POWERS DATA SHEETS

Number 186

Figuring Refrigeration Capacity

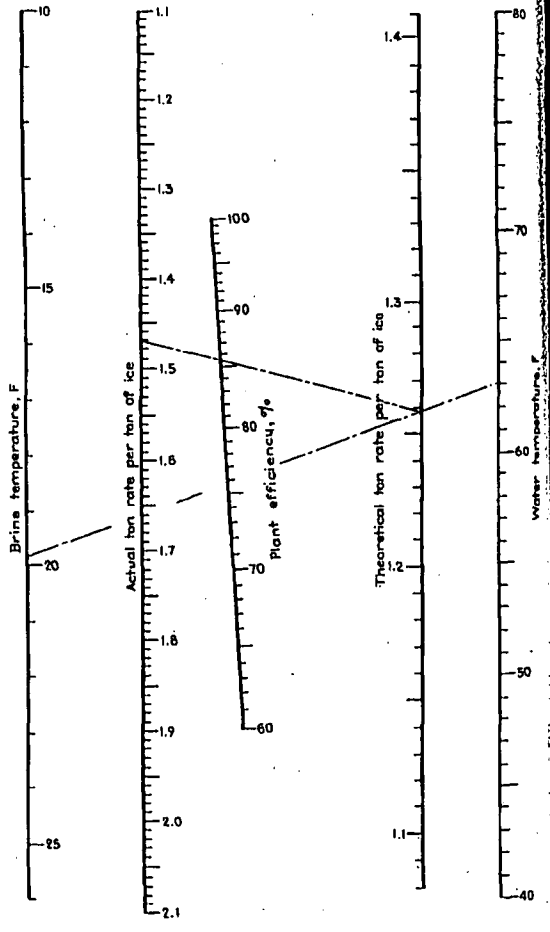
Here's a chart to speed up the calculations needed in routine follow-up of refrigerating-plant performance. To find the actual ton-rate capacity used per ton of ice produced, apply the following formula,

$$\text{Actual ton rate} = \frac{0.5\,(32-T) + (t-32) + 144}{144 \times \text{efficiency}}$$

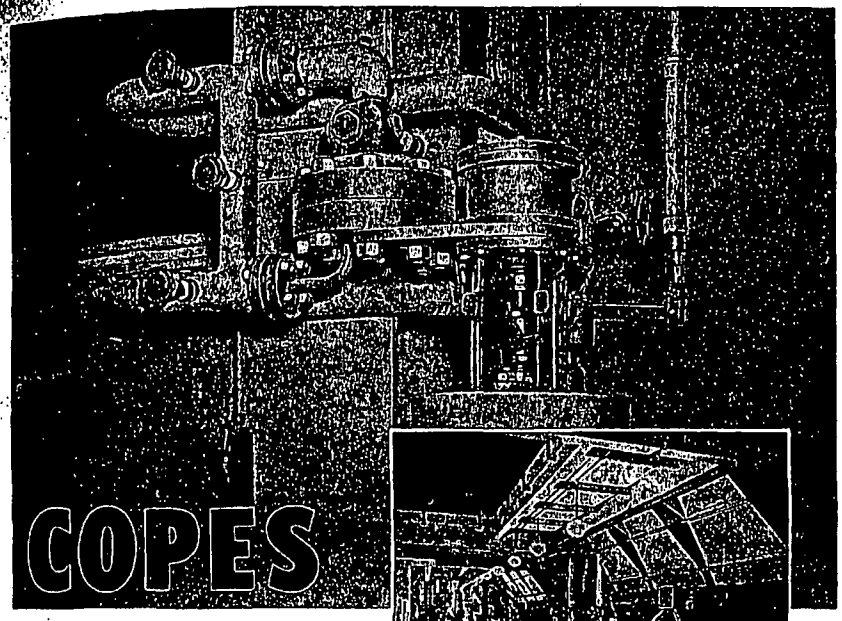
Where
T is the temperature of the brine
and
t is the temperature of the water in degrees F.

Example: Find the actual ton rate per ton of ice output when brine temperature is 19.8 F, water temperature is 63.1 F, and plant efficiency 85.5%. Lay a straight edge from the appropriate numbers on the temperature scales to find the intersection on the theoretical ton-rate scale. Then lay the straight edge from this intersection through the efficiency scale to read the answer of 1.471 actual ton rate per ton of ice output.

By John Hyam



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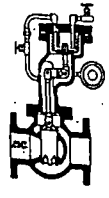
at Jennison Station

means close boiler water level control by COPES Flowmatic on two 675-psi, 825-F Combustion Engineering two-drum steam generators, each rated at 200,000 pounds of steam per hour, largest units in this country stoker-fired with anthracite.

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