

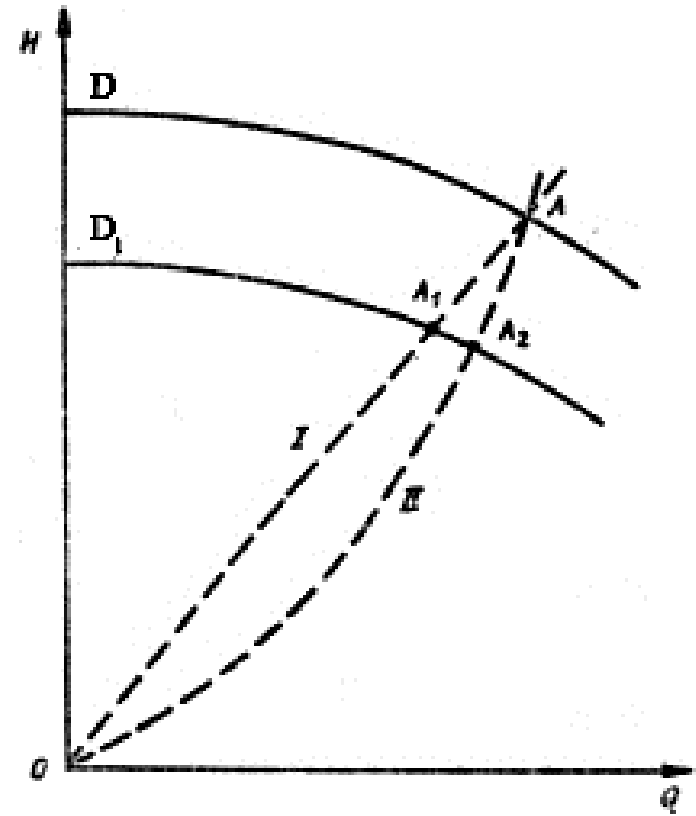
Példa. Meg van adva egy szivattyú karakterisztikája. Szerkessze meg a szivattyú karakterisztikát csökkentett járókerék átmérője esetére.

$$\frac{Q_a}{Q_b} = \frac{n_a}{n_b} \left(\frac{L_a}{L_b} \right)^3 \quad \frac{H_a}{H_b} = \left(\frac{L_a n_a}{L_b n_b} \right)^2$$

$$\frac{H_l}{H} = \left(\frac{D_l}{D} \right)^2 \quad \frac{Q_l}{Q} = \left(\frac{D_l}{D} \right)^3$$

$$\frac{H_l}{H} = \left(\frac{D_l}{D} \right)^2 \quad \frac{Q_l}{Q} = \frac{D_l}{D} \quad n_s \leq 150$$

$$H = kQ^2$$



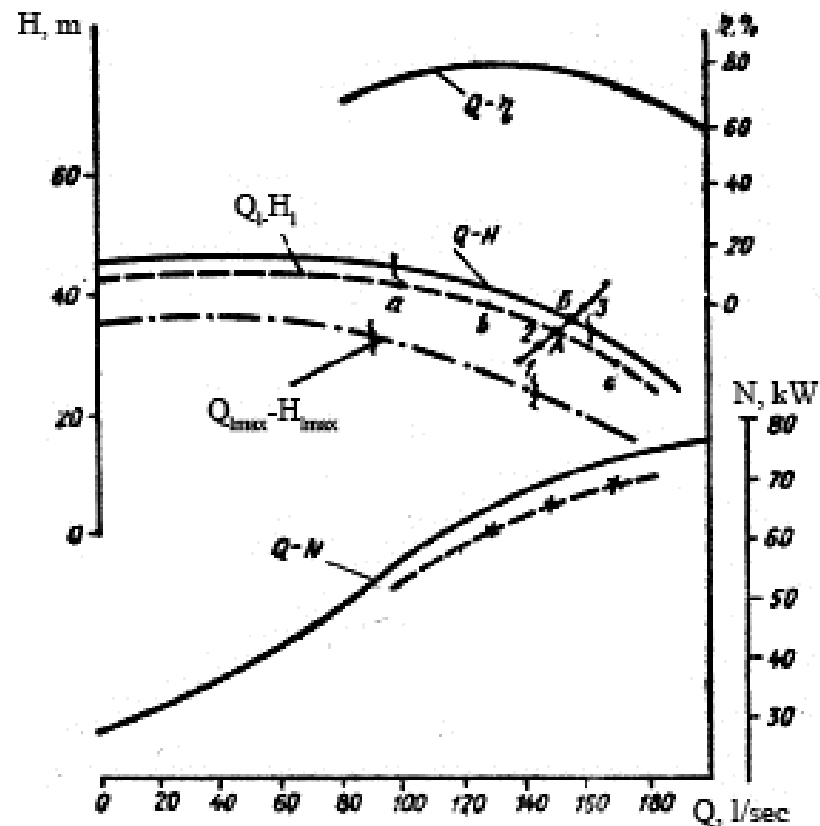
Legyen eredeti átmérő $D = 366$ mm. Szükséges rezsim
 $Q_l = 150$ l/sec, $H_l = 35$ m. D_l - ?

$$\frac{Q}{Q_l} = \frac{D}{D_l} \Rightarrow \frac{Q}{150} = \frac{366}{D_l}$$

$$\frac{H}{H_l} = \left(\frac{D}{D_l}\right)^2 \Rightarrow \frac{H}{35} = \left(\frac{366}{D_l}\right)^2$$

$$\left(\frac{Q}{150}\right)^2 = \frac{H}{35} \Rightarrow H = 35 \left(\frac{Q}{150}\right)^2$$

No. pont	Q	H
1	140	30,45
2	145	32,65
A	150	35
3	160	39,76



$$Q_B = 156,7 \text{ l/sec}$$

$$\frac{Q}{Q_l} = \frac{D}{D_l} \Rightarrow \frac{156,7}{150} = \frac{366}{D_l} \Rightarrow D_l = \frac{366 \cdot 150}{156,7} = 350,3 \text{ mm}$$

$$\frac{Q}{Q_l} = \frac{D}{D_l} \Rightarrow Q_l = Q \frac{D_l}{D} = Q \frac{350,3}{366}$$

$$\frac{H}{H_l} = \left(\frac{D}{D_l}\right)^2 \Rightarrow H_l = H \left(\frac{D_l}{D}\right)^2 = H \left(\frac{350,3}{366}\right)^2$$

No	Q	Q _l	H	H _l
a	100	95,7	45	41,2
b	130	124,4	41,8	38,3
A	156,7	150	38,21	35
c	170	162,7	33	30,2

