

Operation Instructions / Handling

Please read the following information carefully before using for the first time



QC-3 Combined Dispensing and Filling System with and without Turncock.



The QC-3 combined filling and dispensing system with and without turncock combines the dispense and filling in one connector and a dip tube. It is designed to be used for contamination free, clean and safe dispensing / filling of inorganic chemicals. In product design of the QC-3 with turncock the two check valves have been replaced by a stopcock for each side (dispense and recirculation). Thus, fluids with higher viscosity are extracted in sufficient flow. The dispensing and filling of each packaging material made in conjunction with the system-related dip tube S62x5.

Conditioning:

The dispense head is a machined plastic, ultrasonically cleaned and packed in a polyethylene bag. Connection gaskets are made of Perfluoro elastomer (Kalrez®). On initial use, discard approximately the first litre of product dispensed. For using XLSI-grade (100 ppt) chemicals call us.

Safety note QC-3 system:

The general safety and maintenance of industrial health and safety standards prescriptions of the professional association chemistry must be observed. When handling chemical substances safety clothes must be worn. The liquid touched filling and dispensing system is made of high-density polyethylene (PE-HD). At high-density PE-HD an embitterment appears at the product in the use of several years by chemicals. The maximum use duration shall not exceed 3 years. 1 year cannot be exceeded at chemicals seeming oxidizing (for example nitric acid). At installation a test run has to be carried out with clean water.

The system is constructed for use with pumps. A regular check is recommended to the Perfluoro elastomer seal 15.3 x 2.4 mm (Kalrez® D11626).



If necessary (loss of suction), this seal is to be replaced.



The gas supply is used exclusively for the ventilation of the container/packing materials. Under no circumstances it can be used for the return of fluids. Before running / starting of the system care must be taken that no oscillations of the connected feed pump will transfer to the filling and dispensing system. The hose connectors have to be installed professionally and without clamping.

In the QC-3 filling- and dispensing system with turncock (shutoff valves for dispensing and recirculation – no check valves), the shut-off valves must be closed before disconnecting (horizontal position)

The correct connection of the dispense / fill head and dip tube as well as the correct fit of the coding disc in the dip tube coding must be visually checked before starting each pumping process. When using high-performance pumps (flow rate approx. > 10 l / min), additional measures must be taken to prevent suction in the case of mismatched coding. When commissioning the system, check whether the pump output can lead to the possibility of suction due to incorrect coding.

Possible measures for double protection include the use of limit switches or bubble sensors in the dispense / fill heads, additional checks of the chemical, e.g. by RFID or barcode alignment. During filling operations, these measures must be carried out independently of the pump capacity.

Safety precautions for dip tube:

The maximum period of use of Quick Connect dip tubes should not exceed 2 years. Especially in the use of hydrogen peroxide is 1 years not to exceed, in nitric acid and nitric acid mixtures are 6 months the maximum period.

Maintenance:

The QC-3 filling and dispensing system must check visual at regular intervals for damage and discoloration towards, but at least monthly, the O-rings and the function of the check valve must be checked regular of leakage, at least once a month.

Key-code:

The QC-3 System with and without turncock can be operated either with a pin / hole - coding. Please use the list of chemical codes. For non-listed chemicals, please keep up with the chemical manufacturer consultation.

Disassembly the coding disk:

The coding disk can be removed by twisting the retaining ring over the thread. The rotation of the retaining ring is counter clockwise.

Features QC-3 filling and dispensing system (with and without turncock):

Material:

Housing – High density polyethylene sleeve nut - PVDF

O-ring:

Kalrez® (Perfluoro elastomer)

Check valve:

Point of dispensing: pressure 0,1 bar
Point of recirculation: pressure 0,15 bar

Connections:

Dispensing: Flare F3/4"
Recirculation: Flare F1/2"
Gas: NPT 3/8" female thread (equipped with Flare tube plug connector or particle filter)



weight:

QC-3 System: 550gr.
QC-3 System turncock: 850gr.

measure:

QC-3 System: 225 x 110 mm
QC-3 System turncock: 255 x 110 mm

Flow rate:

QC-3 System: max. 25 l/min.
QC-3 System turncock: max. 55 l/min.

Liability:

AS Strömungstechnik GmbH can accept no liability for errors or damages that result from improper handling of the QC container closures. Improper handling includes, in particular, failure to observe the operating instructions. Testing the chemical resistance of the dip tubes and their operational life is the responsibility of the customer. In the interest of the further development of AS products, we reserve the right to make design changes.

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	At first you will have to completely remove the plastic wrapping and dust covers from the delivered packaging within the grey zone.
	2. After breaking off the plug seal (blue) the tamper proof is removed.
	3. Slowly loosen the stopper with the QC wrench tool, so the container ventilates. Escaping gasses have to be removed with suctioning unit. Now the stopper can be completely removed.
	4. The 3/4"-plug remains on the too
	5. The QC-dispensing head will be inserted into the dip tube and positioned correctly by aligning the code-disk.
	6. See colored markings on code-disk and dip tube
	7. The connection between dip tube and dispensing-head will be achieved by hand-tightening (3-5 Nm) the screw nut. A torque wrench with suitable intake can be supplied on request. The correct connection of the dispense head and dip tube as well as the correct seat of the code disk has to be checked every time prior to starting of the pumping process.
	8. If you want to disconnect the drum, release the screw nut, but keep the dispensing head in its position for a short while to let excess liquid fall into the drum.
	9. Then put it back to its stationary position.
	9a. For the QC-3 dispensing and filling system with turncocks: manual closing necessary during connection and disconnection to prevent spills. (Valves are closed in horizontal position).
	10. Close the dip tube with the plug and hand-tighten with QC wrench tool.
	11. Prior to the return shipment to the respective site, the user will shut the drum with the tamper proof cap and the enclosed red plug seal.
	The QC-system operates packagings from 5 litre to 1.000 litre. We would like to emphasise the usage of the conductive polymer type for flammable solvents.

