



Vessel Dimensions for Standard Reactors 1 - 10 Gallons

Design Pressure	Reactor Size	Liters	4	8	20	40
		Gallons	1	2	5	10
150 psig	75 psig Jacket					
Reactor Inside Diameter			6.357	8.329	10.420	12.390
Reactor Straight Side Length			9.000	10.000	15.000	20.000
Reactor Shell Thickness (with jacket)			0.134	0.148	0.165	0.180
Reactor Shell Thickness (without jacket)			0.134	0.148	0.165	0.180
Reactor Top Head Thickness (flat)			1.000	1.000	1.000	1.125
Jacket Outside Diameter			8.625	10.750	12.750	16.000
Jacket Shell Thickness			0.148	0.165	0.180	0.188
300 psig	100 psig Jacket					
Reactor Inside Diameter			6.357	8.329	10.020	12.000
Reactor Straight Side Length			9.000	10.000	15.000	20.000
Reactor Shell Thickness (with jacket)			0.134	0.148	0.365	0.375
Reactor Shell Thickness (without jacket)			0.134	0.148	0.365	0.375
Reactor Top Head Thickness (flat)			1.000	1.000	1.250	1.500
Jacket Outside Diameter			8.625	10.750	12.750	16.000
Jacket Shell Thickness			0.148	0.165	0.180	0.188
600 psig	150 psig Jacket					
Reactor Inside Diameter			6.065	7.981	10.020	12.000
Reactor Straight Side Length			9.000	10.000	15.000	20.000
Reactor Shell Thickness (with jacket)			0.280	0.322	0.365	0.375 *
Reactor Shell Thickness (without jacket)			0.280	0.322	0.365	0.375 *
Reactor Top Head Thickness (flat)			1.125	1.375	1.750	1.875
Jacket Outside Diameter			8.625	10.750	12.750	16.000
Jacket Shell Thickness			0.148	0.165	0.180	0.188
1000 psig	150 psig Jacket					
Reactor Inside Diameter			5.761	7.625	9.750	10.750
Reactor Straight Side Length			9.000	10.000	15.000	20.000
Reactor Shell Thickness (with jacket)			0.432	0.500	0.500 *	1.000
Reactor Shell Thickness (without jacket)			0.432	0.500	0.500 *	1.000
Reactor Top Head Thickness (flat)			1.375	1.875	2.125	2.625
Jacket Outside Diameter			8.625	10.750	12.750	16.000
Jacket Shell Thickness			0.148	0.165	0.180	0.188

(typical inch dimensions)

General Notes

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

* Radiography for welds

