



## cobalt



### Quick change device

The reaction vessel can be easily removed from the quick-change device and replaced without any tools.



### Combi-reactor with glass or metal vessel

Both vessels work under the same autoclave lid, which is integrated in the upper suspension plate and anchored there with its fittings and supply lines.



### Hydraulic lifting device

In the combi reactor, we rely on the smooth-running hydraulic lifting device with crank mechanism.

### Magnetic stirrer drive and stirrer

- The magnetic agitator head type "funrun" M30 x 2 mm with three-phase motor. Other drive variants are possible: such as IKA, Heidolph motors, or air motors for Ex areas.
- Torque of the magnetic coupling 60 Ncm or 90 Ncm
- Ball bearings made of stainless steel
- Designed for a speed of 150-1,500 rpm. for ball bearings and 200-1,200 for slide bearings.
- An agitator is included. Choose from our range. In our example, a blade agitator is used.

### Observe the individual steps in a chemical reaction

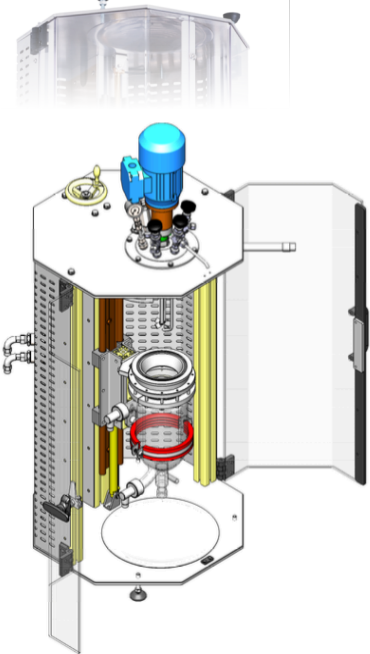
The big advantages are processes either in the **glass reactor from -1 to 10 bars** or for 60 bars in the jacketed steel vessel AISI 316 or HC22 (other materials on request). Lid assemblies and pressure vessels are freely selectable.

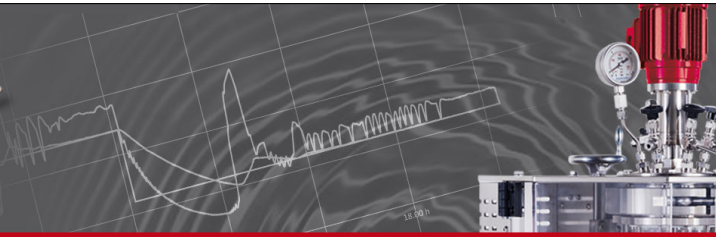
### Technical specifications

- Nominal volume 500, 1000 ml and 1500 ml
- Glass reactor made of borosilicate 3.3. Version as double jacket with bottom outlet valve.
- Operating pressure - 1 bar (full vacuum) or up to +10 bars as in the glass reactor
- Operating pressure up to 60 bars in the double jacket steel reactor
- Operating temperature -20°C to + 220°C
- The reactor cover and its fittings are either WNo. 1.4401 (SS 316) for fittings or 1.4435 (SS 316L) for vessel and lid. Other materials available on request.
- Quick release: Manually open the jaw closure directly below the chassis plate. The chassis plate keeps the reactor lid centred.
- O-ring seal made of Viton, Kalrez, EPDM
- Resistant PET safety glass, 180° to open
- Drip tray removable from chassis bottom
- Basic chassis in 8-cornered basic shape, easily adaptable in height, with bottom feet
- Dimensions (W x D x H) 500 x 500 x 950 mm Mass with opened safety glass W 1048 mm

### Fittings and/or holes on the reactor cover

- Magnetic agitator drive of the "funrun" series 60 Ncm / 90 Ncm
- Immersion tube with temperature sensor 4-wire Pt 100 for measurement in the medium
- Valve for gas supply
- Valve for pressure relief
- Valve for sampling
- Spring pressure relief valve
- Pressure gauge





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### Measurement and control

For Mettler Toledo applications, the cobalt glass reactor was integrated into a frame and connected to peripheral devices for metering, measurement and control.



### Expansion options

- Mettler Toledo **Easy Sampler 1210** - an unattended, representative sample
- Mettler Toledo **ECB - Easy Control Boy** for laboratory sensors and pump control
- Mettler Toledo **React IR15** - a data acquisition and analysis system
- Mettler Toledo **Gas Take-up System** - Measurement of Gas Consumption
- Mettler Toledo **RX-10** - reactor control
- Huber **petite fleur Unistat** for dynamic and high-precision temperature control of research reactors at -40 to + 200°C

