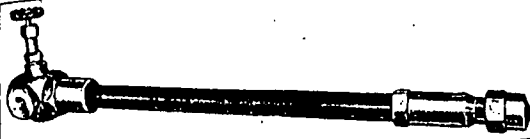


NATIONAL AIROIL

OIL BURNERS of the steam and mechanical types now combined into DUAL STAGE BURNERS



PATENT PENDING

Now, at last, the inherent advantages of both systems of fuel oil atomization are profitably yours... within the one, new NATIONAL AIROIL Dual Stage Burner.

41 years of combustion equipment design and manufacture are in back of the Dual Stage Oil Burner... and, it has been thoroughly tested and proved in the field for firing: Petroleum Processing Heaters; Rotary Kilns; H.R.T., Scotch Marine and Water Tube Boilers; etc.

Available in three sizes, the NATIONAL AIROIL Dual Stage Burner fires all grades of fuel from No. 2 to No. 6, with a ready capacity of 80 to 300 g.p.h. Further, for a perfect flame pattern, we would recommend using with the Dual Stage Burner either the NATIONAL AIROIL Universal Register for forced draft or, the NATIONAL AIROIL Tandem Unit for natural or induced draft furnaces.

Get detailed description, illustration, and specifications in NATIONAL AIROIL Bulletin 25.

OIL BURNERS and GAS BURNERS for industrial power, process and heating purposes
STEAM ATOMIZING OIL BURNERS
MOTOR-DRIVEN ROTARY OIL BURNERS
MECHANICAL PRESSURE ATOMIZING OIL BURNERS
AIR INTAKE DOORS
OBSERVATION PORTS
SPECIAL REFRACTORY SHAPES

LOW AIR PRESSURE OIL BURNERS
AUTOMATIC OIL BURNERS, for small process furnaces and heating plants
GAS BURNERS
COMBINATION GAS & OIL BURNERS
FUEL OIL HEATERS
FUEL OIL PUMPING and HEATING UNITS
FURNACE RELIEF DOORS

NATIONAL AIROIL BURNER CO., INC.



1250 EAST SEDGLEY AVE., PHILADELPHIA 34, PA.
Southwestern Division: 2312 South Boulevard, Houston 6, Texas

INDUSTRIAL OIL BURNERS, GAS BURNERS, FURNACE EQUIPMENT

More POWER NEWS

operate service equipment and facilities for producing and distributing atomically generated energy. This is the first such filing in the state and may be the first in the country.

The company is also exploring possibilities of obtaining a franchise to build and install an atomic plant developed by North American Aviation Corp. (See August Power, p. 148). At present the corporation is financed to conduct advanced research; additional financing is necessary to undertake an atomic energy plant.

NUCLEAR POWER has become a separate division at Combustion Engrs. Inc. The company is currently pursuing several projects for the development of equipment for nuclear power generation. Among these are the supplying of major components for an atomic-powered submarine, problems of design and metallurgy involved in using the heat generated in nuclear reactors.

NEW MOTION PICTURE entitled *A Is For Atom* has been reviewed and endorsed by the Atomic Energy Commission. The color film explains the phenomenon of nuclear fission and highlights its potential benefits in medicine, industry, agriculture, etc. Industrial firms interested in using the film for employee or public showings may obtain it on loan from film libraries of General Electric Co. district offices, or may purchase a copy at print cost of \$50.

Power Across the Nation...

CALIFORNIA-OREGON POWER Co. has ordered two automatic hydroelectric package power plants from Westinghouse Electric Corp. for the Lemola No 1 and No 2 stations. These plants, consisting of waterwheel generator, transformers and switchgear, will add 2,000-kw electrical capacity to the utility's system.

DETROIT Edison Co. has test run the first steam turbine generator installed in its new St. Clair Power Plant. The new unit is one of four to be installed; each machine has a capability of 230,000 hp. After completion, total plant generating capability will be more than 3,300,000 hp.

BUREAU OF RECLAMATION'S \$28.8-million multi-purpose Canyon Dam project nears completion with the first of three 16,667-kw generators in its power house scheduled to go on the line this fall. Located on the Missouri east of Helena, Mont., the dam will have a 2,051,000-acre-ft capacity. The spillway, controlled by largest radial type gates ever installed on a Bureau project, has a capacity of 150,000 cfs.

PUBLIC SERVICE Co. of Denver is installing an additional 66,000-kw steam turbine-generator at its Zuni plant. Total cost of expansion is \$11,675,000.

NEWS ABOUT "TEFLON"

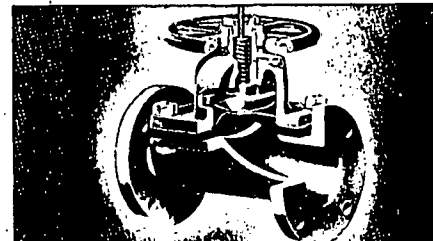
How valve components of Du Pont "Teflon" are giving improved performance at less cost

Du Pont "Teflon" tetrafluoroethylene resin has found increasing use as a material for valve components—pistons, packings, seats and discs, plug valve ports and diaphragms. It provides a unique combination of properties of particular interest to manufacturers and users of valves.

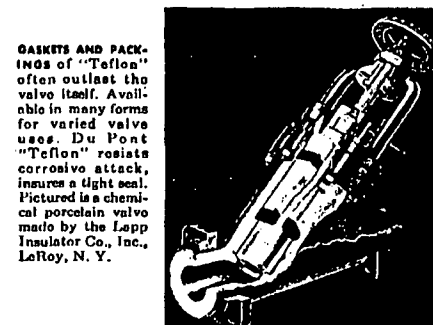
- **CHEMICAL INERTNESS.** "Teflon" is completely unaffected by acids, alkalis, aliphatics, aromatics, chlorinated hydrocarbons... all chemicals except molten alkali metals and fluorine at elevated temperatures.
- **HEAT RESISTANCE.** Gives continuous service up to 500°F.
- **LOW-TEMPERATURE TOUGHNESS.** Has been used as low as -460°F.
- **LOW COEFFICIENT OF FRICTION.** Lets the valve operate easily. Requires no lubrication.
- **EROSION RESISTANCE.** Resists erosion by impinging fluids.

Valves with components of Du Pont "Teflon" are especially useful to manufacturers of: chemicals, fertilizers, petroleum, soap, chlorino, foods, plastics, sugar, dyes, insecticides, rubber, textiles, explosives, paper, pharmaceuticals, photographic film.

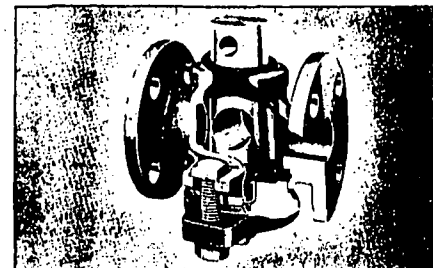
The Polychemicals Department of the Du Pont Company supplies "Teflon" in the forms of molding powders and aqueous dispersions. These forms are converted into various valve components and molded articles by a number of manufacturers for use in chemical and allied equipment. For further information, write: E. I. du Pont de Nemours & Co. (Inc.), Polychemicals Department, Room 2610, Du Pont Bldg., Wilmington 98, Delaware.



VALVE DIAPHRAGMS demonstrate the chemical inertness and thermal stability of Du Pont "Teflon." This diaphragm of pure "Teflon," above, was designed for continuous operating pressures of 100 psi and temperatures of 400°F. The valve is made by Hills-McCanna Co., Chicago.



GASKETS AND PACKINGS of "Teflon" often outlast the valve itself. Available in many forms for varied valve uses, Du Pont "Teflon" resists corrosive attack, insures a tight seal. Pictured is a chemical porcelain valve made by the Lapp Insulator Co., Inc., LeRoy, N. Y.



PLUG VALVE COMPONENTS (sealings and cock washers) utilize the low coefficient of friction and non-adhesive characteristics of "Teflon." They prevent sticking or freezing in the valve body, often simplify design, give excellent results. The valve above is made by The Duriron Co., Inc., Dayton, O.

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