

Series Number:

4555

Type:
General Purpose

Stand:
Floor Stand

Mounting Style:
**Moveable or
Fixed Head**

Vessel Sizes, Gallons (Liters):
2.6 (10) and 5 (18.75)

Standard Pressure
MAWP Rating, psi (bar):
1900 (131)

Standard Maximum
Operating Temp., °C:
225 w/ FKM O-ring
300 w/ FFKM O-ring
350 w/ PTFE Flat Gasket

Series 4555 Floor Stand Reactors, 2.6 & 5 Gallon

The Model 4555 and 4557 Reactors with their 5 gallon (18.75 L) capacity are the largest stirred reactors offered by Parr.

The 4556 and 4558 Models are similar units with a 10 liter (2.6 gal) volume which falls between the larger 5 gallon design and the smaller 1 and 2 gallon models in the 4550 Series. Vessel styles are offered in a moveable head or fixed head design.

These reactors are available with an FKM O-ring seal for operating temperatures to 225 °C, and FFKM O-ring for temperatures to 300 °C, or with a flat, PTFE gasket for operating temperatures up to 350 °C maximum.

In the moveable head design (see page 21), the vessel is held in a support system which minimizes the physical effort required to handle these heavy components. The hoist is attached to a support column which provides a convenient means for lifting the head and cylinder out of the stand. These components may be transferred to the holding position on the right side of the stand. Vessels equipped with a bottom drain valve will probably remain in the heater most of the time, but can be lifted out when necessary.

The fixed head support stand features hinged split-rings that swing to either side allowing the head to remain fixed to the stand while a pneumatic lift allows the cylinder to be raised and lowered. When lowered, the cylinder can be slid forward for cleaning and servicing.

These reactors are generally used for pilot plant or for custom chemical production purposes, usually with a variety of attachments added to the basic units. Various heaters, larger motors, heavier stirrer drives and remote controls appropriate to the size of these reactors have been designed and are available.

Modified versions of these units are available with higher working pressures and temperatures.



Hinged Split-Rings open to reveal Serpentine Cooling Coil, with Heater and Vessel lowered via Pneumatic Lift.



4557 Floor Stand Reactor, 5 Gallon, Fixed Head, 3-zone Band Heater, with Split-Rings and Pneumatic Lift.

4555

Series 4555 Pressure Reactor System Specifications				
Shaded bar indicates specifications that change within series.				
Model Number	4555	4556	4557	4558
Approximate Volume, Gallon (Liter)	5 (18.75)	2.6 (10)	5 (18.75)	2.6 (10)
Maximum Pressure (MAWP)	1900 psi (131 bar)			
Maximum Temperature				
with FKM O-ring	225 °C			
with FFKM O-ring	300 °C			
with PTFE Flat Gasket	350 °C			
Reactor Details				
Mounting Style	Moveable		Fixed Head	
Stand Type	Table Floor Stand		Floor Stand	
Closure	Split-Ring (12 Compression Bolts for Flat Gasket, no Compression Bolts for O-ring)			
Valve Connections	3/8" NPT Male			
Magnetic Stirrer, Model No.	A1750HC Heavy Duty or A2160HC Footless			
Maximum Torque	60 Inch-Pounds			
Impeller(s), 6-Blades	2 (5.25" dia.)	2 (3.85" dia.)	2 (5.25" dia.)	2 (3.85" dia.)
Stirrer Motor	3/4 hp variable speed			
Pressure Gage, Size	4.5 inches			
Range	0-2000 psi (138 bar)			
Temperature Measurement	Thermowell			
Cooling Coil	Serpentine			
Bottom Drain Valve (BDV) (optional)	1.0" NPT			
Lift Mechanism	Manual Hoist		Pneumatic	
Heater Style	Ceramic, 3-zone	Band Heater, 3-zone	Band Heater, 3-zone	
Heater Power, Watts	4500	4250	5500	3300
Electrical Supply				
Volts, AC	230-1P or 400-415V 3-Phase "Y"			
Maximum Load, amps	1P-30 amps / 3P-15 amps/leg			
Cylinder Dimensions				
I.D. x Depth, inches	9.5 x 16.3	7.75 x 12.2	9.5 x 16.3	7.75 x 12.2
Vessel Assembly Weight, pounds	354	206	355	209
Cylinder Weight, pounds	157	97	157	97
Reactor Dimensions				
Width x Depth w/o Controller, inches	63 x 25		31 x 43	
Height, inches	91		95	87
Weight, pounds	1000	900	1000	900
Spare Parts Kit	4559PCM			
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.				

Power Requirements

Typical power requirements for Parr's large, electrically heated reactors are 40 amp single phase or 3-Phase power sources. Users are advised to have a qualified electrician determine and install an appropriate mains power supply for the large reactor system.

Large reactor systems with lower electrical power requirements, such as low temperature applications are available for use with typical 20 amp, 230 volt sources.

Contact Parr Technical Sales staff for assistance with electrical specifications.