



HEAT EXCHANGER LT-HEX STAINLESS STEEL

The LT-HEX line of heat exchangers is manufactured from 316L S/Steel and is further pickled and passivated for superior longevity and corrosion resistance these exchangers are ideal for SPA's, hot tubs, swimming pool, snow melt applications, solar heating.

*Caution s/steel should **not be** used on SALT WATER pools, spa's, hot tubs. You will need to use titanium or marine alloy for these applications.

FEATURES:

- ★ Spirally-wound high quality stainless steel 0.049" wall coil and 14ga. 316L stainless steel shell.
- ★ Passivated stainless steel finish.
- ★ Counter flow long tube design with internal tubulator and fins to maximize heat transfer capability.
- ★ Slim compact design for easy installation
- ★ Connections are female thread on boiler side and male on water side
- ★ 100% Stainless steel
- ★ Install horizontally or vertically

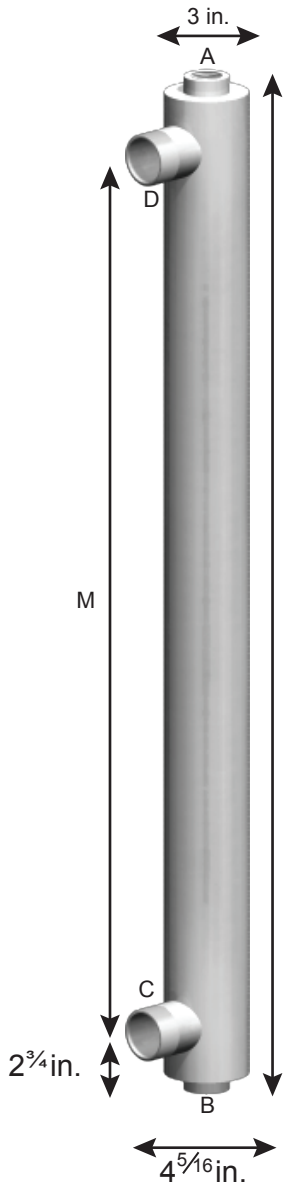


LT-HEX 50 Shown

Connections	
A	Return to boiler - 1" NPT Coupling
B	Supply from boiler - 1" NPT Coupling
C	Hot water outlet - 1 1/2" NPT Nipple
D	Cold water inlet - 1 1/2" NPT Nipple

MODEL	SHELL VOLUME US GAL	HEATING SURFACE AREA SQ FT	RATED OUTPUT btu./hr.	OPERATING PRESSURE psi	MAX. OPER. TEMP. °F	SHIPPING WEIGHT lbs	DIM L Inches	DIM M Inches
LT 50	0.29	0.96	50,000	150	210	10	19 1/2	14
LT 75	0.44	1.44	75,000	150	210	13	28 1/2	23
LT 100	0.59	1.98	100,000	150	210	16	37 1/2	32
LT 150	0.89	2.96	150,000	150	210	25	55 1/2	50
LT 200	1.18	3.98	200,000	150	210	32	73 1/2	68

PERFORMANCE	LT 50	LT 75	LT 100	LT 150	LT 200
BOILER SUPPLY TEMPERATURE	200 °F	200 °F	200 °F	200 °F	200 °F
BOILER FLOW RATE (GPM)	5	7.5	10	15	20
POOL INLET TEMPERATURE	70 °F	70 °F	70 °F	70 °F	70 °F
POOL FLOW RATE (GPM)	30	30	30	30	40
OUTPUT Btu./hr.	50,000	75,000	100,000	150,000	200,000



LT-HEX 100 Shown



INDIRECT SWIMMING POOL HEATING

Application: Using house boiler to heat pool/hot tub

Sizing consideration

Need to know

How many Gallons of water to heat, temperature rise, and time allotted for temp rise.

1-cubic ft water = 7.48US Gal
1 gallon water weighs 8.34 lbs.

Sizing formula (initial raising of water temperature)

Gallons of water = Pool (width x length x average depth) x 7.48 (gal. Per cu.ft)

Gallons of water x 8.34 x temp. rise / hours to heat pool = btuh

Example:

Pool (40' x 20' x 5' average)

With initial pool water of 55 F to be raised to 75 F

Allowing 48 hours to raise temperature.

40'L x 20'W x 5'Deep x 7.48g per c/ft = 29,920 gallons water

29,920galls x 8.34lbs x 20temp rise / 48hrs = 103,972 BTUH

(I=B=R net ratings)

GPM flow required

Pool flow = 1st law (btu/hr) / delta T (temp raise) / 500 =GPM
(eg; 103,972 / 20 / 500 = 10.397gpm)

Boiler side flow = 1st law (btu/hr) / (500 x boiler temp difference)=GPM
(eg; 103,972 / 10000 =10.397gpm)

Heat loss from pool surface

Temperature difference	10	15	20	25	30
BTUH/persq.ft	105	158	210	263	368

Assumed wind velocity 3.5 mph

Wind velocity of 5mph multiply BTUH by 1.25

Wind velocity of 10mph multiply BTUH by 2.00

Temperature Difference: Ambient air and desired water temperature

Maintaining pool temperature when outside air is 20 to 30F lower than pool water may require a larger boiler.

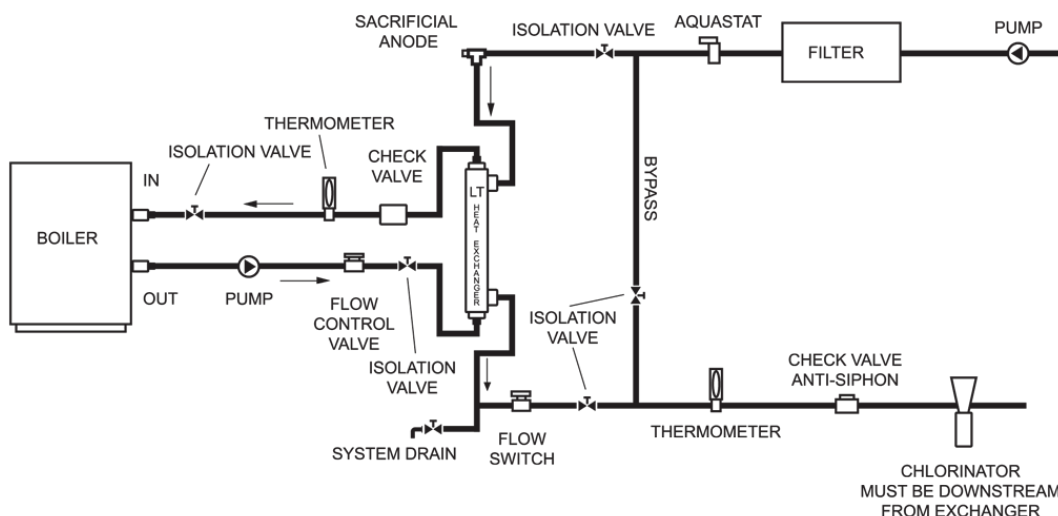
MAXIMUM
OPERATING
PRESSURE

SHELL 150 PSI
COIL 150 PSI

LIMITED
WARRANTY

2 YEARS
RESIDENTIAL
1 YEAR
COMMERCIAL

SCHEMATIC FOR POOLS & LT HEAT EXCHANGERS



NOTES:

This drawing is meant to show system piping concept only. Installer is responsible for all equipment & detailing required by local codes.