

## Study of rate flow in a pipe

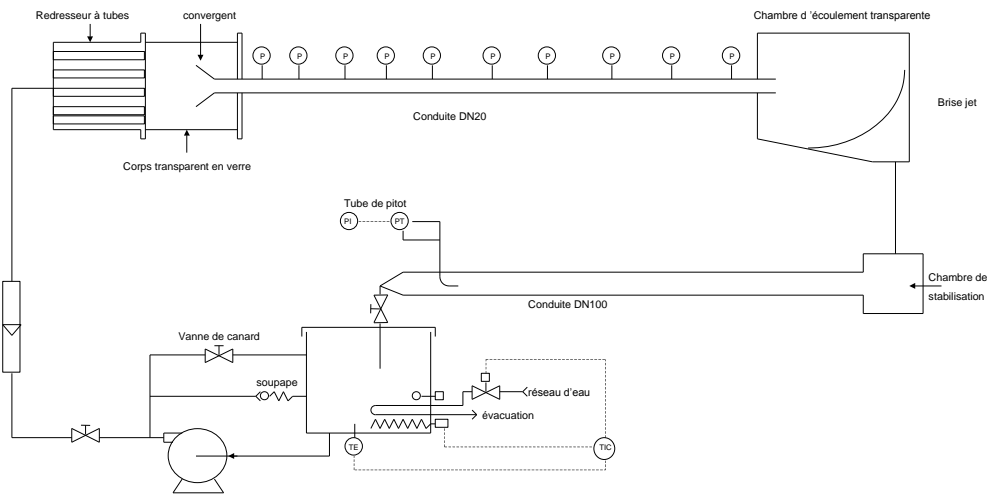
### DESCRIPTIF

- This flow unit is delivered complete with instrumentation and technical and educational manual.
- This unit is designed and manufactured to industrial standards.
- This unit can be used at different levels and for different courses.
- Working with closed circuit

### SUGGESTED LESSONS

- Study of rate flow in a pipe
- Pressure profile in a pipe
- Speed profile in a pipe
- Calculation of Reynolds number
- To visualise jet at the exit of the pipe
- Temperature influence

# BCD 400



**Aluminium anodised under-frame**

**Stainless circuit**

**Polypropylene tank 75L with lowest level detector**

**Fluid**

**Circulation pump**

Flow 10 m<sup>3</sup>/h

Safe valve with return to the tank

**Flow meter with magnetic transmission float**

Scale 10m<sup>3</sup>/h – precision 1.6%

Compensation of viscosity in function of the temperature

**Tube rectifier**

Stainless steel material

**Pipe to study**

Length 2.5m diameter 19mm

10 plug of pressure linked to piezometer tubes

**Transparent flow chamber**

Transparent Plexiglas front

Cellular jet breeze

**Speed profile measurement in a pipe DN 100**

Use of Pitot tube

According to the regulation....

KELLER differential pressure sensor

Scale 0 à 100 mBars

Precision 0.2%EM Max

Stainless material

Digital indicator ARDETEM

4 digits classe1.6

**temperature regulation loop**

Regulator EURO THERM

Entry Pt100 – relay exit

Plate lead line Pt100 on oil tank

*Heating :*

Thermal diverging VULCANIC with safe thermostat

3000W 230VAC 4W/cm<sup>2</sup>

*Cooling :*

Water network circulation in exchanger piloting thanks to electrovalves

## PERSON PROTECTION

Differential circuit breaker 30mA

Discharge valve at pump outlet

## UTILITIES

230 VAC single

phased 20A

Water : 70L

## INSTALLATION VOLUME

Length : 3000mm

Width 1000 mm

Height : 1900mm

Weight : 230 kg.