required to fit certain canisters.

Markes International has the following reducer ferrules available:

- U-FV008 – Ferrule, 1/4in x 1/8in Graph Vesp, pk 10
- U-FV009 – Ferrule, 1/4in x 1/16in Graph Vesp, pk 10
- C-FP020 – Ferrule, 1/4in PTFE, pk 20

Markes is also able to provide lengths of tube for connecting to canisters & union adaptors for converting from 1/4in Tube Fitting, please contact Markes regarding these products.

This instruction is now complete; if you have any queries or concerns please contact your distributor or support@markes.com

Trademarks

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Vespel® is a registered trademark of E. I. du Pont de Nemours and Company, USA.