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Water & Steam Boilers – Series 2

For Gas, Light Oil, & Gas/Light Oil – Fired Burners

Burner Specification & Data Sheet

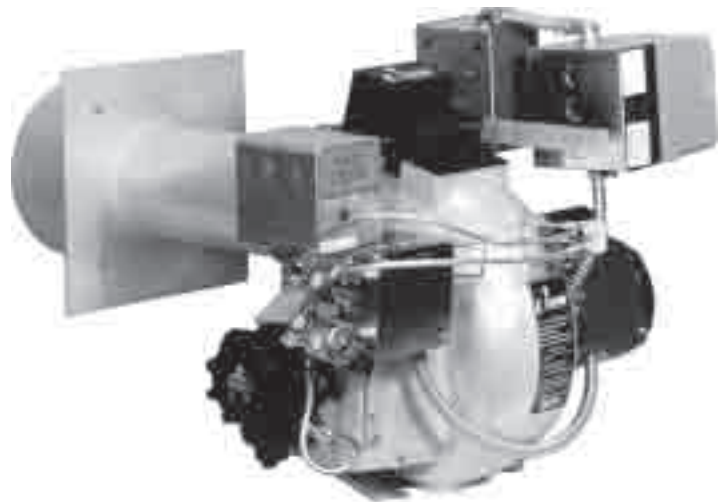
Carlin Oil Burners

Models 702CRD-W, 801CRD-W,
1050FFD-W, 1150FFD-W

Figure 1 Models 702CRD-W and 801CRD-W



Figure 2 Models 1050FFD-W and 1150FFD-W



Burner Model Number	Motor Size, 3450 Rpm H.P.	Standard Motor Electrical Characteristics	Optional Motor Electrical Characteristics	Approximate Shipping Weight
702CRD-W	1/2	120/60/1	240/60/1*	75
801CRD-W	3/4	240/60/1	208-240/460/60/3	90
1050FFD-W	1	240/60/1	208-240/460/60/3	135
1150FFD-W	1 1/2	240/60/1	208-240/460/60/3	135

* Optional motor contactor supplied.

Burner specifications and settings

Table 1 Burner data

Boiler Model Number	Burner Input (Forced Draft) No. 2 Oil Gph	Low Fire Firing Rate No. 2 Oil Gph	Positive Pressure In Firebox Inches W.C.	Standard Burner Model Designation	Standard Combustion Control	Starting Head Setting	Approximate Air Settings
							Low Fire
488R	6.90	3.90	0.55	702CRD-W	60200	7/32	5/16
488	7.00	4.00	0.55	702CRD-W	60200	7/32	5/16
588	9.40	5.42	0.61	702CRD-W	60200	13/16	1/2
688	11.80	6.60	0.55	801CRD-W	60200	3/16	1/4
788	14.20	7.00	0.60	801CRD-W	60200	5/8	1/2
888	16.60	8.00	0.85	801CRD-W	60200	1	3/8
988R	17.20	8.90	0.65	1050FFD-W	60200	3/8	3/8
988	18.80	8.92	0.70	1050FFD-W	60200	1/2	1/4
1088R	20.00	9.60	0.70	1050FFD-W	60200	1/2	3/4
1088	21.50	10.10	0.70	1050FFD-W	RM7840L-1018	1/2	3/4
1188	23.50	12.00	0.75	1150FFD-W	RM7840L-1018	1/4	11/16
1288	26.00	12.54	0.75	1150FFD-W	RM7840L-1018	7/16	7/8
1388	28.50	13.44	0.80	1150FFD-W	RM7840L-1018	11/16	7/8
1488	31.00	15.10	0.75	1150FFD-W	RM7840L-1018	1	1

Notes for Table 1 and Table 2

- Burner capacities listed for elevations up to 2,000 feet. For higher elevations, consult local Weil-McLain distributor/agent or sales office.
- Light oil ratings based on No. 2 fuel oil with heating value of 140,000 Btu per gallon.
- Boiler-burner unit to be adjusted to achieve +0.10 inches W.C. pressure at the flue collar, resulting in positive pressure in firebox as listed.
- Combustion Controls:
 - 60200 combustion safety control uses a cadmium sulfide cell flame detector to monitor oil flame; provides interrupted duty, recycle type operation, latch-up feature, 30-second oil valve delay on, 30-second post purge, alarm contacts and safety monitor circuit.
 - RM7840L-1018 combustion safety control (for over 20 GPH applications) uses an ultraviolet flame detector to monitor oil flame and provides purge timings.
- All motors furnished with integral overload protection with manual reset.
- Mechanical pressure atomizing oil control system with on/off operation, low fire start, high fire run and two-position air control is standard. Low-High-Low fire operation can be obtained by addition of SPST temperature or pressure controller.
- 120/60/1 control circuit is used for all burners.

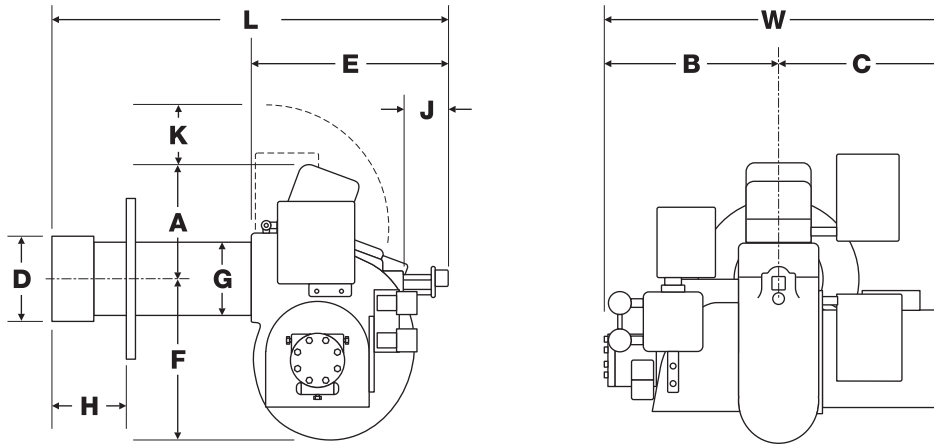
Burner specifications and settings *(continued)*

Table 2 Fuel unit and oil components

Boiler Model Number	Oil Nozzles					Operating Oil Pressure Psig		Fuel Unit Burner-Motor Driven, 3450 Rpm	
	Qty	Size Gph	Brand	Type	Angle	Low Fire	High Fire	Type (Suntec)	Gearset Capacity, Gph
488R	1	4.0	Hago	P	70°	100	300	B2TA-8851	33
488	1	4.0	Hago	P	70°	100	300	B2TA-8851	33
588	1	5.5	Hago	P	60°	100	300	B2TA-8851	33
688	2	1-5.5 1-4.5	Hago	H	45°	150	150	B2TA-8260	39
788	2	1-6.0 1-5.5	Hago	H	45°	150	150	B2TA-8260	39
888	2	1-6.5 1-7.0	Hago	H	45°	150	150	B2TA-8260	39
988R	3	1-9.0 2-4.0	Hago	SS	45°	110	100	J4PB-B1000G	46
988	3	1-9.0 1-6.0 1-5.5	Hago	SS	45°	110	100	J4PB-B1000G	46
1088R	3	1-10.0 2-5.0	Hago	SS	45°	110	100	J4PB-B1000G	46
1088	3	1-10.0 1-6.0 1-5.5	Hago	SS	45°	110	100	J4PB-B1000G	46
1188	3	1-12.0 1-6.0 1-5.5	Hago	SS	45°	110	100	J4PB-B1000G	46
1288	3	1-12.0 2-7.0	Hago	SS	45°	110	100	J4PB-B1000G	46
1388	3	1-13.0 1-7.5 1-8.0	Hago	SS	45°	110	100	J4PB-B1000G	46
1488	3	1-13.0 1-8.0 1-7.5	Hago	SS	45°	110	100	J4PB-B1000G	46

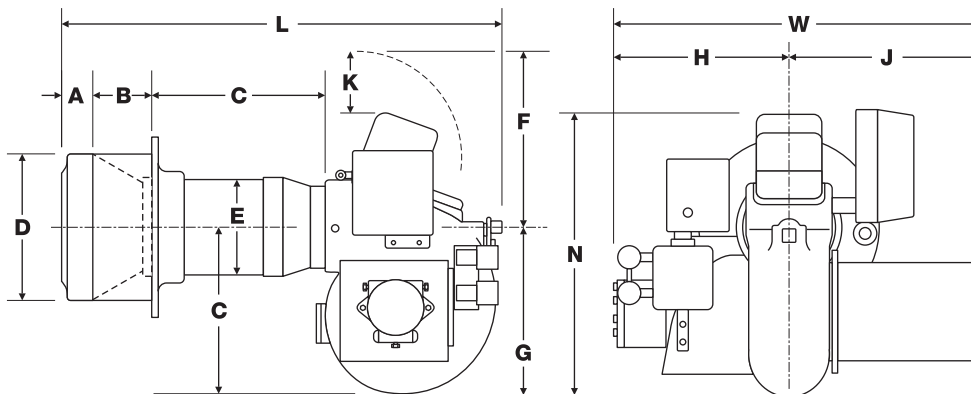
Burner dimensions

Figure 3 Carlin models 702CRD-W and 801CRD-W



Burner Model Number	Dimensions, In Inches											
	A	B	C	D	E	F	G	H	J	K	L	W
702CRD-W	7.50	9.50	10.00	5.88	13.00	9.00	4.13	4.00	3.00	3.00	20.75	19.50
801CRD-W	8.00	12.00	11.00	5.88	14.50	10.50	5.25	4.00	3.00	3.00	20.50	23.00

Figure 4 Carlin models 1050FFD-W and 1150FFD-W



Burner Model Number	Dimensions In Inches													
	A	B	C	D	E	F	G	H	J	K	L	N	W	
1050FFD-W	1.63	4.00	11.50	8.63	5.25	11.00	10.75	12.00	13.00	3.00	25.63	18.75	25.00	
1150FFD-W	2.13	4.00	11.88	9.88	6.25	11.00	10.75	12.00	13.00	3.00	25.88	18.75	25.00	



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