



BURNER SPEC & DATA SHEET

SERIES TC™

WEBSTER MODEL “JB” BURNERS

FOR LIGHT OIL, GAS, AND GAS/LIGHT OIL

STANDARD EQUIPMENT

Oil Burners:

1. On-off operation on Model TC-04 boiler.
2. Low-high-off operation on Models TC-05 through TC-15 boilers.
3. Fully modulating operation on Model TC-16 through TC-18 boilers.
4. Burner mounted control panel with on/off control switch, power-on, call for heat, alarm, fuel on and terminal strip.
5. 15 second valve-on delay/30 second burner motor off delay – Models TC-04 through TC-09 boilers.
6. 30 second pre-purge/15 second post-purge – Models TC-10 through TC-18.
7. Direct spark ignition – Models TC-04 through TC-14

Gas Burners:

1. On-off operation on Model TC-04 boiler.
2. Low-high-off operation on Models TC-05 through TC-15 boilers.
3. Fully modulating operation on Model TC-16 through TC-18 boilers.
4. Burner mounted control panel with on/off control switch, power-on, call for heat, alarm, fuel on and terminal strip.
5. 30 second pre-purge/0 second post-purge – Model TC-04 through TC-08 boilers.
6. 30 second pre-purge/15 second post-purge – Model TC-09 through TC-18 boilers.
7. Spark ignited gas pilot.
8. Air flow safety switch.

Combination Gas/Oil Burners:

1. On-off operation on Model TC-04 boiler.
2. Low-high-off operation on Models TC-05 through TC-15 boilers.
3. Fully modulating operation on Model TC-16 through TC-18 boilers.
4. Burner mounted control panel with on/off control switch, power-on, call for heat, alarm, fuel on and terminal strip.
5. 30 second pre-purge/0 second post-purge – TC-04 through TC-08 boilers.
6. 30 second pre-purge/15 second post-purge – TC-09 through TC-18 boilers.
7. Spark ignited gas pilot.
8. Air flow safety switch.
9. Manual fuel changeover switch.

OPTIONAL EQUIPMENT

1. Proven low fire start for low-high-off burner operation.
2. Low-high-off burner operation for boilers with standard on-off operation.
3. Low-high-low and full modulation operation for boilers with standard low-high-off operation.
4. Automatic fuel changeover on combination gas/oil burners.
5. Air flow switch on oil burners.
6. Step-down control circuit transformer and control circuit fuse.
7. Controls to comply with FM, IRI, CSD-1, and other codes. Contact your local Peerless® Representative or Peerless® Boilers for availability.
8. Various combustion controls. Contact your local Peerless® Representative or Peerless® Boilers for availability.
9. Various burner motor voltages: 120/1/60, 230/1/60, 208-230/460/3/60.

WEBSTER MODEL "JB" BURNER FOR OIL, GAS, AND GAS/LIGHT OIL

BOILER MODEL	I=B=R INPUT (1)		OVERFIRE PRESSURE IN. W.C. (2)	Standard Burner Model			INITIAL AIR SETTINGS (3) INCHES	
	GAS MBH	OIL GPH		GAS	OIL	GAS/OIL	LOW FIRE	HIGH FIRE
TC-04	1154	8.0	0.34	JB1G-03	JB1O-03	JB1C-03	5/16	11/16
TC-05	1491	10.4	0.35	JB1G-03	JB1O-03	JB1C-03	1/2	1-1/4
TC-06	1827	12.6	0.36	JB1G-07	JB1O-07	JB1C-07	11/16	1-3/8
TC-07	2163	15.0	0.37	JB1G-07	JB1O-07	JB1C-07	9/16	1-1/4
TC-08	2499	17.4	0.38	JB1G-07	JB1O-07	JB1C-07	5/8	1-3/8
TC-09	2836	19.6	0.39	JB2G-10	JB2O-10	JB2C-10	1/2	1
TC-10	3172	22.0	0.40	JB2G-10	JB2O-10	JB2C-10	9/16	1-1/4
TC-11	3508	24.5	0.41	JB2G-10	JB2O-10	JB2C-10	5/8	1-3/8
TC-12	3844	26.5	0.43	JB2G-20	JB2O-20	JB2C-20	11/16	1-5/8
TC-13	4180	29.0	0.44	JB2G-20	JB2O-20	JB2C-20	3/4	2
TC-14	4517	31.5	0.45	JB2G-30	JB2O-30	JB2C-30	5/8	1-7/8
TC-15	4853	33.5	0.46	JB2G-30	JB2O-30	JB2C-30	11/16	2-3/16
TC-16	5189	36.0	0.47	JB2G-30	JB2O-30	JB2C-30	3/4	2-5/16
TC-17	5525	38.5	0.48	JB3G-30	JB3O-30	JB3C-30	5/8	2-1/2
TC-18	5862	40.5	0.49	JB3G-30	JB3O-30	JB3C-30	5/8	2-5/8

(1) Based on Commercial Standard Number 2 fuel oil with a heating value of 140,000 BTU/gal. and Natural Gas with a heating value of 1000 BTU/cubic foot and 0.60 specific gravity at a maximum altitude of 2000 feet above mean sea level. Consult the factory for higher altitudes.

(2) With 0.10 inch W.C. at flue outlet and at I=B=R Input.

(3) Start-up settings only. Final settings are to be determined using combustion analysis equipment.

WEBSTER MODEL "JB" BURNER FOR OIL, GAS, AND GAS/LIGHT OIL

BOILER MODEL	STANDARD COMBUSTION CONTROL			3450 RPM MOTOR HP		STANDARD VOLTAGE VOLTS/PHASE/HERTZ
	GAS	OIL	GAS/OIL	GAS	OIL, GAS/OIL	
TC-04	RM7897A	R7184A	RM7897A	1/3	1/3	115/1/60
TC-05	RM7897C	R7184A	RM7897C	1/3	1/3	115/1/60
TC-06	RM7897C	R7184A	RM7897C	3/4	3/4	115/1/60
TC-07	RM7897C	R7184A	RM7897C	3/4	3/4	115/1/60
TC-08	RM7897C	R7184A	RM7897C	3/4	3/4	115/1/60
TC-09	RM7897C	RM7897C	RM7897C	1	1	230/1/60
TC-10	RM7897C	RM7897C	RM7897C	1	1	230/1/60
TC-11	RM7897C	RM7897C	RM7897C	1	1	230/3/60
TC-12	RM7897C	RM7897C	RM7897C	2	2	208-230/460/3/60
TC-13	RM7897C	RM7897C	RM7897C	2	2	208-230/460/3/60
TC-14	RM7897C	RM7897C	RM7897C	2	3	208-230/460/3/60
TC-15	RM7897C	RM7897C	RM7897C	3	3	208-230/460/3/60
TC-16	RM7897C	RM7897C	RM7897C	3	3	208-230/460/3/60
TC-17	RM7840L	RM7840L	RM7840L	3	3	208-230/460/3/60
TC-18	RM7840L	RM7840L	RM7840L	3	3	208-230/460/3/60

WEBSTER MODEL "JB" BURNER - GAS BURNER CHARACTERISTICS

BOILER MODEL	GAS ORIFICE SIZE	GAS CONTROL TRAIN			GAS MANIFOLD PRESSURE (IN. W.C.)	GAS TRAIN PRESSURE DROP (IN. W.C.)
	(QTY) SIZE, DRILL # OR INCH	SIZE NPS (1)	INLET PRESSURE (IN. W.C.)			
			MINIMUM	MAXIMUM		
TC-04	Primary (40) #40 (10) #30 Secondary (5) Open Tube	1.25	9.4	14.00	5.9	3.20
TC-05	Primary (80) #40 (20) #30 Secondary (10) Open Tube	1.25	8.2	14.00	2.5	5.30
TC-06	Primary (80) #40 Secondary (10) #26	1.50	9.0	14.00	4.0	4.70
TC-07	Primary (80) #40 Secondary (10) Open Tube	1.50	9.6	14.00	2.7	6.50
TC-08	Primary (80) #40 (20) #30 Secondary (10) Open Tube	2.00	6.2	14.00	3.6	2.20
TC-09	Primary (120) #40 Secondary (15) Open Tube	2.00	8.1	14.00	2.8	4.90
TC-10		2.00	7.4	14.00	3.5	3.50
TC-11		2.00	7.7	14.00	3.0	4.30
TC-12		2.50	6.2	14.00	3.4	2.40
TC-13		2.50	7.9	14.00	4.7	2.80
TC-14		2.50	9.0	14.00	5.3	3.30
TC-15		2.50	9.6	14.00	5.4	3.80
TC-16		2.50	10.5	14.00	5.8	4.30
TC-17		Primary (192) #40 (48) 3/16"	2.50	9.5	14.00	2.9
TC-18	Secondary (24) 3/16"	2.50	10.8	14.00	3.4	5.50

(1) On dual size gas train, first number is the main gas valve, aux. gas valve, and leakage test cock. The second number is the main shutoff cock and gas pressure regulator.

WEBSTER MODEL "JB" BURNER - OIL BURNER CHARACTERISTICS

BOILER MODEL	OIL NOZZLES - DELAVAN			OIL PRESSURE PSIG		STANDARD FUEL UNIT		
	QTY	SIZE GPH	PATTERN	LOW FIRE	HIGH FIRE	MODEL	MANUFACTURER	SUCTION GEAR CAPACITY GPH
TC-04	1	4.5	45P	100	300	B2TA-8851	Webster	45
TC-05	1	6.0	45P	100	300	B2TA-8851	Webster	45
TC-06	1	7.5	45P	100	280	B2TA-8851	Webster	45
TC-07	1	9.0	45P	100	280	B2TA-8851	Webster	45
TC-08	1	10.0	45P	100	300	B2TA-8852	Webster	70
TC-09	1	12.0	45P	100	270	B2TA-8852	Webster	70
TC-10	2	6.5	45P	100	290	B2TA-8852	Webster	70
TC-11	2	7.0	45P	100	305	H5PAN	Webster	105
TC-12	2	8.0	45P	100	275	H5PAN	Webster	105
TC-13	2	8.5	45P	100	295	H5PAN	Webster	105
TC-14	2	9.0	45P	100	305	H5PAN Remote	Webster	105
TC-15	2	10.0	30P	100	280	H5PAN Remote	Webster	105
TC-16	2	11.0	30P	100	270	H5PAN Remote	Webster	135
TC-17	2/1	7.5/8.0	VF 60BPS	65	Note 1	22R623 Remote	Viking	135
TC-18	3	8.0	VF 60BPS	65	Note 1	22R623 Remote	Viking	135

(1) 300 PSI supply with by-pass closed.

PB HEAT, LLC

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