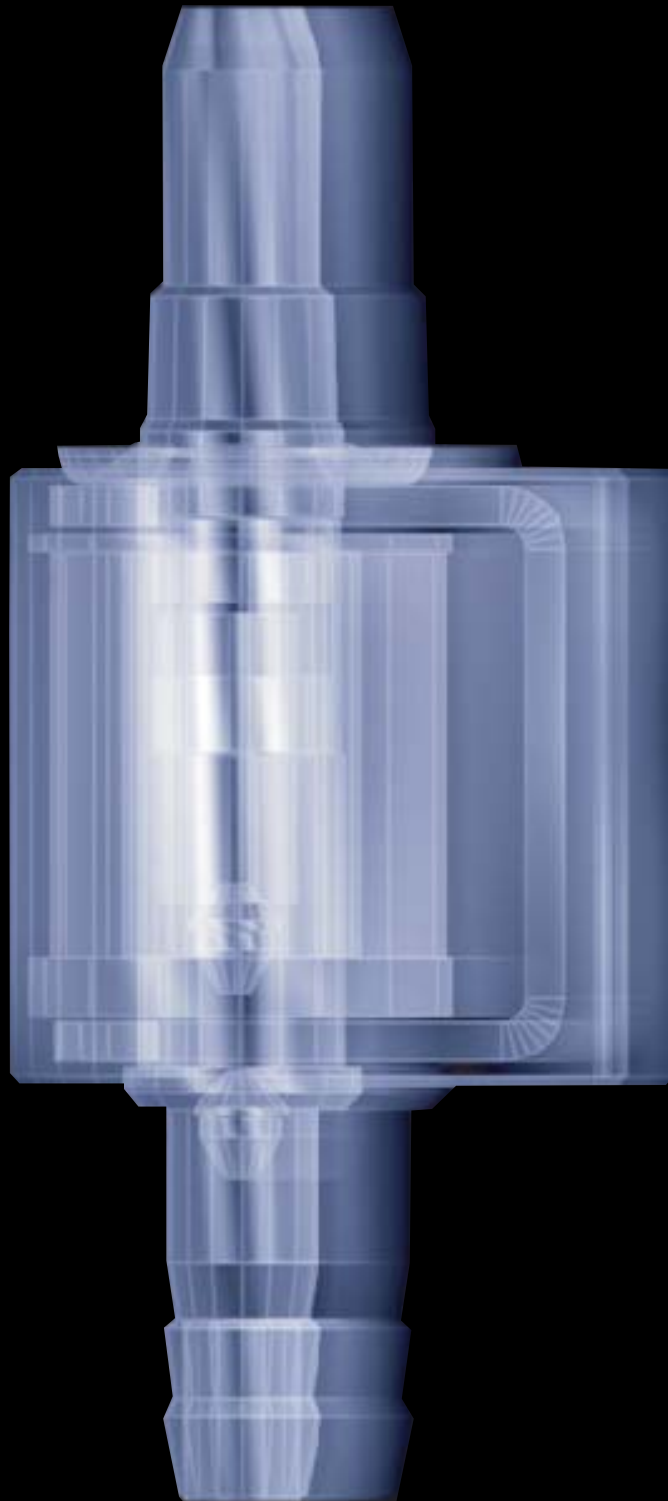
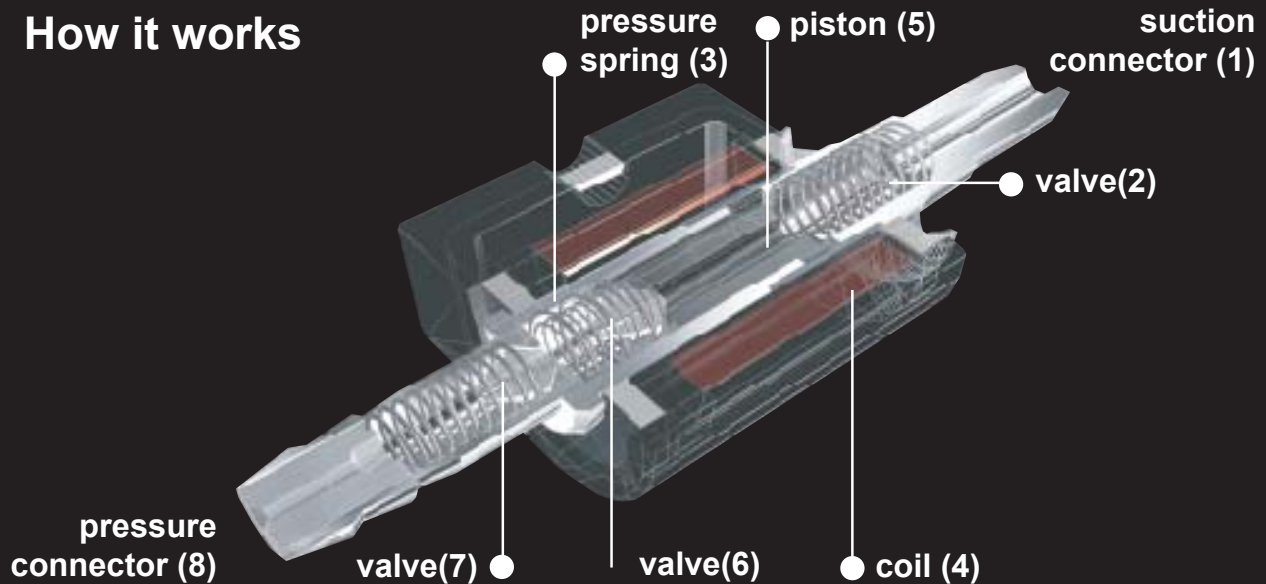


# ELECTROMAGNETIC PUMPS



ELECTROMAGNETIC PUMPS

How it works



The piston (5) is moved by the electromagnetic field generated by the single wave diode rectified current flowing through the coil (4). Each current pulse moves the piston against the pressure spring (3).

This movement by reducing the volume in the suction chamber, opens the valve (6) set in the piston to let the liquid run into the pressure side. When the current pulse dies the pressure spring pushes back the piston towards the pressure side.

The increase of pressure closes the piston valve and the liquid flows through the valve (8) set in the pressure connection (7) and into the pressure pipe. This movement creates a low pressure in the suction chamber which opens the valve (2) set in the suction connection (1).

The liquid is sucked into the pump and the cycle starts again, 50 times per second (at 50 Hz).

The piston's diameter and length of its displacement define the flow rate. The pressure limits itself automatically.

The pump will run without damage when the liquid flow is stopped momentarily. The pump works not only tied to the standard tension and frequency but can be piloted by a frequency regulation or a pulse control unit.

The ground elements, piston and bushing, guarantee a minimum wear and a high life's duration. By varied combinations of materials, the pump can be used with a lot of different fluids and a large range of temperatures.

Benefits

- small & compact
- maintenance free
- 100%ED
- powerfull high output
- self priming
- light weight
- no shaftseal
- Long lifetime
- Self pressure limitation
- non-return valves built in

Applications:

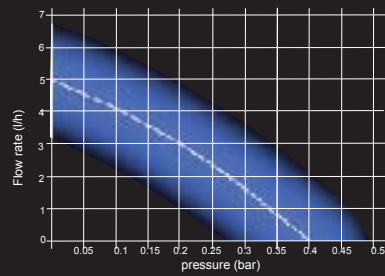
- Air conditioning & heating
- Household equipments
- Air, water & material treatment
- Vending machines
- Domestic & industrial appliances
- Lubrication, oil & gas
- Printing systems
- Laboratory & medical devices
- automotive industry

The only OEM pump, designed to be the center of your system.

## ESS 04 & ESX 04 SUB-MICROPUMPS



1cm



The new ESX and ESS pumps are simply the smallest electromagnetic pumps on the market.

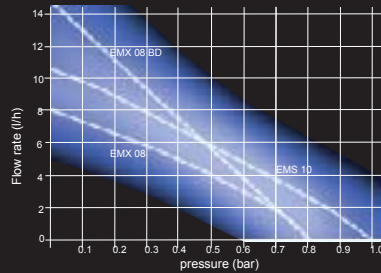
Low noise level, low power consumption but good performances. Think small and win the challenge of the future !

Power consumption : 5 [W] Weight : ~45 [g] Suction height : 0.5 [m] Dimensions : ~ 17.5/26/45 [mm]

## EMS 10 & EMX 08 MICROPUMPS



1cm



The EMS and EMX are world known, best-seller for years they have solved many problems of water draining or little lubrication.

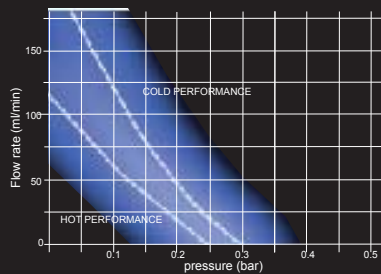
With these pumps the single limit is your imagination !

Power consumption : 18 [W] Weight : ~95 [g] Suction height : 1.5 to 3 [m] Dimensions : ~ 26/39/74 [mm]

## EDS 03 MEMBRANE PUMP



1cm



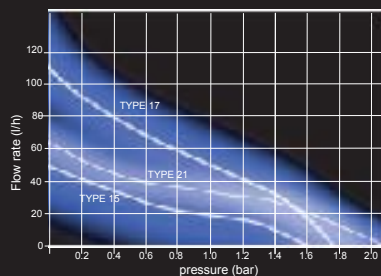
The EDS is a new generation of pump able to replace peristaltic pumps. Transfers any aggressive or polluted fluid. The pump is able to run dry and so functions as a little compressor.

Power consumption : 18 [W] Weight : ~95 [g] Suction height : 1.5 [m] Dimensions : ~ 26/39/85.5 [mm]

## ET & EK TYPE 15, 17, 21 DELIVERY PUMPS



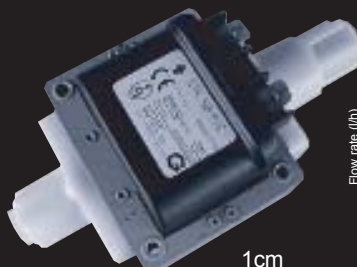
1cm



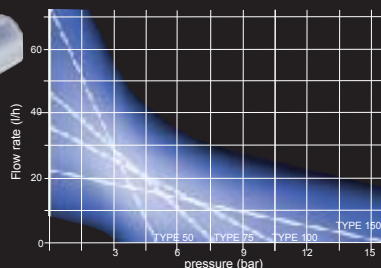
Do you want to decrease your PPM score ? The ET or EK 15, 21, 17 pumps are the most reliable on the market, they are not afraid to be called Grand' Pump. The choice of every major OEM in household and vending machines.

Power consumption : 25 to 40 [W] Weight : ~500 [g] Suction height : 1.5 to 3 [m] Dimensions : ~ 50/60/105 [mm]

## ET & EK TYPE 50, 75, 100, 150 PRESSURE PUMPS



1cm

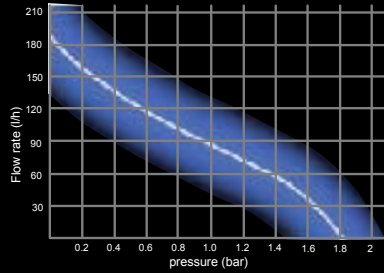


Power unleashed !, Could you believe that a such tiny pump can reach up to 15 [bar] ? At least one of our type ET & EK 50,75,100,150 must meet your performances.

If it is not the case just couple the pumps in serie.

Power consumption : 45 [W] Weight : ~700[g] Suction height : 1 to 3 [m] Dimensions : 50/60/138 [mm]

## EB 18 MAXIMUM PUMP



Our biggest electromagnetic piston pump. Diode and varistor are included inside the coil, just PLUG & PLAY. This pump is especially designed for lubrication with mixed oil and freon gas.

A great design coupled with an extreme leak test warranty zero rejection of gas in the atmosphere, even after thousands hours of run.

Power consumption : 120 [W] Weight : 1200 [g] Suction height : 0.5 [m] Dimensions : ~ 60/83/120 [mm]

## TEST PROCEDURE & WARRANTY

Each pump is fully tested under customer's criteria : if fulfilled, the pump is labelled with its own number and basic information. The results values are stored, printed and included in the delivery.



A one-year warranty is given under detailed conditions.

## GENERAL TECHNICAL INFORMATION

### MATERIALS:

The materials in contact are adapted to the liquid and special function. Brass, stainless steel and high-tech plastics are mainly used. Some pump designs have no O-ring or seal, for others a complete range of elastomers is available including FEP coated O-rings.

### ELECTRICAL:

Standard voltages and frequencies are 230/50, 110/60, 100 / 50-60, 24/50-60, 12/50-60. Special voltage on request. The pumps always need a rectified AC signal by a diode in line or a DC pulsed signal.

Standards coils are in temperature class F (155°C), or class H (180°C) on request. The operating time is 100 %ED rated for ambient and liquid temperature of 50°C.

Pumps are available with two or three wires connections or with two or three AMP 6.3 x 0.8 tinned brass male tab terminals. Insulation class 1 with required grounding for high voltage or reinforced class on request.

### APPROVAL:

CE in compliance with 72/23 CEE (Security), 89/336 CEE (EMC).

UL & CSA: recognition or listing available on certain pumps in categories REUZ2, MERG2, IQDY2, FDNP.

### HYDRAULIC CONNECTORS:

A wide range of standard connectors is available in different materials, types and sizes. Please ask for further information.

FOR ADDITIONAL INFORMATION PLEASE CONTACT



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ISO  
9001