

DIFFUSED
AIR

FORMIC ACID DOSING STATION

DESCALING SKID
FOR FINE BUBBLE AERATION GRIDS



SFA
enviro

CART FOR DESCALING FINE
BUBBLE AERATION GRIDS BY
INJECTION OF FORMIC ACID

Europelec

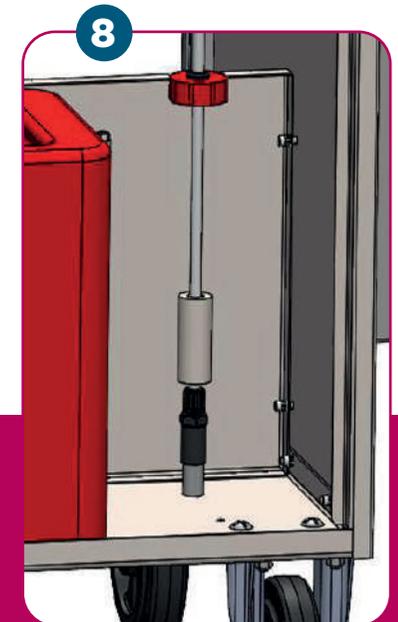
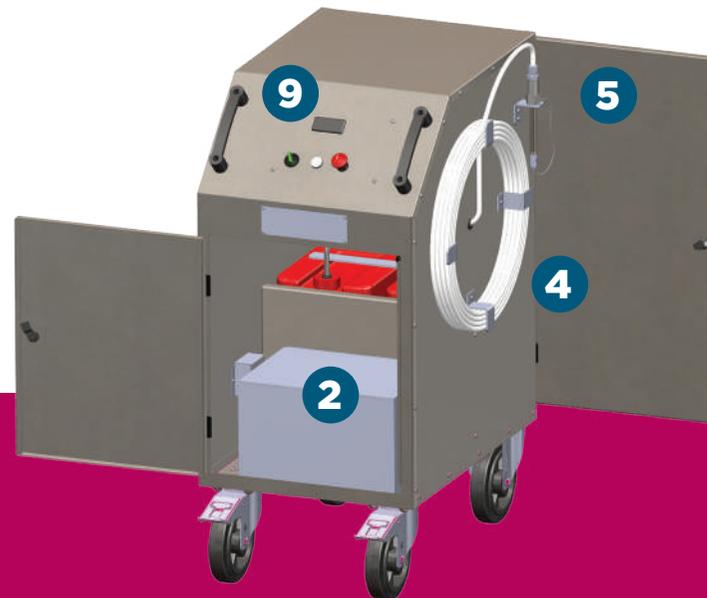
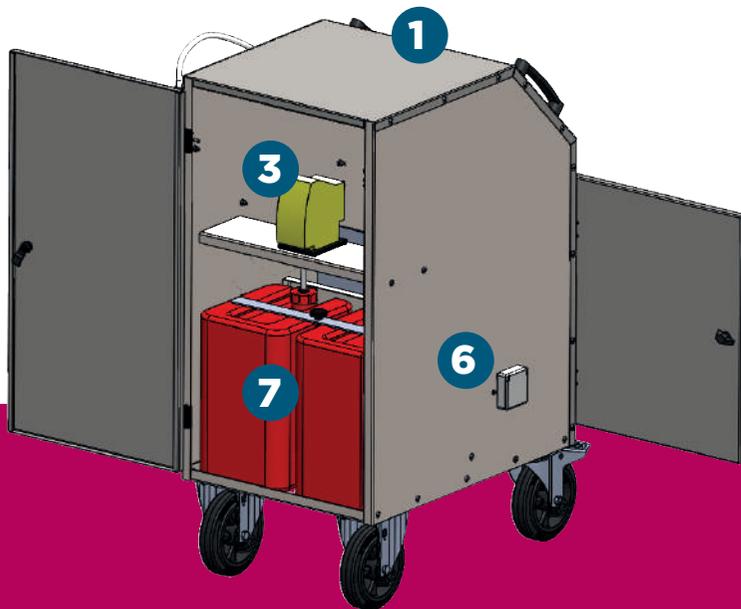
MAIN CHARACTERISTICS

This product is designed to descale fine bubble membrane diffusers by injecting formic acid to their internal surface. This operation is required when an increase in head loss is observed and to significantly reduce calcium carbonate deposits (carbonation) in the membrane.



COMPOSITION OF THE CART FOR FORMIC ACID CLEANING

- 1** PUSH CART manufactured in Stainless Steel and complete with the following:
- 2** STORAGE BOX IN HDPE
- 3** PVDF LINED DOSING PUMP
- 4** FLEXIBLE DELIVERY HOSE 25M IN PVC (REINFORCED WITH POLYESTER FIBRES)
- 5** SPRAY NOZZLE IN STAINLESS STEEL
- 6** ELECTRICAL SOCKET 230V IN ABS
- 7** FORMIC ACID CANISTERS IN HDPE
- 8** SUCTION SYSTEM
- 9** CONTROL BOX IN COATED STEEL



The length of the supplied power cable is 2.5m.

USE OF THE FORMIC ACID INJECTION CART

This mobile descaling system can be connected to your installation. The cart makes it easy to transport. The unit pumps the formic acid from its holding tank and sends it via the delivery pipe to the underside of the membranes, and this has excellent distribution qualities.

It is recommended to descale the diffusers regularly, without waiting for a significant increase in pressure drop. Weekly, monthly, or annually, the frequency of descaling varies according to the composition of your effluent.

USER'S GUIDE

- A complete technical manual is included with the sale of this equipment for
 - Its use
 - Transport
 - How to start it up
 - Settings
 - Maintenance
 - Dosage advice
 - Precautions for use
 - Carrying out the injection phase
 - The protocol for injecting formic acid into the fine bubble aeration system.

CLOGGING BY CARBONATION

PRINCIPLE ?

Clogging of membranes is linked to carbonation, i.e., the deposition of calcium carbonate, a major component of limestone, or - more rarely - of calcium phosphates. It results in either biofouling or clogging of the micro perforations within the diffusers' membranes. Blocking is always a possibility when using a fine bubble membrane aeration system.

WHEN DOES BIO-FOULING OCCUR ?

In the presence of hard water or effluents loaded with calcium or magnesium carbonates. A formic acid injection device is therefore necessary to limit the effects of membrane blocking.

WHAT ARE THE CONSEQUENCES ?

Without regular acid injection, carbonate deposits can lead to significant increases in head loss and reduce the treatment performance. This cleaning method reduces the pressure drop whereas if you do not clean the resulting increasing pressure drop will cause the energy bill to escalate.

HOW CAN THIS BE REMEDIED ?

To maintain the performance of your membranes and prolong their life, it is recommended to periodically inject formic acid into the air lines, without waiting for the increase in pressure drop to which can become damaging. This is the most important consideration regarding protecting your installation and guarantee a longer life. The acid transferred into the diffusers will dissolve the deposits linked to carbonation.

PARTS PROVIDED IN THE STORAGE COMPARTMENT

- A pair of chemical-resistant gloves
- A protective visor
- A pressure gauge and its connection
- Main's adapter male/male



LOCATION & SERVICES

THE SOLUTION FOR THE MAINTENANCE OF YOUR DIFFUSER MEMBRANES

Please call on our Service Department and use their expertise. Europelec offers a complete Cleaning Service including:

- Rental of the formic acid pumping Cart
- The supply of formic acid with the quantity required to Completely clean your Diffusers
- The assistance of our technicians on site to conduct
- Injection cleaning with the Formic Acid Cart and associated pipework.



ADVANTAGES

THE PRESSURE GAUGE SUPPLIED ALLOWS A PRESSURE DROP READING TO BE TAKEN.

THE CONTROL PANEL OF THE FORMIC ACID INJECTION TROLLEY IS EQUIPPED WITH A TIMER WHICH ALLOWS THE PUMP TO BE SWITCHED OFF AUTOMATICALLY.

OUR OPERATING INSTRUCTIONS PROVIDE INFORMATION ON HOW TO CALCULATE THE CYCLE TIME AND THE AMOUNT OF ACID REQUIRED.

THE INJECTION IS DONE BY MEANS OF A SPECIFIC INJECTION NOZZLE CONNECTED TO THE PIPEWORK AND THIS ALLOWS SAFE TRANSFER OF THE FORMIC ACID. A STAINLESS-STEEL COVER PROTECTS THE OF THE PUMP AND CONTROL EQUIPMENT WITHIN THE TROLLER.

A WHEEL LOCKING SYSTEM IS FITTER TO THE FRONT WHEELS OF THE TROLLEY

INSPECTION & MAINTENANCE

The formic acid injection trolley does not require any maintenance only cleaning after use.



Automatic Timer Off System

A STEP AHEAD IN WATER TECHNOLOGY

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