

Materials List for:

Power Input Measurements in Stirred Bioreactors at Laboratory Scale

Stephan C. Kaiser¹, Sören Werner², Valentin Jossen², Katharina Blaschczok², Dieter Eibl²

¹Finesse, Thermo Fisher Scientific

²Institute of Chemistry and Biotechnology, Zurich University of Applied Sciences, School of Life Sciences and Facility Management

Correspondence to: Stephan C. Kaiser at Skaiser@finesse.com

URL: <https://www.jove.com/video/56078>

DOI: [doi:10.3791/56078](https://doi.org/10.3791/56078)

Materials

Name	Company	Catalog Number	Comments
T20WN torque meter	HBM Hottinger Baldwin Messtechnik GmbH		Nominal torque 0.2 Nm
Spider-8	HBM Hottinger Baldwin Messtechnik GmbH		HBM Spider8 is no longer available for sale. QuantumX DAQ system (especially the QuantumX modules MX840A and MX440A) are recommended.
Catman easy software	HBM Hottinger Baldwin Messtechnik GmbH		Version 4.2.2
Air bearing	IBS precision engineering		13 mm air bushing
Stainless steel impeller shaft	Bioengineering AG		Shaft tolerance -0.0076 mm
Brushless motor AKM2	Kollmorgen		
Metal bellow coupling	Uiker AG		
Finesse RDPDmini control unit	Finesse, a part of Thermo Fisher Scientific		No longer supported (the replacement product G3Lab universal controller can be used)
Sucrose	Migros Schweiz AG		Food grade
Matlab software	Mathworks		Version R2017a
Finesse µTruBio PC software	Finesse, a part of Thermo Fisher Scientific		Version 3.1 (no longer supported)
SmartGlass 1L	Finesse, a part of Thermo Fisher Scientific		referred to as Bioreactor 1L in Table 2
SmartGlass 3L	Finesse, a part of Thermo Fisher Scientific		referred to as Bioreactor 3L in Table 2
SmartVessel 3L	Finesse, a part of Thermo Fisher Scientific		referred to as Single-Use 3L Bioreactor in Table 2
Mobius CellReady 3L	Merck Millipore		referred to as Cell Ready Single-Use 3L Bioreactor in Table 2
UniVessel SU 2L	Sartorius Stedim Biotech		referred to as Single-Use 2L Bioreactor in Table 2