

SONNER

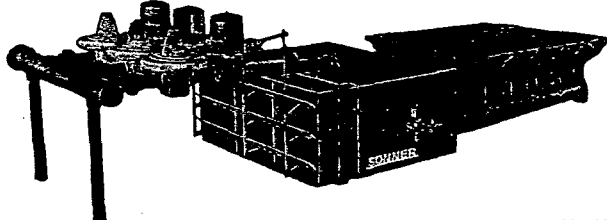
The Sonner Burner Company

DESIGNERS AND MANUFACTURERS OF GAS CONVERSION BURNERS

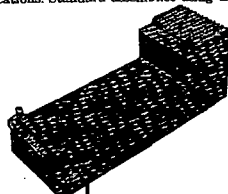
OFFICES AND FACTORIES: WINFIELD KANSAS

Sonner Gas Conversion burners are a product of nearly a half century of specialization in design and manufacture. Many of the Sonner Conversion Units feature the Blue Ribbon Flame LV Burner Head with Airblend Design. Each ribbon of flame receives all the oxygen it needs to support complete effective combustion—from both sides along its full length—because the extraordinary Sonner Airblend Design provides just the right

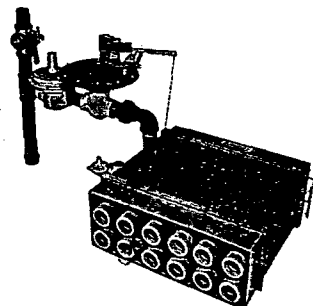
amount of secondary air in the right places. *Catalog 58-L-8* gives complete description of this efficient blue ribbon of flame. A wide range of designs provides a Sonner Burner for domestic, commercial, or industrial use. Sonner engineering service is always available for consultation; write for catalog containing complete line.



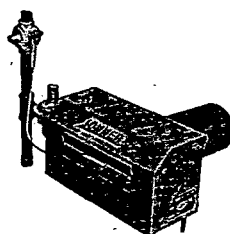
Type LVS Step-Fire Burner assemblies for large heating plants and power boilers where load varies to such extremes as to make this operation desirable. Three step control is the usual arrangement although it may be altered to meet engineers' specifications. Standard assemblies using the Sonner Blue



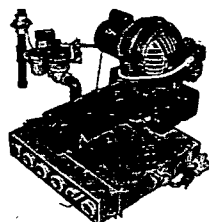
Type L-1 Heat Machine is designed specifically for the conversion of residential heating plants, either round warm air furnace or a rectangular boiler, to gas. Completely automatic burner, using the Blue Ribbon Flame LV Burner head with airblend design, is A.G.A. listed. Available in two sizes with capacities ranging from 75,000 to 400,000 Btu/hr. See *Catalog 68-L-8*.



Type R Sonner Burner with horizontal flame for conversion of scotch marine boilers and similar equipment to gas and stand-by fuel applications. A multiple-venturi burner in factory built, fully assembled form. Standard assemblies from 240,000 to 7,200,000 Btu/hr. See *Catalog 58-R-1*. Larger capacities available; consult Sonner engineering service.



Ribbon Flame LV Burner head with airblend design which provides just the right amount of secondary air to support complete and effective combustion, capacities for 1,440,000 to 7,200,000 Btu/hr are described in *Catalog 57-LVS-1*. Larger capacities available; consult Sonner engineering service.



Type WX-55 Sonner Burner specifically designed for replacing small gun type oil burners in domestic furnaces and boilers. A.G.A. listed with inputs ranging from 75,000 to 200,000 Btu/hr. See *Catalog WX-55-1*.

Gas-Oil Unit for commercial and industrial boilers, two fuel burning units, each designed for one fuel only—natural gas and light fuel oils. For capacities from 280,000 to 2,800,000 Btu/hr input; See *Catalog 58-CU-1*. Larger capacities available; consult Sonner Engineering Service.



THE CARLIN COMPANY

912 SILAS DEANE HIGHWAY • WETHERSFIELD 9, CONN.

MANUFACTURERS OF OIL BURNERS AND OIL-FIRED HOT WATER HEATERS

Pressure-atomizing, fully automatic, gun-type Oil Burners for residential and commercial installations.

The Carlin Company manufactures a complete line of quality oil burners in capacities from 0.65 to 20.00 gph for use of No. 2 grade fuel oil. Pedestal and flange mounted models are offered. Mounting to popular makes of boilers and furnaces is made easy with a wide selection of flanges and mounting plates especially developed by U.S.-Carlin. Advanced design features include the "Shell Head," a significant improvement in oil burning which develops higher combustion temperatures, makes heat-wasting soot deposits negligible, conserves fuel.

With either distillate or catalytic fuels, operation is quiet, clean, economical. Generous use of heat and corrosion resistant alloys guards against deterioration—makes cleaning easier.

U.S.-Carlin Oil Burners are available with Electronic Controls which comply fully with Underwriters' Laboratories latest safety switch timing requirements. Many types are factory mounted and wired to insure proper hook-up and save on-the-job wiring expense.

For complete technical literature including consulting engineers' manual, specification sheets, electronic control data, combustion chamber dimensions, etc., address The Carlin Co., 912 Silas Deane Highway, Wethersfield 9, Conn.

CONDENSED SPECIFICATIONS

MOTOR—Long-hour duty with safety overload control. Complies with NEMA mounting specifications. $\frac{1}{4}$ hp. (Models 400, 150F, 400S, 150SF-2, 500S-35); $\frac{1}{2}$ hp. (Models 650, 700S-35, 800S-4); $\frac{3}{4}$ hp. (Model 1200); $\frac{1}{2}$ hp. (Models 2000S-5, 2000).

TRANSFORMER—Shielded to block radio and TV interference. 10,000 volt (12,000 volt on Models 2000S-5, 1200, 2000).

AIR TUBE—Steel with heat resistant air cone.

FAN—Precision balanced. Mounted directly on motor shaft.

NOZZLE—Stainless steel alloy. Hollow cone spray (Hollow cone or solid spray on Models 1200, 2000). Dual nozzles on Models 500S-35, 650, 700S-35, 800S-4, 2000S-5, 1200, 2000.

FUEL UNIT—Single-stage standard on Models 400, 150F, 400S, 150SF-2, 500S-35, 650. Two-stage on Models 700S-35, 800S-4, 2000S-5, 1200, 2000. Built-in strainer and pressure regulating valve. Capacity of strainer equals or exceeds maximum firing rate of burner.

SOLENOID VALVE—Combination delayed-opening and instantaneous cut-off oil valve standard on all "S" models, also 1200, 2000.

COMBUSTION HEAD—Models 150F, 400, and 650 have standard head with diffuser vanes formed at a fixed angle to establish air pattern. Model 150F (0.65 to 1.35 gph capacity) and Model 400 (0.65 to 1.00 gph capacity) have a series of adjustable openings in center of diffuser for regulating air delivery to shape the fire.

All "S" Models have "Shell Head" and finned collar for efficient mixture of air with oil. Models 1200, 2000 have High Temperature Combustion Head with finned collar for greater firing rate (Model 2000) and narrower fire.

ELECTRODES—Nichrome steel with full-glazed porcelain insulators counterbored for utmost safety. Flared "Wide-arc" design permits heavier spark and assures positive protection during low voltage periods.

BUS BARS—Rigid heavy-gage brass (Models 400, 400S, 500S-35, 700S-35, 800S-4); phosphor bronze (Models 150F and 150SF-2); high tension leads (Models 650, 2000S-5, 1200, 2000).

HOUSING—Cast iron. Designed to assure efficient air delivery and quiet operation. Machined to rigid standards.

COUPLING—Universal type with neoprene center piece. (Flexible type on Models 2000S-5, 1200, 2000).

CONTROLS—Thermostat, Limit Control, and Stack Relay. Electronic Control set in place of Stack Relay on Models 800S-4, 2000S-5, 1200 and 2000.

ELECTRICAL CHARACTERISTICS—115V-60 cycle. 1725 rpm. All models except 150F and 150SF-2 available with 230V-60 cycle on special order. Also a complete line of 110 and 220V-50 cycle models with capacities from 0.50 to 15.00 gph.

Models 400, 400S, 150F, 150SF-2, 500S-35, 700S-35 and 650 available for either flange or pedestal mounting.



MODEL 400
0.65 to 2.00 gph



MODEL 400S
0.75 to 3.00 gph



MODEL 150F
0.65 to 2.00 gph



MODEL 150SF-2
0.65 to 1.35 gph



MODEL 500S-35
3.00 to 4.50 gph



MODEL 700S-35
3.50 to 7.00 gph



MODEL 650
3.50 to 6.50 gph



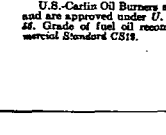
MODEL 800S-4
4.00 to 8.00 gph



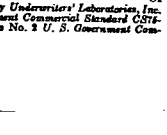
MODEL 1200
6.00 to 12.00 gph



MODEL 2000S-5, 7.00 to 12.00 gph



MODEL 2000, 10.00 to 20.00 gph



U.S.-Carlin Oil Burners are listed by Underwriters' Laboratories, Inc. and are approved under U. S. Government Commercial Standard CS74-24. Grade of fuel oil recommended in No. 2 U. S. Government Commercial Standard CS19.