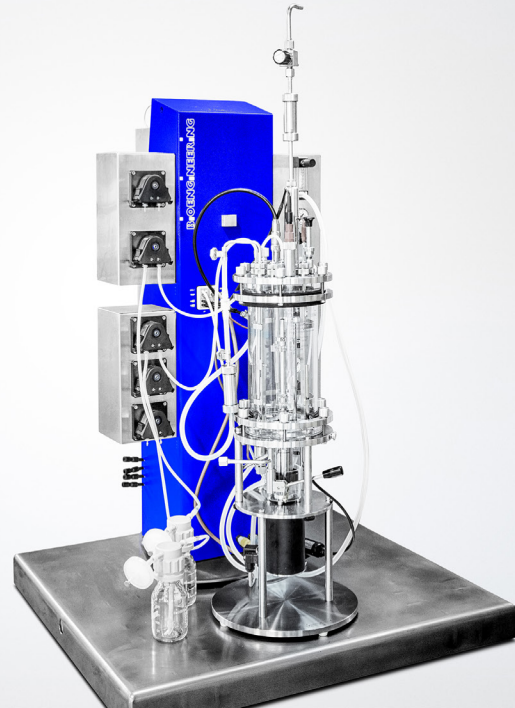


KLF

Small device. Big discoveries.



A remarkable bioreactor

The KLF is the only in-situ sterilizable glass benchtop fermenter on the market. During sterilization, the medium is stirred and the temperature is continuously measured and recorded – comparable to the processes in larger steel fermenters.

The steam-sterilizable bottom drain valve ensures complete emptying and can also be used for sampling. As optional feature, the KLF can be fitted with pressure control up to 1 bar, making it the ideal tool for downscaling applications in the food, pharmaceutical and research industries. A steel vessel with a total volume of up to 5 litres is also available.

All Bioengineering benchtop fermenters are supplied with the advanced BioSCADA software – license-free and with extensive functionality.

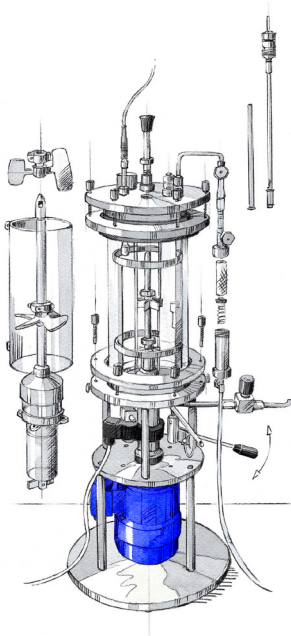


Plant cell reactor

Fixed-bed reactor

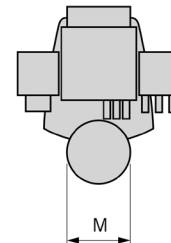
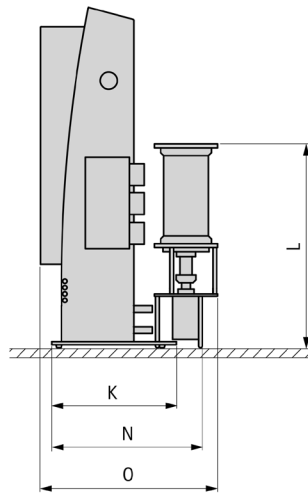
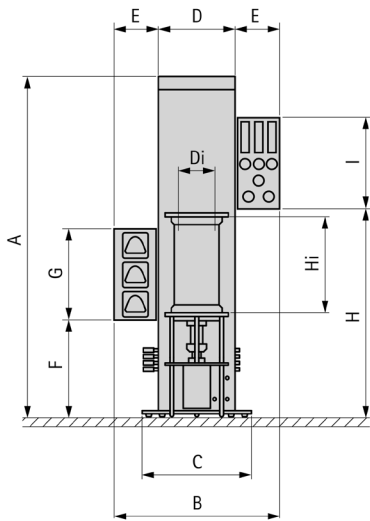


- in-situ sterilizable
- resterilizable harvest valve
- optional pressure control



Technical Data

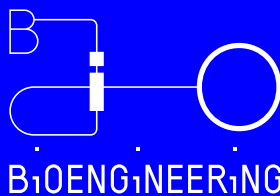
- Processing capacity: 1.6/2.0/2.5 liters
- Vessel: Glass or stainless steel
- Drive: Bottom drive with mechanical seal or magnetically coupled
- Impellers: Rushton, marine, pitched blade
- Aeration: Venting pipe, ring sparger, sinter sparger, bubble-free gassing
- Temperature control: Electrical heating & cooling fingers
- Gas: Up to 6 individual gas lines with pulsed valves or mass flow controllers
- Pumps: Up to 6 pumps integrated in the control unit and one external pump
- Configuration: Up to 6 bioreactors controllable with a single control unit
- Measurement and control: Speed, temperature, pH, pO₂, antifoam / level, pressure, redox, OD, weight, exhaust gas, numerous additional interfaces and controllers
- BioSCADA: Advanced control and visualization software



	Di [mm]	Hi [mm]
KLF 2.4 L	96	300
KLF 3.1 L	115	300
KLF 3.7 L	125	300

A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I [mm]	K [mm]	L [mm]	M [mm]	N [mm]	O [mm]
1065	510	342	240	135	307	285	652	285	390	638	198	471	555

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Bioengineering – inspiring excellence

