

VIBRACO
Charmont
01400 NEUVILLE LES DAMES
Phone: +33 4 74 55 69 25



ECOPULS systems

Way of functioning

The ACOVAL microlubrication systems of the type PULS are instantaneous lubrication systems. They deliver an amount of liquid each time they are activated. They can be used:

- (1): to deliver an amount of liquid without using a gas to drive the liquid
- (2): most often with a nozzle which focuses the liquid with compressed air.

Duty cycle

In the case (1) where an amount of liquid is delivered without using compressed air to drive the liquid, it is important to keep in mind the [superficial tension phenomenon](#).

The driving duration and the time interval between two drives must allow an accurate working of micropumps.

In the case (2) where a nozzle focus or sprays the liquid, the driving duration of the system must be:

- the same as the time required to spread liquid (sample: a 3 seconds machining operation)
- enough to allow the air pressure to establish at the nozzles and to treat the amount of liquid delivered by micropumps.

The time interval between two drives must be enough to allow a correct system initialisation.

Applications

ECOPULS systems are often used:

- to make short time spaced machining operations
- to lubricate forming operations when the load is manual
- to lubricate assembly operations.

Applications at high pace

Typical samples concern cutting, stamping and the high pace machining.

The user often want a system of type PULS to work at the same rate as his equipment (his press or his machine tool). It is often a mistake because:

- The number of delivered liquid quantities is so large that the liquid flow may be too important even with low capacity micropumps.
- The compressed air pressure may not be able to take a good place in the nozzle. The functioning may be disturbed.

So it is better to use a system of type [ECOFLUX](#) or [ACOFLEX](#) with a lower speed. The gas spreads the liquid out all along the time.

Models

These models without a cabinet generally include between one and six micropumps.

The liquid flow of each micropump is adjustable.

There is only one air flow setting or an air flow setting for each nozzle.

Standard configurations

These systems are fitted with:

- a 300 ml tank
- for each micropump:
 - a 1.5 meter transparent coaxial hose
 - a copper coaxial nozzle with its fastening

Standard options

- 0,5 ; 1 ; 2 ; 3 ; 5 ; 9 ; 10 litre tank
- Low level switch
- Automatic filling device
- Micropump selection by groups
- Attachment magnet under the system
- Attachment magnets for the nozzles
- Half capacity micropumps
- Double capacity micropumps
- VITON seals
- Stainless steel sheathed coaxial hoses
- [Nozzles](#).

Samples

EP1E



a micro pump
a solenoid valve
a 300 ml tank
a transparent coaxial hose
a 50 mm copper coaxial nozzle.

EP7E



seven micro pumps
a solenoid valve
an one litre tank
seven transparent coaxial hoses
seven nozzles.

EP2E-2E



two micro pumps
two solenoid valves
a two litre tank with a low level switch
two stainless steel sheathed coaxial hoses
two nozzles
independent driving of the micro pumps.

EP4E-4E



four micro pumps
four solenoid valves
an one litre tank
four transparent coaxial hoses
four nozzles
independent driving of the micro pumps.

EP4E-3E



four micropumps
three solenoid valves
an one litre tank with a low level switch
four transparent coaxial hoses
micropumps driven in three groups.
four 200 mm copper coaxial nozzles.