



Figure 2. Model ICB Hot Water Boiler Dimensions, 4-Pass and 3-Pass (Optional)

Table 7: Model ICB-LE Hot Water Ratings, 4 Pass

BOILER H.P.	100	125	150	200	250	300	350	400	500	600	700	800
BURNER MODEL	LND54P	LND84P	LND105P	LND125P	LND145P	LND175P	LND210P	LND252P	LND300P	LND315P	LND378P	LND420P
RATINGS - SEA LEVEL TO 700 FT.												
Btu Output (1000 Btu/hr)	3348	4184	5021	6695	8369	10043	11716	13390	16738	20085	23433	26780
APPROXIMATE FUEL CONSUMPTION AT RATED CAPACITY BASED ON NOMINAL 82% EFFICIENCY												
Light Oil gph (140,000 Btu/gal)	29.2	36.4	43.7	58.3	72.9	87.5	102.1	116.6	145.8	175.0	204.1	233.3
Gas CFH (1000 Btu)	4082	5103	6123	8165	10206	12247	14288	16329	20412	24494	28576	32659
Gas (Therm/hr)	40.8	51.0	61.2	81.6	102.1	122.5	142.9	163.3	204.1	244.9	285.8	326.6
POWER REQUIREMENTS - SEA LEVEL TO 700 FT. (60 HZ)												
Blower Motor hp	5	7 1/2	10	15	15	20	25	30	40	60	75	75
Separate Compressor Motor hp (Oil only)	-	-	-	-	-	5	5	7 1/2	7 1/2	7 1/2	15	15
Integral Oil/Air Motor hp (Oil only)	1	1	1	1	2	-	-	-	-	-	-	-
Oil Metering Pump Motor hp (Oil only)	-	-	-	-	-	1/2	3/4	3/4	3/4	3/4	1	1
Circulating Oil Pump Motor hp (Oil only)	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4	3/4	1	1
BOILER DATA												
Heating Surface sq-ft. (Fireside)	353	438	555	729	885	1055	1384	1522	1734	2094	3244	3641

NOTE: All fractional hp motors will be single phase voltage except oil metering pump motor (3-phase); integral motors will be 3-phase voltage.

Table 8: Model ICB-LE Hot Water Ratings, 3 Pass

BOILER H.P.	100	125	150	200	250	300	350	400	500	600	700	800
BURNER MODEL	LND54P	LND63P	LND84P	LND105P	LND145S	LND145P	LND175P	LND210P	LND252P	LND300P	LND315P	LND378P
RATINGS - SEA LEVEL TO 700 FT.												
Btu Output (1000 Btu/hr)	3348	4184	5021	6695	8369	10043	11716	13390	16738	20085	23433	26780
APPROXIMATE FUEL CONSUMPTION AT RATED CAPACITY BASED ON NOMINAL 80% EFFICIENCY												
Light Oil gph (140,000 Btu/gal)	29.9	37.4	44.8	59.8	74.7	89.7	104.6	119.6	149.4	179.3	209.2	239.1
Gas CFH (1000 Btu)	4184	5230	6277	8369	10461	12553	14645	16738	20922	25106	29291	33475
Gas (Therm/hr)	41.8	52.3	62.8	83.7	104.6	125.5	146.5	167.4	209.2	251.1	292.9	334.8
POWER REQUIREMENTS - SEA LEVEL TO 700 FT. (60 HZ)												
Blower Motor hp	5	5	7 1/2	10	15	15	20	25	30	40	60	75
Separate Compressor Motor hp (Oil only)	-	-	-	-	-	-	5	5	7 1/2	7 1/2	7 1/2	15
Integral Oil/Air Motor hp (Oil only)	1	1	1	1	2	2	-	-	-	-	-	-
Oil Metering Pump Motor hp (Oil only)	-	-	-	-	-	-	1/2	3/4	3/4	3/4	3/4	1
Circulating Oil Pump Motor hp (Oil only)	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4	3/4	1	1
BOILER DATA												
Heating Surface sq-ft. (Fireside)	353	438	555	729	885	1055	1384	1522	1734	2094	3244	3641

NOTE: All fractional hp motors will be single phase voltage except oil metering pump motor (3-phase); integral motors will be 3-phase voltage.

Table 9: Model ICB Steam Boiler Dimensions, 4-Pass and 3-Pass

BOILER H.P.	DIM	100	125	150	200	250	300	350	400	500	600	700	800
LENGTHS													
Overall (3-Pass)	A	171"	197"	195"	243-1/2"	208-1/2"	234-1/2"	237-1/2"	263"	255"	290-1/2"	281-1/2"	306-1/2"
Overall (4-Pass)	A	171"	197"	195"	243-1/2"	208-1/2"	241"	247"	268"	257-1/2"	290-1/2"	284-1/2"	312"
Shell	B	127-7/8"	153-7/8"	151-7/8"	192-7/8"	160-7/8"	186-7/8"	189-7/8"	205-7/8"	195-3/4"	228-3/4"	219-7/8"	241-7/8"
Base Frame	C	124-3/8"	150-3/8"	148-3/8"	189-3/8"	157-3/8"	183-3/8"	184-3/8"	200-3/8"	187-1/4"	220-1/4"	211-3/8"	233-3/8"
Base Frame to Rear Flange	D	9-1/2"	9-1/2"	9-1/2"	9-1/2"	9-1/2"	9-1/2"	9-1/2"	9-1/2"	14-1/2"	14-1/2"	14-1/2"	14-1/2"
Flange to Steam Nozzle	E	55-7/8"	61-7/8"	65-7/8"	77-7/8"	68-7/8"	80-7/8"	78-7/8"	94-7/8"	82-3/4"	106-3/4"	98-7/8"	111-7/8"
WIDTHS													
Overall	I	80"	80"	85"	85"	97"	97"	103"	103"	117"	117"	131"	131"
I.D. Boiler	J	55"	55"	60"	60"	72"	72"	78"	78"	92"	92"	106"	106"
Center to Water Column	K	42-1/2"	42-1/2"	45"	45"	51"	51"	54"	54"	61"	61"	68"	68"
Center to Lagging	L	30-1/2"	30-1/2"	33"	33"	39"	39"	42"	42"	49"	49"	56"	56"
Center to Auxiliary LWCO	LL	37-1/2"	37-1/2"	40"	40"	46"	46"	49"	49"	56"	56"	63"	63"
Base Outside	M	47-1/2"	47-1/2"	52-1/2"	52-1/2"	58-1/2"	58-1/2"	64"	64"	68"	68"	74-3/4"	74-3/4"
Base Inside	N	39-1/2"	39-1/2"	44-1/2"	44-1/2"	50-1/2"	50-1/2"	56"	56"	55"	55"	61-3/4"	61-3/4"
HEIGHTS													
Base to Boiler Centerline	F	44-1/2"	44-1/2"	46"	46"	54"	54"	56"	56"	65-1/2"	65-1/2"	71"	71"
Base to Vent Outlet	O	80-3/4"	80-3/4"	85"	85"	101"	101"	106"	106"	122-1/2"	122-1/2"	135-5/8"	135-5/8"
Base to Rear Door Davit	OA	82-1/4"	82-1/4"	86-1/2"	86-1/2"	101"	101"	106"	106"	122-1/2"	122-1/2"	135-5/8"	135-5/8"
Base to Steam Outlet	P	78-3/8"	78-3/8"	82-3/8"	82-3/8"	96-1/4"	96-1/4"	101-1/2"	101-1/2"	118"	118"	130-5/8"	130-5/8"
Base Frame	Q	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"
Base to Bottom Boiler	R	16"	16"	16"	16"	17"	17"	17"	17"	19"	19"	17-1/2"	17-1/2"
CONNECTIONS													
Chemical Feed	G	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"
Feedwater Inlet	S	1-1/4"	1-1/2"	1-1/2"	2"	2"	2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"
Steam Nozzle (15 psig) ^{150 LB. FLG.}	Y	8"	8"	8"	10"	12"	12"	12"	12"	12"	12"	12"	12"
Steam Nozzle (150 psig) ^{300 LB. FLG.}	Y	4"	4"	4"	4"	6"	6"	6"	6"	8"	8"	8"	8"
Drain — Front & Rear (15 psig)	W	1-1/2"	1-1/2"	1-1/2"	2"	2"	2"	2"	2"	2"	2"	2"	2"
Blowdown—Front & Rear(150 psig)	W	1-1/4"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	2"	2"	2"	2"	2"
Surface Blowoff (150 psig only)	T	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"
Vent Stack Diameter (Flanged)	BB	16"	16"	16"	16"	20"	20"	20"	20"	24"	24"	24"	24"
Flange to Center Vent	CC	9-1/8"	9-1/8"	9-1/8"	9-1/8"	10-5/8"	10-5/8"	10-5/8"	10-5/8"	12-5/8"	12-5/8"	12-5/8"	12-5/8"
MINIMUM CLEARANCES													
Rear Door Swing	DD	34"	34"	36"	36"	43"	43"	46"	46"	53"	53"	60"	60"
Tube Removal — Front	GG	95"	121"	119"	160"	122"	148"	149"	165"	146"	179"	170"	192"
Tube Removal — Rear	HH	96-1/2"	122-1/2"	120-1/2"	161-1/2"	126-1/2"	152-1/2"	150-1/2"	166-1/2"	148-1/2"	181-1/2"	172-1/2"	194-1/2"
MINIMUM BOILER ROOM LENGTH ALLOWING FOR DOOR SWING AND TUBE REMOVAL FROM:													
Front of Boiler	RF	257"	309"	307"	389"	326"	378"	385"	417"	395"	461"	450"	494"
Rear of Boiler (3-Pass)	RR	303-1/2"	355-1/2"	351-1/2"	441"	371"	423"	427"	468-1/2"	441-1/2"	510"	492"	539"
Rear of Boiler (4-Pass)	RR	303-1/2"	355-1/2"	351-1/2"	441"	371"	429-1/2"	436-1/2"	473-1/2"	444"	510"	495"	544-1/2"
Thru Window or Door (3-Pass)	RD	237"	263"	263"	311-1/2"	283-1/2"	309-1/2"	315-1/2"	341"	340"	375-1/2"	373-1/2"	398-1/2"
Thru Window or Door (4-Pass)	RD	237"	263"	263"	311-1/2"	283-1/2"	316"	325"	346"	342-1/2"	375-1/2"	376-1/2"	404"
WEIGHTS													
Normal Water Weight (lbs)	—	5,140	6,515	7,184	9,612	10,175	12,278	13,192	14,593	17,870	21,780	26,638	30,026
Shipping Weight — (15 psig) (lbs)	—	10,123	11,303	11,931	14,106	16,958	19,051	22,344	23,918	28,934	33,189	41,179	45,226
Shipping Weight — (150 psig) (lbs)	—	10,877	12,220	13,112	15,637	17,613	20,404	25,344	27,175	31,990	36,780	45,724	50,244
Shipping Weight — (200 psig) (lbs)	—	11,420	12,850	14,000	16,575	19,400	22,400	25,810	25,740	33,710	39,100	50,025	55,000

NOTE: Accompanying dimensions, while sufficiently accurate for layout purposes, must be confirmed for actual option requirements.