

Series Number:

# 4625

Type:  
**High Pressure**

Stand:  
**Floor Stand or Bench Top**

Mounting Style:  
**Moveable or Fixed Head**

Vessel Sizes, mL:  
**600 and 1200**

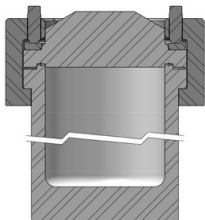
High Pressure  
MAWP Rating, psi (bar):  
**5000 (345)**

Standard Maximum  
Operating Temperature, °C:  
**350 w/ PTFE Flat Gasket**



**Model 4625-1200mL-VGR-DVD Vessel**

## Series 4625 High Pressure Vessel Systems, 600 & 1200 mL



**4625 Cross Section**

**This series of vessels has been designed** for users who need higher operating pressures than the 2000 to 3000 psi offered by the General Purpose Reactors, but do not require the high operating temperatures provided by the

Series 4650 High Pressure, High Temperature Reactors. These reactors offer working pressures to 5000 psi (345 bar) at temperatures to 350 °C.

These vessels have been designed with outside dimensions comparable to the Series 4600 so that they can use the same support system and heater as these popular general purpose models.

This provides not only an attractively priced high pressure/moderate temperature system, but also reactors that can be interchanged with the 1 and 2 liter sizes. The thicker walls required for higher operating pressures reduce the volumes of these reactors to 600 and 1200 mL.

These vessels can be used in either the bench top, floor stand, or moveable cart mountings. While the 1200 mL reactor is offered as a fixed head bench top model, it is too tall and too heavy to be handled comfortably on a standard height bench top. It is recommended that a floor stand support option should be selected unless the user has an adjustable bench top which will accommodate the overall height of the 1200 mL systems.

### Series 4625 Pressure Vessel Specifications

Shaded bar indicates specifications that change within series.

Model Number	4625	
Approximate Volume, mL	600	1200
Maximum Pressure (MAWP)	5000 psi (345 bar)	
Maximum Temperature		
with PTFE Flat Gasket	350 °C	
with Flexible Graphite Flat Gasket	350 °C	
<b>Vessel Details</b>		
Mounting Style	Moveable or Fixed Head	
Closure	Split-Ring with 8 Compression Bolts	
Head Opening Options	One Head opening (1/8" NPT, 1/4" NPT, "B" socket, or rupture disc assembly port) Ports for valve, gage, rupture disc, and thermowell with thermocouple (VGR) Custom port option (Contact our technical sales department to discuss options)	
Maximum Head Openings	7 (Dependent on opening size, and required fittings)	
Valve Connections	1/4" Male NPT	
Pressure Gage, Size	4.5" inches	
Range	0-5000 psi (345 bar)	
Temperature Measurement	Thermowell	
Cooling Coil (optional)	Serpentine or Loop	
Bottom Drain Valve (BDV) (optional)	1" NPS (Floor Stand or Moveable Cart Only)	
<b>Stand and Heater (optional)</b>		
Stand Type*	Bench Top Heater with Base Plate (Also Available: Bench Top Stand, Floor Stand, Floor Stand w/ Pneumatic Lift, Floor Cart)	
Heater Style, Bench Top Heater	Calrod	
Heater Power, Watts	1000	1350 / 1500
Maximum Load, amps, 115V / 230V	8 / 4	11 / 6
*Heater watts and amps vary between different stand with heater styles, contact Parr Technical Support for more information.		
<b>Weight &amp; Dimensions</b>		
Cylinder I.D. x Depth, inches	3.25 x 4.7	3.25 x 9.8
Vessel Assembly w/ Moveable Head, Weight, pounds**	47	58
Vessel Assembly w/ Fixed Head, Weight, pounds**	50	62
Cylinder Weight, pounds	18	29
**Vessel weight is based on a vessel with VGR head fittings. Vessel weight will vary based on head configuration choice and fitting options.		
Other options available. See Ordering Guide, visit <a href="http://www.parrinst.com">www.parrinst.com</a> , or call for more information.		

# Series 4625 Ordering Guide

An example order number for a vessel in this series is: **4625-600mL-T-SS-1/8-21AC4-A22AC3**

A composite identification number to be used when ordering a 4625 Series Pressure Vessel System can be developed by combining individual symbols from the separate sections below. For more information on how to use this ordering guide, please see page 27.

A Vessel Volume	
-600mL	600 mL, 3.25" ID
-1200mL	1200 mL, 3.25" ID

B Head Mounting Style	
-No Symbol	Moveable Head (Standard configuration)
-FH	Fixed Head

C Gasket / Maximum Temperature	
-T	PTFE Flat Gasket, 350 °C
-FG	Flexible Graphite Flat Gasket, 500-600 °C

D Material of Construction	
-SS	T316 Stainless Steel
-C20	Alloy 20
-MO	Alloy 400
-IN600	Alloy 600
-IN625	Alloy 625
-HB	Alloy B-2 / B-3
-HC	Alloy C-276
-NI	Nickel 200
-TI2	Titanium Grade 2
-TI4	Titanium Grade 4
-ZR702	Zirconium Grade 702
-ZR705	Zirconium Grade 705

See page 10 or 24 for complete list of available alloys.

E Head Configuration	
-RD	Rupture disc port with rupture disc assembly & disc
-1/8	One head opening, 1/8" NPT port, plugged
-1/4	One head opening, 1/4" NPT port, plugged
-B	One head opening, "B" socket
-VGR	Valve on gage adapter, pressure gage, rupture disc assembly, & thermocouple and thermowell
-NS	Non-standard, custom head opening

F Optional Fittings & Custom Options (List all needed)	
-VD	Single Valve on head w/ dip tube (VGR Required)
-DVD	Double Valve Assembly on head w/ dip tube (VGR Required)
-SC	Serpentine Cooling Coil
-BDV	Bottom Drain Valve
-4310B	Gage Block Assembly (for head with "A" socket opening)
-CAD	Internal Catalyst Addition Device
-XCAD	External Catalyst Addition Device
-SCP	Solids Charging Port (Ball Valve)
-RC	Reflux Condenser
-RTC	Reflux/Take-Off Condenser
-WJ	Welded Jacket

G Pressure Gage Option (VGR required)	
-No Symbol	None
-10000	10000 psi / 690 bar
-7500	7500 psi / 517 bar
-5000	5000 psi / 345 bar
-3000	3000 psi / 207 bar

H Stand and Heater Options	
-No Symbol	None
-BTH	Bench top heater with base plate (moveable head only)
-BTS	Bench top stand (moveable or fixed head)
-FC	Floor cart (moveable head only)
-FS	Floor stand (moveable or fixed head)
-FSP	Floor stand with pneumatic lift (fixed head only)

I Controller	
-No Symbol	None
-4838	PID Control, Ramp & Soak Programming, and Data logging with Software (RS-485 to USB cable not included). For use with one additional display module.
-4848	PID Control, Ramp & Soak Programming, and Data logging with Software. (RS-485 to USB cable not included). For use with up to three additional display modules.

See Chapter 6 for complete list of Controller options.

J Controller Options	
-PDM	Pressure Display Module
-HTM	High Temperature Cut Off Module
-ETLM	External Temperature Limit Module
-SVM	Solenoid Valve Module (for cooling control)
-A1925E4	RS-485 to USB Converter (required for data logging)
-A1925E4	RS-485 to USB Converter, isolated
-A3504HC	SpecView Software Package

K Electrical Supply for Heater and/or Controller	
-No Symbol	None
-115	115V Heater
-230	230V Heater

L Certifications	
-ASME	ASME Documentation
-CE	CE Documentation
-P	Parr Certification

Model 4625-1200mL Vessel w/ Bench Top Heater (BTH)

