

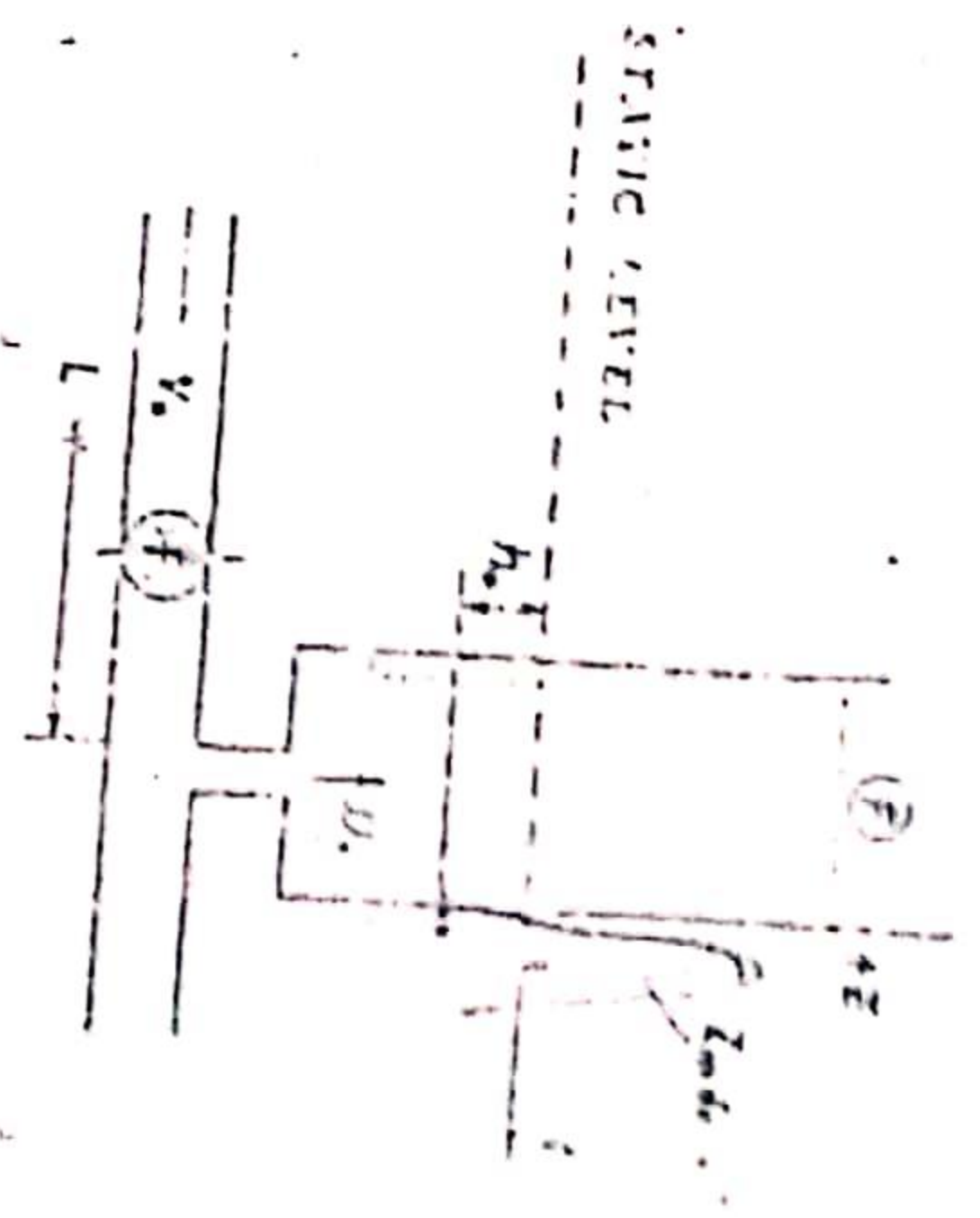
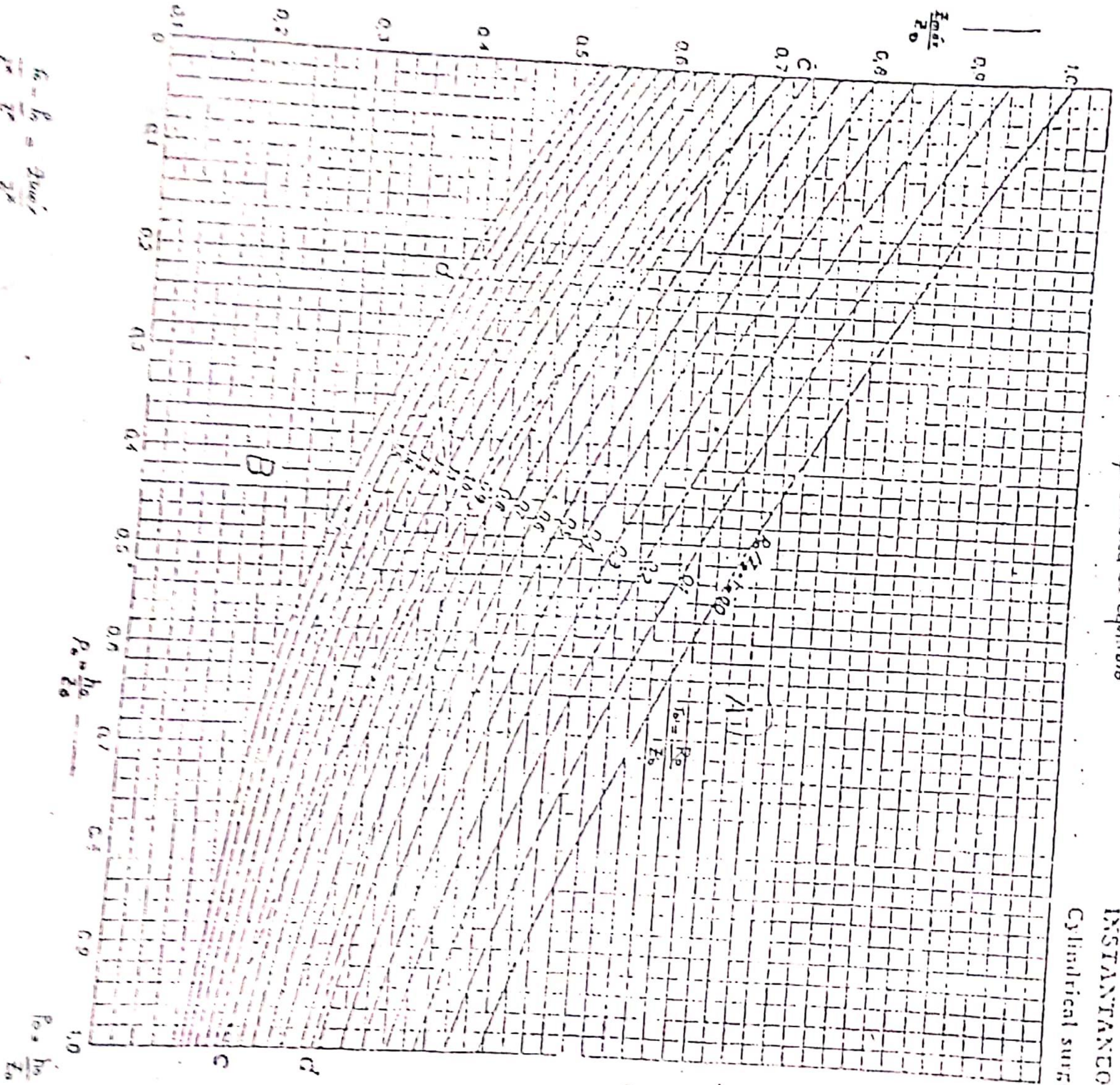
Siempre

$\phi$  rectangularmente  
 $\phi$  Chimenea de equilibrio

L.C.3

INSTANTANEOUS TOTAL CLOSURE  
Cylindrical surge tank with throttling

3.6



RELATIVE HEADS WITH THROTTLING  
AT INITIAL MOMENT

$$Q = \frac{Q_0}{R}$$

$$R = \frac{R_0}{Z_0}$$

$$R_0 = \left\{ \frac{V_0^2}{2g} \right\} \left[ \frac{L}{D^5} + \frac{1}{D^5} \right]$$

MANOMETRIC APPLIED  
NEGLECTING THROTTLING

APPLYING IN THE  
SINCE IN THE  
PROVIDES IN THE

$$Z_0 = V_0 \sqrt{\frac{L}{gD^5}}$$

$$Z_0 = V_0 \sqrt{\frac{L}{gD^5}}$$

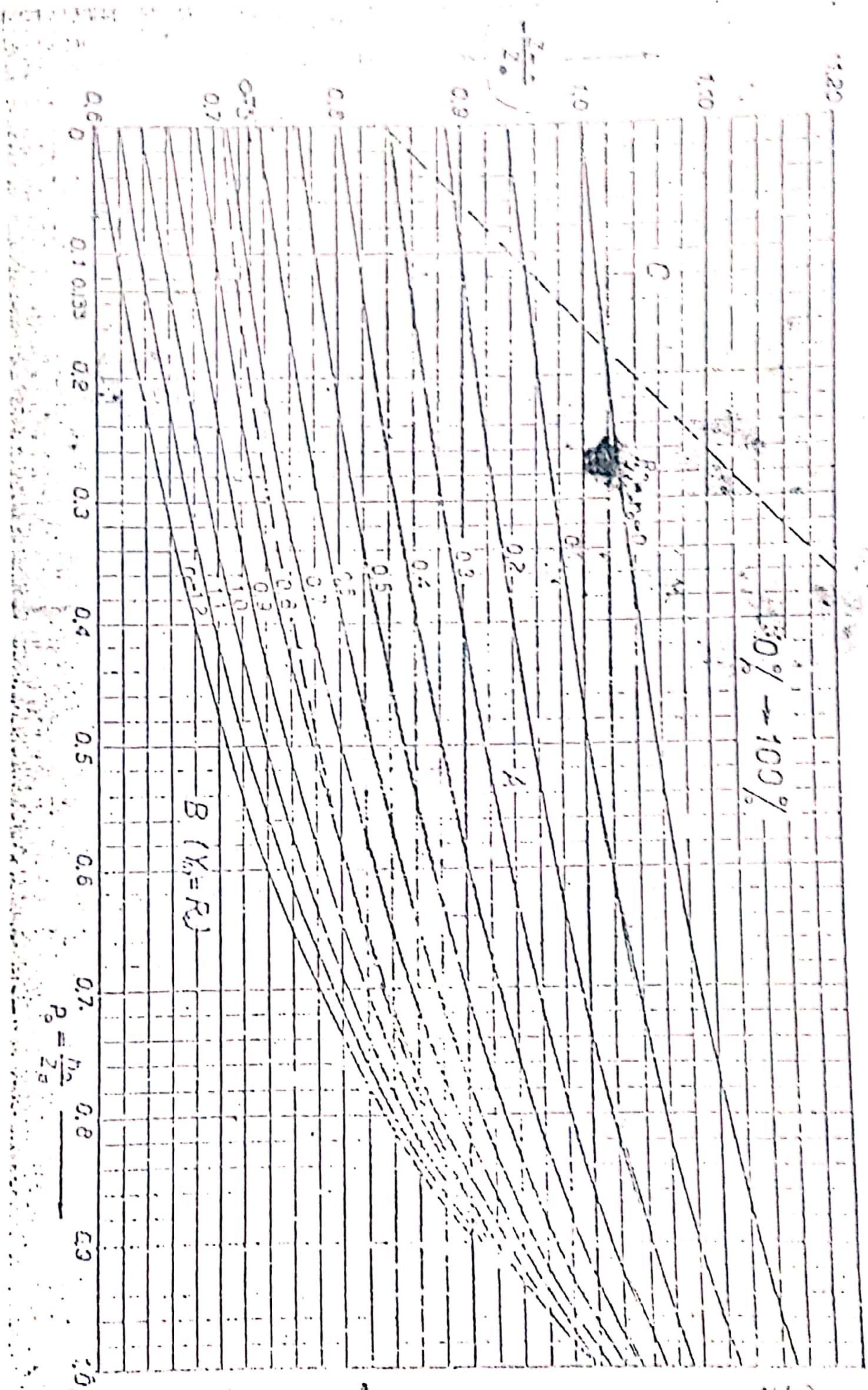
$h_0$  - HEAD IN THE TANK AT INITIAL  
STADY STATE

$D$  - DIAMETER OF THE TANK

$h_0 = D \cdot L$

provides the energy  
for water in the  
surge tank

$$\frac{h_0 - h_0}{L} = \frac{Q_0^2}{2g}$$



0% → 100%

$$\frac{P_0}{2g} = 1.0$$

$$P_0 = \frac{h_0}{2g}$$

B (Y<sub>1</sub> = R<sub>1</sub>)

C

A

D

0.2

0.3

0.4

0.5

0.6

0.7

0.8

0.9

1.0

1.1

1.2

0.6

0.7

0.8

0.9

1.0

1.1

1.2

0

0.1

0.2

0.3

0.4

0.5

0.6

0.7

0.8

0.9

1.0

1.1

1.2

0.1

0.133

0.2

0.3

0.4

0.5

0.6

0

0.1

0.2

0.3

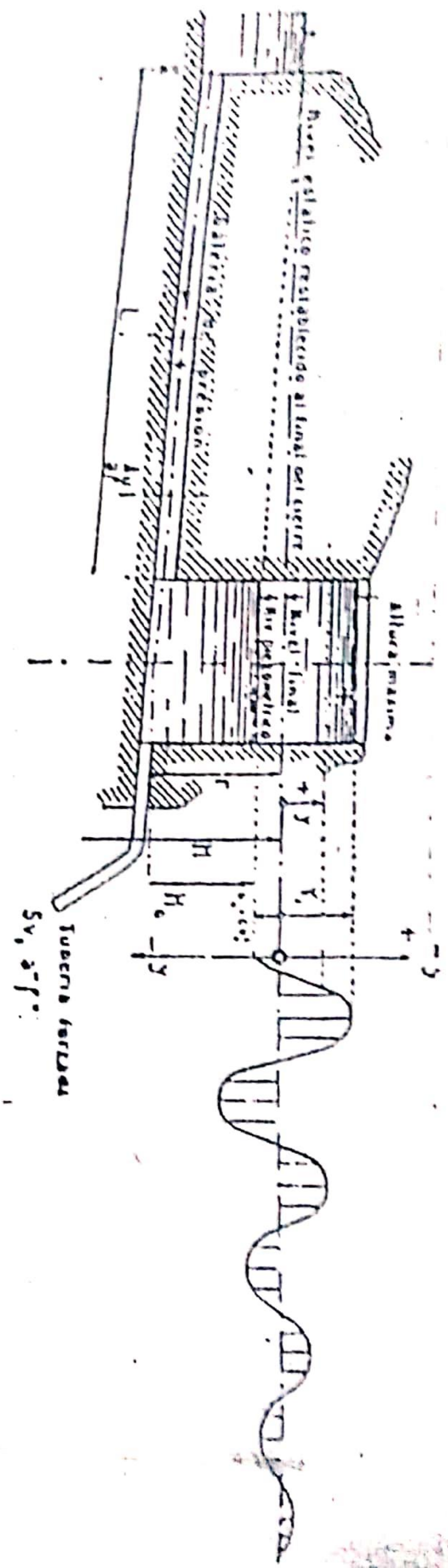
0.4

0.5

0.6

$$\frac{h_0}{2g}$$

Cierre de la admisión



Apertura de la admisión

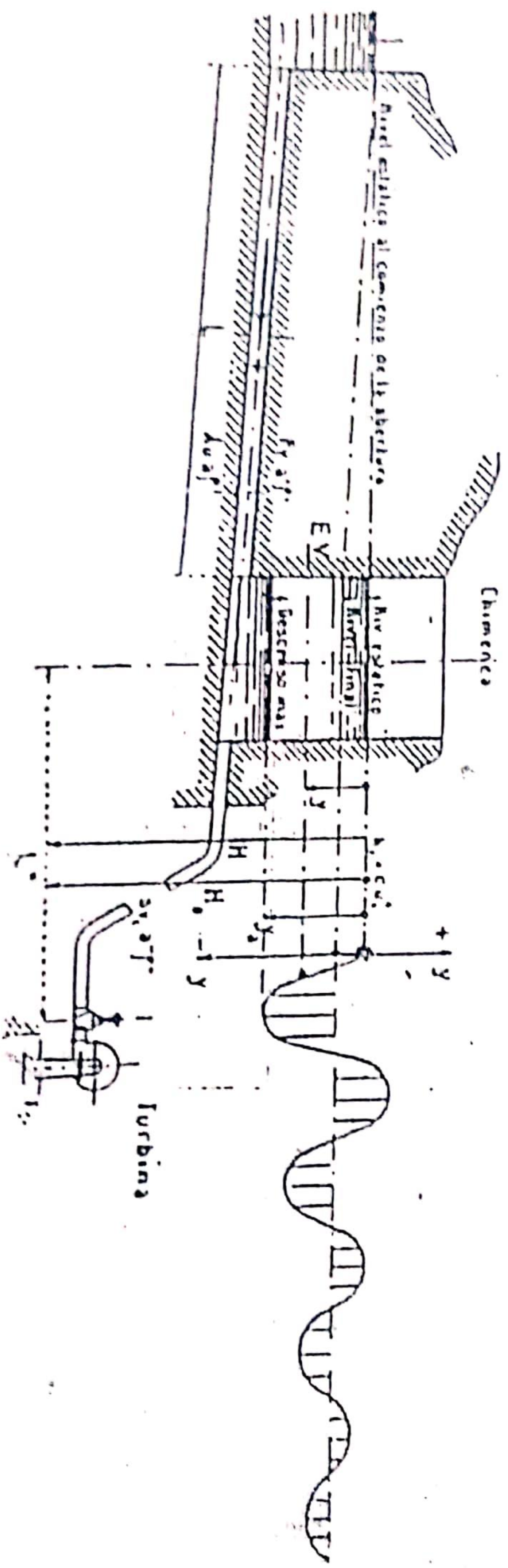


Fig. 19-3. — Oscilaciones del agua en la chimenea de equilibrio por el cierre o apertura.