POWER'S DATA SHEETS

Number 192

Universal Tank-Capacity Scales

▶ These scales can be used to measure the volume of liquid contained in a horizontal cylindrical tank with flat vertical ends. Total volumetric capacity of a tank can be calculated easily by the usual formulas. Difficulty arises, however, when we wish to measure the contents of a partly filled tank. Soundings of a partly filled tank can be readily made in the usual case and the depth of liquid determined. This depth can then be expressed as a percent of tank diameter, which equals (depth/dia) x100. Referring to the scales, this percentage will be found to equal a volume expressed as a percentage of the total tank internal volume.

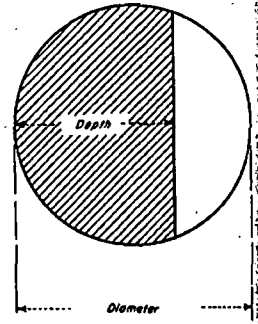
Example: An 84-in. internal-diameter tank has a total capacity of 3000 gal and contains a liquid with a depth of 50 in. How many gallons are in the tank?

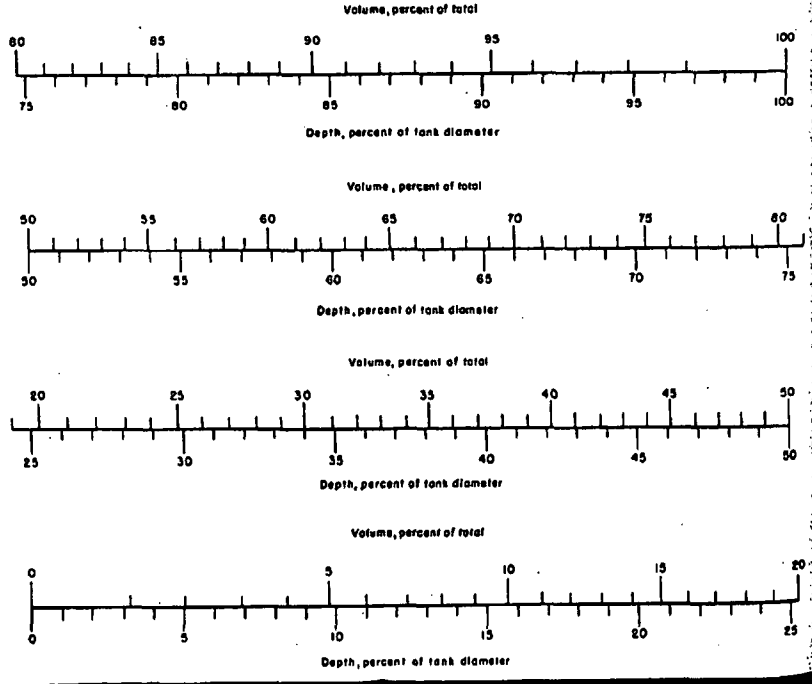
$$\text{Depth} = \frac{50}{84} \times 100 = 59.5\% \text{ of tank diameter}$$

From the scales the corresponding volume = 61.9% of tank capacity

$$\text{Liquid in tank} = 3000 \times \frac{61.9}{100} = 1857 \text{ gal}$$

By W H Wieboldt, Enterprise, Fla.





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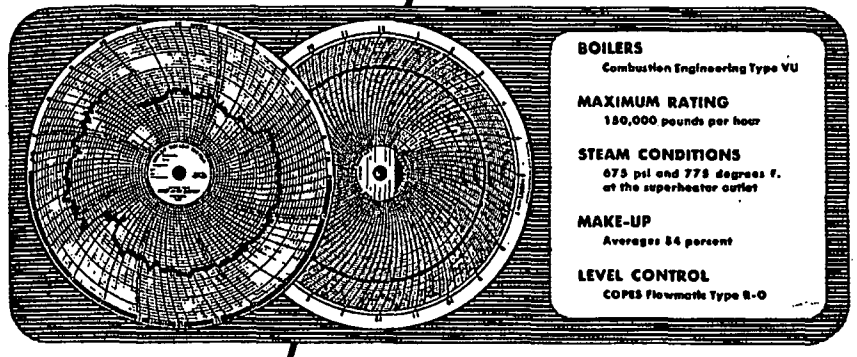
FLOWMATICS

AT HAMMERMILL PAPER COMPANY



BOILERS
Combustion Engineering Type VU

MAXIMUM RATING
150,000 pounds per hour

STEAM CONDITIONS
675 psi and 775 degrees F. at the superheater outlet

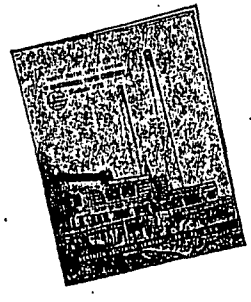
MAKE-UP
Averages 84 percent

LEVEL CONTROL
COPES Flowmatic Type R-O

Hold BOILER WATER LEVEL WITHIN *Plus* OR *Minus* 1/2 INCH!

Except for momentary shrink and swell on sudden changes in boiler load, COPES Flowmatic is holding water level within plus-or-minus one-half inch on the two new Combustion Engineering Type VU Steam Generators at Hammermill Paper Company. Such close control is desirable for any fast-steaming boiler—especially if loads fluctuate rapidly or widely. You can be sure of this safe level control if you insist on the modern two-element COPES Flowmatic Regulator.

NORTHERN EQUIPMENT COMPANY
781 GROVE DRIVE, ERIE, PENNSYLVANIA
BRANCH PLANTS in Canada, England, France and Austria
Representatives Everywhere



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Headquarters for . . .

Boiler Feed Water Control . . . Excess or Constant Pressure Control, Steam or Water . . . Liquid Level Control . . . Balanced Valves . . . Desuperheaters . . . Boiler Steam Temperature Control . . . Hi-Low Water Alarms.