

equipment available on Kewanee type **C** boilers

standard

optional

all 7L-100 boilers	Steel Bases 14" 7L-178—7L183 17" 7L184—7L188 21" 7L-189—7L193 Rear smoke outlet with clean out openings Rear 16" diameter access opening Rear Pyrex observation port Front flue doors with insulation Flue cleaner and handle Washout plug wrench Washout plugs Manhole on 7L-182 and larger	Extra base height Top (right hand side) (left hand side) smoke outlet Structural steel supports Bearing plate brackets Insulation angles Wing induced draft fan Explosion relief door Plain steel damper for smokebox Bearing or quadrant damper Additional height firebox Sleeves through water leg Special openings in boiler Water heating coils Opening for coil other than Kewanee Kewanee boiler conditioning compound
stoker boilers	Fire door assembly	
hand fired boilers	Fire door assembly Ash pit door assembly Shaking grates Hoe, poker, and slice bar Damper regulator (Steam boiler only)	
steam boilers	Safety valve(s) Steam gage with siphon and cock Kewanee water column with hand operated water gage and try cock assembly (chain operated on 7L-186 and larger)	Hi and lo water alarm column Chain operated water gage Chain operated try cock Inclined water gage glass
water boilers	Relief valves	Higher than 30 lbs. water working pressure

typical type **C** 7L series boiler specifications

The contractor shall furnish and install ... No. 7L Kewanee Type C Boiler(s) for (oil) (gas) (stoker) (hand fired) firing. Boiler(s) shall contain not less than ... sq. feet of heating surface and have an SBI steam rating of ... sq. feet.

Boiler shall be designed to develop 141.5% of the SBI rating indicated above and shall have minimum of ... cu. ft. of firebox volume above the bottom of the water leg. Boiler shall have arched crown sheet, shall be of three pass firebox design, and constructed in accordance with the A.S.M.E. code for (15 lb. steam) (30 lb. water). Boiler shall be inspected during construction by an authorized inspector and after completion shall be subjected to a 60 lb. hydrostatic test and stamped with all identifying markings and symbols as required by the latest edition of the A.S.M.E. code.

Boiler to be furnished with ... in. high steel base, cast iron front flue

doors of size permitting easy access to all tubes and lined with refractory securely keyed in place.

Rear smoke box shall have cleanout openings on both sides with smoke outlet at (rear) (top) (r.h. side) (l.h. side) of smokebox. Round access opening and observation port in rear water leg.

Boiler trimmings shall consist of the following:

For Steam: Safety valve(s), steam gage with siphon and cock, Kewanee water column with hand operated water gage and try cock assembly—chain operated on 7L-186 and larger.

For Water: Relief valve, or relief valves and safety valves as required by A.S.M.E. code for low pressure boilers.

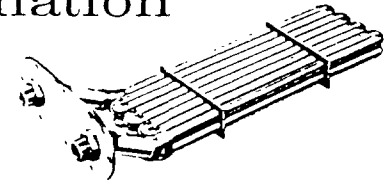
NOTE: When a high setting and independent supporting structure is desired, use either of the following options:

Structural Steel Supports: Boiler(s) to be furnished less steel bases but with structural steel supports for setting boiler(s) independently of masonry base(s). Distance from boiler room floor to bottom of water leg to be ...
Structural supports to consist of four H-columns with base plates, one pair each side of boiler and eight pairs of hot-formed steel brackets securely fastened to the boiler to provide lateral stability according to A.S.M.E. code

construction. Each H-column shall be securely bolted to two pairs of boiler brackets.

Bearing Plate Brackets: Boiler(s) to be furnished less steel bases but with bearing plate brackets for supporting boiler on masonry base(s). Bearing brackets to consist of two pairs of steel bearing plates, each with necessary gussets, welded to the boiler at the bottom of water leg. Each gusset to have a 1/2 in. hole for wiring insulation to the boiler.

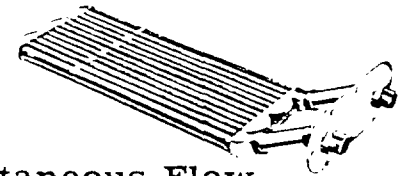
type C coil selection information



Indirect Heating Type – Storage Tank Operation

FAMILIES OR BATHS	2	3	4	6	8	10	12	14	16	18	22	24	28	32	36	40	44
Gallons 40° to 140°F BW 180°F	60	90	120	180	240	300	360	420	480	560	640	720	840	960	1080	1200	1320
in 40° to 140°F BW 212°F	100	150	200	300	400	500	600	700	800	933	1067	1200	1400	1600	1800	2000	2200
3 Hours 40° to 180°F BW 210°F	48	72	96	144	192	240	288	336	384	448	512	576	672	768	864	960	1096
Coil Number—Std	KT 60	KT 90	KT 120	KT 180	KT 240	KT 300	KT 360	KT 420	KT 480	KT 560	KT 640	KT 720	KT 840	KT 960	KT 1080	KT 1200	KT 1320
C Coil 7L-184 only												720-C	840-C	960-C	1080-C	1200-C	1320-C
Inlet & Outlet Diameter—Inches	1	1	1½	1½	2	2	2	2	2	2	2	2½	2½	2½	2½	2½	2½
Overall Length—Inches—Std	30	30	24	30	29	32	38	41	44	50	56	45	51	57	63	69	75
Overall Length—Inches—C Coil												54	60	66	75	81	90
7L 178—7L 183	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7L 184	2	2	2	2	2	2	2	2	2	2	2	*2	*2	*2	*2	*2	*2
7L 185—7L 187	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7L 188—7L 190	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
7L 191—7L 192	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7L 193	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

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Indirect Heating Type – Instantaneous Flow

RESIDENTIAL RATINGS—Based on intermittent draw of hot water with short peak demands.

FAMILIES OR BATHS	1-2	4	6	15	25	35	45	52	65	78	92	105	120	130	140	150	160	170	180	190
Gallons Per Hour 40° to 140°F BW 180°F	240	300	380	480	600	720	840	920	1080	1240	1400	1560	1740	1860	1980	2100	2220	2340	2460	2580

COMMERCIAL RATINGS—Based on continuous draw of hot water with long peak demands.

Gallons 40° to 140°F BW 180°F	180	225	270	360	450	540	630	690	810	930	1050	1170	1305	1395	1485	1575	1665	1755	1845	1935
Per 40° to 140°F BW 212°F	300	375	450	600	750	900	1050	1150	1350	1550	1750	1950	2175	2325	2475	2625	2775	2925	3075	3225
Hour 40° to 180°F BW 210°F	144	180	216	288	360	432	504	552	648	744	840	936	1044	1116	1188	1260	1332	1404	1476	1548
Coil No.—Std.	K1 240	K1 300	K1 360	K1 480	K1 600	K1 720	K1 840	K1 920	K1 1080	K1 1240	K1 1400	K1 1560	K1 1740	K1 1860	K1 1980	K1 2100	K1 2220	K1 2340	K1 2460	K1 2580
C Coil 7L 184 Only													1740-C	1860-C	1980-C	2100-C	2220-C	2340-C	2460-C	2580-C
Inlet & Outlet Dia. Inches	1	1	1½	1½	2	2	2	2	2	2	2	2	2½	2½	2½	2½	2½	2½	2½	2½
Overall Length—Inches—Std	26	29	26	29	36	39	45	45	51	57	63	69	55	58	61	64	67	70	73	76
Overall Length—Inches—C Coil													64	70	73	76	79	82	85	91
7L 178—7L 183	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7L 184	2	2	2	2	2	2	2	2	2	2	2	2	*2	*2	*2	*2	*2	*2	*2	*2
7L 185—7L 187	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7L 188—7L 190	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
7L 191—7L 192	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7L 193	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

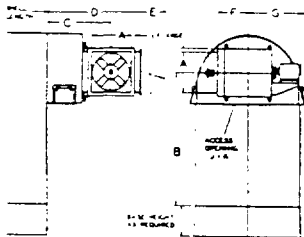
INSTRUCTIONS. Read across top section of table to find desired coil capacity. Read down column until you reach correct boiler size. If number appears in that box, coil will fit. The number represents the maximum quantity of coils boiler will accommodate.

induced draft fans

WING DRAFT INDUCERS with variable speed motors provide precise draft control at all times... eliminate the need for tall stacks with Kewanee Type "C" boilers. AIR COOLED BEARINGS—pre-sealed and pre-lubricated—require no lubrication. SPRING MOUNTED MOTOR—dustproof, multispeed,

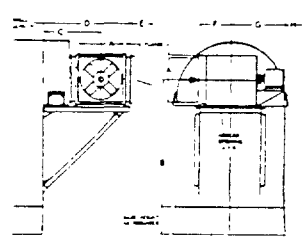
brushless—maintains correct fan belt tension. PERMANENT MOUNTING—furnished for either horizontal right or left, vertical or rear discharge as specified. Barometric dampers optional at extra cost.

Horizontal right or left discharge—mounted to smokebox



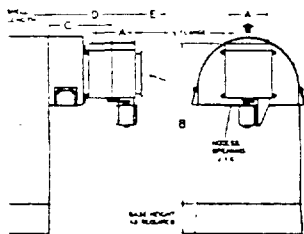
boiler number	7L178	7L179	7L180	7L181	7L182	7L183	7L184
inducer number*	40 W	40 W	190 W	190 W	190 W	190 W	190 W
fan motor size							
—60 cycle—1 phase—110-220 V	no	1/4	1/4	1/4	1/4	1/4	1/4
—60 cycle—2 or 3 phase—208-220-250 V	no	1	1	1	1	1	1
—60 cycle—2 or 3 phase—440-480-550 V	no	1	1	1	1	1	1
A—outlet size	14	14	19	19	19	19	19
B—bottom boiler to center of outlet	55 1/2	55 1/2	53 1/2	53 1/2	67 1/2	67 1/2	67 1/2
C—boiler head to center of outlet	26 1/2	26 1/2	30	30	30	30	31
D—overall space requirement	37 1/2	37 1/2	43 1/2	43 1/2	43 1/2	43 1/2	44 1/2
E—barometric damper	9	9	12	12	12	12	12
F—boiler CL to outlet	22 1/2	22 1/2	24 1/2	24 1/2	24 1/2	24 1/2	24 1/2
G—boiler CL to motor end	23	23	26 1/2	26 1/2	26 1/2	30 1/2	30 1/2
H—fan removal clearance	19 1/2	19 1/2	27	27	27	27	27
J—access opening width	10	10	10	10	10	10	10
K—access opening length	24	24	24	24	27	27	30

Horizontal right or left discharge—structural mounting support



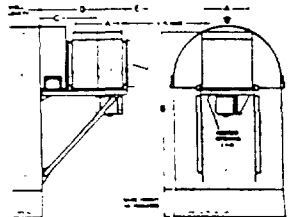
boiler number	7L185	7L186	7L187	7L188	7L189	7L190	7L191	7L192	7L193
inducer number*	280L W	280L W	280L W	280H W	280H W	280H W	280S J	290 J	290 J
fan motor size									
—60 cycle—1 phase—110-220 V	no	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4
—60 cycle—2 or 3 phase—208-220-250 V	no	1	1	1	1	1	3	3	3
—60 cycle—2 or 3 phase—440-480-550 V	no	1	1	1	1	1	3	3	3
A—outlet size	28	28	28	28	28	28	28	29	29
B—bottom boiler to center of outlet	83	83	89	89	106	106	113	114	114
C—boiler head to center of outlet	35 1/2	39 1/2	39 1/2	39 1/2	39 1/2	39 1/2	43 1/2	43	43
D—overall space requirement	53 1/2	57 1/2	57 1/2	57 1/2	57 1/2	57 1/2	61 1/2	61 1/2	61 1/2
E—barometric damper	15	15	15	15	15	15	18 1/2	18 1/2	18 1/2
F—boiler CL to outlet	20 1/2	25 1/2	25 1/2	25 1/2	25 1/2	25 1/2	29 1/2	29 1/2	29 1/2
G—boiler CL to motor end	34 1/2	34 1/2	34 1/2	36	38 1/2	38 1/2	38 1/2	45 1/2	45 1/2
H—fan removal clearance	35 1/2	35 1/2	35 1/2	36	36	36	36	46	46
J—access opening width	10	10	10	10	12	12	14	14	14
K—access opening length	33	33	33	33	33	33	33	39	39

Vertical discharge—mounted to smokebox



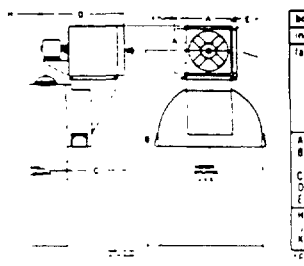
boiler number	7L178	7L179	7L180	7L181	7L182	7L183	7L184
inducer number*	40 W	40 W	190 W	190 W	190 W	190 W	190 W
fan motor size							
—60 cycle—1 phase—110-220 V	no	1/4	1/4	1/4	1/4	1/4	1/4
—60 cycle—2 or 3 phase—208-220-250 V	no	1	1	1	1	1	1
—60 cycle—2 or 3 phase—440-480-550 V	no	1	1	1	1	1	1
A—outlet size	14	14	19	19	19	19	19
B—bottom boiler to center of outlet	55 1/2	55 1/2	53 1/2	53 1/2	67 1/2	67 1/2	67 1/2
C—boiler head to center of outlet	26 1/2	26 1/2	30	30	30	30	31
D—overall space requirement	37 1/2	37 1/2	43 1/2	43 1/2	43 1/2	43 1/2	44 1/2
E—barometric damper	9	9	12	12	12	12	12
J—access opening width	10	10	10	10	10	10	10
K—access opening length	24	24	24	24	27	27	30

Vertical discharge—structural mounting support



boiler number	7L185	7L186	7L187	7L188	7L189	7L190	7L191	7L192	7L193
inducer number*	280L W	280L W	280L W	280H W	280H W	280H W	280S J	290 J	290 J
fan motor size									
—60 cycle—1 phase—110-220 V	no	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4
—60 cycle—2 or 3 phase—208-220-250 V	no	1	1	1	1	1	3	3	3
—60 cycle—2 or 3 phase—440-480-550 V	no	1	1	1	1	1	3	3	3
A—outlet size	28	28	28	28	28	28	28	29	29
B—bottom boiler to center of outlet	88	103 1/2	103 1/2	109	126 1/2	126 1/2	133 1/2	147 1/2	156
C—boiler head to center of outlet	35 1/2	39 1/2	39 1/2	39 1/2	39 1/2	39 1/2	43 1/2	43	43
D—overall space requirement	53 1/2	57 1/2	57 1/2	57 1/2	57 1/2	57 1/2	61 1/2	61 1/2	61 1/2
E—barometric damper	15	15	15	15	15	15	18 1/2	18 1/2	18 1/2
J—access opening width	10	12	12	12	12	12	14	14	14
K—access opening length	33	33	33	33	33	33	33	39	39

Rear discharge—mounted on top of smokebox



boiler number	7L178	7L179	7L180	7L181	7L182	7L183	7L184	7L185	7L186	7L187	7L188	7L189	7L190	7L191	7L192	7L193
inducer number*	140 W	140 W	190 W	190 W	190 W	190 W	190 W	280L W	280L W	280L W	280H W	280H W	280H W	280S J	290 J	290 J
fan motor size																
—60 cycle—1 phase—110-220 V	no	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	3/4	3/4	3/4
—60 cycle—2 or 3 phase—208-220-250 V	no	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3
—60 cycle—2 or 3 phase—440-480-550 V	no	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3
A—outlet size	14	14	19	19	19	19	19	28	28	28	28	28	28	28	29	29
B—bottom boiler to center of outlet	55 1/2	55 1/2	53 1/2	53 1/2	53 1/2	53 1/2	53 1/2	113	122 1/2	132	140	161	161	172	183	194 1/2
C—boiler head to outlet	21	21	27 1/2	27 1/2	27 1/2	27 1/2	27 1/2	38	38	38	38	38	38	38	38	46 1/2
D—overall space requirement	33 1/2	33 1/2	41	41	41	41	41	55	55	55	56 1/2	59	59	59	59	64 1/2
E—barometric damper	9	9	12	12	12	12	12	15	15	15	15	15	15	15	15	18 1/2
H—fan removal clearance	19 1/2	19 1/2	27	27	27	27	27	35 1/2	35 1/2	35 1/2	36	36	36	36	36	46 1/2
J—access opening width	10	10	10	10	10	10	10	12	12	12	12	12	12	12	12	14
K—access opening length	24	24	27	27	27	27	27	33	33	33	33	33	33	33	33	39

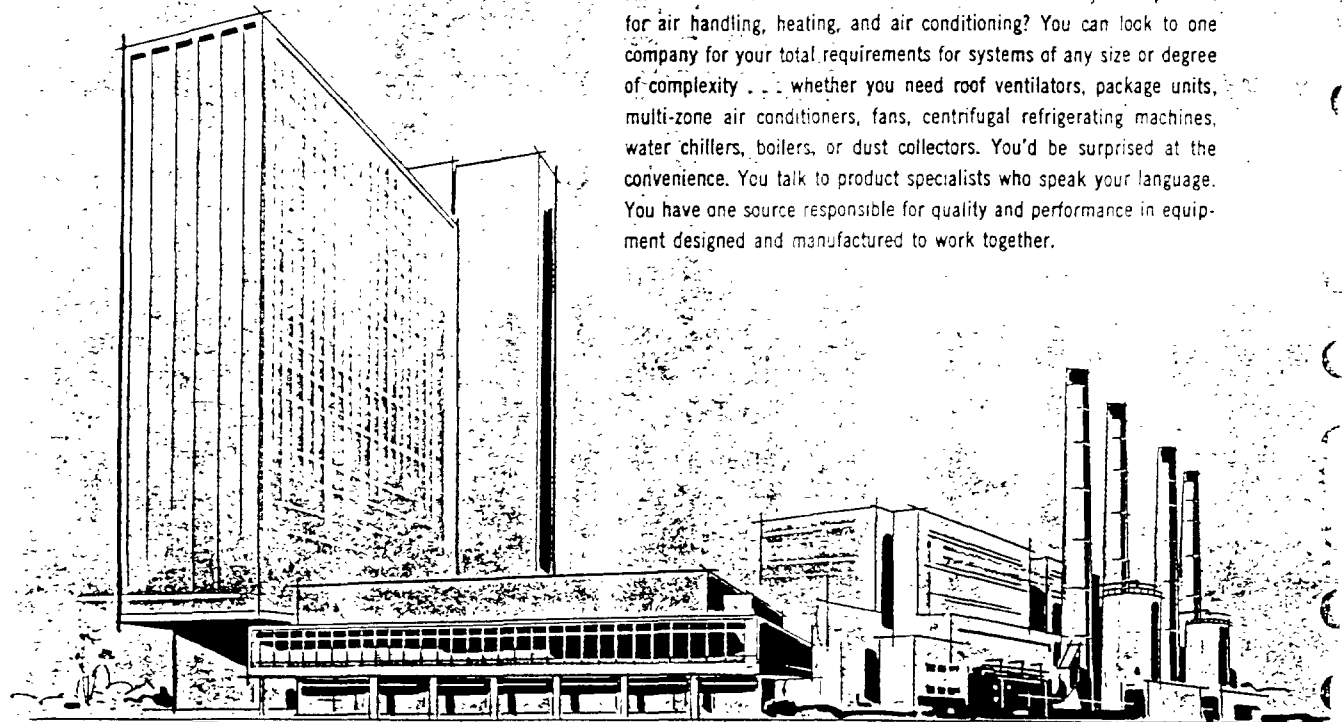
*Fan sizes based on sea level elevation for firing up to and including 14.5% at 50% rating with air or gas, or 12.5% with steam.
Note: Stack and breeching weights must be supported independently. Orders must specify line voltage, cycle and phase.

DATA AND DIMENSIONS (Inches)

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