

# MPB100

## Bench of maintenance of pumps

### DESCRIPTION

- The bench makes it possible to carry out the maintenance of two types of pumps: the centrifugal pump and the positive-displacement pump with their components
- Intervention of maintenance with change of the various components
- The bench is delivered complete, instrumented, with technical handbook and practical work and practical work compatible with the standard software pack office, solidworks...
- Pumps of the industrial type.
- Closed circuit operation.
- Teaching concerned: Plant maintenance of the pumps



noncontractuelles illustrations

### TEACHING APPLICATIONS \*

Study of pumps centrifuges/volumetric

- Conditions of use
- In load or aspiration
- Physical Characteristics of the pumps

Maintenance of a pump

- Assembly, disassembling, replacements of parts
- Replacement of a trimming, a braid, a bearing, gears, a paddle...

Wiring

- Wiring of electric components of power in cupboard
- Choice of components

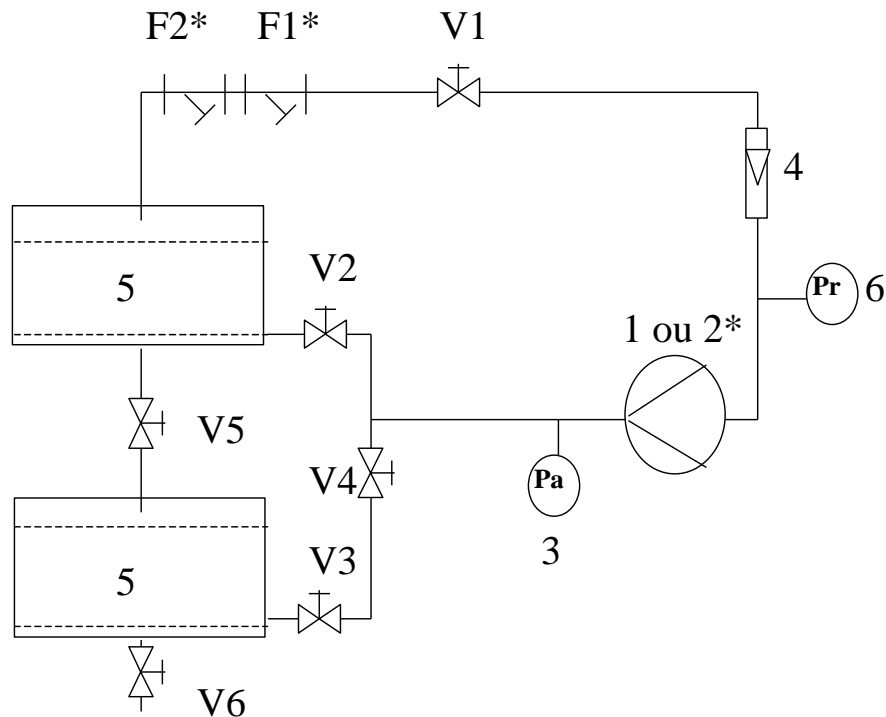
Regulation:

- integration of a system of flow and level monitoring

Intervention on group of filtration

- Replacement of filters
- Modification of the grid of filtration

## GENERAL DIAGRAM



### Description of the basic structure of the bench of maintenance of pumps:

#### Structure

- out of aluminum anodized on casters with brake
- stainless vat partly low with drainage sluice

#### Hydraulic system:

- 2 cylindrical polyethylene tanks high density (ref. 5) (1 tank for pumping in load and the other for pumping in aspiration)
- Volume of each tank: 100 L
- System of draining and gauge of level
- Transparent Pipings PVC
- V1: Winnow flow with membrane
- V2, V3, V5: valves ¼ turn with spherical plug
- V4: valves ¼ turn with spherical plug bored for generation of pressure losses
- 1 float flowmeter
- 2 pressure gauges for measurement of pressures to the aspiration and repression

#### Electric box n° 1:

- key lock for opening of the box
- disconnecting switch cadenassable
- circuit breaker and differential
- emergency stop with key
- button manufacture of order
- tachometric bill-poster
- selector of direction of walk
- ground lights

#### Electric box n° 2:

- transparent cap
- contact of safety on opening of door
- support of platinum and connectors
- compatible for use of platinums of wiring or prewired proposed
- 1 platinum of direct starting

- : according to versions

## **Description of the compatible equipment:**

### **Positive-displacement pumps in cases drink**

- 1 volumetric motor-driven pump group with mechanical trimming gears
- 1 positive-displacement pump in parts spare without constraints for activities of assembly mechanical disassembling/trimming
- 1 batch of defective parts and replacement for mechanical trimming positive-displacement pump

### **Centrifugal pumps in cases drink**

- 1 centrifugal motor-driven pump group with press packs
- 1 pump centrifuges without constraints in parts spare for activities of assembly disassembling/press packings
- 1 pump centrifuges without constraints in parts spare for activities of assembly mechanical disassembling/trimming
- 1 pump centrifuges with sealing by press packs for exchange of pump on motor-driven pump group and/or activities of various maintenances
- 1 pump centrifuges with sealing by mechanical trimming for exchange of the pump on motor-driven pump group and/or activities of various maintenances
- 1 batch of defective parts and replacement for pump centrifuges with mechanical trimming and press packs

### **Platinize rewired:**

- 1 with integral direct starting
- 1 with progressive starting
- 1 with variator

### **Platinums of wiring (option)**

- 1 for direct starting
- 1 for integral direct starting
- 1 for progressive starting
- 1 for variator

### **Filtration (option):**

- 2 filters cartouches
- 1 batch of cartouches to sampled calibration

### **Control/instrumentation (option)**

- 3 adjustable sensors of level usable indifferently on the 2 tanks
- 2 sensors reed/THEY on flowmeter
- 1 flowmeter at analogical exit
- 2 pressure gauges/pressure controller with 1 threshold with repression and the aspiration
- 2 pressure gauges with analogical exit

**Also compatible:** kits of vibratory analysis MBP011 and alignment MBP 021/to consult us

**UTILITIES**

Electricity: 400 tri VAC - 50/60 Hz

**VOLUME of INSTALLATION**

2000 \* 1400 \* 2000/weight 230kg (except pumps)