

# **Universal reactor for laboratory "RV-12"**

ADAPTABLE TO ALL NORMALIZED GLASS ELEMENTS WITH 100 MM MOUTH. REACTOR CAPACITY: 6 OR 12 LITRES.

#### **APPLICATIONS**

Universal reactor suitable for all laboratory and pilot plant's operations.

#### **FEATURES**

Standard mouth for connection to DN100 glass reactor's covers. Reactor in AISI 316 stainless steel, with a capacity of 12 litres and with a drain tap.

#### STANDARD EQUIPMENT

- 1. Standard support. Part No. 1001748
- 2. Reactor in stainless steel AISI 316, capacity: 12 litres with drain tap. External sizes: Height 38cm x 25cm Ø. Weight: 4.5 Kg Part No. 1001746 or 6 litres with drain tap. External sizes: Height 28cm x 25cm Ø. Weight: 3 Kg. Part No. 1001726.
- 3. Clamp with support ring for the reactor, Part No. 1001747 + 1001974 for 10-20 litres.

### **COMPLEMENTOS**

- 4. Addition graduated funnel of 250 ml. PTFE frosted wrench 29/32. Part No. 1001795.
- 5. Frame for stirrer clamping. Part No. 1001770
- 6. HEI-Torque stirrer with adjustable speed. Part No. 5016041
- 7. PTFE stirrer guide. Part No. 1001788
- 8. Double effect Refrigerant "Dimroth". 30 cm de length. Part No. 1001792
- **9. Electronic regulator ELECTEMP-TFT.** Part No. **3000897** with connector for internal emperature control, if the heating mantle is used.
- 10. Support plate with bosshead for Electemp-TFT regulator. Part No. 1001750
- 11. Pt100 probe Part No. 1001749 400 mm length x  $\emptyset$  4 mm, with connection cable to Electemp-TFT regulator.
- 12. 5 mouths cove type UK. Part No. 1001790
- 13. Ring holder with double bosshead for heating mantle. Part No. 1001751
- 14. Heating mantle with double heating element for temperatures up to 400°C. Power consumption 1400W. Part No. 3001752
- **15. Double bosshead MAXIM.** Part No. **7000408** and clamp for refrigerant. Part No. **1001765**
- **16.** Anchor shape stirring shaft,  $\emptyset$  9,5 mm in PTFE. (length 65 x shovel width 10 cm). Part No. 1001822
- 17. Helix shape stirring shaft,  $\emptyset$  9,5 mm in PTFE. and PTFE shovel (length 65 x shovel width 7cm). Part No. 1001789
- **18. Folding shovels stirring shaft**, Ø 9,5 mm in PTFE. (length 65 x shovel width 7cm). Part No. **1001859**
- **19. Clamp resistance** with internal ceramic insulation and AISI 304 stainless steel exterior. 400°C, 1500W power consumption. Part No. 1001947

**High vacuum grease.** Dow Corning. -40 to +200 $^{\circ}$ C. For pressures up to 10-6 mm Hg use. Part No. 1001915

20. PTFE expansion/contraction bellows for coupling between mouth and coolant, Part No. 1001825

Faucet in PTFE frosted 29/32. Part No. 1001793

Adapter set for PT100 probe. Frosted 14/23. Part No. 1001933

Adjust 29/32 to olive 12mm for coolant and funnel. Part No. 1001794

Stopper 29/32 for lid and funnel. Part No. 1001796

For DN150 type GR reactors:

Standard support for frame and clamp. Part No. 1001748

- 21. Clamp for DN150 type GR reactors subjection. Part No. 1001787
- **22. Frame for clamp** Supplied with two AISI 304 stainless steel bars Ø 20mm and 500 mm length. Part No. **1001767**

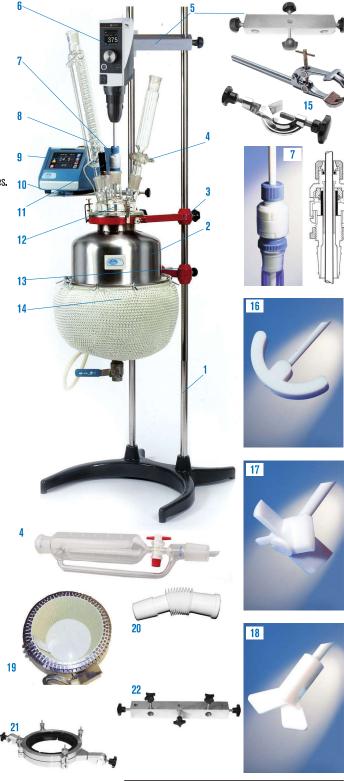
#### OPTIONAL

23. . AISI 304 stainless steel device, with double standard mouth and coil for heating or cooling the liquid inside the reactor. Coil measures: A: 26 cm. B: 15 cm. C: 10 cm. Part No. 1001755

This device can be coupled to the universal reactor Part No. 1001746.

Note: To be able to hold the Part No. 1001755 to the reactor, a ring holder Part No. 1001758 and a clamp bracket set Part No. 1001852 is necessary.

Note: By using the coil (23) laboratory tests have been carried out with silicone oil "47 V50" (Part No. 1000027 4 litres) and with **Ultraterm-TFT-200** thermostaat. Part No. 3000554 (See page. 101) reaching temperatures up to 170°C in 35' inside the reactor properly insulated with "durablanket120". With the methanol fluid transmitter liquid and the **Frigiterm-TFT-30** thermostat. Part No. 3000553 (See page. 101) temperatures up to -21°C have been reached in 57' inside the isolated reactor with "durablanket120".









# **Customizable reactors on demand**

FOR LABORATORY AND PILOT PLANT WITH HEATING ANS COOLING SYSTEMS BOROSILICATE GLASS 3.3. CAPACITY: FROM 0,5 UP TO 100 LITRES.
AISI 304 - 316 - 316L STAINLESS STEEL LITRES CAPACITY: FROM 12 UP TO 100 LITRES.

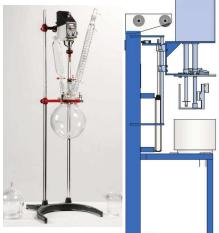
**Borosilicate glass 3.3:** Spherical, cylindrical and thermostatic with or without PTFE release valve with temperature control accessories, PH, oxygen, turbidity, etc. Heidolph stirring systems and variable PTFE blades.

**Aisi 304 - 316 - 316 L**: Cylindrical and thermostatic with or without release valve. With temperature control accessories, PH, oxygen, turbidity, etc.

Fixed and variable stirring systems of different powers according to viscosity and density, combined with stirring elements, dispersers and emulsifiers micronizers and helical.

REQUEST INFORMATION.







# Parts and assembly of reactors. Ø 100 UK

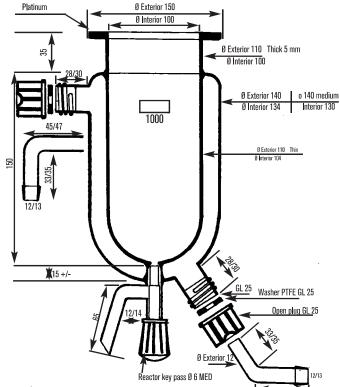




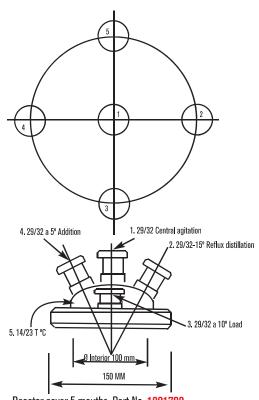








Reactor 0,5 liters. Part No. 1001960
Reactor 1 liters. Part No. 1001880
Reactor 2 liters. Part No. 1001879
Reactor 10 liters. Part No. 1001961



Reactor cover 5 mouths. Part No. 1001790
Reactor cover 5 mouths. Part No. 1001892 With SAV thread.



Reactor for pilot plant "RE-605" and "RE-620"

CAPACITY UP TO 20 LITRES FOR ATMOSPHERIC PRESSURE OR VACUUM

#### **APPLICATIONS**

This equipment is designed for reflux and distillation operations with a stirring element, for all laboratory's pilot plant operations and small productions.

#### **FEATURES**

Reactor module built-in, base made of glazed steel in epoxy and tubular structure in stainless steel AlSI 304, equipped with an engine group stirring and a reaction jacketed borosilicate glass 3.3 with graduation to temper, for a volume of 4-20 liters in "RE-620" model and 1-5 liters in "RE-605" model.

Stirring anchor blade and elements in contact with the liquid or reaction steam, composed of borosilicate glass and PTFE.

Addition and reflux models.

Optional:

- Configurations for distillation can be supplied.
- Amber glass finish.
- Voltage 110V / 60 Hz.

#### **CONTROL PANEL**

Main switch ON / OFF.

Regulator knob for stirring speed from 0 to 500 rpm.

Temperature and RPM digital indicator

#### **MODELS**

Part No.	Total dimensions Height / Width / Depth			Reactor capacity	Operating temperature	Power W	Weight Kg
1001710	130	70	35	5	-50 °C to 200 °C	90	10
1001711	180	62	50	20	-50 °C to 200 °C	250	68



#### **ACCESORIES**

pH analyser temperature from -10°C up to 140°C.

3.5" color touch screen. 8 digital inputs, 2 configurable analog and 6 relay outputs for signaling and control. Communications: 485 for ARC sensor network. IP-65 box. RS-232 output for connection to a computer. Possibility of performing PID control loops. GSM, RED, TCP / IP modem connections, Probes: O<sub>2</sub>, CON, VCD and Redox.

Part number 4120824 (For measurement and reading only).
Part number 4120823 (For measurement, reading and control).
HT glass sensor pH 0-14 + T<sup>a</sup> -10 at 100 °C. Part number 4120801
ARC HT sensor pH 0-14 + T<sup>a</sup> -10 at 140 °C. Part number 4120822

Glass sensor adapter for R-605. Part number 4120802 Glass sensor adapter for R-620. Part number 4120803

Digital thermometer "TC-9226-A"

Temperature range: -200 °C. to 1370 °C.

Part No. <mark>5903030</mark> See page. 294

PTFE expansion/contraction **bellows** for coupling between mouth and coolant Part No. 1002932

**Stirring rod in the shape of a helix**, Ø 9.5 mm in PTFE. and shovel in PTFE (length 65 x width shovel 7 cm). Part No. 1001789









## **COMMON COMPLEMENTS**

**Silicone oil** 4 liters. Temperature up to 300°C. Viscosity 50 mm<sub>2</sub>/s at 25 °C. Melting point 318 °C. Part No. 1000027

Peristaltic dosing pump "Peristaltic PR-2003."

For PH stabilisation (acid-base). Also applicable to dosages in process.

Features: See page. 47. Part No. **4129050** 

Recirculation cryothermostat "CC-505".

For adjustable temperatures from -50 °C, to 200 °C.

Part No. 5910062

### **FOR REACTOR R-605**

Recirculation thermostat "Ultraterm-TFT-200".

For adjustable temperatures from ambient +5 °C. to 200 °C.

Part No. 3000545 See page. 101.

Recirculation cryothermostat "Frigiterm-TFT-30".

For adjustable temperatures from -30 °C. to 100 °C.

Part No. 3000547 See page. 101.

#### **FOR REACTOR R-620**

High power recirculation thermostat "Interheater"

For adjustable temperatures from ambient +5 °C. up to 90 °C.

Part No. 6001491 See page, 105.

Water refrigerador and recirculator "Unichiller 015"

For temperatures from -20°C to +40 °C.

Part No. 5910049