

Series Number:

4700

Type:
General Purpose

Mounting Style:
Moveable

Vessel Sizes, mL:
22 & 45

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

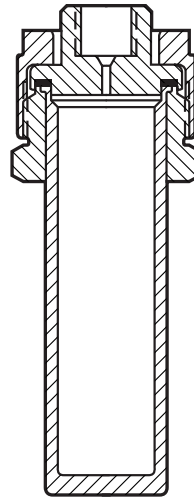
Maximum Operating
Temp., °C:
300

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 | |
| Vessel Details | | |
| 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 | |
| Weight and Dimensions | | |
| 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, or call for more information.

Series 4700 Ordering Guide



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

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](#).

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.