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Innovative Life Sciences Tools

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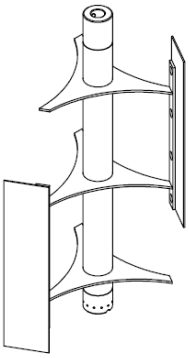
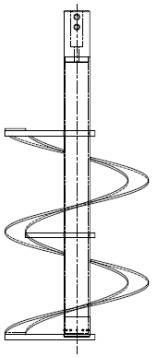
Sales Proposal for

FS-10-A05P

Specifications		
	Fermentation system	FS-10
Vessal FS-V-SA05	Max Working Volume	5L
	Total Volume	6.8L
	Head plate	316L stainless steel (≤25 Ra/in, 0.6μM)
	Vessal Meterial	Glass fully enclosed capsule-type tank,
	Vessel holder	with a tiltable shelf(0°~90°) and an outer autoclave protective shield
	Dimension	430mm(L) x 730mm(W) x 780 mm(H)
	Weight	Approx. 16Kg
Agitation	Speed (rpm)	1-60
	Control	PID Control
	Motor	Removable top brushless motor
	Agitation unit	baffles located with impeller
	Type	Scraper blade type Spiral blade type  

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Controller	Monitor	10.4” color touch screen
	Control	Real time display of agitation speed, temperature
	Software Protection	In case of an unexpected power loss, all parameters are automatically stored in the controller. When power is restored, all programs and functions will automatically resume.
	Remote Control	Remote data acquisition and process observation/control available. Requires external PC and the controlling software (included)
	Data Expot	USB Port
	Other	Built-in mechanism for both Thermostat and Dry Heating systems- selectable through software control (depending on vessel types and heating element supplied)
	Cabinet Material	Front panel: ABS / Housing: Painted iron
	Dimension	400mm(L) x 500mm(W) x 740 mm(H)
	Weight	Approx. 50Kg
Temperature	Range	5℃ (41℉) above coolant up to 60℃ (140℉)
	Type	Platinum RTD senser (PT-100), none autoclavable
	Heating and Cooling Device	Built-in heat exchanger (400W heater/water circulation pump) and External heating devices
	Heating and Cooling Device	Cooling coil; water supply controlled by automatic solenoid valve
Aeration	Flow	0, 0.2 - 2.5 LPM
	Control	Manual or programmable 15 steps PID control.
	Filter	0.2mm Autoclavable Disc Type Air Filter
Feed Control	Peristaltic Pumps	3 built-in pumps; 1 external pump (Optional)
	Control	0-65rpm, Manual or programmable 15 steps PID control
	Feed Tank	glass bottle with 2-port stainless steel connector cap
Sterilization	Type	Autoclave; size of autoclave inner chamber must be able to accommodate vessel
Utility	Power Source	100-120V~, 50-60 Hz with electrical safety cutoff switch

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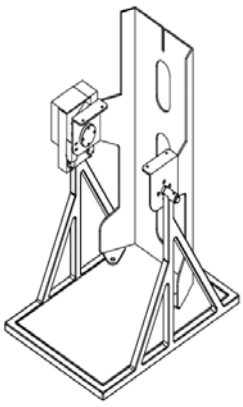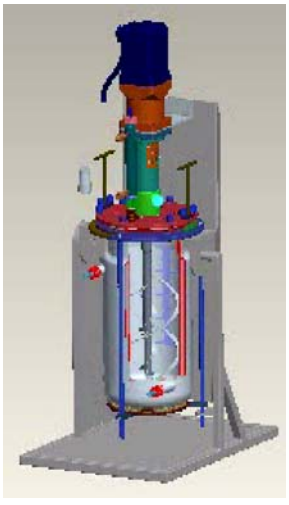
Requirements	Air source	2 Bar maximum (29 psi); must be dry, oil-free and filtered For 5L, minimum pressure 0.1499 kg/cm2 and air flow rate 60 L/min
	Water source	1 Bar maximum (14.5 psi); water supplied to fermenter must be at least 15C below set point operating temperature.
	Sterilization	Autoclave; size of autoclave inner chamber must be able to accommodate vessel with attached condenser
Main Body		1x Controller 1xCulture Vessel (Jacketed Vessel) 1xPT-100 Temperature senser 1xBrushless Motor 1xVessel holder
Start-up Kit		4x 250 ml glass bottle (includes 2-port stainless steel connector cap) 1x 500 ml glass bottle (includes 2-port stainless steel connector cap) 1x 45 mm 0.2 micron autoclavable disc type air filter, 10/pk 1x Silicon tubing clamp, 16/pk 1x #16 (inner diameter – 3.2mm) silicon tube – 25 ft.
Warranty		One Year