

GENERAL ELECTRIC COMPANY

GENERAL OFFICE: SCHENECTADY, N. Y.

Manufacturer of Complete Electrical Power Equipment and Supplies

BRANCH OFFICES: See page 13

PLAINTIFF'S EXHIBIT

GE-135

G-E DIRECT HEAT ELECTRIC FURNACE:

A complete line of furnaces for steel hardening, drawing, annealing and carburizing; a new continuous AIR-SEALED vitreous enameling furnace; furnaces for tinning and galvanizing; brass and copper annealing, white-metal melting; and completely erected furnaces for all kinds of heat treating and processing are now available.

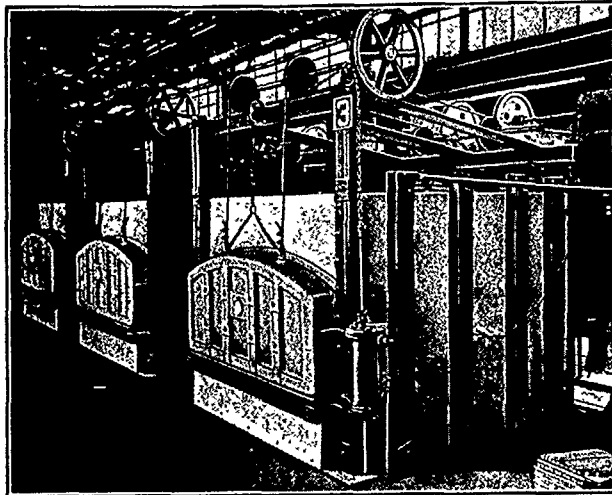
Many of these designs are the result of years of experience with electric furnaces in G-E factories.



means, and it permits complicated structures to be made from simple parts at a considerable saving in cost.

STANDARD FURNACES:

For general heat-treating, tool room installations, small shops, etc., a line of standard furnaces has been developed, hundreds of which are in daily use. They include box type, with hearth widths from 12 inches to 36 inches, vertical, cylindrical, pot type

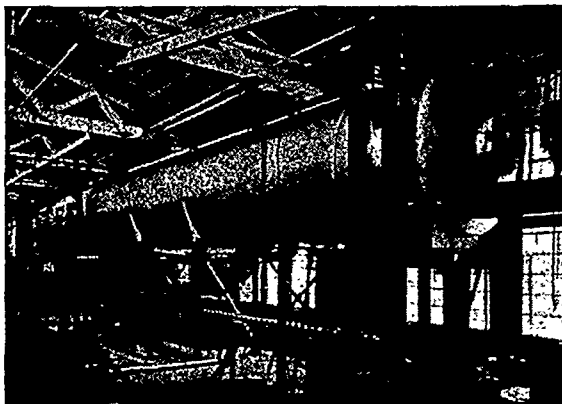


Electric Resistance Furnaces for Heat Treating

Temperatures up to 1850° F. can be maintained continuously without deterioration of the non-oxidizing nickel-chromium alloy ribbon resistor. Automatic temperature control insures accurate, uniform temperatures without over-heating and with minimum power consumption.

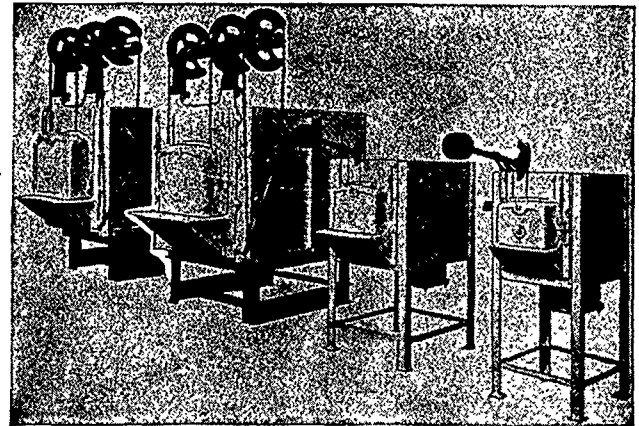
COPPER BRAZING IN ELECTRIC FURNACES:

Copper brazing in an atmosphere of protective gas is a process developed in the G-E Research Laboratory for use on G-E products. Turbine parts, molds, dies, refrigerator units and many other parts are being successfully joined. This process is a convenient method of uniting parts by a strong alloy weld, which would be exceedingly difficult to accomplish by other



Continuous Electric Furnace for Copper Brazing Evaporator Parts

(See pages 13, 480, 597, 608, 796 and 797 for additional products of this Company)



Standard G-E Direct Heat Electric Furnaces

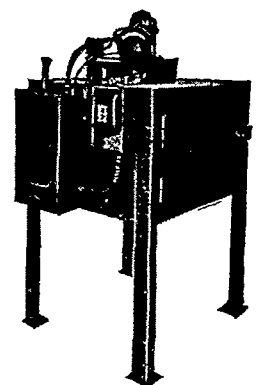
for lead and cyanide hardening, and melting pots for lead, tin, solder and babbitt, which use the direct heat principle of immersing a helicoil sheath wire cast-in unit directly in the metal to be melted.

Stocks of these furnaces are always maintained.

These furnaces are arranged for either alternating or direct current and operate on standard circuit voltages. The design of heating units provides an even distribution of heat throughout the furnace chamber without hot or cold spots.

G-E AIR DRAWING OVEN:

The proper drawing of tools, dies, and other steel parts after hardening is an important step in their production. Perfect uniformity in heating, with close control of temperature is essential to secure high quality. The electrically heated, automatically controlled oven is ideal for this work because it fulfills the requirements to a degree impossible of attainment with a fuel heated oven, and insures exact duplication of results as often as may be desired. The steel comes out clean, the temper is uniform throughout, and where surface color is desired, the right shade is assured. These are the results of uniform heating in a clean atmosphere at temperatures maintained automatically within plus or minus 5 degrees.



Type AD Air Drawing Oven

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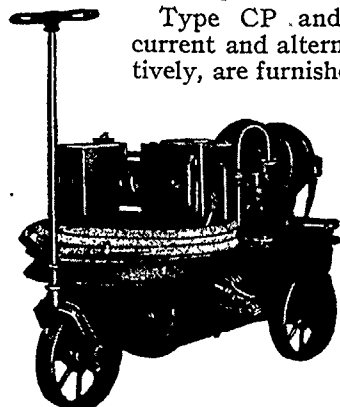
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G-E AIR COMPRESSORS:

The G-E center gear type motor driven air compressors were made for supplying compressed air for operation of brakes, whistles, and other pneumatic devices.

Type CP compressors are for use on direct-current circuits. Type CPT compressors are for use on three-phase alternating-current circuits. Type CPQ are for use on two-phase circuits.



Portable Air Compressor Outfit

Type CP and CPT-27 and 28 direct-current and alternating-current sets, respectively, are furnished with three-wheel trucks, 6 ft. 9 in. long, 2 ft. 8 in. wide and 3 ft. 9 in. high, complete with control, reservoir (18 x 60 in.), 25-ft. rubber hose with nozzle, safety valve, stop-cock, coupler socket mounted on truck and coupler plug, all piped and wired ready for operation.

Types CP and CPT-26, 100 to 110 cu. ft., direct-current and alternating-current sets, can also be furnished mounted on mine type car complete with control and all accessories.

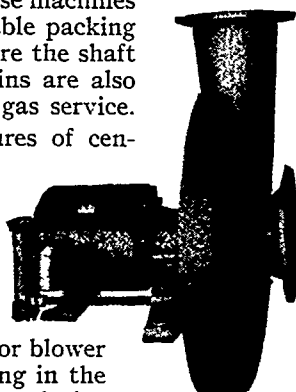
CENTRIFUGAL COMPRESSORS:

Centrifugal Compressors are built in single and multi-stage types.

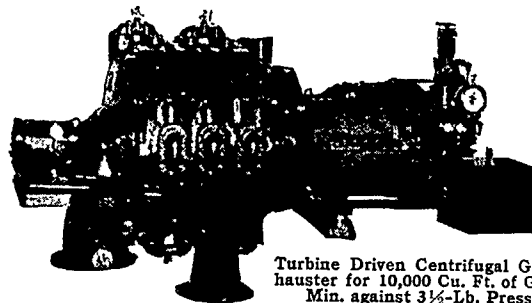
The single stage compressor consists of a rotating impeller mounted on the shaft of the driver and surrounded at its periphery by diffuser rings. These are enclosed in a circular casing somewhat similar to that of a centrifugal pump. The intake is located at the end center while the discharge may be located in any one of eight positions about the circumference of the circular casing.

The multi-stage centrifugal compressor consists simply of two or more impellers and diffusers in series. Each stage is separated by a suitable diaphragm which efficiently directs the air or gas from one stage to the next. Diaphragms are provided with suitable inter-stage packings and where these machines are used to handle gas suitable packing is provided on each end where the shaft enters the casing. Tar drains are also provided on these units for gas service.

One of the striking features of centrifugal compressors is the high efficiency which they are capable of maintaining for years without renewals or appreciable expense for maintenance. This high efficiency is due to the fact that unlike the ordinary fan or blower they are capable of recovering in the form of pressure nearly all the velocity



energy imparted to the air by the high peripheral speed of the impeller instead of dissipating such energy in heat. Owing to the absence of valves and rubbing surfaces there is no possibility of leakage with the subsequent decrease of efficiency that characterizes all forms of positive pressure blowers.



Turbine Driven Centrifugal Gas Exhauster for 10,000 Cu. Ft. of Gas per Min. against 3 1/2-Lb. Pressure

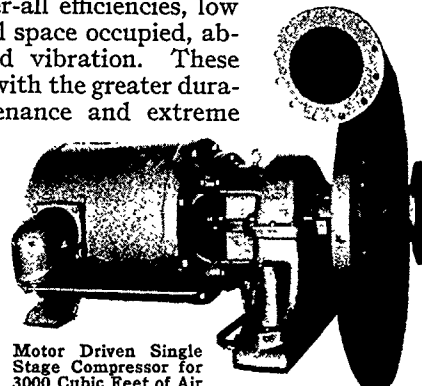
Centrifugal Compressors are usually driven by steam turbines which are now available as high efficiency, high speed units or electric motors of the variable and constant speed type. Where higher speeds than are available from direct-connected drivers are necessary, speed-increasing gears are interposed between them and the compressors, thus permitting of greatly extended capacity. The use of high speed drivers with either direct-connected or with speed-increasing gears results in high over-all efficiencies, low up-keep cost, small space occupied, absence of noise and vibration. These features, together with the greater durability, low maintenance and extreme simplicity, are worthy of the consideration of the engineer.

General Electric centrifugal air compressors are operated successfully in the following applications.

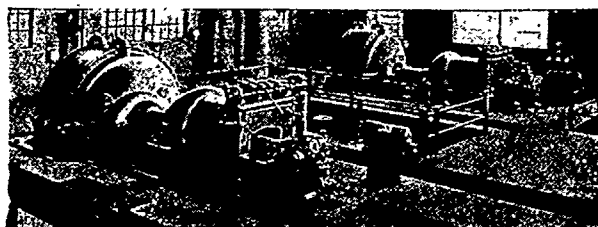
Oil-fired furnaces, gas-fired furnaces, pulverized coal-fired furnaces, agitation of liquids, cupola blast, pneumatic conveying, water gas generators, blast furnaces, Bessemer converters, copper blast furnaces, copper converters, gas exhausting, and gas boosting.

These units are manufactured in capacities up to 85,000 cu. ft. of free air per minute against 35 lbs. pressure, and may be driven by either motors or turbines.

For complete information on these outfits refer to our nearest Sales Office.



Motor Driven Single Stage Compressor for 3000 Cubic Feet of Air at 9-lb. Pressure with Speed-Increasing Gear Driven by 170 HP Induction Motor



Turbine Driven 50,000 Cu. Ft. Blast Furnace Blowers

(See pages 13, 480, 540, 597, 796 and 797 for additional products of this Company)

Mechanical Catalog

Consisting of uniformly presented and illustrated catalog
information, conveniently classified, describing the
products of manufacturers of mechanical equipment

with

DIRECTORY OF MANUFACTURERS
OF INDUSTRIAL EQUIPMENT,
MATERIALS AND SUPPLIES

A specialized, classified and cross-indexed list
with names and addresses inserted free of charge

1930-31

TWENTIETH ANNUAL VOLUME

ISSUED OCTOBER 1930

Published By

THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS
29 WEST 39th STREET, NEW YORK, N. Y.

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