

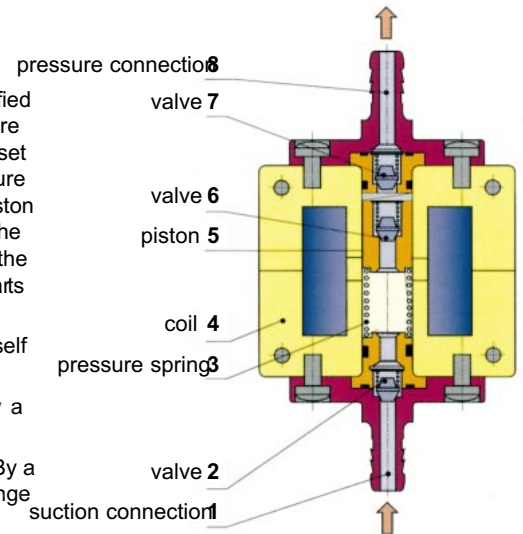
Function mode

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 toward the pressure side. The increase of pressure closes the piston valve and the liquid flows through the valve (7) set in the pressure connection (8) 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 size and the 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 sleeve, guarantee a minimum wear and high life's duration. By a very large combinability of material the pump can be used with a lot of mediums and a large range of temperatures.



Application fields

Eckerle-Electromagnetic-Pumps are simple designed pumps with high reliability.

They have been used successfully in following application fields:

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|---|--|------------------------------------|
| Air conditioning | Stage technology | Food technology |
| • Condensate pump systems | • Smoke machines | • Drink dispensing coffee machines |
| Cleaning technology | Medical technology | Fuel oil systems |
| • Carpet cleaning equipment,
textils-cleaning, dishwashers | • Cleaning, disinfection
sterilization, reverse osmosis | • Fuel oil transfer |

Technical Data

Type of pump	8	10	15	17	21	50	75	100	150
Weight ET	95 g	80 g	480/620 g	480/540 g	480/520 g	620/730 g	560/670 g	620/730 g	620/730 g
Weight EK	95 g	–	–	420/480 g	405/445 g	560/670 g	560/670 g	560/670 g	560/670 g
Temperature ET	Ambient 1...50 °C Fluid max.... 55 °C		Ambient 1...50 °C Fluid 1...90 °C						
Temperature EK	Ambient 1...50 °C Fluid max. ...55 °C		Ambient 1...50 °C Fluid 1...70 °C						
Pressure without delivery ET/EK	0.8 bar	1 bar	1.8 bar	2 bar	2.2 bar	5 bar	7.5 bar	10 bar	15 bar
Delivery without load ET/EK	9 l/h	10 l/h	45 l/h	100 l/h	65 l/h	65 l/h	40 l/h	35 l/h	25 l/h
Suction height ET/EK	3 m	3 m	3 m	3 m	3 m	2 m	2 m	2 m	1 m
Viscosity range ET/EK	1 cSt...600 cSt								
Filtering ET/EK	Mesh 100 µm								
Note ET/EK	Fuse and diode necessary								
Kind of current ET/EK	230 V ~ (110 V, 24 V) 50 Hz (60 Hz)								
Power consumption ET/EK	18 VA	18VA	25 VA	40VA	40VA	45 VA	45 VA	45 VA	45 VA
Operating factor ET/EK	100 % / 20 °C								
Dimensions (LxWxH) ET	76x42.5x23	76x42.5x23	104x60x47.5	104x60x51.5	104x60x47.5	138x60x51.5	138x60x51.5	138x60x51.5	138x60x51.5
Dimensions (LxWxH) EK	76x42.5x21.5	–	–	104x56x50.5	104x56x50.5	138x56x50.5	138x56x50.5	138x56x50.5	138x56x50.5