

hf

:

$$n \quad h_f \propto V^n$$

$$h_f \propto V$$

$$h_f = f \cdot \frac{L}{d} \cdot \frac{V^2}{2g}$$

Re

f

f

$$\cdot \frac{e}{d}$$

$$f = \frac{64}{Re}$$

f

$$\cdot \frac{e}{d} Re$$

f

$$\cdot \frac{e}{d}$$

:

hf

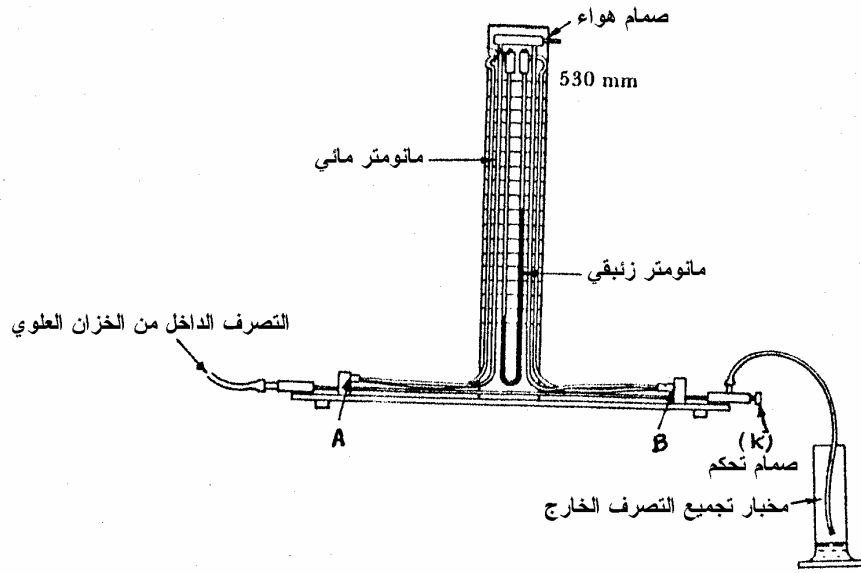
f

:

:

()

B , A



()

:

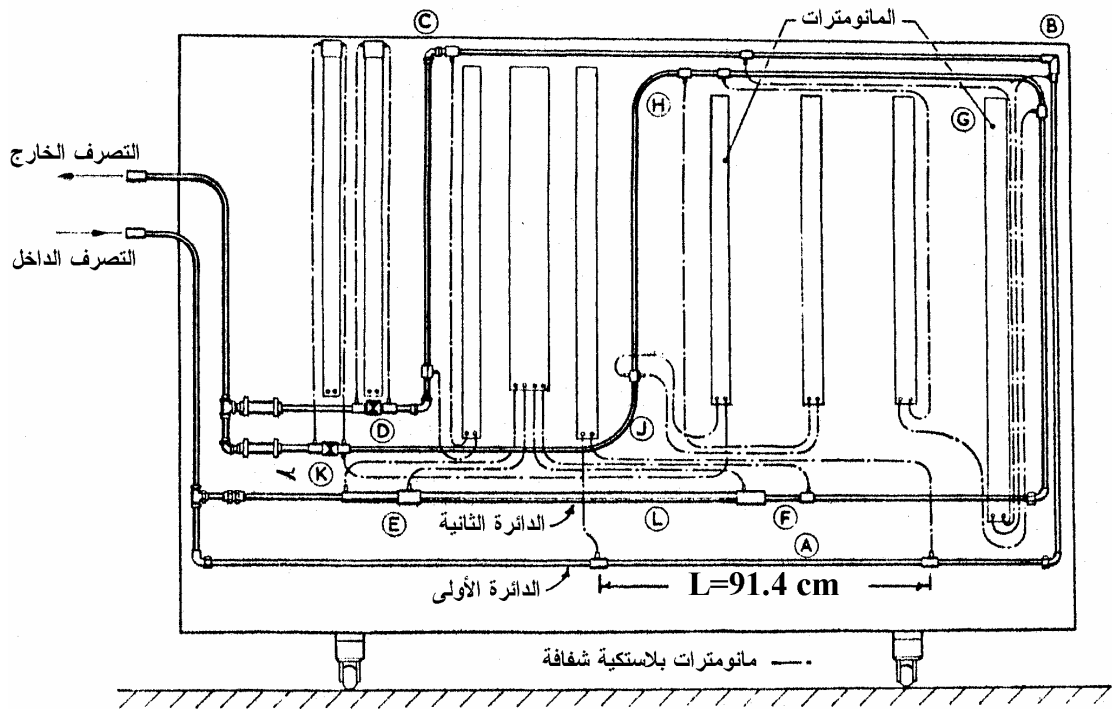
(V)

(V)

(K) ()

U

(K)



: :

()

()

()

A

()

(K)

(D)

(V)

(V)

(D)

f	h_f ()	R_N	h_v ()	V (/)	Q (/)	
$f = h_f \cdot \frac{d}{L} \cdot \frac{2g}{V^2}$	$h_f = h_1 - h_2$	$R_N = \frac{V \cdot d}{v}$	$h_v = \frac{V^2}{2g}$	$v = \frac{Q}{A} = \frac{Q}{\frac{\pi}{4} d^2}$	$Q = \frac{V}{T}$	

:

.() h_f () Q

.() h_f () V

f