

Series Number:

2500

Type:
Micro Batch

Stand:
Bench Top

Vessel Mounting:
Moveable

Vessel Sizes, mL:
5 and 10

Maximum Operational
Pressure, psi (bar):
3000 (200) Standard

Standard Maximum
Operating Temp., °C:

150 w/ EP O-ring
225 w/ FKM O-ring
275 w/ FFKM O-ring
**300 w/ Carbon-Filled
PTFE Flat Gasket**

Series 2500 Micro Batch Reactor System

The **2500 Micro Batch Reactor System** is our smallest ever family of stirred reactors, available in a number of configurations. With reactor volumes of 5 mL or 10 mL, independent reactor gas filling, PID temperature control, and a choice of two closure styles, the flexibility of the MBS 2500 is sure to bring value to your small volume, high pressure project.

Based on the popular Parr MRS 5000, the MBS 2500 offers even smaller volume options, a smaller footprint, a stand-alone controller and data logging system, and a lower per reactor price.

Features of the Micro Batch System 2500 include:

- Three reactors with 5 mL or 10 mL volume, available in stainless steel, high-nickel alloys, titanium, zirconium, and other exotic materials
- Small 12" x 12" (30.5 cm x 30.5 cm) footprint, with remotely located 4848-based controller for temperature/stirring control and pressure display.
- Standard 3000 psi (207 bar, 200 bar for CE) at 300 °C rating in T316 Stainless Steel
- Trusted Parr seal geometry employing either a captive PTFE flat gasket and screw cap with compression bolts, or a self-sealing O-ring with tool-free screw cap closure



- Standard head fittings to include safety rupture disc, pressure transducer, inlet/vent valve, and internal thermocouple
- 3-valve inlet manifold for control of gas addition
- Common aluminum block heater with PID control
- Individual reactor temperature monitoring
- Individual reactor pressure monitoring
- Common stirring speed via individual PTFE- or Pyrex-encapsulated stir bars

Parr Model 2500 Micro Batch Reactor alongside the 4848 Micro Batch System Controller

Series 2500 Ordering Guide

The Order No. for the Base System is:

2500(5)-T-SS-115-RCS-MPG-3000-MCM-4848MBSC

Series 2500 Micro Batch System Specifications				
Shaded bar indicates specifications that change within series.				
Model Number	2500			
Sizes, mL	5	10		
No. of Reaction Vessels	3			
Maximum Pressure	3000 psi (207 bar, 200 bar for CE)			
Maximum Temperature (Internal)				
with EP O-ring	150 °C			
with FKM O-ring	225 °C			
with FFKM O-ring	275 °C			
with Carbon-Filled PTFE Flat Gasket	300 °C			
Closure				
with O-ring	Screw Cap			
with Flat Gasket	Screw Cap (6 Compression Bolts)			
Material of Construction	T316SS			
Controller	Model 4848MBSC			
Analog Inputs	4 Temperature (3 Vessels, 1 Heater Block)			
	3 Pressure			
	1 Motor Speed			
Analog Outputs	1 Stirrer Speed			
Digital Outputs	1 PID Temperature Control			
Temperature Measurement	Individual Thermowell inside each vessel			
Heater Style	Aluminum Block			
Heater Power, Watts	450W			
Block Mounted Thermocouple	Included			
Stirrer Motor Type	Manual or Computer Controlled			
Stirrer Style	PTFE- or Pyrex-encapsulated Magnetic Stirrer Bars			
Electrical Supply				
Volts, AC	115 / 230			
Maximum Load, amps, 115 / 230	4.6 / 2.3			
Vessel Dimensions				
Inside Diameter, inches	0.62	0.80		
Inside Diameter, inches	1.06	1.22		
Weight of Vessel, pounds	3 (w/ Panel-mounted Valves)			
Dimensions	Width, in.	Depth, in.	Height, in.	Weight, lbs.
Main Unit	8	10.5	22	41
4848MBSC Controller	13.5	11	10	14
Spare Parts Kit	2509M			
Other options available. See Ordering Guide, visit www.parrinst.com , or call for more information.				

A Base Model

Model No.	Size
2500	5 or 10 mL

B Gasket / Maximum Temperature

-OV	FKM O-ring, 225 °C
-OK	FFKM O-ring, 275 °C
-T	Carbon-filled PTFE Flat Gasket, 300 °C
-EP	EP O-ring, 150 °C

C Materials of Construction

-SS	T316 Stainless Steel
-MO	Alloy 400
-IN	Alloy 600
-HB	Alloy B-2 / B-3
-HC	Alloy C-276
-CS	Alloy 20
-Ti2	Titanium Grade 2
-Ti4	Titanium Grade 4
-ZR702	Zirconium Grade 702
-ZR705	Zirconium Grade 705

See [page 10](#) or [page 24](#) for complete list of available alloys.

D Electrical Supply

-115	115 VAC
-230	230 VAC

E Thermocouple

-No Symbol	Type J (Standard)
-K	Type K

F Transducer Range

-1000	0-1000 psi
-2000	0-2000 psi
-3000	0-3000 psi

G Stirrer Type

-MB	Magnetic Bar Stirrer, PTFE
-GB	Magnetic Bar Stirrer, Glass

H Certifications

-No Symbol	No Certification
-PED	PED Certification
-P	Parr Certification

I Options

-PTFE	PTFE Liner
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J Spare Parts

-2509M	Spare Parts Kit with three Inconel rupture discs, 18 gaskets, and lube
-2550	Replacement vessel, T316SS, 10 mL, including head, cylinder, and screw cap
-2551	Replacement vessel, T316SS, 5 mL, including head, cylinder, and screw cap