

```

(Debug) In[*]:= f = .02;
comprimento = 1000;
diametro = .4;

hf[f_, comprimento_, diametro_] := .08263 f  $\frac{(\text{vazao} / 3)^2}{\text{diametro}^5}$  comprimento

hgsuccao = -10;
hgrecalque = 78.6;
cargaDePressao = 20;
hmt[hgsuccao_, hgrecalque_, cargaDePressao_] =
  hgsuccao + hgrecalque + cargaDePressao + hf[f, comprimento, diametro];
q = Solve[-7714.3 vazao2 + 115.71 vazao + 108 ==
  hmt[hgsuccao, hgrecalque, cargaDePressao], vazao];
resposta = q[[2, 1, 2]] 3600

(Debug) Out[*]:= 209.26

```