

Data Sheet

Laboratory reactors / Laboratory Reactors



LR-2.ST

The IKA® LR-2.ST system is a modularly designed miniplant reactor system, planned and designed to simulate and optimize chemical reaction processes as well as mixing, dispersion and homogenization processes at a model scale with a maximum volume of 2000 ml. Depending on the seal (FFPM), the medium in the reactor vessel can be heated up to 230 °C. Vacuum operation is possible up to 25 mbar. The IKA® laboratory software labworldsoft® is providing convenient solutions for measuring, control, regulating tasks and documentation purposes.

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Volume max.: 2000 ml
 Volume min. (stirring): 500 ml
 Volume min. (dispersing): 800 ml

Some applications are:

- Manufacturing cremes, lotions, emulsions
- Liposome preparations in the pharmaceutical and cosmetic sector
- Mixing solids such as calcium carbonate, talc, titanium oxide, etc. into liquid polymers
- Mixing additives and solid polymer compounds into mineral oils
- Grinding and disintegrating solids and fibres in liquids and polymers

LR-2.ST laboratory system consisting of:

- LR-2 Stand system
- EUROSTAR power control-visc P7: Laboratory stirrer with a high torque (380 Ncm), constant speed, digital display of rated - and actual speed, infinitely adjustable speed range 8 ÷ 290 min⁻¹, integrated torque trend display for viscosity control, RS 232 / analog interface
- LR 2000.11 Anchor stirrer with flow borings, without scraper

Technical Data

Usable volume min. [ml]	500
Usable volume max. [ml]	2000
Working temperature min. [°C]	room temp.
Working temperature max. [°C]	230
Attainable vacuum [mbar]	25
Viscosity max. [mPas]	150000
Speed range [rpm]	8 - 290
Telescope stand stroke [mm]	390
Material in contact with medium	borosilicate glass, FFPM, PTFE, steel 1.4571
Reactor vessel openings (units/standard)	3/NS 29/32 2/NS 14/23"
Dimensions (W x H x D) [mm]	460 x 1240 x 430
Weight [kg]	25
Permissible ambient temperature [°C]	5 - 40
Permissible relative moisture [%]	80
Protection class according to DIN EN 60529	IP 42
RS 232 interface	yes
Analog output	yes
Voltage [V]	230
Frequency [Hz]	50/60
Power input [W]	130
Ident. No.	8016500

Please order reactor vessel separately.

Accessories: VC 2 IKAVAC® Vacuum controller, PCI 8.2 Plug-in card, S 25 KV - 25 F Dispersing element, VC 2.4 Pump control, S 25 KV - 25 G Dispersing element, LR 2000.1 Reactor vessel, LR 2000.10 Anchor stirrer, LR 2000.20 Flow breaker, LR 2000.40 Shaft receptacle, LR 2000.60 Sensor receptacle, LR 2000.11 Anchor stirrer, LR 2000.2 Reactor vessel, LT 5.24 Hose adapter, HBR 4 digital Heating bath, LT 5.20 Hose, PC 1.2 Adapter, PC 2.2 Adapter, PC 1.5 Cable, labworldsoft®, PC 2.3 Cable, LR 2.1 Reactor vessel, DTM 12 IKATRON® Digital temperature measuring instrument, PT 100.25 Temperature sensor, T 25 digital ULTRA-TURRAX®, CC3-308B vpc, LVS 105 T-ef, S 25 KV - 18 G Dispersing element