Universal reactor for laboratory “RV-12”

ADAPTABLE TO ALL THE STANDARDIZED GLASS ELEMENTS WITH A MOUTH OF 100 MM Ø.
REACTOR CAPACITY: 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 stainless steel AISI 316, with a capacity of 12 litres and with a drain tap.

STANDARD EQUIPMENT
1. Standard support. Part No. 1001748
2. Clamp with support ring for the reactor. Part No. 1001747
3. Reactor in stainless steel AISI 316, capacity 12 litres with drain tap. External sizes:
   Height 38 cm. x 25 cm. Ø. Weight: 4,5 Kg Part No. 1001746

COMPLEMENTS
4. Clasp for fastening normalized flat gaskets for reactor “RV-12” or any glass reactor with normalized mouth of 100 mm. Ø. Part No. 1001758
5. Stirrer RZR-1 with adjustable speed. Part No. 5050111
6. Double bosshead MAXIM. Part No. 7000408 or Clamp Part No. 1001765
7. Flexible shaft holder for 8 mm. Ø stirring shaft. Part No. 5050903
8. Half-moon shape stirring shaft, 8 mm. Ø stainless steel AISI 304
   (length 90 x shovel width 12 cm). Part No. 1001754
9. Helix shape stirring shaft, 8 mm. Ø stainless steel AISI 304 and PTFE shovel
   (length 90 x shovel width 4 cm). Part No. 1001757
10. Electronic controller ELECTEMP-TFT. Part No. 3000897 with connector for
    inner temperature control, if the heating mantle is used.
11. Support plate with bosshead for Electemp-TFT regulator. Part No. 1001750
12. Pt100 probe Part No. 1001749 200 mm length x 4 mm. Ø, with connection
cable to Electemp-TFT regulator.
13. Ring holder with double bosshead for heating mantle. Part No. 1001751
14. Heating mantle with double heating elements for temperatures up to 400 °C.
   Power consumption 1400W. Part No. 3001752

OPTIONAL
Aisi 316 stainless steel device, with standard double mouth and collar for liquid heating or refrigeration inside the reactor.
This device can be connected to the universal reactor part no. 1001746 or to glass reactors with a 10 L capacity and with DN-100 standard mouth.
Coil measurement: A: 21 cm. B: 15 cm. C: 10 cm. Part No. 1001755
For reactors higher than 40 cm., it must be manufactured according to drawing.

Note: Several tests have been made in the laboratory with the silicone oil “47V50” and with the Ultraterm-TFT-300 thermostat. Part No. 3000545 (See page 103), reaching temperatures up to 170 °C in 35’ inside the reactor properly isolated with “durablanket120”.
With methanol fluid transmitter liquid and with Frigiterm-TFT-30 thermostat. Part No. 3000547 (see page 103), reaching temperatures up to -21 °C in 57’ inside the reactor properly isolated 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 20 LITRES.
AISI 304 - 316 - 316L STAINLESS STEEL LITRES CAPACITY: FROM 20 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 - 305 - 306 stainless steel: 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.
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, made of glazed steel in epoxy, composed of an engine group stirring and a reaction borosilicate glass 3.3 with graduation and dual Camera to temper, for a volume of 4-20 liters in “R-620” model and 1-5 liters in “R-605” model. Stirring anchor blade and elements in contact with the liquid or reaction steam, composed of borosilicate glass and PTFE.

R-605 model addition and reflux. Distillation system on demand.
Reactor for multiple reactions: add PTFE tap Part No. 1001752, support Part No. 1001744 and digital thermometer Part No. 5903030 or pH analyser/Redox and temperature Part No. 4120800.

CONTROL PANEL
Main switch ON / OFF.
Regulator knob for stirring speed from 0 to 800 rpm, and with digital reading.

MODELS
<table>
<thead>
<tr>
<th>Part No.</th>
<th>Total dimensions Height / Width / Depth</th>
<th>Capacity</th>
<th>Reactor Operating Temperature</th>
<th>Power W</th>
<th>Weight Kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1001705</td>
<td>130 / 70 / 35</td>
<td>5</td>
<td>-30 °C to 200 °C</td>
<td>90</td>
<td>10</td>
</tr>
<tr>
<td>1001745</td>
<td>180 / 62 / 50</td>
<td>20</td>
<td>-30 °C to 200 °C</td>
<td>250</td>
<td>68</td>
</tr>
</tbody>
</table>

ACCESORIES
pH analyser/Redox and temperature from -10°C up to 130°C. Backlit graphic display. For pH / ORP measurement, temperature by probe measurement, temperature automatic compensation. 1 relay output for alarm or temperature, 1 relay output for electrode wash or temperature. pH measurement: 0.00±14.00pH.

Redox ±1500Mv ±1Mv. Part number 4120800
HT glass sensor pH 0-14 +Temp -10 to 100°C. Part number 4120801
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. 5903030

Universal drain tap in PTFE and bellow for disposal of different density and viscosity liquid / liquid and liquid / solid suspensions.
Part No. 1001753 for model RV-605.
Part No. 1001752 for model RV-620.

Over elevation support base.
Part No. 1001773 for model RV-605. Height 38 cm.
Part No. 1001744 for model RV-620. Height 65 cm.

COMPLEMENTS
Peristaltic dosing pump “Peristaltic PR-2003.”
For PH stabilisation (acid-base).
Also applicable to dosages in process.
Features: See page 49. Part No. 4129050

FOR REACTOR R-605:
Recirculation thermostat “Ultraterm-TFT-200”.
For adjustable temperatures from ambient +5 ºC. to 200 ºC.
Part No. 3000545 (See page: 103).
Recirculation cryothermostat “Frigiterm-TFT-30”.
For adjustable temperatures from -30 ºC. to 100 ºC.
Part No. 3000547 (See page: 103).

FOR REACTOR R-620:
High power recirculation thermostat “Interheater”
For adjustable temperatures from ambient +5 ºC. up to 90 ºC.
Part No. 6001491 (See page: 107).
Water refrigerador and recirculator “Unichiller 015”
For temperatures from -20°C to +40 °C.
Part No. 5910027