



BURNER SPEC & DATA SHEET

SERIES TC™ **RIELLO “R” BURNERS** **FOR LIGHT OIL, GAS, AND GAS/LIGHT OIL**

STANDARD EQUIPMENT

Oil Burners:

1. 2-Stage operation on TC-04 through TC-16 boilers.
2. Full modulation on TC-17 and TC-18 boilers.
3. Burner mounted controls with on/off control switch, and terminal strip.
4. 30 second prepurge / 15 second post-purge
5. Direct spark ignition

Gas Burners:

1. Low High Off operation on TC-04 and TC-07.
2. Low High Low on TC-08 through TC-18 boilers.
3. Burner mounted controls with on/off control switch, and terminal strip.
4. 30 second prepurge/15 second post-purge
5. Pilot ignition

Combination Gas/Oil Burners:

1. 2-Stage operation for Oil & Gas on TC-04 through TC-07 boilers.
2. 2-Stage operation for Oil and full modulation Gas on TC-08 through TC-16.
3. Burner mounted controls with on/off control switch, and terminal strip.
4. 30 second prepurge/15 second post-purge
5. Pilot ignition on Gas, Direct spark ignition oil

OPTIONAL EQUIPMENT

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

RIELLO MODEL "R" BURNER FOR LIGHT OIL, GAS, AND GAS/LIGHT OIL

Boiler Model	I=B=R Input(1)		Overfire Pressure In. W.C.(2)	Standard Burner Model			Combustion Head Settings(3)		
	Gas MPH	Oil MPH		Gas	Oil	Gas/Oil	Gas	Oil	Gas/Oil
TC-04	1154	8.00	0.34	RS 28/M	RL 28/2	RLS 28	6.0	5.0	5.0
TC-05	1491	10.40	0.35	RS 38/M	RL 38/2	RLS 38	5.0	4.0	5.0
TC-06	1827	12.60	0.36	RS 50/M	RL 50/2	RLS 50	4.0	5.0	4.0
TC-07	2163	15.00	0.37	RS 50/M	RL 50/2	RLS 50	6.0	6.0	6.0
TC-08	2499	17.40	0.38	RS 70/M	RL 70/2	RLS 70	5.0	4.0	5.0
TC-09	2836	19.60	0.39	RS 70/M	RL 70/2	RLS 70	8.0	6.0	6.0
TC-10	3172	22.00	0.40	RS 100/M	RL 100/2	RLS 100	3.0	2.0	2.0
TC-11	3508	24.50	0.41	RS 100/M	RL 100/2	RLS 100	4.0	4.0	4.0
TC-12	3844	26.50	0.43	RS 100/M	RL 100/2	RLS 100	6.0	5.0	6.0
TC-13	4180	29.00	0.44	RS 100/M	RL 100/2	RLS 100	8.0	7.0	8.0
TC-14	4517	31.50	0.45	RS 130/M	RL 130/2	RLS 130	6.0	5.0	7.0
TC-15	4853	33.50	0.46	RS 130/M	RL 130/2	RLS 130	8.0	6.0	9.0
TC-16	5189	36.00	0.47	RS 130/M	RL 130/2	RLS 130	9.0	8.0	9.0
TC-17	5525	38.50	0.48	RS 190/M	RL 190/M	N/A	9.0	9.0	N/A
TC-18	5862	40.50	0.49	RS 190/M	RL190/M	N/A	3.0	9.0	N/A

(1) Based on Commercial Standard Number 2 fuel oil with a heating value of 140,000 BTU/gal. and/or 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 or other fuels.

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

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

RIELLO MODEL "R" BURNER FOR OIL, GAS, AND GAS/LIGHT OIL

Boiler Model	Standard Combustion Control		3450 RPM Motor HP		Standard Voltage Volts/Phase/ Hertz
	Gas or Gas/Oil	Oil	Gas or Gas/Oil	Oil	
TC-04	LFL 1.335	LAL 2.25	1/2	1/2	115/1/60
TC-05	LFL 1.335	LAL 2.25	1/2	1/2	115/1/60
TC-06	LFL 1.335	LAL 2.25	3/4	3/4	230/3/60
TC-07	LFL 1.335	LAL 2.25	3/4	3/4	230/3/60
TC-08	LFL 1.335	LAL 2.25	1-1/2	1-1/2	230/3/60
TC-09	LFL 1.335	LAL 2.25	1-1/2	1-1/2	230/3/60
TC-10	LFL 1.335	LAL 2.25	2-1/2	2-1/2	230/3/60
TC-11	LFL 1.335	LAL 2.25	2-1/2	2-1/2	230/3/60
TC-12	LFL 1.335	LAL 2.25	2-1/2	2-1/2	230/3/60
TC-13	LFL 1.335	LAL 2.25	2-1/2	2-1/2	230/3/60
TC-14	LFL 1.335	LAL 2.25	3	3	230/3/60
TC-15	LFL 1.335	LAL 2.25	3	3	230/3/60
TC-16	LFL 1.335	LAL 2.25	3	3	230/3/60
TC-17	LFL 1.335	LAL 2.25	5-1/2	5-1/2	230/3/60
TC-18	LFL 1.335	LAL 2.25	5-1/2	5-1/2	230/3/60

RIELLO "R" BURNER - GAS BURNER CHARACTERISTICS

Boiler Model	Gas Control Train			Gas Manifold Pressure (In. W.C.)	
	Size (NPS)	Inlet Gas Pressure (In. W.C.)			
		Minimum	Maximum	Gas	Gas/Oil
TC-04	1-1/2	7.0	14.0	3.10	4.18
TC-05	1-1/2	7.0	14.0	3.28	5.13
TC-06	2	7.0	14.0	2.80	4.84
TC-07	2	7.0	14.0	3.63	5.46
TC-08	2-1/2	7.0	14.0	2.93	2.66
TC-09	2-1/2	7.0	14.0	3.79	2.76
TC-10	3	7.0	14.0	2.62	3.88
TC-11	3	7.0	14.0	2.81	3.96
TC-12	3	7.0	14.0	3.01	4.05
TC-13	3	7.0	14.0	4.00	4.35
TC-14	3	7.0	14.0	2.90	4.49
TC-15	3	7.0	14.0	3.18	4.67
TC-16	3	7.0	14.0	3.44	4.86
TC-17	2-1/2	24	140	3.60	N/A
TC-18	2-1/2	24	140	3.64	N/A

RIELLO MODEL "R" BURNER - BURNER CHARACTERISTICS FOR OIL FIRING

Boiler Model	Oil Nozzles				Pump Press. (PSIG)	Return Pressure		Standard Fuel Unit		
	Mfr	Qty	Size (GPH)	Pattern		Min	Max	Model	Manuf.	Gearset GPH
TC-04	Hago	2	3.00	45°P	175	N/A	N/A	AL65C	Suntec	22
TC-05	Hago	2	4.00	45°P	175	N/A	N/A	AL65C	Suntec	22
TC-06	Hago	2	5.00/4.50	45°P	175	N/A	N/A	AL65C	Suntec	22
TC-07	Hago	2	6.00/5.50	45°P	175	N/A	N/A	AL65C	Suntec	22
TC-08	Hago	2	6.50	45°P	175	N/A	N/A	AJ4	Suntec	54
TC-09	Hago	2	7.50	45°P	175	N/A	N/A	AJ4	Suntec	54
TC-10	Hago	2	8.50/8.00	45°P	175	N/A	N/A	AJ4	Suntec	54
TC-11	Hago	2	10.00/8.50	45°P	175	N/A	N/A	AJ4	Suntec	54
TC-12	Hago	2	10.00	45°P	175	N/A	N/A	AJ4	Suntec	54
TC-13	Hago	2	11.00	45°P	175	N/A	N/A	AJ4	Suntec	54
TC-14	Hago	2	12.00	45°P	175	N/A	N/A	AJ4	Suntec	54
TC-15	Hago	2	13.00/12.00	45°P	175	N/A	N/A	AJ4	Suntec	54
TC-16	Hago	2	14.00/13.00	45°P	175	N/A	N/A	AJ4	Suntec	54
TC-17	Bergonzo	1	A4-160	BPS	290	70-100	245	TA3	Suntec	213
TC-18	Bergonzo	1	A4-160	BPS	290	70-100	245	TA3	Suntec	213

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