

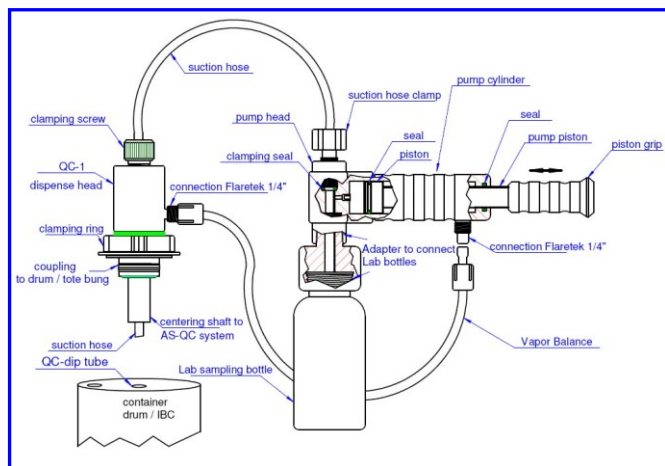
Operating Instructions / Handling

Before using, read carefully and store in a safe location.



QC-S Liquid Chemical Sampling Unit

Vacuum Pump & QC-1 Dispense Head / Article No. DH1-SF-PE-000-1/4“-P



QC-S Liquid Chemical Sampling Unit

1) Product Description & Handling

The QC-S Sampling Unit consists of the AS vacuum pump and a Quick Connect QC-1 dispense head equipped either to connect to the AS QC dispensing system or to connect directly to the bung of standard drums or IBC's (totes). The bung thread size to be specified at time of order.

The sampling unit was specifically designed to ensure clean and safe dispensing of highest purity liquids, particularly inorganic chemicals (**aqueous solutions**).

The liquid samples are in contact only with the 1/4" dispense tubing and the inside of the lab sampling bottle. No contaminated ambient air can penetrate.

Pump housing and dispense head housing, which could be contacted with the liquid chemicals are made of PE and HDPE. The sampling liquid withdrawal tubing is made of PFA. Seals are made of Fluorocarbon FPM or if requested for an added charge, Kalrez® (order option DH1-SK-PE...)

IT IS THE USER'S RESPONSIBILITY TO CHECK THAT THESE MATERIALS ARE COMPATIBLE WITH THE CHEMICALS TO BE SAMPLED. PROPER OSHA RECOMMENDATIONS FOR HANDLING OF DANGEROUS AND/OR TOXIC CHEMICALS ARE TO BE OBSERVED AND COMPLIED WITH. UNDUE FORCE TO MOVE THE PUMP'S PISTON IS TO BE AVOIDED.

2) Packaging & Content

Please notify shipper/forwarder prior to accepting shipment of any damage to the packaging. Receive if damaged and require acknowledgement of damage.

Carefully check content of shipment!

Content of carrying case:

- 1 AS vacuum pump
- 1 QC-1 dispense head
- 3 m (10 feet) 1/4" PFA tubing, OD 6,36mm – ID 3,50mm
- 1 Lab bottle adapter
- 24 labels for lab sampling bottle
- 1 Info for the QC dispense system

3) Product Conditioning

The sampling unit has been cleaned thoroughly in a high purity ultrasound bath. Prior to first use it is recommended that the unit be rinsed with a few litres of the chemical.

4) Safety Precautions

Slow down pumping when chemical fill level in the lab bottle approaches 50%. Stop pumping when chemical fill level is at 80% of the stated max. fill marker.

Accidental overfilling of the lab bottle could result in chemical leaks from the pump housing and should be avoided.



5) Purpose, Function & Operating Instructions

The QC-S Sampling Unit allows quick, safe, and cross contamination free collection of highest purity inorganic electronic chemicals and other high purity liquids. For most aggressive chemicals the use of Kalrez® O-rings is recommended.

Operating the pump's piston creates a vacuum drawing the liquid through the 1/4" PFA tubing from the drum or tote into the lab sampling bottle. Air leak proof conditions must be established by securing the PFA tubing firmly with the clamping nuts provided in both the dispense head and the vacuum pump.

1- Remove the drum/tote closure or the AS-QC dip tube cover. Insert and hand tighten the dispense head.

2 - Attach the lab sampling bottle to the AS vacuum pump and secure hand tight to the pump adapter. Additional adapters can be supplied for any type/size lab sampling bottles.

3 - Cut the PFA tubing to the desired length.

AS Strömungstechnik GmbH | hagäckerstr. 28 | 73760 ostfildern | germany
tel.: +49 (0) 711 220 548-0 | fax: +49 (0) 711 220 548-29 | e-mail: info@astroemungstechnik.de
www.astroemungstechnik.de | DIN-certified ISO 9001:2015 | district court stuttgart HRB 224744
managing director: andreas szeteli, michael szeteli, thomas raifßer



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4 - Insert the PFA tubing ends through the clamping nuts in the dispense head and the vacuum pump. Hand tighten at the desired depth.

- the tubing through the dispense head unit must penetrate into chemical to below to Liquid level.
- the tubing end through the vacuum pump should not be less than 1/2 - 3/4 inch below the lab sampling bottle's neck!

5 - Cut the recirculation tubing to the desired length .Connect the 1/4" Flare fitting at the ends to both the dispense head and the vacuum pump. This is a safety measure to return the chemical vapor or any liquid from accidental overfilling back to the drum or tote.

6 - Start to operate unit by slowly moving the vacuum pump's hand piston. The chemical will start to flow almost immediately from the drum or tote to the lab sampling bottle. Stop when liquid level in the lab bottle approaches the stated fill marker.

Prevent overfilling to keep the chemical out of the vacuum pump chamber and prevent unnecessary maintenance cleaning.

7- Remove lab bottle and close immediately. Attach new lab bottle and repeat procedure until all samples have been taken.

8 - Remove and secure equipment in reverse order.
- clean & rinse equipment as required for the specific chemical.
- properly discard the 1/4" PFA chemical withdrawal tubing as required for the specific chemical.

9 - Properly store the unit in the carrying case provided until next use.

6) Caution

- THE SAMPLING UNIT MUST NOT BE USED FOR HIGHLY FLAMMABLE OR EXPLOSIVE LIQUIDS.

- PRIOR TO USE CHECK FOR FPM O-RING COMPATIBILITY WITH THE SPECIFIC CHEMICALS TO BE SAMPLED. IN CASE OF INCOMPATIBILITY, KALREZ® O-RINGS CAN BE SUPPLIED.

7) Maintenance

Prior to any use check and assure that the pump cylinder housing and pump head are firmly connected. Dispense head must be checked repeatedly – at least once monthly – for damage or unusual discoloration. O-rings must be checked regularly for excessive wear.

8) Unit does not work?

- 1 - Air leaks
- withdrawal tubing is not secured by the clamping nut at either the dispense head or at the pump head For example: S 45X4
 - lab bottle neck is not secured properly inside the pump head adapter.
 - withdrawal tubing is not immersed into the chemical
 - dispense head is not tight and secured into the AS QC dip tube head or the drum's/tote's bung port.

2 - Pump piston O-rings are defective.

9) General Liability

AS Strömungstechnik is not responsible for losses/damages caused by improper use for the unit, especially for neglecting to obey the common practice safety measures required for handling dangerous or toxic chemicals.

CHECKING FOR CHEMICAL COMPATIBILITY OF THE UNIT TO SPECIFIC CHEMICALS, AND LIMITS OF THE USEFUL LIFE OF THE UNIT IS STRICTLY THE RESPONSIBILITY OF THE USER.

10) Available Accessories & Optional Equipment

1- Additional exchangeable couplings to make dispense head universal for use with the AS-QC dispense system or to connect directly to the bung openings of the most frequently used standard drum or tote sizes.

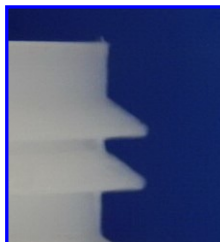


2- Additional interchangeable adapters to use other lab bottle types and sizes.

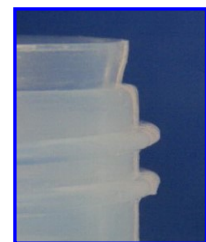
Standard thread sizes:

S 36X 6 mm
S 42X 4 mm
S 45X 4 mm
S 52X 4 mm
Rd 25X 4 mm
Rd 32X 4 mm

Special types & sizes upon request



S45 x 4



Rd (Round)

AS Strömungstechnik GmbH reserve the right to make modifications or design changes to the unit at any time and without notification.

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managing director: andreas szeteli, michael szeteli, thomas raißer

