CENTRIFUGAL MULTI-PUMP TEST BENCH

Mod. BCP/EV

INTRODUCTION

The BCP/EV teaching unit is a modular group designed to perform complete functional tests on a series of 4 industrial water pumps.
A specific device controls a single AC motor and inverter that operates all pumps individually.
The group is provided with a complete manual, where the unit description, commissioning, operating modes and some educational experiences are provided with experimental results.

TRAINING PROGRAM

Each pump is taken into consideration individually and with it the following characteristic data can be obtained:

- Speed
- Flowrate
- Delivery pressure
- Suction pressure
- Power consumption

TECHNICAL SPECIFICATIONS

- Multi-stage pump (P1)
  - Operating speed: 2900 rpm
  - Power: 0.55 kW
  - Flow rate: 20 ÷ 70 l / min
  - ΔH: 37.5 ÷ 18 m
- Turbine pump (P2)
  - Operating speed: 2900 rpm
  - Power: 0.3 kW
  - Flow rate: 6.3 ÷ 31.5 l/min
  - ΔH: 35 ÷ 10 m
- Centrifugal self-priming pump (P3)
  - Operating speed: 2900 rpm
  - Power: 0.45 kW
  - Scope. 6.3 ÷ 31.5 l/min
  - ΔH: 36 ÷ 15 m
- Centrifugal pump with open impeller (P4)
  - Operating speed: 2900 rpm
  - Power: 0.3 kW
  - Flow rate: 25 ÷ 80 l/min
  - ΔH: 13.3 ÷ 9 m
- Wheeled stainless steel structure
- 100 l stainless steel storage tank (SA) with shut-off valve and possibility of high / low excursion for tests with pumps under and above the head

- Calibrated stainless steel tank (SM) of 40 l with overflow, drain valve, graduated level, supply pipe
- Delivery pressure control pressure gauge
- Suction pressure control pressure gauge
- Flow regulation valve (VR)
- C.A. motor: 1400-2800 rpm for 50 Hz motors, 1700-3400 rpm for 60 Hz, 0.9 to 1.2 kW motors
- Command and control panel equipped with:
  - digital voltmeter
  - digital ammeter
  - speed selector
  - digital portable stopwatch

Dimensions: 2000 x 850 x 1950 mm
Net weight: 300 kg

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 1 kVA (Other voltage and frequency on request)
- Water supply: tank filling 60 l approx.

SUPPLIED WITH

THEORETICAL - EXPERIMENTAL HANDBOOK

OPTIONAL

UNIT FOR THE STUDY OF PRESSURE LOSSES IN HYDRAULICS CIRCUITS Mod. WCPL/EV