

Series Number:

# 4700

Type:  
**General Purpose**

Mounting Style:  
**Moveable**

Vessel Sizes, mL:  
**22 & 45**

Standard Pressure  
MAWP Rating, psi (bar):  
**1700 (115)**

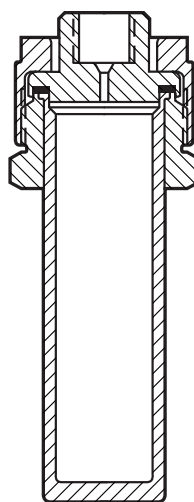
Maximum Operating  
Temp., °C:  
**300**

## Series 4700 Pressure Vessels, 22 & 45 mL

**These are the smallest of the Parr General Purpose Pressure Vessels.** They have a 1-inch inside diameter and are offered in two different lengths with volumes of 22 and 45 mL.

These vessels have a flat PTFE or flexible graphite gasket that is sealed with a screw cap. Special wrenches and bench sockets are offered for tightening these closures. The screw caps and bodies are made of alloy steel for use at temperatures to 300 °C. The maximum working pressure is 1700 psi (115 bar). The standard material of construction for these small, inexpensive vessels is Type 316 Stainless Steel, but they are also available in all of the current materials of construction Parr provides.

There is room for a single opening on the head of these vessels. This is generally an "A" socket which will accept a 4310 Gage Block Assembly.



4700-45mL-A Cross Section

These heads can also be furnished with 1/8" NPT, 1/4" NPT, or a rupture disc assembly.

These vessels are normally heated in ovens, baths, or similar general purpose heating devices. Special heaters for these vessels are not available from Parr.



Model 4700-22mL-A Vessel shown with needle valve.

### Series 4700 Pressure Vessel Specifications

Shaded bar indicates specifications that change within series.

Model Number	4700	
Approximate Volume, mL	22	45
Maximum Pressure (MAWP)	1700 psi (115 bar)	
Maximum Temperature	300 °C	
<b>Vessel Details</b>		
Mounting Style	Moveable Only	
Closure	Screw Cap - Steel	
Head Seal	Flat Gasket	
Head Opening Options	One head opening (1/8" NPT, 1/4" NPT, "A" socket, or rupture disc assembly port) Custom port option (Contact our technical sales department to discuss options)	
Maximum Head Openings	1	
Temperature Measurement	N/A	
Stand and Heater Type	N/A	
<b>Weight and Dimensions</b>		
Cylinder I.D. x Depth, inches	1.0 x 1.6	1.0 x 3.8
Vessel Assembly Weight, pounds*	0.8	1.10
Cylinder Weight, pounds	0.2	0.5

\*Vessel weight is based on a moveable head vessel with a plugged "A" socket. Vessel weight will vary based on head configuration choice and fitting options.

Other options available. See Ordering Guide, visit [www.parrinst.com](http://www.parrinst.com), or call for more information.

## Series 4700 Ordering Guide

An example order number for a vessel this series is:

**4700-45mL-T-SS-A-21AC4-A22AC3**

A composite identification number to be used when ordering a 4700 Series Pressure Vessel 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](#).



Model 4700-45mL-A Vessel, with 4310 Gage Block Assembly.

### A Vessel Volume

-22mL	22 mL, 1" ID
-45mL	45 mL, 1" ID

### B Gasket / Maximum Temperature

-T	PTFE Gasket, 300 °C
-FG	Flexible Graphite Flat Gasket, 300 °C

### C Materials 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.

### D 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
-A	One head opening, "A" socket
-NS	Non-standard, custom head opening

### E Optional Fittings & Custom Options (Check all needed)

-V	Needle Valve
-4310A	Gage Block Assembly (for head with "A" socket opening)

### F Required Accessories

Part No.	Description
-21AC4	Wrench
-A22AC3	Bench Socket

### G Certifications

-ASME	ASME Documentation
-CE	CE Documentation
-P	Parr Certification

Please note that all options and combinations are not compatible with all models.