

GPA R20

FERMENTER 20 L

DESCRIPTION

- This pilot makes it possible to carry out a reaction calling upon micro-organisms
- Apparatus sterilizable by introducing vapor into the fermenter
- One will work in batch, at controlled temperature, a degasification and a ventilation are envisaged
- The fermenter is an engine perfectly agitated and instrumented.
- The unit of fermentation is delivered complete, instrumented with a technical handbook and practical work.
- Design, manufacture and industrial material.
- The didactic interest is directed towards various levels and fields of studies.

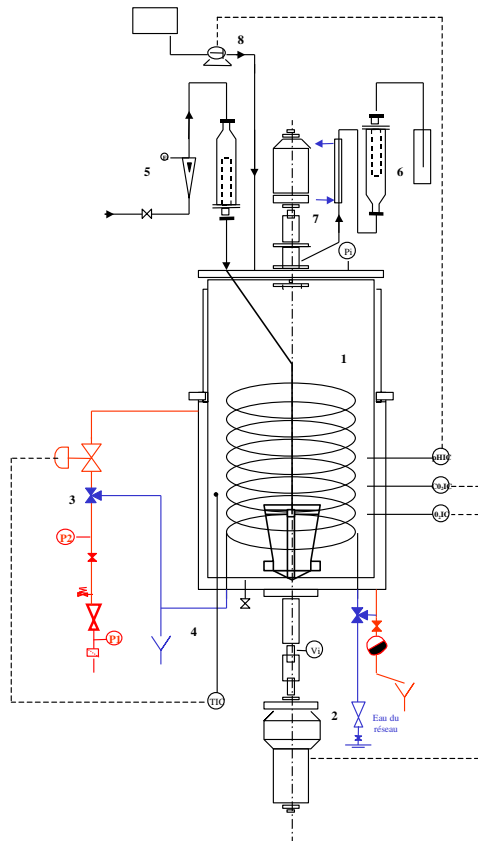


Noncontractual photograph

TEACHING APPLICATIONS

- Study of an alcoholic fermentation (using yeasts)
- Production of biomass
- Follow-up of several parameters pH, O₂, CO₂ and control of these various parameters
- Kinetics of fermentation: oxygen uptake...
- Influence stirring velocity, temperature...

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1. Fermenter

Composed of 3 elements

- Higher stainless Lid 316 L
- 1 pricking of agitation
- 3 prickings in 3/8
- Standard Pressure gauge bumblebee – 1/+1,5 B
- Ring out of glass borosilicate
- Tank double stainless 316 L wraps 10l
- 4 standard prickings DNN 25
- 1 pricking of agitation DNN 80
- 2 prickings in 3/8 "
- 1 pricking in 1/4 "
- 1 serpentín of cooling (also serves as against pale) out of stainless 316 L

2. Modulate agitation

- Reducing gear actuator of 0,37 kw
- Stirring velocity: 0-300 tr/min. with velocity pick-up
- Pale of liquid-gas mixture high performance

3. Vapor

- Temperature control: 1 Pt 100, regulating PID and a pneumatic valve of regulation
- 1 pressure reducer, 1 valve of safety,

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9. Instrumentation (option)

- CO2 Probe with regulator and converter
- O2 Probe has with regulator and converter
- Pilot the mixer Gas-liquid

VOLUME OF INSTALLATION

Length: 800 mm
Width: 600 mm
Height: 1600 mm
Weight: 160 kg

UTILITIES

Electricity: 400 Vac tri – 50-60 Hz
Power: 1 kw
Water of city: 500 L/H mini

SUPERVISION

Analogical chart of acquisition (Eurotherm)
Analogical/numerical conversion chart
Connections with a PC via a port RS232C: cable reinforced
ADF
Software of control of installation I-TOOLS (on/off,
emergency stop and piloting of the pumps, data and
acquisition and temperature control (temperatures,
pressure in the column flows, rate of backward flow)
With synoptic with the screen
With computer Athlon 2600+, 256 m0 DDRAM, hard disk
80 GO 7200 tr/min., reader CDROM 52X, screen 17 ",
Laser printer black and white