

SINCE 1908  
**wessels**  
 company

SUBMITTAL

**TES-SERIES**  
 THERMAL ENERGY STORAGE TANK

Models: TES-1175 thru TES-52000

Submittal Sheet No. J-1010B

Date: 5/25

Job Name _____	Submitted By _____	Date _____
Location _____	Approved By _____	Date _____
_____	Order No. _____	Date _____
Engineer _____	Notes _____	_____
Contractor _____	_____	_____
Sales Rep. _____	_____	_____

**Description:**

Wessels TES Thermal Energy Storage Tanks are designed to store thermal energy for cooling data centers, renewable applications, loss of power, or delivery during off-peak hours. The tanks feature diffuser piping and special dual inner-screen baffles to stratify and reduce the thermal mixing zone (thermocline), increasing the efficiency for the amount of deliverable hot or chilled water. Relatively low water volume systems require additional "buffer energy" capacity for the systems to eliminate problems such as excessive equipment cycling, poor temperature control, and erratic system operation. The properly sized TES adds the necessary volume to "buffer" the system volume.

**Construction:**

Shell: Carbon Steel  
 Exterior: Primer Painted  
 Options: Epoxy surface  
 Stainless steel

**Design Parameters:**

Maximum Design Temperature: 450°F  
 Maximum Design Pressure: 125 PSIG\*

\*200 & 250 PSIG available

MODEL NUMBER	Connection Size and Type	VOLUME (GAL)	TAGGING INFORMATION	QUANTITY
TES-1175		1175		
TES-1650		1650		
TES-2300		2300		
TES-3050		3050		
TES-4000		4000		
TES-5050		5050		
TES-6300		6300		
TES-7700		7700		
TES-9400		9400		
TES-11300		11300		
TES-13400		13400		
TES-15700		15700		
TES-18300		18300		
TES-20000		20000		
TES-24400		24400		
TES-27800		27800		
TES-31500		31500		
TES-41000		41000		
TES-52000		52000		

**Typical Specification:**

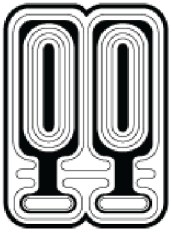
Furnish and install, as shown on plans, a TES-\_\_\_\_\_ as manufactured by Wessels Company. The tank shall incorporate stratification baffles to reduce tank water storage temperature thermocline to increase usable temperature efficiency. The system water connections must be \_\_\_\_\_" (flanged/grooved). The TES must be constructed in accordance with the most recent addendum of Section VIII Division 1 of the ASME Boiler and Pressure Vessels Code and constructed and stamped for 125 PSI working pressure @ 450°F.

Each tank shall be Wessels model number TES-\_\_\_\_\_ or approved equal.



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101 Tank Street Greenwood, IN 46143  
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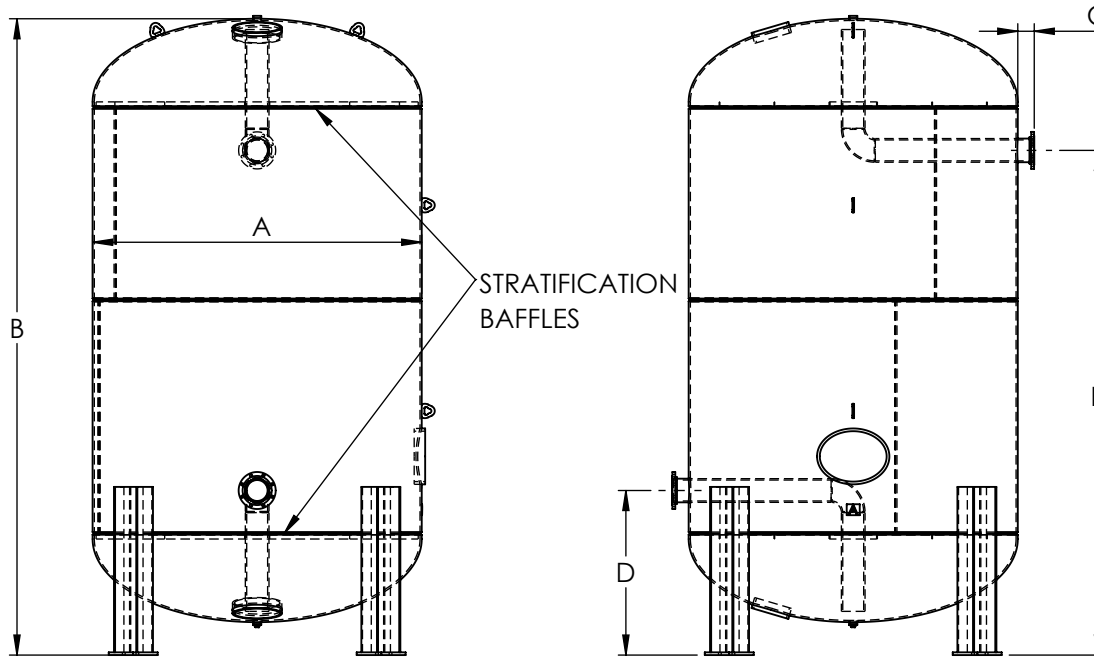
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**Model Definitions**

**TES - 1175 - 10F - 150**

(a) (b) (c)(d) (e)

- (a) TES Model
- (b) Gallon Size
- (c) Connection Size
- (d) Connection Type  
 F = Flanged  
 G = Grooved
- (e) Pressure

(blank) = 125 PSI  
 150 = 150 PSI  
 200 = 200 PSI  
 250 = 250 PSI

**Dimensions & Weights:**

**TES-1175 thru TES-52000**

Model Number	Dims. in Inches			(D/E In Inches) for Various Connection Sizes									Approx. Shipping Weight (lbs)	
	A	B	C	8	10	12	14	16	20	24	30	36		
TES-1175	54	144	SEE NOTE #1	32/123	35/122	36/121	37/120	38/119	40/117	42/115	-	-	2100	
TES-1650	60	166		35/143	36/142	37/141	38/140	39/139	41/137	43/135	46/132	-	-	2700
TES-2300	72	180		38/154	39/153	40/152	41/151	42/150	44/148	46/146	49/143	52/140	3700	
TES-3050	72	204		38/178	39/177	40/176	41/175	42/174	44/172	46/170	49/167	52/164	5000	
TES-4000	84	204		41/175	42/174	43/173	44/172	45/171	47/169	49/167	52/164	55/161	7100	
TES-5050	84	254		41/225	42/224	43/223	44/222	45/221	47/219	49/217	52/214	55/211	8100	
TES-6300	96	238		44/206	45/205	46/204	47/203	48/202	50/200	52/198	55/195	58/192	9600	
TES-7700	108	232		47/197	48/196	49/195	50/194	51/193	53/191	55/189	58/186	61/183	11800	
TES-9400	120	232		50/194	51/193	52/192	53/191	54/190	56/188	58/186	61/183	64/180	14400	
TES-11300	120	282		50/244	51/243	52/242	53/241	54/240	56/238	58/236	61/233	64/230	17300	
TES-13400	120	326		50/288	51/287	52/286	53/285	54/284	56/282	58/280	61/277	64/274	20500	
TES-15700	138	286		50/244	56/243	57/242	58/241	59/240	61/238	63/236	66/233	69/230	24000	
TES-18300	138	327		50/288	56/284	57/283	58/282	59/281	61/279	63/277	66/274	69/271	28000	
TES-20000	144	328		55/244	57/283	58/282	59/281	60/280	62/278	64/276	67/273	70/270	31000	
TES24400	144	392		55/285	57/347	58/346	59/345	60/344	62/342	64/340	67/337	70/334	37000	
TES-27800	144	442		56/284	57/397	58/396	59/395	60/394	62/392	64/390	67/387	70/384	42000	
TES-31500	144	492		56/448	57/447	58/446	59/445	60/444	62/442	64/440	67/437	70/434	48000	
TES-41000	156	542	59/495	60/494	61/493	62/492	63/491	65/489	67/487	70/484	73/481	63000		
TES-52000	156	672	59/625	60/624	61/623	62/622	63/621	65/619	67/617	70/614	73/611	79000		

**Notes:**

- For connections 24" and below, the "C" dimension is 6". For connections 30" and 36", the "C" dimension is 8".
- Dimensions shown are subject to change and should not be used for pre-piping.
- Weights are based on max flange connections.
- Contact your local Wessels Representative if certified dimensional drawings are required.



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