Lochinvar®
High Efficiency Water Heaters, Boilers and Pool Heaters

Hot Water Generator Systems Water to Water Steam to Water

Horizontal or Vertical Jacketed & Insulated

Lochinvar's Hot Water Generator Systems are ideal when boiler capacity is sufficiently sized to cover potable hot water demand and provide source water for hydronic heating systems. Hot Water Generator Systems use steam or boiler water as an energy source and can provide high recovery rates, making them an economical water heating system.

Availability

Hot Water Generator Systems are pre-engineered and pre-assembled complete with all piping to meet your specific application. And like every Lochinvar product, we thoroughly test them to ensure proper performance from the moment they're installed.

Hot Water Generator Systems are available in horizontal or vertical configurations in a wide array of gallon capacities. Standard packages are available in tank sizes from 200-1000 gallons with single wall copper tube bundle heating units. *Custom configurations, smaller and larger tank and tube bundles, and optional control packages are also available. Consult the factory for specifications.*

Tank Construction – Lochinvar tanks are available with Glass or Cement lining.

ASME - All Lochinvar tanks are constructed in accordance with ASME standards and certified for 125 psi working pressure (standard) or 150 psi working pressure (optional).

Cathodic Protection – All glass lined tanks are equipped with magnesium anodes to provide protection against corrosion.

Manway – A manway is provided as an option on glass-lined tanks and is standard on cement lined tanks.
**Horizontal tanks with tube bundles 48" and longer require manway.*

Tank Circulator Pump – All standard Hot Water Generator systems are equipped with a circulator pump to maximize the amount of hot water provided.

Five-Year Limited Tank Warranty – Provides warranty protection against tank failure. (See warranty for details)

One-Year Limited Warranty – Tube Bundle, parts, accessories and controls (See warranty for details)

Unit shown with optional control package.

Optional Control Packages

Steam to Water – Control packages include an isolation valve, 2-way self-operated temperature regulator, inlet and outlet wye strainers, a float and thermostatic steam trap and all necessary piping.

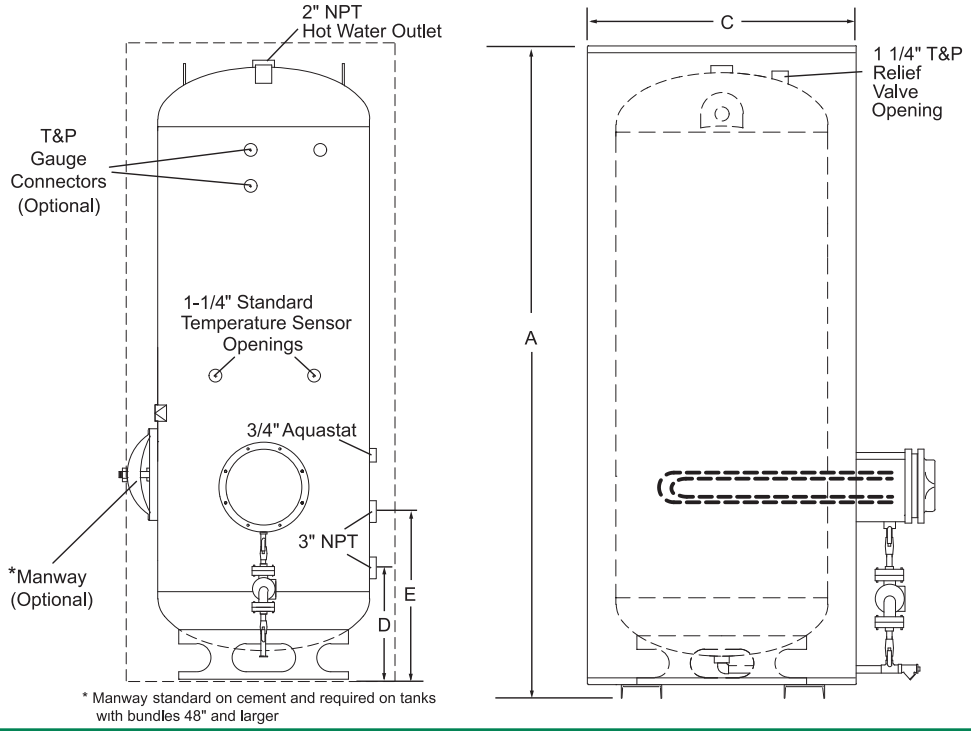
Water to Water – Control packages include isolation valves, 2-way self-operated temperature regulator, inlet wye strainer and all necessary piping.

Optional Equipment

- Manual Reset High Limit w/ Solenoid Valve
- Manway (See notes on manway)
- 150 psi Tank Working Pressure
- Temperature & Pressure Gauge
- Vacuum Breaker

Dimensions

Vertical Tanks



* Manway standard on cement and required on tanks with bundles 48" and larger

Ordering Information

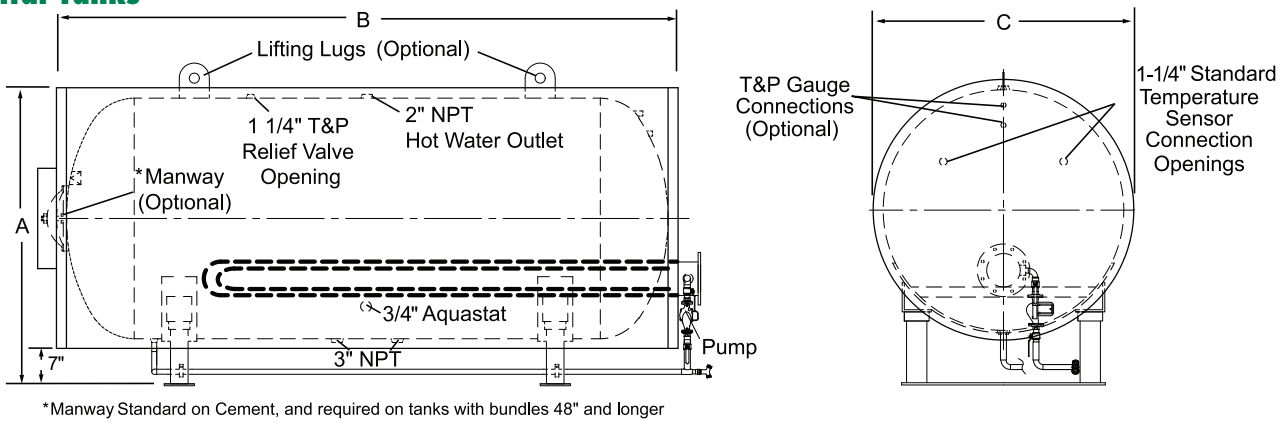
EXAMPLE: GVG0504JR

G	V	G	0504	JR
HOT WATER GENERATOR	HORIZ./VERT.	TANK LINING	GALLON CAPACITY	JACKETED

This Hot Water Generator is a Vertical Tank with Glass Lining, has a 504 gallon capacity that is round jacketed.

JR = Jacketed Round
Leave blank for non-jacketed models.

Horizontal Tanks

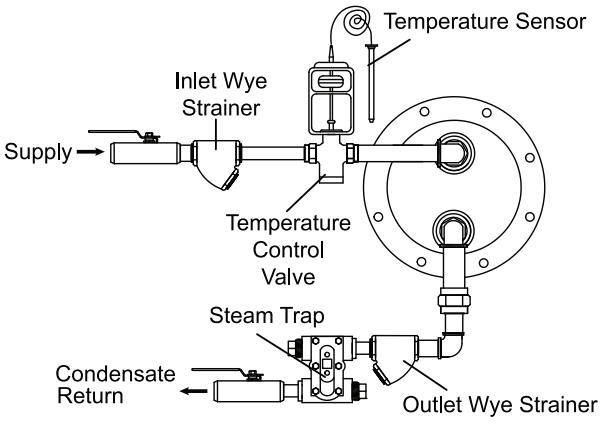


*Manway Standard on Cement, and required on tanks with bundles 48" and longer

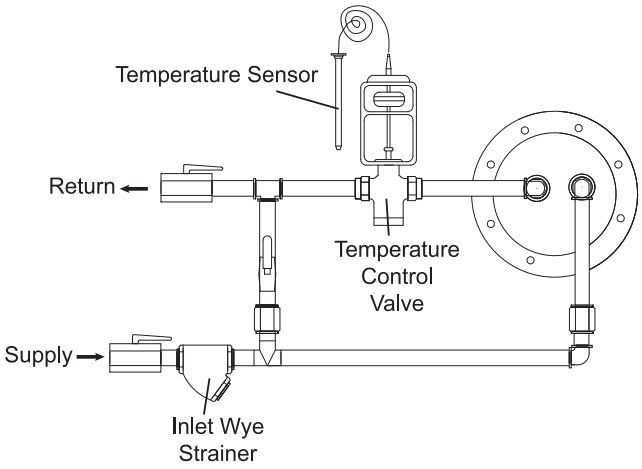
Side View

End View

Steam to Water Optional Control Package



Water to Water Optional Control Package



Left hand or right hand configurations available.

Boiler Water Table - Recovery System

The listings are for boiler water temperatures and temperature rises that are most commonly used in the industry.

Lochinvar Model Number	180°F Boiler Water						200°F Boiler Water						210°F Boiler Water					
	GPH @ 40-120°F	GPM BW	GPH @ 40-140°F	GPM BW	GPH @ 40-160°F	GPM BW	GPH @ 40-120°F	GPM BW	GPH @ 40-140°F	GPM BW	GPH @ 40-160°F	GPM BW	GPH @ 40-120°F	GPM BW	GPH @ 40-140°F	GPM BW	GPH @ 40-160°F	GPM BW
Four Inch Diameters																		
418	73	4	48	4	27	2	93	6	57	4	43	4	101	6	72	6	51	5
424	98	6	64	5	36	3	124	8	76	6	58	5	135	9	96	8	68	6
430	123	8	80	6	45	4	155	10	96	8	72	7	168	11	120	10	85	8
436	147	9	96	8	54	5	186	12	115	9	87	8	202	13	144	12	102	10
448	197	13	128	10	72	7	248	16	153	12	116	11	270	18	192	16	136	13
Six Inch Diameters																		
618	166	11	108	9	61	6	209	13	129	10	98	9	227	15	162	13	115	11
624	212	14	138	11	78	7	267	17	165	13	125	12	291	19	207	17	147	14
630	261	17	170	14	96	9	329	21	204	17	154	15	358	23	255	21	181	18
636	304	20	198	16	112	11	384	25	237	19	180	18	417	27	297	24	211	21
648	403	26	262	21	149	14	508	33	314	26	238	23	552	36	393	32	280	28
660	498	33	324	27	184	18	628	41	388	32	294	29	683	45	486	40	346	34
Eight Inch Diameters																		
824	429	28	279	23	159	15	541	36	334	27	253	25	588	39	418	34	298	29
830	543	36	353	29	201	20	684	45	423	35	321	32	744	49	529	44	377	37
836	657	43	427	35	243	24	828	55	512	42	388	38	900	60	640	53	456	45
842	770	51	500	41	285	28	970	64	600	50	455	45	1055	70	750	62	535	53
848	862	57	560	46	319	31	1086	72	672	56	509	50	1181	78	840	70	599	59
860	1008	67	655	54	373	37	1270	84	786	65	596	59	1382	92	982	81	700	70
Ten Inch Diameters																		
1030	1062	70	690	57	393	39	1338	89	828	69	627	62	1455	97	1035	86	738	73
1036	1262	84	820	68	467	46	1590	106	984	82	746	74	1730	115	1230	102	877	87
1042	1487	99	966	80	550	55	1874	124	1159	96	879	87	2038	135	1449	120	1033	103
1048	1724	114	1120	93	638	63	2172	144	1344	112	1019	101	2363	157	1680	140	1198	119
1060	2152	143	1398	116	796	79	2712	180	1677	139	1272	127	2949	196	2097	174	1495	149
1072	2571	171	1670	139	951	95	3239	215	2004	167	1519	151	3523	234	2505	208	1786	178
Twelve Inch Diameters																		
1236	1749	116	1136	94	647	64	2203	146	1363	113	1033	103	2396	159	1704	142	1215	121
1242	2060	137	1338	111	762	76	2595	173	1605	133	1217	121	2823	188	2007	167	1431	143
1248	2371	158	1540	128	877	87	2987	199	1848	154	1401	140	3249	216	2310	192	1647	164
1254	2682	178	1742	145	992	99	3379	225	2090	174	1585	158	3675	245	2613	217	1863	186
1260	2993	199	1944	162	1108	110	3771	251	2332	194	1769	176	4101	273	2916	243	2080	208
1272	3615	241	2348	195	1338	133	4555	303	2817	234	2136	213	4954	330	3522	293	2512	251
Fourteen Inch Diameters																		
1436	2363	157	1535	127	874	87	2977	198	1842	153	1396	139	3238	215	2302	191	1642	164
1442	2767	184	1797	149	1024	102	3486	232	2156	179	1635	163	3791	252	2695	224	1922	192
1448	3172	211	2060	171	1174	117	3996	266	2472	206	1874	187	4346	289	3090	257	2204	220
1454	3588	239	2330	194	1328	132	4520	301	2796	233	2120	212	4916	327	3495	291	2493	249
1460	4011	267	2605	217	1484	148	5053	336	3126	260	2370	237	5496	366	3907	325	2787	278
1472	4804	320	3120	260	1778	177	6052	403	3744	312	2839	283	6583	438	4680	390	3338	333

NOTE: Boiler water (BW) requirements are based on a 20°F temperature drop.

Steam Table - Recovery Systems

The listings are for steam pressures and temperature rises that are most commonly used in the industry.

Lochinvar Model Number	5 psi Steam						15 psi Steam						25 psi Steam						50 psi Steam					
	GPH @ 40-120°F	PPH Steam	GPH @ 40-140°F	Total PPH Steam	GPH @ 40-160°F	PPH Steam	GPH @ 40-120°F	PPH Steam	GPH @ 40-140°F	PPH Steam	GPH @ 40-160°F	PPH Steam	GPH @ 40-120°F	PPH Steam	GPH @ 40-140°F	PPH Steam	GPH @ 40-160°F	PPH Steam	GPH @ 40-120°F	PPH Steam	GPH @ 40-140°F	PPH Steam	GPH @ 40-160°F	PPH Steam
Four Inch Diameters																								
418	152	105	119	102	91	95	171	119	139	121	109	114	188	132	156	137	121	128	213	153	187	167	145	156
424	202	140	158	137	122	126	229	159	186	162	145	152	250	176	208	183	162	171	284	204	249	223	193	208
430	253	175	198	171	152	158	286	199	232	203	182	191	313	220	260	228	203	214	356	255	312	279	242	260
436	304	210	238	205	183	190	343	239	279	243	218	229	376	265	312	274	243	257	427	306	374	335	290	312
448	405	280	317	274	244	253	458	319	372	325	291	305	501	353	416	366	325	343	569	408	499	447	387	416
Six Inch Diameters																								
618	342	236	267	231	206	213	386	269	314	274	246	257	423	298	351	309	274	289	480	344	421	377	327	351
624	437	302	342	295	263	273	494	344	401	350	314	329	540	381	448	394	350	370	614	440	538	482	418	449
630	538	372	421	364	324	336	608	424	494	431	387	405	666	666	552	486	431	456	756	542	663	594	515	553
636	627	433	491	424	378	391	708	494	576	502	451	472	776	546	643	566	502	531	881	631	772	691	599	645
648	830	573	649	561	500	518	937	655	762	665	597	625	1027	723	851	749	665	703	1165	835	1021	915	793	853
660	1027	709	803	693	618	641	1159	809	942	822	738	773	1270	894	1053	927	822	869	1441	1033	1263	1132	981	1055
Eight Inch Diameters																								
824	884	611	691	597	532	552	998	697	811	708	636	666	1093	770	906	798	708	748	1241	889	1088	974	845	908
830	1119	773	875	756	674	698	1263	882	1027	896	804	842	1383	974	1147	1010	896	947	1570	1125	1376	1233	1069	1150
836	1353	935	1058	914	815	845	1528	1067	1242	1084	973	1019	1673	1179	1387	1221	1084	1146	1900	1362	1665	1492	1293	1391
842	1585	1095	1240	1070	955	989	1790	1249	1455	1269	1140	1193	1960	1380	1625	1430	1270	1341	2225	1594	1950	1747	1515	1628
848	1775	1226	1388	1199	1069	1108	2004	1399	1629	1422	1276	1337	2195	1546	1820	1602	1422	1502	2492	1786	2184	1956	1696	1824
860	2076	1434	1624	1402	1251	1296	2344	1637	1906	1663	1493	1563	2567	1808	2128	1874	1663	1757	2914	2089	2554	2288	1984	2133
Ten Inch Diameters																								
1030	2187	1511	1711	1477	1317	1365	2470	1724	2007	1752	1573	1647	2704	1905	2242	1974	1752	1851	3070	2200	2691	2411	2090	2247
1036	2599	1795	2033	1756	1566	1623	2935	2049	2386	2082	1869	1957	3214	2264	2665	2346	2082	2200	3649	2615	3198	2865	2484	2671
1042	3062	2115	2395	2069	1845	1912	3458	2414	2811	2453	2202	2306	3786	2667	3139	2764	2453	2592	4298	3081	3767	3375	2926	3147
1048	3550	2453	2777	2398	2139	2217	4009	2799	3259	2844	2553	2674	4390	3092	3640	3205	2844	3005	4984	3572	4368	3913	3393	3648
1060	4431	3061	3467	2994	2670	2767	5004	3494	4068	3550	3187	3338	5480	3860	4543	4000	3550	3752	6221	4459	5452	4885	4235	4554
1072	5293	3657	4141	3576	3189	3305	5978	4174	4859	4241	3807	3987	6546	4611	5427	4779	4241	4482	7431	5327	6513	5835	5060	5440
Twelve Inch Diameters																								
1236	3601	2488	2817	2433	2169	2248	4066	2839	3305	2884	2590	2712	4453	3136	3692	3250	2885	3048	5055	3623	4430	3969	3442	3700
1242	4241	2930	3318	2865	2555	2648	4790	3344	3893	3397	3050	3194	5244	3695	4348	3829	3398	3591	5954	4267	5218	4675	4054	4358
1248	4881	3372	3819	3298	2941	3048	5513	3849	4481	3910	3511	3677	6036	4252	5005	4407	3911	4133	6853	4912	6006	5381	4666	5017
1254	5522	3815	4320	3731	3327	3448	6236	4354	5069	4423	3971	4159	6828	4810	5661	4985	4424	4675	7751	5556	6793	6087	5278	5675
1260	6162	4257	4821	4163	3713	3848	6959	4858	5657	4936	4432	4641	7620	5368	6318	5563	4937	5217	8650	6200	7581	6793	5890	6333
1272	7443	5142	5823	5029	4484	4647	8405	5868	6832	5962	5353	5606	9204	6483	7631	6719	5963	6301	10448	7489	9157	8204	7114	7649
Fourteen Inch Diameters																								
1436	4865	3362	3806	3287	2931	3038	5495	3836	4466	3898	3499	3665	6017	4238	4988	4392	3898	4119	6830	4896	5986	5363	4651	5000
1442	5696	3935	4456	3848	3432	3557	6433	4491	5229	4563	4097	4290	7044	4962	5840	5142	4564	4822	7996	5731	7008	6279	5444	5854
1448	6530	4511	5108	4412	3934	4077	7374	5148	5994	5231	4696	4918	8075	5688	6695	5895	5232	5528	9167	6570	8034	7198	6241	6711
1454	7386	5103	5778	4990	4450	4612	8341	5823	6780	5917	5312	5563	9133	6434	7572	6667	5918	6253	10368	7432	9087	8141	7059	7590
1460	8257	5705	6460	5579	4975	5156	9325	6511	7580	6615	5939	6220	10211	7193	8466	7454	6616	6991	11592	8309	10159	9102	7893	8486
1472	9890	6833	7737	6682	5959	6176	11169	7798	9079	7923	7113	7449	12230	8615	10140	8928	7924	8373	13884	9951	12168	10902	9453	10164

Dimensions

Vertical Tanks Round Jacketed

Model Number	Gallon Capacity	A	C	D	E	Maximum Coil Length	Shipping Weight
GV*0200JR	200	77 1/4	32	11 1/4	17 1/4	30	600
GV*0257JR	257	91	34	18	26	36	902
GV*0318JR	318	80	40	19 1/2	27 1/2	42	993
GV*0432JR	432	80	46	21	29	48	1269
GV*0504JR	504	92	46	21	29	48	1373
GV*0650JR	650	92	52	23 1/2	31 1/2	54	1966
GV*0752JR	752	104	52	23 1/2	31 1/2	54	2030
GV*0940JR	940	128	52	23 1/2	31 1/2	54	2376

** Indicates Tank Lining – G=Glass C=Cement*

Horizontal Tanks Round Jacketed

Model Number	Gallon Capacity	A	B	C	Maximum Coil Length	Minimum Coil Length	Shipping Weight
GH*250JR	250	41″	87″	34″	90″	54″	1,600
GH*300JR	300	47″	76″	40″	78″	48″	1,800
GH*400JR	400	53″	76″	46″	78″	48″	2,250
GH*500JR	500	53″	88″	46″	90″	54″	2,500
GH*600JR	600	59″	88″	52″	90″	54″	3,600
GH*700JR	700	59″	100″	52″	102″	66″	4,200
GH*1000JR	1,000	59″	124″	52″	126″	78″	5,000

***NOTE:** Manway required on tanks with tube bundles 48" and longer.*
** Indicates Tank Lining – G=Glass C=Cement*

Non-Jacketed Tanks

Model	Gallon Capacity	Length** (Height)	Diameter (Width)	D	E	Maximum Coil Length (Horizontal)	Minimum Coil Length (Horizontal)	Maximum Coil Length (Vertical)	Shipping Weight
GV*147	147	48″	30″	15 3/4″	23 3/4″	36″	30″	36″	400
GV*184	184	60″	30″	15 3/4″	23 3/4″	48″	42″	36″	468
GV*220	220	72″	30″	15 3/4″	23 3/4″	60″	48″	36″	548
GV*257	257	84″	30″	15 3/4″	23 3/4″	72″	54″	36″	628
GV*294	294	96″	30″	15 3/4″	23 3/4″	84″	66″	36″	701
GV*367	367	120″	30″	15 3/4″	23 3/4″	108″	78″	36″	868
GV*265	265	60″	36″	17 1/2″	25 1/2″	48″	42″	42″	577
GV*318	318	72″	36″	17 1/2″	25 1/2″	60″	48″	42″	673
GV*370	370	84″	36″	17 1/2″	25 1/2″	72″	54″	42″	770
GV*423	423	96″	36″	17 1/2″	25 1/2″	84″	66″	42″	866
GV*528	528	120″	36″	17 1/2″	25 1/2″	108″	78″	42″	1,058
GV*432	432	72″	42″	18 3/4″	26 3/4″	60″	48″	48″	909
GV*504	504	84″	42″	18 3/4″	26 3/4″	72″	54″	48″	1,050
GV*576	576	96″	42″	18 3/4″	26 3/4″	84″	66″	48″	1,190
GV*720	720	120″	42″	18 3/4″	26 3/4″	108″	78″	48″	1,470
GV*864	864	144″	42″	18 3/4″	26 3/4″	120″	96″	48″	1,751
GV*658	658	84″	48″	20 3/4″	28 3/4″	72″	54″	54″	1,346
GV*752	752	96″	48″	20 3/4″	28 3/4″	84″	66″	54″	1,507
GV*940	940	120″	48″	20 3/4″	28 3/4″	108″	78″	54″	1,828
GV*1128	1,128	144″	48″	20 3/4″	28 3/4″	120″	96″	54″	2,150
GV*951	951	96″	54″	22 3/4″	30 3/4″	84″	66″	60″	1,972
GV*1189	1,189	120″	54″	22 3/4″	30 3/4″	108″	78″	60″	2,423
GV*1427	1,427	144″	54″	22 3/4″	30 3/4″	120″	96″	60″	2,881
GV*1469	1,469	120″	60″	24 3/4″	32 3/4″	108″	78″	66″	3,221
GV*1763	1,763	144″	60″	24 3/4″	32 3/4″	120″	96″	66″	3,823
GV*2115	2,115	120″	72″	27 3/4″	35 3/4″	108″	78″	78″	3,904
GV*2538	2,538	144″	72″	27 3/4″	35 3/4″	120″	96″	78″	4,627

***Note:** Change "V" to "H" for Horizontal Configuration*
** Indicates Tank Lining G= Glass C=Cement*
***Add 4" to Length (Height) for Vertical Configuration*

Water to Water Specification:

The **Water to Water Generator System** shall be a **Lochinvar** Model no. _____ with _____ tube bundle heating unit. The hot water generator shall be constructed of a (vertical) (horizontal) storage tank. The storage tank shall be _____" diameter x _____" (length) (height) with a _____ gallon capacity. The tube bundle heating unit will be single wall/double wall designed to recover _____ GPH with a temperature rise from _____°F to _____°F with _____°F as setpoint temperature when supplied with _____°F boiler water. The interior of the storage tank shall be glass lined and fired to 1600°F to ensure a molecular fusing of glass and steel and furnished with magnesium anode(s) to provide protection against corrosion. The storage tank shall be constructed in accordance with the ASME Boiler and Pressure Vessel Code requirements, stamped and registered with the National Board of Boiler and Pressure Vessel Inspectors. The storage tank shall have a 125 psi (optional 150 psi) working pressure. The storage tank shall be furnished with a factory installed heavy steel jacket finished with a baked acrylic enamel finish. The storage tank shall be completely encased in a minimum of 2" thick, high density polyurethane foam insulation to meet the energy efficiency requirements of the latest edition of the ASHRAE 90.1 Standard. The tank shall be supplied with a drain valve.

The tube bundle heating unit shall be constructed and stamped according to section VIII of ASME code. The tube bundles shall be constructed of 3/4" O.D. 20 GA. deoxidized drawn copper tubing. A .75 amp @ 115 volt, 60 Hz, 1/25 HP integral circulator pump with copper soldered recirculation line shall be provided. The heating units shall be installed in the tank by bolted connection to the collar flange and tube bundle head.

Optional Tube Bundle Construction: LTW = Single Wall, LTWX = Double Wall
Optional Tube Bundle Material: Cupro-Nickel, Stainless Steel.
Optional Control Package: The **Water to Water Generator** shall be equipped with isolation valves, two-way self operated temperature regulator, an inlet wye strainer and all necessary piping.
Optional Equipment: Manual Reset High Limit, Solenoid Valve, Manway, Temperature and Pressure Gauge, ASME Temperature and Pressure Relief Valve.
Tank Lining Options: Cement tank lining designed to provide effective corrosion resistance against the chemicals and conditions experienced in the storage of potable water at elevated temperatures.

Steam to Water Specification:

The **Steam to Water Generator System** shall be a **Lochinvar** Model no. _____ with _____ tube bundle heating unit. The hot water generator shall be constructed of a (vertical) (horizontal) storage tank. The storage tank shall be _____" diameter x _____" (length) (height) with a _____ gallon capacity. The tube bundle heating unit will be single wall/double wall designed to recover _____ GPH for a temperature rise from _____°F to _____°F with _____°F as setpoint temperature when supplied with _____ psi steam to the temperature regulator. The interior of the storage tank shall be glass lined and fired to 1600°F to ensure a molecular fusing of glass and steel and furnished with magnesium anode(s) to provide protection against corrosion. The storage tank shall be constructed in accordance with the ASME Boiler and Pressure Vessel Code requirements, stamped and registered with the National Board of Boiler and Pressure Vessel Inspectors. The storage tank shall have a 125 psi (optional 150 psi) working pressure. The storage tank shall be furnished with a factory installed heavy steel jacket finished with a baked acrylic enamel finish. The storage tank shall be completely encased in a minimum of 2" thick, high density polyurethane foam insulation to meet the energy efficiency requirements of the latest edition of the ASHRAE 90.1 Standard. The tank shall be supplied with a drain valve.

The tube bundle heating unit shall be constructed and stamped according to section VIII of ASME code. The tube bundles shall be constructed of 3/4" O.D. 20 GA. deoxidized drawn copper tubing. A .75 amp @ 115 volt, 60 Hz, 1/25 HP integral circulator pump with copper soldered recirculation line shall be provided. The heating units shall be installed in the tank by bolted connection to the collar flange and tube bundle head.

Optional Tube Bundle Construction: LTS = Single Wall, LTSX = Double Wall
Optional Tube Bundle Material: Cupro-Nickel, Stainless Steel.
Optional Control Package: The **Steam to Water Generator** shall be equipped with an isolation valve, two-way self operated temperature regulator, an inlet and outlet wye strainer, a steam trap and all necessary piping.
Optional Equipment: Manual Reset High Limit, Solenoid Valve, Manway, Temperature and Pressure Gauge, ASME Temperature and Pressure Relief Valve.
Tank Lining Options: Cement tank lining designed to provide effective corrosion resistance against the chemicals and conditions experienced in the storage of potable water at elevated temperatures.

Lochinvar®
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