

*FORMULA:—

$$\frac{89600 \times T^2}{L \times D} = \text{pressure to be allowed.}$$

EXAMPLE.—Given a flue of forty (40) inches in diameter, seven (7) feet long, and five-tenths (.5) of an inch in thickness. Required, the pressure to be allowed by the inspector.

$$\frac{89600 \times T^2}{L \times D} = \frac{89600 \times .25}{7 \times 40} = \frac{22.400}{280} = 80 \text{ lbs. pressure.}$$

Provided, That if rings of wrought iron are fitted and rivetted properly on, around, and to the flues, in such manner that the tensile strain on the rivets shall not exceed six thousand (6,000) pounds per square inch of section, the distance between these rings shall be taken as the length (L) of the flue in the formula:

EXAMPLE.—Given a flue forty (40) inches in diameter, eight (8) feet long, and five-tenths ($\frac{5}{16}$) of an inch in thickness, having one ring at the middle of its length. Required, the pressure to be allowed by the inspector.

$$\frac{89600}{L \times D} \times T^2 = \frac{89600 \times .25}{4 \times 40} = \frac{22.400}{160} = 140 \text{ lbs. pressure allowable.}$$

CHAS. C. BEMIS,
GEO. B. N. TOWER,
JOHN FEHRENBATCH.

*British Lloyds.