ROME BRASS RADIATOR CORPORATION

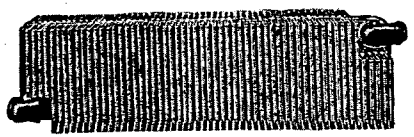
1 East 42nd Street, **New York**

BOSTON CHICAGO CLEVELAND PHILADELPHIA PITTSBURGH MILWAUKEE WASHINGTON, D.C. ST. LOUIS

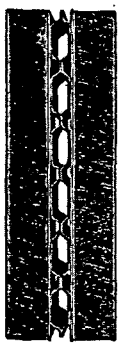
Representatives in Principal Cities

ROBRAS Box Fin Type Radiators are scientifically designed non-corrosive extended surface radiators, especially developed to utilize the advanced principles of heating, wherein the heat-surface is enclosed, either within the building wall or a casing.

ROBRAS Radiators utilize the enclosure as a stack within which they induce a positive movement of the heated air, expelling it *horizontally*, with sufficient velocity to insure a uniformity of heating throughout the adjacent space never before achieved without fans. Thus the ROME BRASS RADIATOR CORPORATION endorses this modern Method of Heating as incomparably superior to former practice, affording uniform comfort, economy, effective control, freedom from enormous weight and bulk, and freedom from intrusion upon the decorative scheme.

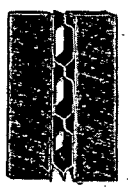


ROBRAS Box Fin Radiators are made entirely of brass with copper fins and so constructed that they will withstand ordinary steam pressures. As indicated two stamped brass side plates are electrically welded around the edges and longitudinally between steam chambers. The copper radiating fins are applied at right angles to the prime surface. Supply and return connection fittings and caps are screwed on to internally shouldered nipples at each end of the radiator.



ROBRAS Box Fin Radiators are furnished in low and high types, 5½ in. and 10¾ in. high respectively, in nine lengths from 18 to 70 in., and in four depths. Supply and return connection fittings can be set at the plant in vertical or horizontal positions as ordered.

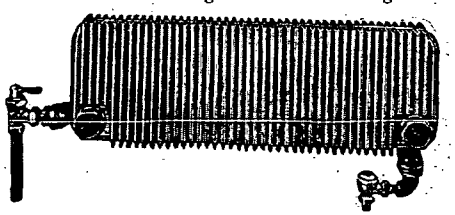
The ratings of ROBRAS Radiators have been determined from carefully prepared tests and are guaranteed, when radiators are properly installed, and other conditions of the heating plant are correct.



ROBRAS Box Fin Radiators are rated E.D.R. (Equivalent Direct Radiation). Their ratings in square feet are given on Pages 782 and 783.

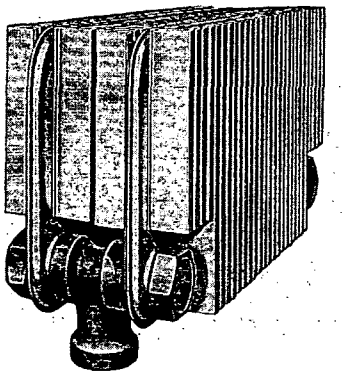
Special attention is called to the fact that, due to their construction and the method of rating, it is *unnecessary* to increase ROBRAS Box Fin radiation per cent, or any other quantity, because of the 25 enclosure.

When the amount of radiation to be installed is known, determine the recess space available. Suppose that it is required to install 42 sq. ft. E.D.R. in a recess under a window. The approximate recess dimensions are 40 in. long by 24 in. high by 6 in. deep. The draft head can be determined by subtracting approximately 10 in. from the available height of the wall space to provide for top and bottom grilles and overlap of enclosure. In this case, the approximate draft head would be 12 in. and reference should be made to table on Page 782 under this heading. Select a section length nearest to the length of recess available and refer to capacities under length of section and opposite 5½ in. depth of radiator. This would give a rating of 31½ sq. ft., which is insufficient and a high type radiator should, therefore, be selected. By using the above method and referring to tables on Page 783 a rating of 42 sq. ft. will be found for a radiator 32 in. long and 5½ in. deep which would meet the requirements. The space requirements for installing valves and traps must be considered. If used on a two-pipe system, the supply connection could be horizontal and the return vertical. If used on a one-pipe system, supply connections could be either vertical or horizontal.



If an intermediate draft head is available, that is, one between any of those shown in this catalog, the footage may be estimated for that particular height from capacities given, as the heat output of any radiator varies with the draft head.

An important feature to be kept in mind, is that any type of front used for the enclosure *must have two openings*, one at the floor line, the other at the top of enclosure, preferably in the front face. In no case must the front be made of one large grille. Such a front prevents the proper circulation of air and cuts down the effectiveness of the radiator, unless backed by a sheet of metal or other material to form a proper flue.



Where *connections looking down* are used, at least one inch of space is needed at the ends of the radiator, that is, the recess need be only two inches longer than the section. Recess lengths for other assemblies may be determined by reference to assembly dimensions in our Engineering Data Catalog and adding necessary length to accommodate valves and traps.

Typical Specifications for ROBRAS Radiators

Robras Radiators Furnish and install where shown on plans and called for in the specifications, ROBRAS Box Fin Radiators as manufactured by the ROME BRASS RADIATOR CORPORATION, 1 East 42nd Street, New York City.

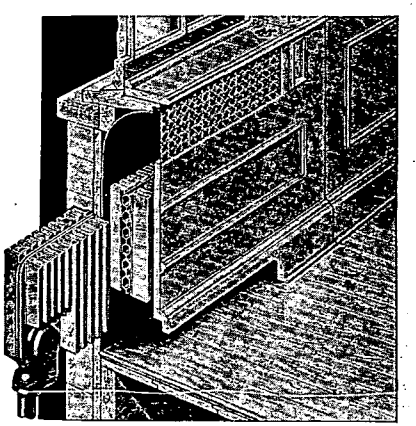
All radiators shall be shipped completely assembled with the connections tapped in accordance with the manufacturers' schedule.

All ROBRAS Radiators shall be installed in a horizontal position with the low end generally 4 in. above the finished floor and shall be pitched in accordance with dimensions furnished by the manufacturers.

Radiators may be supported on standards made of ⅜ in. iron nipples with a floor flange at either end, or by ROBRAS Adjustable Supports.

Radiator Recesses

All recesses for ROBRAS radiators shall be lined with No. 26 gauge sheet metal, backed with approved insulation. Sizes of recesses shall be as shown on plans, but general details may be obtained from the ROME BRASS RADIATOR CORPORATION Engineering Catalog. (Where desirable, our enclosures or lining and fronts separately can be used).



Radiators recesses shall be provided with fronts having face openings above and below the radiator as shown on details. The Free Area of the bottom opening or grille shall be not less than 40 per cent of the top face area of the radiator. The Free Area of the top opening or grille shall be not less than 50 per cent of the top face area of the radiator. (The top face area of the radiator is its depth from front fron to back multiplied by the section length).

Bathroom Units

Each bathroom unit shall be furnished complete with a white lacquered metal cabinet 8 in. high and may be supported by the pipe connections only. (Note that on one-pipe steam jobs small angle iron brackets will be required for these units). ROBRAS Bathroom Units shall be so installed as to have the grille at the top.