



Vessel Dimensions for Standard Reactors 20 - 100 Gallons

Design Pressure	Reactor Size	Liters Gallons	80 20	120 30	200 50	400 100
150 psig	75 psig Jacket					
Reactor Inside Diameter			17.500	19.500	23.375	29.250
Reactor Straight Side Length			20.000	24.000	28.000	34.000
Reactor Shell Thickness (with jacket)			0.250	0.250	0.313	0.375
Reactor Shell Thickness (without jacket)			0.188	0.188	0.188	0.250
Reactor Top Head Thickness (flat)			0.250	0.250	0.313	1.375
Jacket Outside Diameter			20.000	22.000	26.000	32.000
Jacket Shell Thickness			0.188	0.250	0.250	0.313
300 psig	100 psig Jacket					
Reactor Inside Diameter			17.375	19.375	23.250	29.000
Reactor Straight Side Length			20.000	24.000	28.000	34.000
Reactor Shell Thickness (with jacket)			0.313	0.313	0.375	0.500
Reactor Shell Thickness (without jacket)			0.313	0.313	0.375	0.500
Reactor Top Head Thickness (flat)			0.313	0.313	0.375	0.500
Jacket Outside Diameter			20.000	22.000	26.000	32.000
Jacket Shell Thickness			0.188	0.250	0.250	0.313
600 psig	150 psig Jacket					
Reactor Inside Diameter			17.000	19.000	22.750	28.500
Reactor Straight Side Length			20.000	24.000	28.000	34.000
Reactor Shell Thickness (with jacket)			0.500 *	0.500 *	0.625 *	0.750 *
Reactor Shell Thickness (without jacket)			0.500 *	0.500 *	0.625 *	0.750 *
Reactor Top Head Thickness (flat)			0.500	0.500	0.625	0.750
Jacket Outside Diameter			20.000	22.000	26.000	32.000
Jacket Shell Thickness			0.188	0.250	0.250	0.313
1000 psig	150 psig Jacket					
Reactor Inside Diameter			16.500	18.500	22.000	27.750
Reactor Straight Side Length			20.000	24.000	28.000	34.000
Reactor Shell Thickness (with jacket)			0.750 *	0.750 *	1.000 *	1.125 *
Reactor Shell Thickness (without jacket)			0.750 *	0.750 *	1.000 *	1.125 *
Reactor Top Head Thickness (flat)			0.750	0.750	1.000	1.125
Jacket Outside Diameter			20.000	22.000	26.000	32.000
Jacket Shell Thickness			0.188	0.250	0.250	0.313

(typical inch dimensions)

General Notes

- A. All vessel pressure ratings are based upon a design temperature of 500°F.
- B. Standard construction uses an ASME 2:1 elliptical top head with an ASME 2:1 elliptical bottom head.
- C. Base thickness shown above assume 316L SS construction throughout.

*** Radiography for welds**

