



# 80 Water & steam boilers

for use with Gas, Light Oil, & Gas/Light Oil – Fired Burners

## Burner specifications and data

### Beckett burners

Models **CF500-W, CF800-W, CF1400-W** and **CF2300A-W** *Flame retention type, for light oil firing*

Model CF500-W



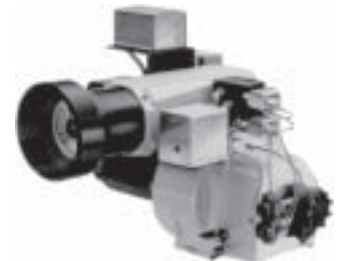
Model CF800-W



Model CF1400-W



Model CF2300A-W



Burner Model Number	Length (from mounting flange to label area on burner front)	Overall width	Motor size H.P.	Standard motor electrical characteristics	Optional motor electrical characteristics
CF500-W	11.00	14.75	1/3	120/60/1	240/60/1
CF800-W	11.00	14.75	1/3	120/60/1	240/60/1
CF1400-W	20.75	22.50	1/2	120/60/1	240/60/1*
CF2300A-W	21.25	24.00	3/4	120/60/1	240/60/1 240/60/3

\* Optional motor contactor supplied.



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	Air tube combination	Air band setting	Air shutter setting	Starting head setting	Approximate air settings	
										Low fire	High fire
380	2.40	--	0.34	CF500-W	R8184G	CF60KK	0.00	4.00	1.50	--	--
480	3.40	--	0.33	CF500-W	R8184G	CF60KK	1.00	10.00	4.00	--	--
580	4.45	--	0.32	CF800-W	R8184G	CF60KHS	0.00	7.00	2.00	--	--
680	5.50	--	0.31	CF800-W	R8184G	CF60KHS	3.00	10.00	4.00	--	--
780	6.50	4.59	0.30	CF1400-W	R8184G	CF66KD	--	--	3.00	2.00	4.50
880	7.50	5.51	0.29	CF1400-W	R8184G	CF66KD	--	--	4.00	2.40	4.20
980	8.50	6.12	0.28	CF1400-W	R8184G	CF66KD	--	--	5.00	2.50	6.00
1080	9.60	6.73	0.27	CF1400-W	R8184G	CF66KE	--	--	3.00	3.00	5.80
1180	10.60	7.35	0.26	CF2300A-W	R8184G	CF66KG	--	--	0.00	1.50	2.80
1280	11.60	8.57	0.25	CF2300A-W	R8184G	CF66KG	--	--	0.50	3.00	6.00

**Notes**

- 1 Burner capacities listed for elevations up to 2,000 feet. For higher elevations, consult local Weil-McLain distributor/agent or sales office.
- 2 Oil ratings based on No. 2 fuel oil with heating value of 140,000 Btu per gallon.
- 3 Boiler-burner unit to be adjusted to achieve + 0.1 inches W.C. pressure at flue collar, resulting in positive pressure in firebox as listed.
- 4 R8184G combustion safety control uses a cadmium sulfide cell flame detector to monitor oil flame, provides intermittent direct spark ignition of oil flame and manual lockout switch.

# Burner Specification and Data Sheet

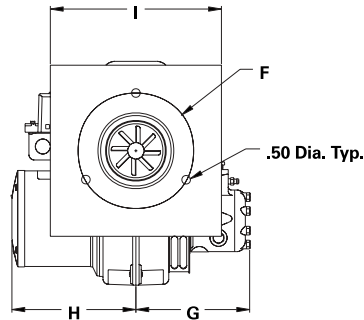


Boiler model number	Oil nozzle (one per unit)								Operating oil pressure(s) PSIG		Fuel unit Burner-motor driven, 3450 RPM		
	Primary nozzle				Alternate nozzle						Low fire	High fire	Type (Suntec)
	Size GPH	Brand	Type	Angle	Size GPH	Brand	Type	Angle					
380	2.00	Delavan	B	60°	2.00	Hago	P	45°	--	140	B2YA-8916	7	25
480	2.75	Hago	P	45°	2.75	Monarch	PLP	45°	--	150	B2YA-8916	7	25
580	3.75	Hago	P	30°	3.50	Hago	P	30°	--	150	B2TA-8248	8	27
680	4.50	Hago	P	45°	4.50	Delavan	B	45°	--	150	B2TA-8248	8	27
780	3.75	Hago	P	45°	4.00	Hago	P	45°	150	300	B2TA-8851-4	16	33
880	4.50	Hago	P	45°	4.50	Hago	P	60°	150	275	B2TA-8851-4	16	33
980	5.00	Hago	P	45°	5.00	Delavan	B	45°	150	300	B2TA-8851-4	16	33
1080	5.50	Delavan	B	45°	5.50	Hago	P	45°	150	300	B2TA-8851-4	16	33
1180	6.00	Hago	P	45°	6.00	Delavan	B	45°	150	300	B2GA-8852	23	39
1280	7.00	Hago	P	45°	7.00	Delavan	B	60°	150	280	B2GA-8852	23	39

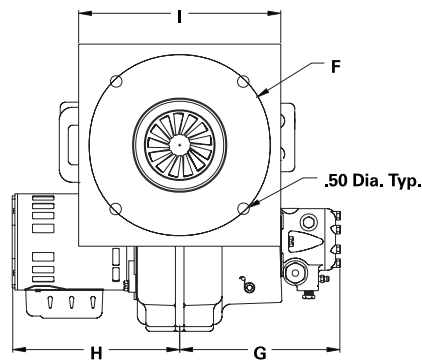
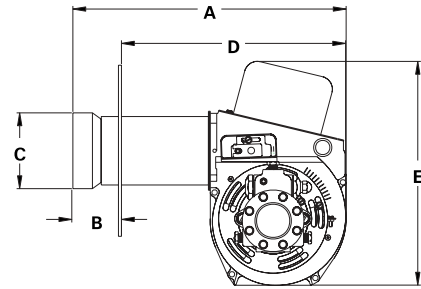
\* Not U.L. rating — use when sizing auxiliary pumps and piping.

## Notes

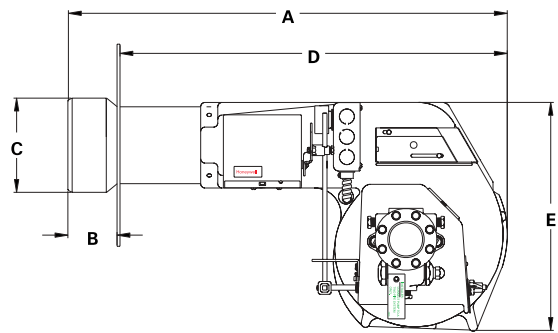
- 5 All motors furnished with integral overload protection with manual reset.
- 6 CF500-W and CF800-W burners are furnished for on-off operation only. CF1400-W and CF2300A-W burners are furnished with mechanical pressure atomizing oil control system with on-off operation, low fire start, high fire run and two-position air control as standard. Low-high-low fire operation can be obtained by addition of SPST temperature or pressure controller.
- 7 Settings shown are for initial start-up. Final settings should be determined after combustion readings.
- 8 120/60/1 control circuit is used for all burners.



**Beckett Models CF500-W and CF800-W**



**Beckett Models CF1400-W and CF2300A-W**



Burner model	Air tube combination	Dimensions, in inches								
		A Overall length	B Insertion depth	C Maximum tube O. D.	D Burner length	E Overall height	F Bolt circle	G Centerline to pump	H Centerline to motor	I Square flange width & height
CF500-W	CF600KK	14.00	3.00	4.13	10.88	13.00	6.75	6.50	7.50	10.00
CF800-W	CF60KHS	14.00	3.00	4.13	10.88	13.00	6.75	6.50	7.50	10.00
CF1400-W	CF66KD	24.75	4.00	5.50	20.63	13.50	10.00	9.50	9.82	12.00
CF1400-W	CF66KE	24.75	4.00	5.88	20.63	13.50	10.00	9.50	9.82	12.00
CF2300A-W	CF66KG	25.25	4.00	6.50	21.13	15.60	10.00	10.40	12.00	12.00



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