

INDECK

International-LaMont

INDECK HIGH TEMPERATURE HOT WATER GENERATORS

- FOR INDUSTRIAL HEATING APPLICATIONS SUCH AS:
 - Universities
 - Airports
 - Military Bases
 - Casinos
 - High Temperature Differentials
 - No Thermal Shock
 - Low NOx Emissions
 - Capacities up to 200 mm/btu Hour



INDECK

800.446.3325

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The International-LaMont High Temperature Hot Water Generator



The TJW-C Design

- **INDUSTRIAL APPLICATIONS:**

Airports, universities, casinos, hospitals, government installations, military bases, and more!

- **DEPENDABLE SOURCE OF HEAT:**

Space heating, power and process requirements

- **PROVEN PRODUCT:**

More than 1,000 units installed since 1948

- **ASME CODE CONSTRUCTED:**

Inspected and certified by National Board Commissioned Inspectors

- **CONTROLLED FORCED RECIRCULATION**

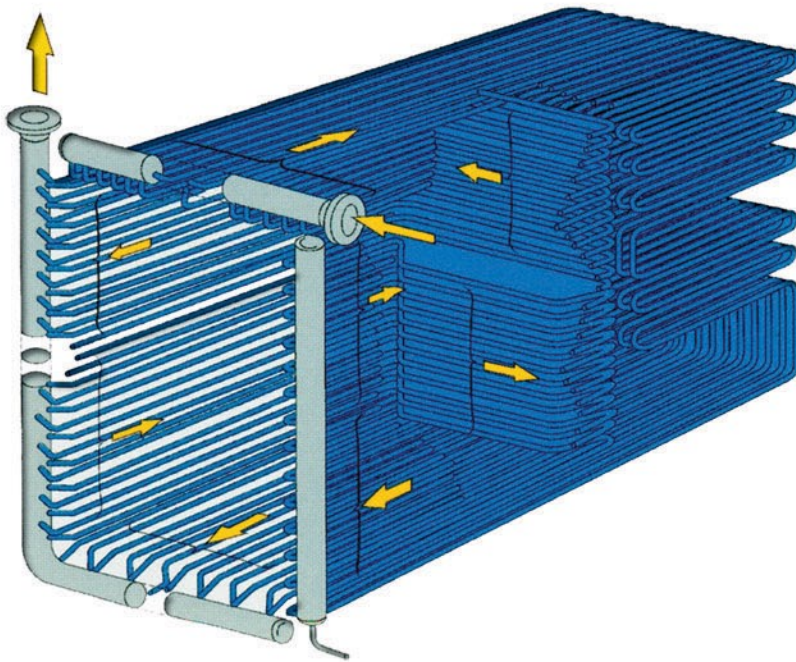
- **NO UNEVEN HEAT ABSORPTION:**

Ratio of radiant surface to convective surface virtually identical for each tube eliminating uneven heat absorption, steaming and resultant tube failure

- **MAXIMUM EFFICIENCY:**

TJW-C design provides maximum efficiency and exceptional fuel cost savings

- **EXTREMELY FAST RESPONSE TO LOAD CHANGES**



No Thermal Shock

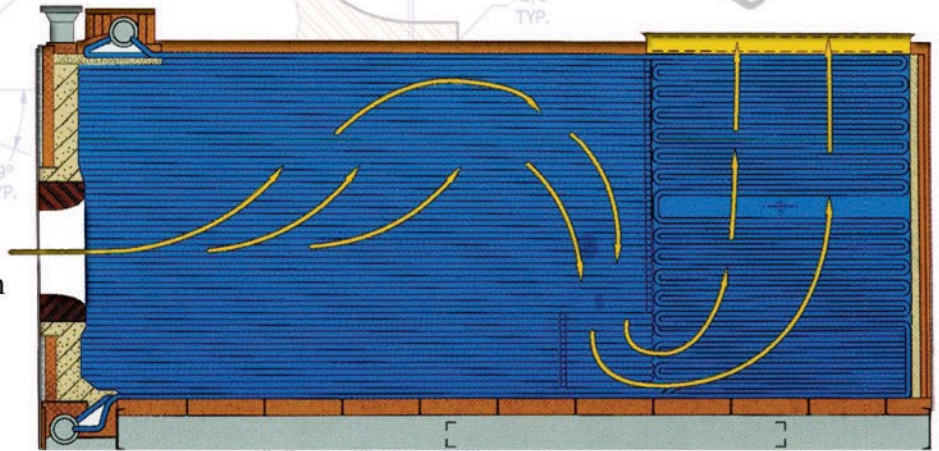
- Controlled circulation of water through the balanced tubular circuits eliminates any possibility of thermal shock. It is possible to safely use high temperature differentials between boiler water return and outlet. Differentials of 150°F and higher are widely used and are considered good practice.

High Efficiency

- The *Indeck* International-LaMont design incorporates counter flow of water to combustion gases to insure maximum efficiency resulting in substantial fuel savings. This exclusive design reduces stack temperatures as much as 150°F and increases overall generator efficiency by nearly 5%.

Less Space

- By fully utilizing the low head room configuration power plant designers can realize significant savings, in both construction and on site handling costs. Factory packaging greatly reduces field labor cost and assures proper coordination of the generator and fuel burning equipment.



Low Maintenance

- Tangent tube furnace-wall construction virtually eliminates the use of potentially troublesome refractory in the furnace area. This construction permits the use of a gas tight seal welded inner casing, as well as isolating the insulation and outer casing from the hot furnace gases thus preventing condensation of gases on the outer casing.

Simplified Distribution System

- Since the entire system is full of water and under positive circulation at all times, the HTW distribution and return lines can follow the natural land contours. All pressure reducing valves, condensate return pumps, and traps required in a comparable steam system are eliminated. Any number of buildings over a wide area can be served economically and efficiently from a central heating plant.

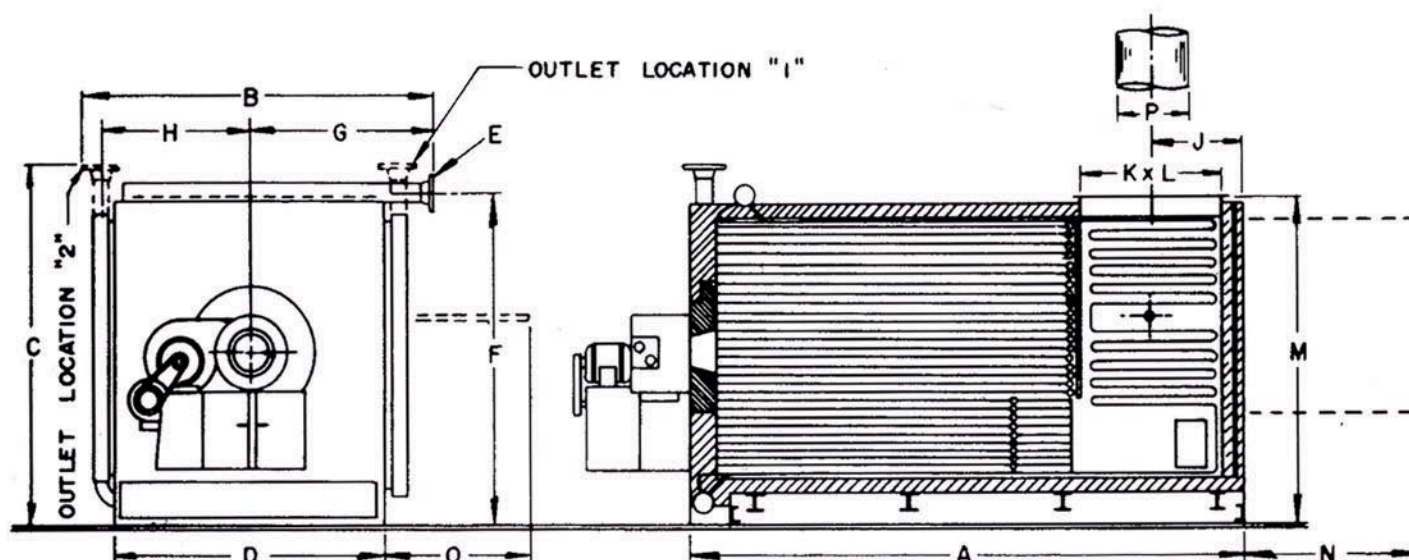
Unlimited Flexibility

- High temperature water is a dependable source of heat for space heating, power and process requirements. It can be used directly at full temperature for space and process heating...or used indirectly, through converters for low pressure steam, hot water and/or absorption type refrigeration units for air conditioning.

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Specifications Hot Water Generators-Type TJWC



RATINGS	HOT WATER GENERATOR	TJW-C	10	12.5	15	20	25	30	35	40	45	50	55	62.5	75
	BTU Output Per Hour	1000's	10,000	12,500	15,000	20,000	25,000	30,000	35,000	40,000	45,000	50,000	55,000	62,500	75,000
	Approximate Oil Output (1)	G.P.H.	80	104	121	164	206	249	290	330	366	406	446	508	610
	Approximate Gas Input (2)	S.C.F.H.	13,100	16,200	19,400	25,710	32,000	38,400	44,800	51,200	58,000	64,000	70,000	79,200	96,000

DIMENSIONS	A-Length Over Casing (3)	ft. in.	12-9	12-9½	14-3¼	16-0	16-0	18-1½	19-0	19-6	20-6	22-0	23-6	24-5	24-0
	B-Width Over All	ft. in.	6-6	7-4	7-6	8-9	10-3	10-11½	10-11½	10-11½	11-3	11-3	11-3	11-3	11-7
	C-Height Over All (4)	ft. in.	10-0	10-0	10-0	10-0	10-0	10-0	11-0	11-0	11-0	11-3	11-3	12-2	13-4
	D-Width Over Casing	ft. in.	4-7	5-3	5-5½	6-3	7-9	8-9	8-9	8-9	8-9	9-1	9-1	9-1	10-8
	E-Inlet & Outlet Flange Size	max. ft. in.	8	8	8	10	10	12	12	12	12	12	12	12	12
	F-Inlet Flange Height	ft. in.	9-4	9-4	9-4	9-4	9-4	9-4	10-0	10-0	10-0	10-5	10-5	11-4	11-11½
	G-Inlet Flange to Centerline	ft. in.	3-5	3-8	3-9	4-6½	5-1½	5-6	5-6	5-6	5-6	5-7½	5-7½	5-7½	6-4
	H-Outlet Flange to Centerline	ft. in.	2-7½	3-1	3-2	3-6	4-5½	4-8½	4-8½	4-8½	4-8½	4-11½	4-11½	4-11½	4-5
	J-Flue Gas Outlet Centerline Location	ft. in.	2-1½	2-1½	2-4	2-7½	2-7	2-9	3-1¼	3-1¼	3-7¼	3-9¼	3-9¼	4-2	3-9½
	K-Flue Gas Outlet Length	ft. in.	3-4	3-4	3-8	4-2	4-2	4-6	5-2½	5-2½	6-2½	6-5½	6-7	7-2	6-7
	L-Flue Gas Outlet Width	ft. in.	3-7½	4-6	4-9	5-6	6-11	7-9½	7-9½	7-9½	7-9½	8-3	8-3	8-3	9-10½
	M-Flue Gas Outlet Height (5)	ft. in.	9-0	9-0	9-0	9-0	9-0	9-0	9-8½	9-8½	9-8½	10-1¼	10-1¼	11-0	11-11¼
	N-Convactor Service Space (6)	ft. in.	4-6	4-9	5-0	5-6	5-6	5-6	6-9	6-9	7-0	7-0	7-0	8-3	8-6
	O-Soot Blower Service Space (6)	ft. in.	5-0	6-0	7-0	7-0	8-6	9-0	9-3	9-3	9-3	10-0	10-0	10-0	10-0
	P-Req'd Vent Stack Diameter (7)	in.	21	24	24	27	30	32	34	36	38	42	45	48	51

DATA	Flow Rate @ 100°F ΔT	(8) G.P.M.	206	257	309	412	515	617	720	823	926	1,029	1,132	1,286	1,544
	Generator ΔP @100°F ΔT	ft. H2O	16	17	18	22	16	17	18	22	28	35	46	64	63
	Flow Rate @ 125°F ΔT	(8) G.P.M.	164	205	246	328	409	491	567	655	737	819	901	1,024	1,228
	Generator ΔP @125°F ΔT	ft. H2O	15	16	17	19	22	16	17	18	20	23	30	41	41
	Outlet Location @ 125°F ΔT	No.	2	2	2	2	2	1	1	1	1	1	1	1	1
	Flow Rate @ 150°F ΔT	(8) G.P.M.	136	170	204	271	339	407	475	543	611	678	746	848	1,018
	Generator ΔP @ 150°F ΔT	ft. H2O	15	14	16	18	20	22	17	17	18	19	21	30	29
	Outlet Location @ 150°F ΔT	No.	2	2	2	2	2	2	1	1	1	1	1	1	1
	Approximate Water Content	gals.	200	240	270	340	400	500	540	570	680	810	870	920	1,070
	Approximate Shipping Weight	lbs.	22,500	24,500	26,500	31,000	36,500	44,000	46,500	47,500	53,500	59,500	64,500	71,000	78,000

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PROVEN PRODUCT. More and more engineers are designing new projects in ever increasing number with high temperature water systems and in most cases with the generators specified to utilize the superior features of *Indeck's* unique design which improved economies in operation, maintenance, and initial cost.

Many leading industrial companies, airports, universities, casinos, hospitals, military bases, and government installations are equipped with *Indeck* International-LaMont HTW Generators. We invite you to investigate the suitability of *Indeck* High Temperature Water Generators to meet your particular requirements.

OUTSTANDING. Over the years, refinements and advances in design have brought *Indeck* International-LaMont HTW Generators to their highest efficiency and made *Indeck* the leading authority in high temperature water generator design. So much so, that engineers both domestic and foreign, frequently confer with *Indeck* on design and equipment application.

FEATURES. *Indeck* continues to lead in the field of high temperature water generation. This leadership is a product of the proven LaMont principle of controlled forced recirculation and is the key to superior performance and economy. The wide experience and outstanding service record achieved by the International-LaMont High Temperature Hot Water Generator has made *Indeck* the unquestioned leader in the field. **CONTACT AN INDECK ENGINEER TODAY: 800.446.3325**

Standard Generator Trim

1. Two safety-relief valves
2. Two drain valves
3. Three vent valves
4. Inlet and outlet stainless steel thermometer test wells
5. Inlet and outlet 9" scale industrial thermometers with stainless steel wells
6. 6" duplex pressure gauge to indicate inlet and outlet water pressure
7. Indicating water flow meter with integral flow switches and calibrated orifice plate

Optional Equipment

1. Firing equipment controls
2. Control panel
3. Soot blowers (oil fired)
4. Vent stack assembly
5. Expansion tank and trim
6. Circulating pumps
7. Bypass flow control valve
8. Insulated header cover boxes

Operating Data

Design	Forced recirculation watertube generators
Capacity	10,000,000 to 200,000,000 BTU/HR
Fuels	Heavy or light oil, gas or combination
Efficiency	High efficiency levels
Codes	ASME, National Board, CRN, UL, ULC, CGA, or as required
Emissions	Compliance with all current low NOx regulations



The Answer To Your Energy Plant Needs

For over half a century, *Indeck* has been the leading innovator in trailer mounted boilers, package boilers, solid fired fuel, waste heat, and energy systems. *Indeck* started as a rental boiler company and has developed into the most efficient single source supplier in the world. *Indeck* is involved in every aspect of production from concept development to engineering, from installation and startup to training, maintenance, along with supplying the best service to customers.



• Indeck-Wheeling, IL •

Besides providing a wide range of quality equipment, *Indeck* also provides customers a range of purchasing options such as: boiler rentals, lease-to-own units, or stock inventory equipment. Over the years, *Indeck's* business has grown and expanded to include the world's largest boiler inventory.



• Indeck-Erie, PA •



• Indeck-St. Hyacinthe, Quebec •

Equipment & Service 24 Hrs. / Day

Indeck is your single source, providing an extensive line of equipment and exceptional services available 24 hours a day, 7 days a week including:

- Planned & Emergency Services
- Preventative Maintenance
- Combustion Efficiency Tune-up
- Control Modernization
- Burner Conversions
- Refractory & Insulation Work
- High Pressure Welding by Certified Welders
- Tube Replacement & Vessel Repair by Boilermakers
- Refurbishing of Used Boilers & Equipment
- Lease, Rental, Sale of New / Refurbished Boilers & Equipment
- Boiler Room Parts & Accessories
- Turnkey Capabilities



Commitment to Quality

Indeck is committed to a quality management philosophy that strives for continuous improvement. Our quality control program is in accordance with ASME Section I, IV, and VIII Division 1; ANSI / ASME B31.1, CSA B.51, CSA Z299.3 and is audited by the National Board.



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