

**Cambridge Reactor Design**  
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## Specifications. Bullfrog Batch Reactors

### Part number

20mL Reactor	316 Stainless Steel	45220
150mL Reactor (4 Port Lid Arrangement)	316 Stainless Steel	46830
150mL Reactor (7 Port Lid Arrangement)	316 Stainless Steel	46840

Commodity Code 8419899585

### Reactor Specifications

		<b>Standard</b>	<b>Options</b>
Materials of construction			
Reactor, Lid, Fittings		316 Stainless Steel	√
Working volume	mL	150	√
Inner diameter	mm	42	
Inner depth, mm	mm	80	
Maximum Pressure	bar	200	
Bursting disc rating	bar	80	√
Maximum operating temperature	°C	275	
Sealing O Ring, up to 225C	Viton	FKM	√
Sealing O Ring, up to 275C	Kalrez	FFKM	
Lid configuration		4-port	7-port

### Reactor Accessories

Bursting disc		bar	200	80
Pressure gauge range		bar	200	√
Pressure relief valve		bar	25	√
Temperature Sensor			3 wire PT100	√
	Diameter	inches	1/8	√
	Length	mm	200	√
	Thermowell for PT100			√
Reactor Liner	Stainless steel size reducing liner to	mL		100
	Stainless steel size reducing liner to	mL		50

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		Teflon Liner		✓
		Peek Liner		✓
		Glass Liner		✓
		Inlet Valve	inches	1/8 ✓
		Certification		PED ✓
<b>Stirring</b>		<b>Overhead design</b>		
		Stirrer Drive		Central Port ✓
		Reactor coupling		Magnetic Drive
		Speed range, rpm	rpm	50 – 2000
		Maximum Torque, Ncm	Ncm	60 ✓
		Impeller, No. of blades		4 ✓
			W	150 ✓
<b>Heating</b>				
	Heater type	Band		
	Power		W	500
	Control method			PID Cascade
<b>Electrical</b>				
	Voltage		V	220 - 240 ✓
	Frequency		Hz	50/60
	Power input		W	1000
<b>Connectivity</b>				
	Ethernet interface			yes
	USB Data Storage			yes
	Real time historical log			yes
<b>Environment</b>				
	Permissible ambient temperature		°C	5 - 40
	Permissible relative moisture			No data
	Protection class according to DIN EN 60529			IP 20