

the autoclave beluga hpm-b

High pressure autoclave «beluga», heated and cooled with oil thermostat – Model 70–600 ml

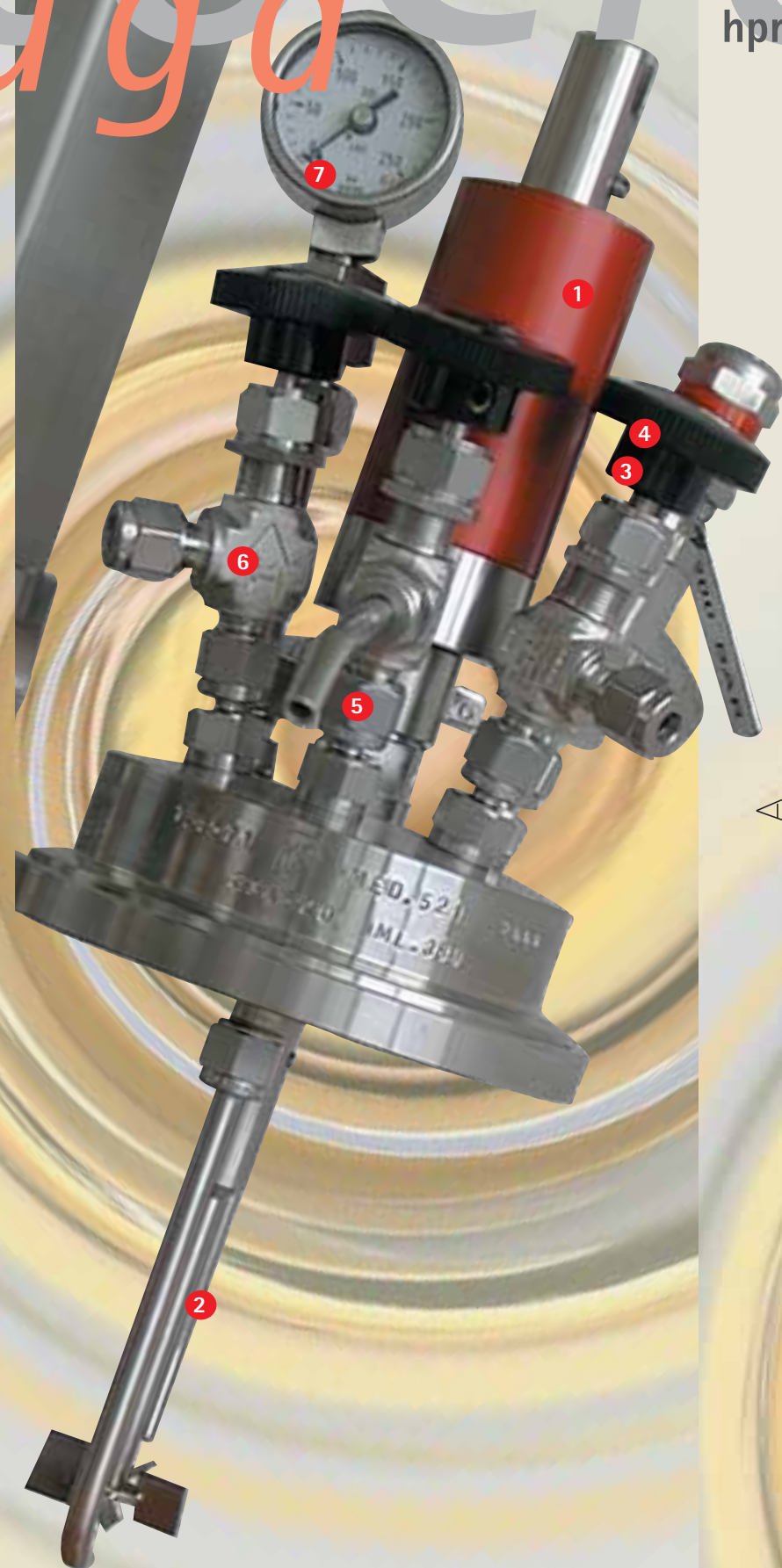
Model «beluga» offers a masterly combination of autoclave, oil thermostat and control unit – a technically perfect product at a reasonable price. The outstanding features include a copper shell which allows heat to flow to the reactor vessel avoiding direct contact with the heat transfer oil. Thanks to this feature, the reaction vessel can be neatly removed from a closed copper shell as an independent unit. The oil thermostat is also sealed to ensure that it is odourless.

Reaction vessels with different volumes can be operated under the same reactor cover without any problems. Possible combinations include 60 ml / 100 ml / 200 ml. Interchangeability means that users will find this system highly flexible. The oil thermostat is fitted with the «Compatible Control Cascade Controller», which can run 50 programmed steps or 10 programs. It also has an RS232 / RS485 interface.

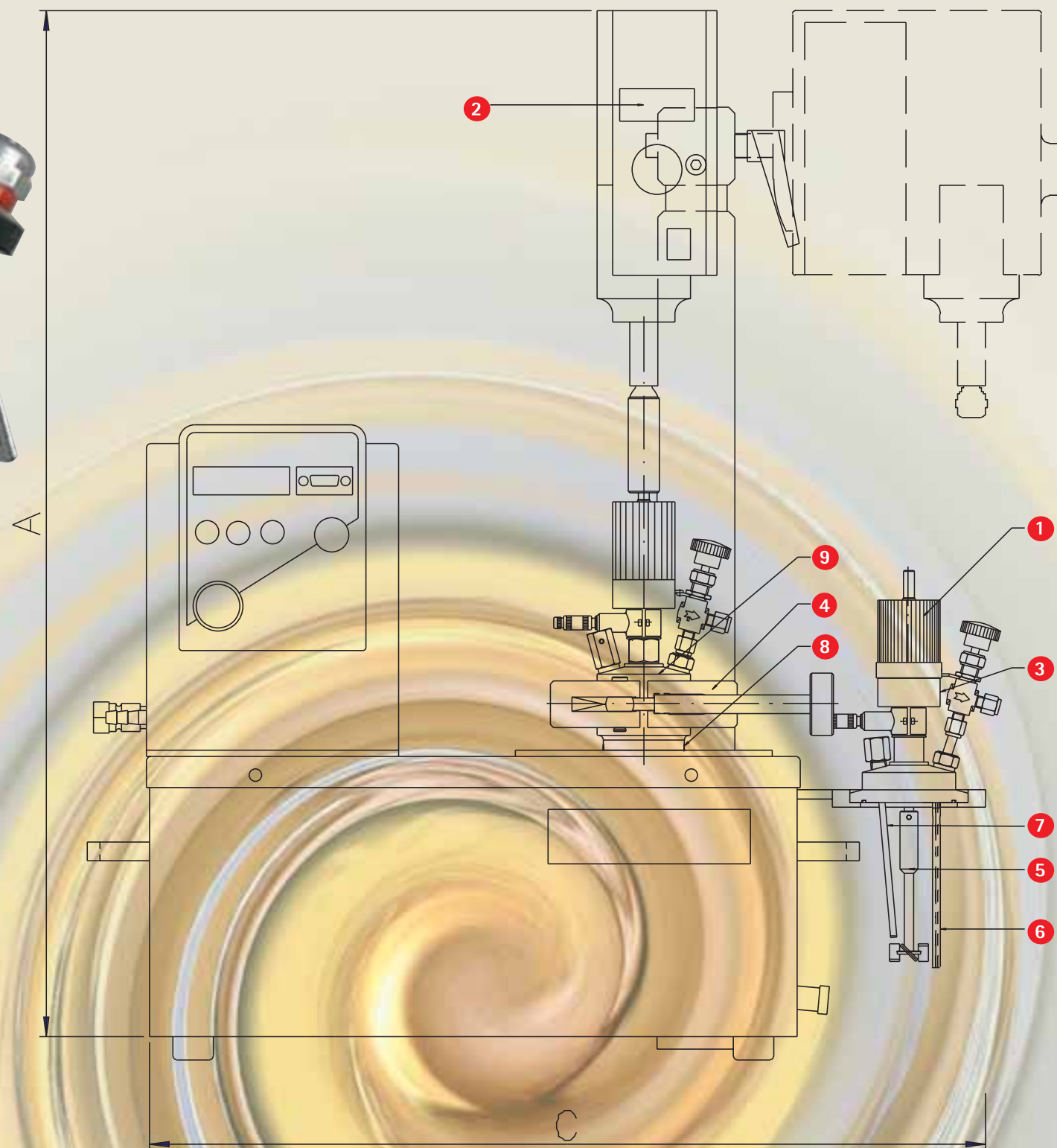
The stand column is fitted with a 130 Watt IKA drive which indicates the speed or viscosity trend, according to choice. The positioned swivelling device enables the motor to be swivelled to the side so that the reactor can be removed.

Bore holes on reactor cover

- 1 Magnetic stirrer head
- 2 Submerged tube with temperature sensor, type Pt100, to measure the temperature in the medium
- 3 Gas supply valve
- 4 Pressure release valve
- 5 Valve with submerged tube as far as reactor base, for sampling
- 6 Product feed valve
- 7 Manometer (pressure gauge)



- 1 Magnetic stirrer head
- 2 Speed indicator on drive
- 3 Gas supply on the magnetic stirrer head
- 4 Jaw lock (fast closing system)
- 5 Stirrer
- 6 Submerged tube (sampling)
- 7 Temperature sensor in the medium
- 8 Autoclave vessel
- 9 Autoclave cover with all fittings



External dimensions

Oil thermostat with stand

A = height 680 mm

B = depth 330 mm

C = width 600 mm

Basic information

Nominal volume 70 ml, 125 ml, 250 ml, 380 ml

Excess operating pressure 100 bar, 200 bar

Operating temperature up to 250°C max.

Speed up to 2'000 rpm max.

Material Mat. no. 1.4435 (AISI 316L)

Mat. no. 1.4571 (AISI 316Ti)

Hastelloy C276, C22, B3

Titanium Gr. 2

Flange lock

Jaw lock (fast closing system) up to 200 bar.

Sealing

O-rings made of various materials, or pure silver flat seal.

Heating in oil thermostat

Electrical heating, 2000 Watt thermal output in the heat transfer oil.

Cooling in oil thermostat

Cooling spiral in the heat transfer oil.

Temperature sensor

One Pt100 temperature sensor in the submerged tube to measure the medium temperature.

Drive

IKA drive with nominal power of 130 W, 230 V, 50 Hz, continuous speed adjustment from 0–2'000 rpm and a viscosity trend display.

Magnetic stirrer design

The magnetic stirrer drive features a streamlined design and is available in torques from 20–90 Ncm.

Bearings

The driven shaft is mounted on ball bearings in stainless steel or sliding bearings in PTFE/carbon.

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