

Series Number:

4570/80

Type:
**High Temperature /
High Pressure**

Stand:
**Bench Top,
Floor Stand or Cart**

Mounting Style:
**Moveable or
Fixed Head**

Vessel Sizes, mL:
250-5500

Standard Pressure
MAWP Rating, psi (bar):
**4570: 5000 (345)
4580: 3000 (207)**

Maximum Operating
Temperature, °C:
500 w/ FG Flat Gasket

Series 4570/80 HP/HT Reactors, 250-5500 mL

Parr offers a number of different reactors in the 4570 and 4580 Series in a variety of sizes and with different mountings for operating pressures to 5000 psi (345 bar) and temperatures to 500 °C.

4571 - 4572 Reactors

These are 1000 and 1800 mL moveable head reactors mounted in moveable carts.

4577 - 4578 Reactors

These are 1000 and 1800 mL fixed head reactors mounted on a floor stand with pneumatic lift.

4575 - 4576A Reactors

These are 500 and 250 mL bench top reactors with 5000 psi (345 bar) and 500 °C ratings. They are available as either moveable or fixed head vessels.

4581 - 4582 Reactors

These 1 gallon (3.75 L) and 1.5 gallon (5.5 L) reactors are designed for 3000 psi (207 bar) maximum pressure with a 500 °C maximum working temperature and mounted on moveable carts.

4583 - 4584 Reactors

These are 1 gallon (3.75 L) and 1.5 gallon (5.5 L) fixed head reactors mounted on floor stands with pneumatic lift.

All of these reactors have been designed with suitable valves, fittings and modifications to the vessel itself to operate at the higher temperature and pressure ratings.

Flat, flexible graphite (FG) gaskets are used for temperatures in the higher range to 500 °C. These can be replaced with PTFE gaskets for procedures in which the temperature will not exceed 350 °C.



The Series 4570/80 High Temperature/High Pressure Reactors come in three configurations, from left to right: Bench Top (250 & 500 mL only), Floor Stand, and Cart.



Model 4578 High Temperature/High Pressure Reactor, Floor Stand, 1800 mL, Fixed Head, with Heater and Pneumatic Lift.

4570/80

Series 4570/80 Pressure Reactor System Specifications						
Shaded bar indicates specifications that change within series.						
Model No. – Moveable Vessel	4571	4572	4581	4582	4575B	4576B
Model No. – Fixed Head	4577	4578	4583	4584	4575A	4576A
Approximate Volume, mL	1000	1800	3750	5500	500	250
Maximum Pressure, MAWP	5000 psi (345 bar)		3000 psi (207 bar, 200 bar for CE orders)		5000 psi (345 bar)	
Maximum Temperature						
with Flexible Graphite Flat Gasket	500 °C					
Reactor Details						
Stand Type	Cart / Floor Stand		Cart / Floor Stand		Bench Top	
Closure (Compression Bolts)	Split-Ring (12 Compression Bolts for Flat Gasket)		Split-Ring (16 Compression Bolts for Flat Gasket)		Split-Ring (8 Compression Bolts for Flat Gasket)	
Valve Connections	1/4" NPT Female					
Magnetic Stirrer, Model No.	A1120HC		A1180HC		A1120HC	
Maximum Torque	16 Inch-Pounds		60 Inch-Pounds		16 Inch-Pounds	
Impeller(s), 6-Blade (4-blade)	2 (2" dia.)		2 (3.5" dia.)		2 (.81" / 1.38" dia.)	
Stirrer Motor, Variable Speed	1/4 hp		1/2 hp		1/8 hp	
Pressure Gage, Size	4.5 inches					
Range	0-5000 psi (345 bar)		0-3000 psi (207 bar)		0-5000 psi (345 bar)	
Temperature Measurement	Thermowell					
Cooling Coil	Included					
Style	Serpentine		Serpentine		Single Loop	
Bottom Drain Valve	1" NPS (Floor stand supports only)					
Heater Style	Calrod: Fixed Head, Ceramic: Removeable					
Heater Power, Watts	2800		2800		1800	1400
Electrical Supply						
Volts, AC	230		230		115 / 230	
Maximum Load, amps, 115 / 230	15		15		9 / 15	
Cylinder Dimensions						
Inside Diameter, inches	3.75 x 6.2	3.75 x 10.5	5.5 x 9.7	5.5 x 15.1	2.5 x 6.6	2.5 x 3.2
Moveable Vessel Assembly Weight, pounds	83	100	124	143	44	38
Fixed Vessel Assembly Weight, pounds	92	109	136	155	44	38
Cylinder Weight, pounds	36	52	53	72	15	9
Reactor Dimensions						
Moveable Width x Depth x Height, in.	Cart: 35 x 18 x 50		Cart: 35 x 18 x 50		Bench Top: 17 x 24 x 42	
Fixed Width x Depth x Height, in.	Floor Stand: 20 x 31 x 75		Floor Stand: 20 x 31 x 75			
Moveable Weight, pounds	245	265	325	355	125	120
Fixed Weight, pounds	265	285	345	375	127	122
Spare Parts Kit	4579M		4589M		4579M	
Other options available. See Ordering Guide, visit www.parrinst.com , or call for more information. Weights and dimensions are estimated from the base model. Final weights and dimensions will vary based on options selected.						