



### DESCRIPTION

Cation exchange columns CR-600 / CR-1600, constitute, by their geometry, manufacturing materials and design, the ideal container for the performing of any necessary cation exchange. This operation, has a high importance, in order to get a reliable cationic conductivity (acid conductivity) measurement in sampling and analysis systems for steam/water cycle plants.

The specific design of these columns, allows a right distribution of the flow through the cross section of itself. This allows, together with the type of resin used, an excellent contact between the fluid and the surface of the different resin beads, avoiding the formation of preferential paths that can affect the performance of this exchange. In addition, the columns, together with the resin supplied with them, provide an exchange bed with the necessary depth to ensure that the residence time of the fluid in it, is enough for a correct exchange.

The resin supplied will be depleted with use. The evolution of the expense of it, can be observed by means of the resin color indicator, this indicator changes from purple to brown. This effect, produces a front of color change that goes down by column length, as the resin is depleted, until a mark in the column is reached. This indicates that resin must be changed or regenerated by washing with 5% hydrochloric acid.

The main cations exchanged before the measurement of cationic conductivity in sampling and analysis systems, are those from chemical dosing. Some of these cations are  $\text{NH}_4^+$  from the amines dosing or  $\text{N}_2\text{H}_5^+$  from the oxygen scavenger dosing, but other cations such as  $\text{Na}^+$ ,  $\text{Fe}^{2+}$  or  $\text{Fe}^{3+}$  are also exchanged. As a result of the exchange, all these cations are retained in the resin and  $\text{H}^+$  cations are released instead.

### APPLICATIONS

- Cationic conductivity measurements

### FEATURES

- No PVC used.
- Clear polycarbonate tubes.
- Screw caps on both sides to facilitate filling and emptying.
- Response time 4 to 5 minutes (for a flow rate of 200 cc / min).
- Saturation indicator by color change.
- Regeneration with 5% HCl.

### SPECIFICATIONS

Model:	CR-600	CR-1600
Volume:	600 c.c.	1600 c.c.
Weight:	1Kg	2,5 Kg
Materials:	Polycarbonate, polyacetal	
Connections:	2 x 1/8" NPT(f) (*)Two quick-connectors 1/8"NPTM x flexi-tube 1/4" are supplied.	
Max Temp:	70°C (158°F)	
Pressure:	4 bar(g) [58 psi(g)] @ 70°C (158°F)	
Flow:	50 to 250 c.c. / min.	

### ORDERING INFORMATION

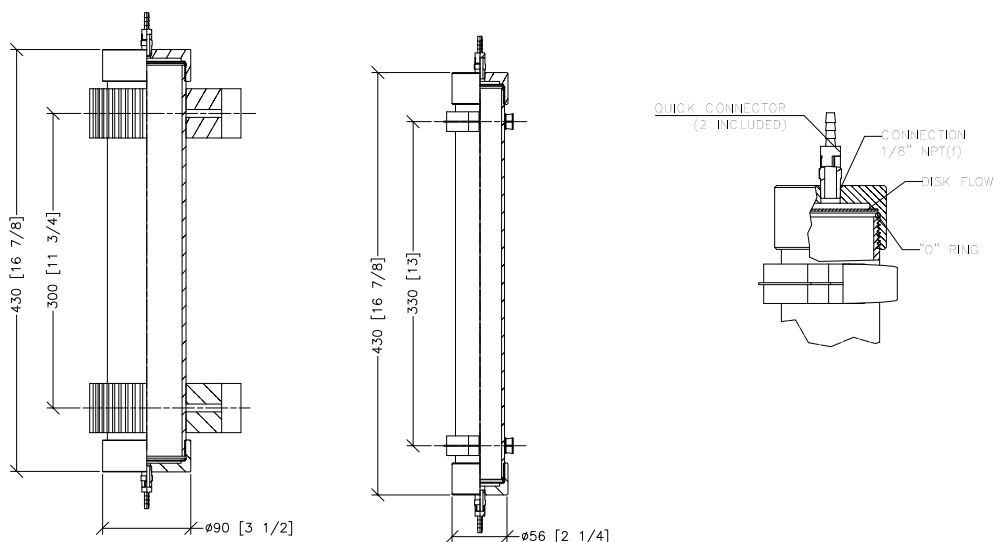
Model:	Name:
CR-600	Cationic Resin Column – Volume 600 c.c.
CR-1600	Cationic Resin Column – Volume 1600 c.c.

These references include: Column – First resin charge – Brackets (2) – Quick connectors (2)

### SPARE PARTS

Name	Part# CR-600	Part# CR-1600
"O" Rings(2) and disk flow(2)	DO-600	DO-1600
Cationic Resin Bag	R-600(1 required)	R-600(3 required)
Clamps (2)	CL-600	CL-1600
QC-18	Quick connectors (2)	

### DIMENSIONS



Units: mm [Inches in brackets]

Due to continuous improvements, Manvia reserves the right to change the design and specifications without notice