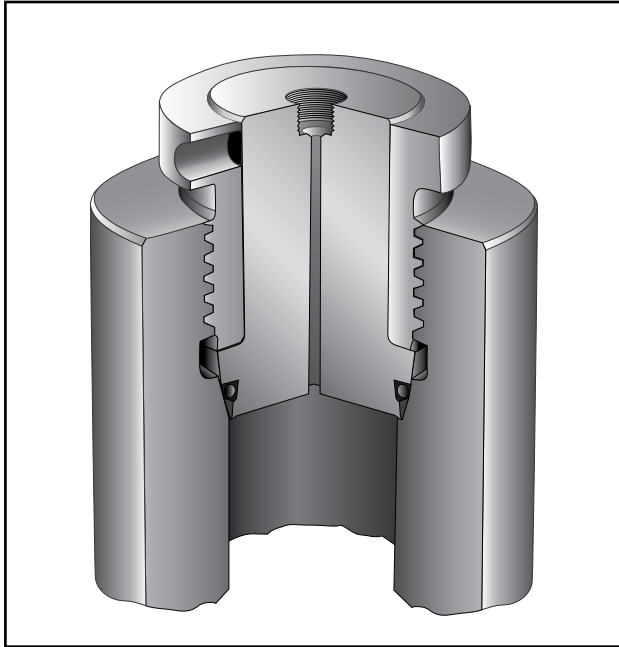


## O-ring Closure Pressure Vessels



### At A Glance

Volumes:	100 ml to 2000 ml
MAWP:	10,500 to 30,000 psi @ 72°F (724 to 4137 bar @ 22°C)
Materials of Construction:	316 Stainless Steel, Alloy Steel, A-286

### Principle of Operation

Autoclave Engineers O-ring closure pressure vessels, model OR and O-ring closure compression cylinders, model OC and OD, offer a simple, reliable and economical alternative to the Autoclave Engineers self-sealing closure where high temperature operation is not required. Standard O-ring material is Buna-N; however, optional O-ring materials are available on special order. Autoclave Engineers welcomes your special product request. Please contact the factory for review of your application.

The main nut screws into the vessel body until it tightens the cover against the angle in the body, as shown in the figure. The groove in the cover is sized to put the proper squeeze on the O-ring to create a seal. The metal-to-metal contact between the cover and body prevents O-ring extrusion.

### MAWP vs. Temperature Ratings

*Material (Body, Cover and Seal Ring)	Nominal Capacity	Order No. Suffix	°F (°C)	-20 to 100° (-29 to 37.8°)	150° (66°)	200° (93°)	250° (121°)	300° (149°)	350° (177°)	400° (204°)	450° (232°)	500° (260°)
Type 316 SS**	100 ml 250 ml 500 ml	Add SS 11	psi (bar)	11,000 (758)	11,000 (758)	10,950 (755)	10,900 (752)	10,850 (748)	10,750 (741)	10,650 (734)	10,600 (731)	10,500 (724)
	1000 ml 2000 ml	Add SS 10	psi (bar)	10,500 (724)	10,500 (724)	10,500 (724)	10,450 (721)	10,300 (710)	10,250 (707)	10,050 (693)	10,025 (691)	10,000 (689)
A-286	All Sizes	Add AS 29	psi (bar)	28,800 (1986)	28,500 (1966)	28,450 (1962)	28,200 (1945)	27,850 (1920)	27,350 (1886)	26,500 (1827)	25,700 (1772)	25,200 (1738)
Alloy Steel** (SA-723)	All Sizes	Add SL 30	psi (bar)	30,000 (2068)	30,000 (2068)	30,000 (2068)	30,000 (2068)	30,000 (2068)	30,000 (2068)	30,000 (2068)	30,000 (2068)	30,000 (2068)

\*\*ASME Code stamp available (contact factory)

### Specifications and Part Numbers

Drawing Number	Model	Nominal Capacity	Dimensions: Inches (mm)			
			ID	OD	IL	OAL
30-2557	OR0010SS11	100 ml	1.25	2.50	5.50	12.75
	OR0010AS29		(32)	(64)	(140)	(324)
	OR0010SL30					
30-2558	OR0025SS11	250 ml	1.25	2.50	13.00	20.25
	OR0025AS29		(32)	(64)	(330)	(514)
	OR0025SL30					
30-2528	OR0050SS11	500 ml	2.00	4.00	10.87	17.25
	OR0050AS29		(51)	(102)	(276)	(438)
	OR0050SL30					
30B -1829	OR0100SS10	1000 ml	3.00	6.00	9.65	19.80
	OR0100AS29		(76)	(152)	(245)	(503)
	OR0100SL30					
30B-1830	OR0200SS10	2000 ml	3.00	6.00	18.72	28.80
	OR0200AS29		(76)	(152)	(476)	(732)
	OR0200SL30					

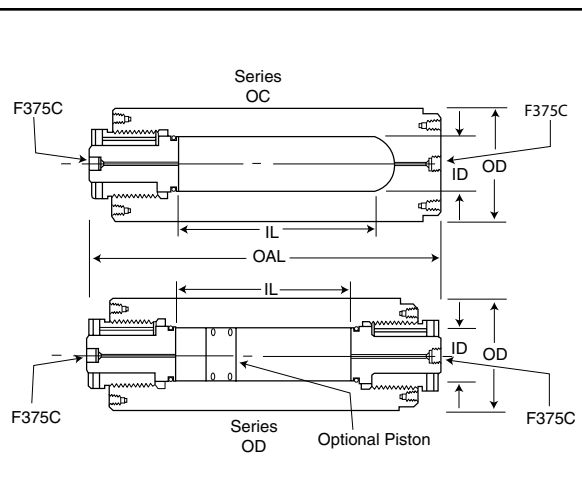
OR010/OR025

OR050/OR100/OR200

# O-ring Closure Compression Settings

Models OC and OD O-ring closure compression cylinders are available as single-ended or double-ended vessels. Double-ended vessels allow for easier cleaning. All models have an F375C AE high pressure connection at both ends plus four 3/8"-24 tapped holes for eye bolts and mounting. Standard material of construction is alloy steel. Optional pistons are available. Refer to the model code chart for information on pressure ratings. Other materials of construction and volumes are available on special order.

Model Drawing #	Nominal Capacity	Dimensions: Inches (mm)			
		ID	OD	IL	OAL
OC0100SL15 20-9006	1000 ml	3.00 (76)	4.94 (125)	9.00 (229)	17.69 (449)
OC0100SL30 20-9007	1000 ml	3.00 (76)	6.00 (152)	9.75 (248)	18.94 (481)
OC0100SL60 20-9008	1000 ml	2.00 (51)	6.00 (102)	19.50 (495)	28.00 (711)
OD0200SL15 20-9009	2000 ml	3.00 (76)	4.94 (125)	18.00 (457)	28.50 (724)
OD0200SL30 20-9010	2000 ml	3.00 (76)	6.00 (152)	18.00 (457)	28.50 (724)
OD0200SL60 20-9011	2000 ml	2.00 (51)	6.00 (152)	39.00 (991)	49.00 (1245)



## Optional O-ring Chart

Material	Max Temp °F	(°C)
Buna N	250°	(121°)
EPR	300°	(149°)
Silicone	400°	(204°)
*Viton®	450°	(232°)
PTFE Encapsulated *Viton®	450°	(232°)
*Kalrez®	500°	(260°)

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## Ordering Guide

OR	0010	SS	10
O-ring	Capacity in ml	Material of Construction	Pressure psi (bar)
OR - O-Ring Vessel	0010 - 100 ml	SS - 316 Stainless Steel	10 - 10,500 (724)
OC - O-Ring Compression Cylinder Single Ended	0025 - 250 ml	AS - A-286 Stainless Steel	11 - 11,000 (758)
OD - O-Ring Closure Compression Cylinder, Double Ended	0050 - 500 ml	SL - Alloy Steel (SA-723)	15 - 15,000 (1734)
	0100 - 1000 ml		29 - 28,800 (1986)
	0200 - 2000 ml		30 - 30,000 (2069)
			60 - 60,000 (4137)

## Features & Other Available Options

- Different connections available
- Other materials of construction
- Piston (available on OD series vessels)
- Heaters
- Stands
- ASME Code Stamp, CRN registration
- Consult factory to discuss your special requirements.

## Supporting Information

MagneDrives®: (See Agitation Section of this catalog) (AG-SG)  
Controls: (See Instrumentation Section of this catalog) (IN-SG)  
Valves, Fittings and Tubing: (See VFT catalog)

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