

RAY OIL BURNER CO. 401-499 Bernal Avenue, San Francisco 12, California

Since 1872

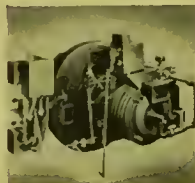
Industrial, Commercial, Marine & Domestic Oil Burners—1 to 1000 Boiler Horsepower; Industrial Gas and Combination Gas-Oil Burners.



Winter Air-Conditioning Units; Oil-Burning Commercial Ranges; Pump Sets (for oil burner applications)—Literature on request.



Semi-Automatic Operation (fully automatic after manual ignition) with heavy fuel oils is best achieved by the Ray Type AP-14. Extreme flexibility is obtained with modulating motor control, which is responsive to minute changes in load demand. Burns any grade of fuel oil that can be made to flow to burner. Available in belt drive for odd frequencies. In sizes 00-8.



Fully Automatic Heavy Fuel Oil Burner, Ray Type AR-134, combines simplicity of construction with ease of control; is extremely flexible, able to follow load demand very closely. Built-in double pump and Reservoir, with the Ray VISCOSITY* Valve, for accurate metering of the heavy oils; gas-electric ignition; for CSG #6 oil. Built in Sizes 0 to 8. Also available in Belt Drive.



Fully Automatic with CSG #6 Fuel Oil, the Ray Type AR-141 combines the basic construction of all Ray horizontal rotary oil burners—fan, atomizing cup and rotor mounted on main shaft; direct drive; enclosed, air-cooled motor—with built-in, thermostatically controlled oil heater and Ray VISCOSITY* Valve. Gas-electric ignition; in Sizes 0 to 8. Also available in Belt Drive.



Ray Combination Oil-or-Gas Burners operate on any grade of fuel oil, any grade of natural or manufactured gas. Fully automatic, semi-automatic or manual types; pump or gravity feed. Sizes 00 to 12; maximum gas capacity 43,600 cubic feet per hour. Changeover from one fuel to the other may be made in less than two minutes. Shown here is fully automatic Type ARC-131.



Fully Automatic Pressure Atomizing Ray Oil burners for light oil are built in several sizes with capacities to 18 gals. per hour; for either AC or DC; with several types of mountings. Also in Combination Gas-Oil models with maximum gas input capacities of 2,450,000 Btu/hr. Simplicity of construction assures smooth, silent, care-free operation. Shown is smallest size, Type JP.



Straight Electric Ignition with the heavy fuel oils is achieved with the Type AR-JP Ray oil burner. Combining a pressure-atomizing JP (to be supplied with light oil) with a horizontal rotary burner, this model is used where gas for ignition is not available, or wherever straight electric ignition is desired. Type AR burners (see description above) are built in Sizes 0 to 8.



1 to 1000 Boiler Horsepower capacity (Sizes 0000 to 12) Type AG Ray Oil burners are ideal for general industrial applications where gravity feed (with light oil) or a separate pump set can be employed. Available in manual, as shown, or semi-automatic types, for any grade of fuel oil that can be made to flow to burner. Also available in Belt Drive types (in Sizes 000 to 8).

*Reg. U. S. Pat. Office.

Small Capacity Horizontal Rotary Type 1½ to 2½ gallons per hour Size 000, burns any grade of fuel oil that can be made to flow to burner. Ideal for ranges in restaurants and ships' galleys, small boilers, furnaces, forges and similar applications requiring small firing rates. Gravity or pump feed; AC or DC; direct or belt drive; manual or semi-automatic control. Shown: Type 8P-13.



Ray Belt Drive oil burners are recommended in place of the direct drive types when only DC, or AC below 50 cycles, is available. They are built in types to correspond to Ray Direct Drive models, for fully automatic, semi-automatic or manual operation with any grade of fuel oil. Built in Sizes 000 to 8. Shown here is semi-automatic, modulating fire control Type BP-14.



Steam Turbine Driven Horizontal Rotary Type TG Ray oil burner features great flexibility and ability to burn any grade of fuel oil that can be made to flow to burner. Large orifices throughout eliminate frequent cleaning. Exhaust steam may be recovered at low pressures or in vacuum. In Sizes 1 to 12; manual or semi-automatic. Also available in Combination Gas-Oil Models.



Industrial Gas Burner Type HN for high pressure gas (above 1 pound per sq. in.) may be used either alone or in combination with a Ray oil burner as shown. For fully automatic, semi-automatic or manual operation with either natural or manufactured gas. Sizes to 43,000,000 Btu/hr gas input capacity. As a combination burner, changeover may be made in two minutes.



Ray Pump Sets, designed primarily for oil burner applications, are available with or without heater; with steam, electric or combination steam-electric drives; in cross-connected dual drive sets for standby service; AC or DC. Capacities to 3100 gals. per hour steam drive, 500 gals. per hour electric drive. Shown at right is Ray Series 44 Dual-Drive Electric Set with heater.



Burner Size	Oil Capacity U. S. Gallons		Equivalent Boiler Capacity						Heat Capacity Input 1000 BTU		Equivalent Sq. Ft. Steam Radiation	
			Boiler HP			Lbs. Steam Per Hr.						
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.		
000	0.5	2.5	1.5	7.5	51.7	258	75	375	200	1000		
00	1	2.5	3	7.5	103	258	150	375	400	1000		
0	1.5	5	4.5	15	155	517	225	750	600	2000		
1	3	11	9	33	310	1138	450	1650	1200	4400		
2	5	15	15	45	517	1552	750	2250	2000	6000		
3	8	20	24	60	828	2070	1200	3000	3200	8000		
5	10	33	30	99	1035	3115	1500	3950	1000	13,250		
6	12	45	36	135	1212	4657	1800	6750	1800	18,000		
7	15	60	45	180	1552	6210	2250	9000	2400	24,000		
8	18	85	54	255	1863	8797	2700	12,750	3000	34,000		
9	21	135	63	405	2173	13,972	3150	20,280		---		
10	24	200	72	600	2484	20,700	3600	30,000		---		
11	25	265	75	795	2587	27,427	3750	39,800		---		
12	26	320	78	960	2691	33,120	3900	48,000		---		

Hourly Capacity Ratings for Normal Conditions
(Based on approximately 70% overall boiler efficiency)