

# AUTOMATIC SWITCH OVERS

## CIFEC®

This switch over system is completely vacuum operated, it switches chlorine feed from an empty chlorine source (cylinder or ton container) to a full chlorine source, for a continuous chlorination.

### Advantages

Each system with automatic switchover must include :

- two vacuum regulators or chlorinators CIFEC, direct cylinder or ton container mounted, with or without flowmeter, with vent.
- One switchover system is operating with or without energy, depending on the capacity of the plant,
- One or several injection lines with chlorine flowmeters (or modulating valve) and ejectors.

With one CIFEC switchover, the following advantages are availables :



### Safe operation

- The automatic switch over system operates completely under vacuum, from the chlorinator to the ejector. Any loss of vacuum automatically shuts the system down.
- Automatic reset: It is not necessary to reset the switch over module after a switching (Except for electrical switch over connected to chlorinator's electrical dry contact).

### Operating safety

- 100% stand by: as the chlorinators are identical, in case of maintenance of one chlorinator, the second chlorinator can work by itself.
- For the chlorinators with integrated flowmeter, the operator knows immediately which one of the two chlorinators is in use: no risk to disconnect the chlorinator that is operating: It is not the case for the chlorinators without flow indicator.



### Continuous chlorination

More and more municipal Health Agencies are now requiring continuous chlorinator operation. For the public swimming pools, if the residual chlorine is under the minimum reglementary value, the pool is closed, even if clubs, schools or competition are foresaw by the pool management. The switchover system is the easier solution to that problem because it will insure a reliable and continuous chlorination. It avoids the necessity to maintain a 24 h supervision.

### Flexibility of installation

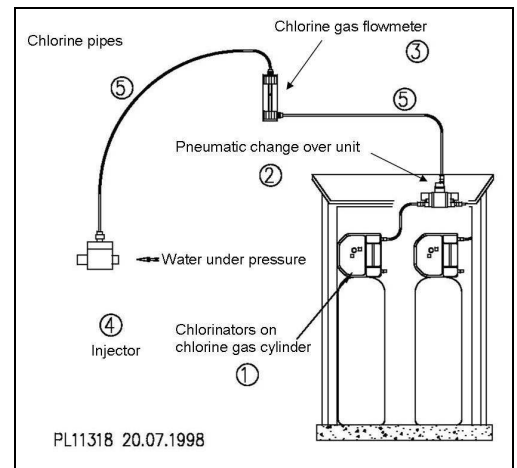
As the chlorinators are completely identical, the switch over system (second chlorinator + switch over) can either be purchased at the beginning of the installation or later. In the last case, the existing chlorinator can be re-used for operating with the new chlorinator and the switchover.

## Pneumatic switchover module

- no energy
- no reset
- no adjustment

For chlorine flow above 200 g/h, the pneumatic system works well. It operates without energy and doesn't need a reset after switching. Wall mounted, it is connected to the two chlorinators (1) and to the chlorine flowmeter (3) using the tubing (5).

When the chlorine source (bottle or cylinder is empty), the vacuum level in the system increases and the module switches automatically to the other position, starting a new chlorine source.



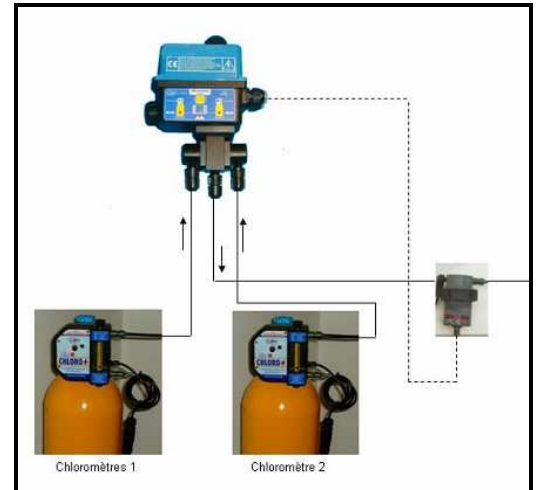
## Electrical switch over

- no reset when using vacuum detector CIFEC CV 02
- one led + dry contact for each bottle in operation
- one led + dry contact for each empty bottle
- one led + dry contact when switching fault
- manual switching mode
- can be used either with alarm switches in the chlorinator or with the CV 02 detector.

The chlorinators are equipped with lack of chlorine switches that are connected to the motorised valve with a 3 ways Chlorafion tap. This one is supplied with limit switches that allows to show :

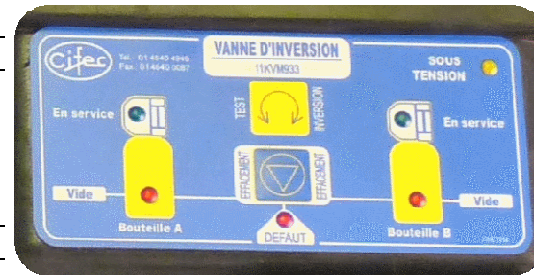
- the operating bottle
- the empty bottle to change
- the switching fault

The IB 07 (see below) shows the 2 leds for empty bottles, the 2 leds for operating bottles, the led for default.



### Technical specifications :

Kind of switchover	Electrical	Pneumatical
Chlorine	0 to 10 Kg/h	0.1 to 2 Kg/h
Capacity		4 to 10 Kg/h
Fitting		
up to 2 Kg/h	3/8" or 5/16"	3/8" or 5/16"
up to 4 Kg/h	1/2"	1/2"
up to 10 Kg/h	5/8"	5/8"
Fixation	wall	wall
Sizes (H x L x D)	224 x 175 x 85 mm	160x210x75 mm
Electrical supply	240 V/50 Hhz + earth	
Power	15 W	
Dry contacts	1 maxi 1A, 0,2 Kva 1 mini alternative 1 mA 240 V 50 Hz or 1 mA 24 V 50 Hz	



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