STSS CO, LLC

Specialists in Water Storage
Since 1976

Tank Specifications
Size, weight and model #'s

Model #	Description	Diameter	**Height**	Dry Weight	Model #	Description	Diameter	**Height**	Dry Weight
H120	120 gallons	33"	**48"**	119lbs	H354	354 gallons	48"	**60"**	179
H160	160 gallons	36"	**48"**	129 lbs	H422	422 gallons	52"	**60"**	222
H184	184 gallons	40"	**48"**	137 lbs	H533	533 gallons	58"	**60"**	226
H228	228 gallons	44"	**48"**	141 lbs	H659	659 gallons	64"	**60"**	264
H275	275 gallons	48"	**48"**	155 lbs	H798	798 gallons	70"	**60"**	274
H328	328 gallons	52"	**48"**	166 lbs	H949	949 gallons	76"	**60"**	309
H415	415 gallons	28"	**48"**	185 lbs	H1058	1058gallons	80"	**60"**	338
H512	512 gallons	64"	**48"**	206 lbs	H1235	1235gallons	86"	**60"**	371
H620	620 gallons	70"	**48"**	227 lbs	H1550	1550gallons	96"	**60"**	426
H738	738 gallons	76"	**48"**	241 lbs	H2100	2100gallons	110"	**60"**	532
H822	822 gallons	80"	**48"**	267 lbs	H2500	2500gallons	120"	**60"**	584
H957	957 gallons	86"	**48"**	303 lbs					
H1205	1205gallons	96"	**48"**	359 lbs					
H1312	1312gallons	100"	**48"**	386 lbs					

Model #	Description	Diameter	**Height**	Dry Weight	Model #	Description	Diameter	**Height**	Dry Weight
H806	806gallons	64"	**72"**	281 lbs	H1780	1780gallons	86"	**84"**	466
H975	975gallons	70"	**72"**	314 lbs	H2250	2250gallons	96"	**84"**	574
H1160	1160gallons	76"	**72"**	354 lbs	H2860	2860gallons	108"	**84"**	725
H1296	1296gallons	80"	**72"**	382 lbs	H3500	3500gallons	120"	**84"**	864
H1504	1504gallons	86"	**72"**	413 lbs	H4000	4000gallons	128"	**84"**	979
H1900	1900gallons	96"	**72"**	523 lbs	H4500	4500gallons	135"	**84"**	1150
H2000	2000gallons	100"	**72"**	544 lbs	H5000	5000gallons	142"	**84"**	1250
H2965	2965gallons	120"	**72"**	688 lbs					
H3450	3450gallons	128"	**72"**	754 lbs					

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Tank Technical Specifications

Jacket Material	Aluminum 0.032" thick
Insulation	**Lid** - Polyisocyanurate 2" thick foil faced **Wall** – Polyisocyanurate – Two 1" thick layers. Dual Foil Faced. **Floor** – 1" Styrofoam and 1" Polyisocyanurate foil faced.
Interior Liner	Firestone EPDM 0.045" thick
Interior Liner attachment method	3" Galvanized roofing nails
Outer Shell connection method	3" overlap with 2 staggered vertical rows Aluminum poprivits 3" OC

Calculating hoop stress on the tank (worst case 5000 gallon shown)
HS = p*r/t = 6,250 psi
p=pressure = h*62.4/144 = 2.82psi
r=tank radius = 71"
t=wall thickness = 0.032"
allowable stress for the material is 24,000psi
Rivet stress is 3,902 psi. Typical aluminum rivet material is 2014 which has a shear of 40,000psi

Exploded View of Solar Storage Tank