

Model "P": Pressure Atomizing Burner

Model "P" Pressure Type Burners

A fully automatic, forced draft, pressure atomizing burners. Design provides complete control of the air required for efficient combustion over the oil consumption range assuring maximum operation efficiencies. The air is delivered to the combustion chamber through vanes arranged tangentially to the flow of air in the tube which impart to the air a centrifugal motion. This swirling stream of air mixes thoroughly with the oil atomized from the nozzle to form a lightly combustible compound. The quantity of air is regulated by means of the fan intake shutter. The Model "P" is a very simple mechanical device. The only moving part in the burner is a small motor, fan and oil pump, which combine as a single rotating unit. It runs on two large oversized bearings. Both static and dynamic balance of this rotor are easily secured. This insures quiet operation. It also eliminates the usual gear or belt drive. The flow of oil through the burner is controlled by a unique regulator that governs both minimum and maximum pressures. No oil is admitted to the combustion chamber unless there is adequate pressure for proper atomization of the fuel. An unusually effective strainer is built into the burner to remove any foreign substances from the oil that could possibly obstruct the flow of oil through the burner. When the Model "P" starts, a high tension electric spark instantly provides ignition for the atomized fuel. It continues until the burner stops. A momentary stoppage of oil has no effect because this continuous ignition is unfailing—always there ahead of any oil.



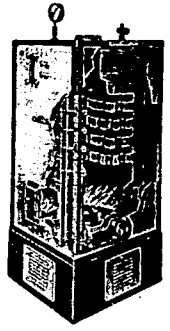
Arco-Petro Automatic Boiler

ARCO-PETRO AUTOMATIC BOILERS

Oil or Gas Burning Types

Arco-Petro Automatic Boiler—For Oil or Gas

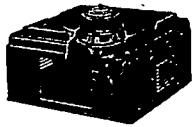
In addition to the oil-burners listed in the accompanying table, Petro offers a series of domestic steam and hot water boilers containing built-in Petro oil burners or gas burners, in 6 sizes for 285 to 800 square feet of steam radiation, with corresponding capacities for hot water radiation. Conversion from oil burner to gas burner or vice versa is easily made by mere substitution of the desired burner assembly. Fuel consumption is exceptionally low because of the perfect co-ordination made possible by building burner and boiler for each other. Units are encased in heavily insulated, attractively finished cabinets of superior appearance. Yet the cost of this fine equipment completely installed is commonly no greater than the cost of other boilers when equipped with an oil burner.



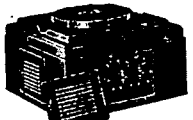
Arco-Petro Automatic Boiler

The Facts At a Glance

Commonly saves ⅓ to ½ on fuel.
Completely automatic—with oil or gas.
Petro Radiant Rotary Burner—or latest type Gas Burner.
Burner concealed inside boiler.
Quiet operation.
Boiler especially designed for highest operating efficiency with burner.
A complete unit, ready to be connected to the piping.
For steam, hot water, or vapor.
Provides automatic hot water service at lowest cost—summer as well as winter.
Beautiful color combinations.
Costs no more than an ordinary boiler and oil burner.



Base and Burner for Oil



Base and Burner for Gas

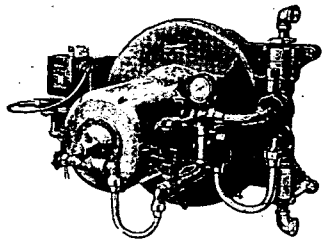
Data and Dimensions

Boiler Model	T-11	T-12	T-13	T-14	T-2
Max. Cap. Total Tax Sq. Ft. Steam Rad.	285	390	495	600	800
Max. Cap. Total Tax Sq. Ft. H. W. Rad.	456	624	794	960	1280
Water Cap. to Water Line Gal.	15	17	19	21	16
Outlets—Number and Size	2-3"	2-3"	2-3"	2-3"	2-3"
Returns—Number and Size	2-3"	2-3"	2-3"	2-3"	2-3"
Shipping Weight—Pounds	1385	1435	1510	1675	1478

PETRO COMMERCIAL AND INDUSTRIAL OIL BURNING SYSTEMS

Model "W" Direct Driven Rotary Cup Type Burner

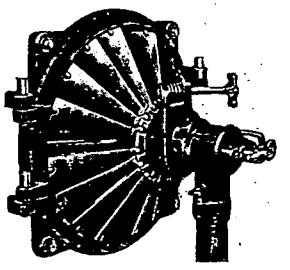
The Model "W" is a complete oil burning unit in itself, combining motor, fan, oil pump and atomizer, completely synchronized and controlled. This type of equipment is designed for medium-sized commercial and industrial plants and large, single boiler installations.



Model "W": Horizontal, Direct Motor Driven Rotary Cup Type Burner

Model "H" Air Turbine Driven Cup Type

This equipment is adapted to medium and large boiler plants with multiple boiler installations, also for industrial applications. Burns all grades of fuel oil. Low pressure air and oil are supplied from the combination fan and pump set to a series of burners and air registers mounted at the boiler fronts. Operating burners from a central source of motive power eliminates the multiple installation of electrical equipment. Fan and pump sets can be driven by electric motor, steam, turbine, or gasoline engine power. Additional firing units can be added at any time without increase of motorized equipment. Low pressure air is delivered through an air line buried in the floor. Secondary air is drawn through the controlling air vane registers by natural draft.



Model "H": Air Turbine Driven Rotary Cup Burner

Model "M" Mechanical Type

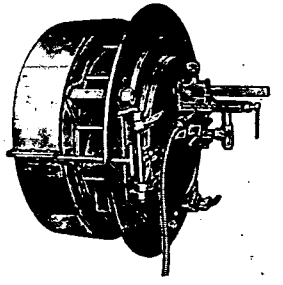
Model "M" is now adaptable for either natural or forced draft in one standard design. Oil is delivered to the burners at high pressure and high temperature (approximately 250 pounds and 250° F.) and atomized through a small orifice at the improved tip. The oil is supplied by steam pumps.

Petro Oil Pumps for All Services

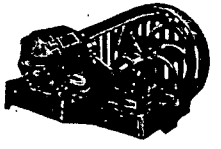
The Petro Belt Driven Pump motor operates at a full load speed of 1,750 r.p.m. and is of ample capacity to meet load demands. Motors are available for use with alternating or direct current. Pump speed is 220 r.p.m. Bunker "C" oil may be handled as readily as furnace oil.

The Petro Domestic Wall Pump is designed for installations where fuel oil is fed to the burner by static pressure created by a column of oil. The reservoir maintains a steady head of oil. Available in two sizes, rated at 10 and 20 gallons of No. 3 oil per hour.

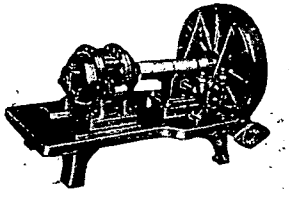
The Petro Worm Drive Pump is a heavy duty pump designed for installations where regulations impose the most exacting requirements.



Model "M" Mechanical Type



Petro Belt Driven Pump



Model "H" Combination Fan and Pump Set