

**TRIM AND DESCRIPTION PARKER INDUSTRIAL STEAM BOILERS
POWER GAS, LIGHT OIL OR COMBINATION GAS/LIGHT OIL FIRED**

GAS/OIL FIRED MODEL	101-GO-9.5	101-GO-12	101-GO-16	101-GO-22	104-GO-30	104-GO-40	104-GO-50	105-GO-70	105-GO-90	105-GO-115	105-GO-150
GROUP TRIM	AGO		BGO			CGO		DGO			EGO
BURNER MODEL NO.	CR1-GO-10		CR1-GO-10		CR1-GO-12	CR2-GO-15		CR2-GO-20B	CR3-GO-20	CR3-GO-25B	CR4-GO-25
TYPE OF FIRING	GAS/OIL	2-STG/OFF-ON		2-STAGE		2-STAGE		MOD.			
GAS INLET SIZE	1"			1-1/4"		1-1/2"		2"		2-1/2"	
STD. ELECT. SERVICE**	115/60/1					(2) 230/60/3****		(2) 230/60/3			
BLOWER MOTOR SIZE	1/3 HP					1/2 HP		1 HP	1-1/2 HP	3 HP	
SEP. OIL PUMP MOTOR*				1/3 HP				1/3 HP	1/2 HP	3/4 HP	
UV FLAME SAFEGUARD	STD. & FM	RM7897C					RM7840L			RM7840L	
	IRI						RM7840L				

OIL FIRED MODEL	101-O-9.5	101-O-12	101-O-16	101-O-22	104-O-30	104-O-40	104-O-50	105-O-70	105-O-90	105-O-115	105-O-150
GROUP TRIM	AO		BO			CO		DO			
BURNER MODEL NO.	CR1-O		CR1-O			CR2-OA		CR2-OB	CR3-O	CR3-OB	CR4-OA
TYPE OF FIRING	OFF-ON		2-STAGE					MOD.			
STD. ELECT. SERVICE**	115/60/1							230/60/3			
BLOWER MOTOR SIZE	1/3 HP					3/4 HP		1-1/2 HP	2 HP	3 HP	5 HP
UV FLAME SAFEGUARD	STD. & FM	RM7897A					RM7840L			RM7840L	
	IRI	RM7897A					RM7840L				

GAS FIRED MODEL	101-G-9.5	101-G-12	101-G-16	101-G-22	104-G-30	104-G-40	104-G-50	105-G-70	105-G-90	105-G-115	105-G-150
GROUP TRIM	AG					BG		CG			DG
BURNER MODEL NO.	CR1-G-10			CR1-G-12		CR2-G-15		CR2-G-20B	CR3-G-20	CR3-G-25B	CR4-G-25
TYPE OF FIRING	2-STAGE			2-STAGE		2-STAGE		MOD.			
GAS INLET SIZE	1"			1-1/4"		1-1/2"		2"		2-1/2"	
STD. ELECT. SERVICE**	115/60/1					230/60/3****		230/60/3			
BLOWER MOTOR SIZE	1/3 HP			1/3 HP		1/2 HP		1 HP	1-1/2 HP	3 HP	
UV FLAME SAFEGUARD	STD. & FM	RM7897A					RM7840L			RM7840L	
	IRI						RM7840L				

GENERAL SPECIFICATIONS FOR ALTITUDES UP TO 2000 FT. ABOVE SEA LEVEL												
INPUT	BTU/HR	398,000	516,000	688,000	946,000	1,260,000	1,680,000	2,100,000	2,940,000	3,780,000	4,830,000	6,300,000
OUTPUT @ RATING***	BTU/HR	318,000	402,000	536,000	737,000	1,008,000	1,344,000	1,680,000	2,345,000	3,015,000	3,853,000	5,025,000
INPUT NO. 2 FUEL OIL	US GPH	2.8	3.7	4.9	6.7	9	12	15	21	27	35	45
RATED STEAM CAP.***	LBS/HR	328	414	552	759	1035	1380	1725	2415	3105	3968	5175
DIA. CHIMNEY OUTLET	IN.	8	8	10	12	12	14	16	18	20	22	26
RETURN SYSTEM MODEL		R3-__	R3-__	R3-__	R4-__	R5-__	R6-__	R6-__	R7-__	R8-__	R9-__	R9-__
BLOWDOWN TANK MODEL		BD1248	BD1248	BD1648	BD2048	BD2048	BD2448	BD3048	BD3672	BD3672	BD3672	BD4272
STANDARD FEED PUMP	15 PSI	115/60/1	115/60/1	115/60/1	115/60/1	115/60/1	115/60/1	115/60/1	(2) 115/60/1	(2) 115/60/1	(2) 115/60/1	(2) 115/60/1
ELECTRICAL	16-125 PSI	115/60/1	115/60/1	115/60/1	230/60/3	230/60/3	230/60/3	230/60/3	(2) 230/60/3	(2) 230/60/3	(2) 230/60/3	(2) 230/60/3
REQUIREMENT	ABOVE 125 PSI	230/60/3	230/60/3	230/60/3	230/60/3	230/60/3	230/60/3	230/60/3	(2) 230/60/3	(2) 230/60/3	(2) 230/60/3	(2) 230/60/3
APPROX. SHIP WEIGHT												
BOILER	LBS.	2075	2075	2575	3930	3890	4980	5940	8400	9800	12950	15950
BOILER & RETURN SYSTEM	LBS.	2365	2365	2865	4285	4410	5520	6480	9250	10740	14200	17200
BOILER, RETURN & BD TANK	LBS.	2545	2545	3085	4580	4705	5955	7055	10180	11670	15130	18295

Parker Industrial Packaged Power Fired Steam Boiler. Sectional bent water tube design with 1-5/16" O.D. steel tubes welded to headers for pressures up to 250 PSI. Assembled in heavy steel insulated cabinet with pre-cast combustion chamber, power burner with controls mounted and wired. Each unit factory fire tested. Recommended for all applications requiring high or low pressure steam. For specifications and dimensions, see specification sheets D-101, 104 & 105-IV-VI.

*On Gas/Oil fired models, if separate oil pump is deleted, the blower motor size (HP) and electrical is same as comparable Oil Fired model. The low oil pressure switch is then optional.

Electrical service shown is for burner & controls only. See General Specifications Paragraph for electrical requirements for boiler feed pumps. *Ratings shown are from and at 212 F. ****115V with 15 PSI trim.

**TRIM AND DESCRIPTION PARKER INDUSTRIAL STEAM BOILERS
 POWER GAS, LIGHT OIL OR COMBINATION GAS/LIGHT OIL FIRED**

CODES:	All models are built in accordance with the ASME Power Boiler Code and registered with the National Board of Boiler and Pressure Vessel Inspectors. 15 PSI boilers are stamped "H" in accordance with the ASME Heating Boiler Code. The Standard Power Burner is Listed by Underwriters' Laboratories, Inc. and displays the Listing Label. On Oil Fired Models, all trim and controls are in compliance with UL296. On Gas Fired Models, all trim and controls are in compliance with UL795. Gas/Oil Fired Models are in compliance with both standards.
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GROUP TRIM:	
TRIM STD:	STANDARD ON ALL MODELS: Safety valve(s), pressure gauge, water gauge fixtures, column drain valve, steam valve (except 15 PSI), water feed stop and check valve, main line blow-off valve(s), operating pressure control and separate manual reset high limit, Warrick probe type secondary manual reset low water cutoff, Barometric damper with vertical tee. All boilers (except 15 PSI) include the ASME Code boiler external piping (BEP). Boilers with MAWP over 100 PSI include a slow opening blow-off valve mounted with forged steel fittings and schedule 80 pipe. Pressure atomizing power burner with blower motor and controls, electrical panel with indicator lights, UV flame detection and electronic flame safeguard (as shown on page 1) with pre-purge and manual reset. Post-purge furnished with RM7840L Flame Safeguard. 9.5 to 50 HP: Warrick probe type primary low water cutoff and pump control with motor starting relay. 70 to 150 HP: Warrick probe type primary low water cutoff and dual pump control for two pumps. Dual pump motor starting relays. Two main blow-off valves and two header blow-off valves.

GAS/OIL FIRED

TRIM AGO:	STANDARD 9.5 to 12 HP: Two stage firing on gas and off-on firing on oil. High-low fire pressure control for gas. 115/60HZ/1PH blower motor and separate oil pump motor. Low oil pressure switch. Oil line with two stage oil pump and two fuel valves. Gas line with two manual gas cocks, gas pressure regulator, one positive close motorized gas valve and one secondary gas valve (regulator and secondary gas valve may be combination unit). Spark ignited gas pilot for both fuels. Pilot gas line with pilot gas cock, pilot gas pressure regulator and pilot electric gas valve. Air safety switch.
TRIM BGO:	STANDARD 16 to 30 HP: Same as trim AGO except two stage firing on both gas and oil with high-low fire control and low fire start.
TRIM CGO:	STANDARD 40 to 50 HP: Same as trim BGO except 230V/60HZ/3PH blower motor with control transformer for boiler control circuit (40-50 HP with 15 PSI trim have 115V blower mtr. No trans).
TRIM DGO:	STANDARD 70 to 115 HP: Same as Trim CGO except modulating firing with modulating control and low fire start in place of two stage firing. Add high-low gas pressure switches.
TRIM EGO:	STANDARD 150 HP: Same as Trim DGO except add proof of valve closure (POC) switch to positive close motorized gas valve.

OIL FIRED

TRIM AO:	STANDARD 9.5 to 12 HP: Off-on firing. 115V/60HZ/1PH blower motor with integral two stage oil pump. Two safety shutoff oil valves. Direct spark ignition.
TRIM BO:	STANDARD 16 to 30 HP: Same as trim AO except two stage firing with high-low fire control and low fire start in place of off-on firing.
TRIM CO:	STANDARD 40 to 50 HP: Same as trim BO except 230V/60HZ/3PH blower motor. Control transformer is furnished for boiler control circuit.
TRIM DO:	STANDARD 70 to 150 HP: Same as trim CO except modulating firing with modulating control and low fire start in place of two stage firing. Add air safety switch.

GAS FIRED

TRIM AG:	STANDARD 9.5 to 30 HP: Two stage firing with high-low fire control and low fire start. 115V/60HZ/1PH blower motor Gas line with two manual gas cocks, gas pressure regulator, one positive close motorized gas valve and one secondary gas valve (regulator and secondary gas valve may be combination unit). Spark ignited gas pilot and gas pilot line with manual gas cock, pilot gas pressure regulator and electric gas valve. Air safety switch.
TRIM BG:	STANDARD 40 to 50 HP: Same as trim AG except 230V/60HZ/3PH blower motor with control transformer for boiler control circuit. (40-50 HP with 15 PSI trim have 115V blower mtr. No trans).
TRIM CG:	STANDARD 70 to 115 HP: Same as Trim BG except modulating firing with modulating control and low fire start in place of two stage firing. Add high-low gas pressure switches.
TRIM DG:	STANDARD 150 HP: Same as Trim CG except add proof of valve closure (POC) switch to positive close motorized gas valve.

SPECIAL TRIM

CALIF. CODE FM TRIM	High and low water alarm required: 1-1/2 to 9.5 HP above 100 PSI; 15 HP and larger above 15 PSI. See page 1 for flame safeguard standards. All Gas and Gas/Oil fired models have high and low gas pressure switches and over 2,500M BTU input two motorized gas valves. All Oil and Gas/Oil fired models have low oil pressure switches.
IRI TRIM	See page 1 for flame safeguard standards. All models except off-on fired have open damper purge. All Gas and Gas/Oil fired models have high and low gas pressure switches, two motorized gas valves and a Normally Open (NO) gas vent valve. All Oil and Gas/Oil fired models have low oil pressure switches. IRI and FM Trim models are subject to approval by local offices. On straight oil fired models consult local IRI or FM office for requirement for gas pilot in place of direct spark ignition.

FUEL

NAT. GAS	Gas fired burners are standard for natural gas 950 to 1150 BTU content. Required gas pressure at inlet: Models up to 70 HP: Minimum: 7" W.C.; Maximum 14" W.C. Models 90 HP and larger: Minimum: 12" W.C.; Maximum 14" W.C. For lower inlet pressures consult factory. Higher inlet pressure requires addition of high gas pressure trim.
NO. 2 OIL	Oil fired burners are standard for No. 2 light fuel oil, approximately 141,000 BTU per gallon, ASTM Specification D-396.
PROPANE	Optional propane fired boilers are furnished for Propane Gas 2500 to 3200 BTU content. Maximum 14" W.C. inlet pressure. Higher inlet pressures require addition of high gas pressure trim.
NOTE:	Ratings are shown for elevations up to 2000 feet above sea level. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level or consult factory for possible larger burner.