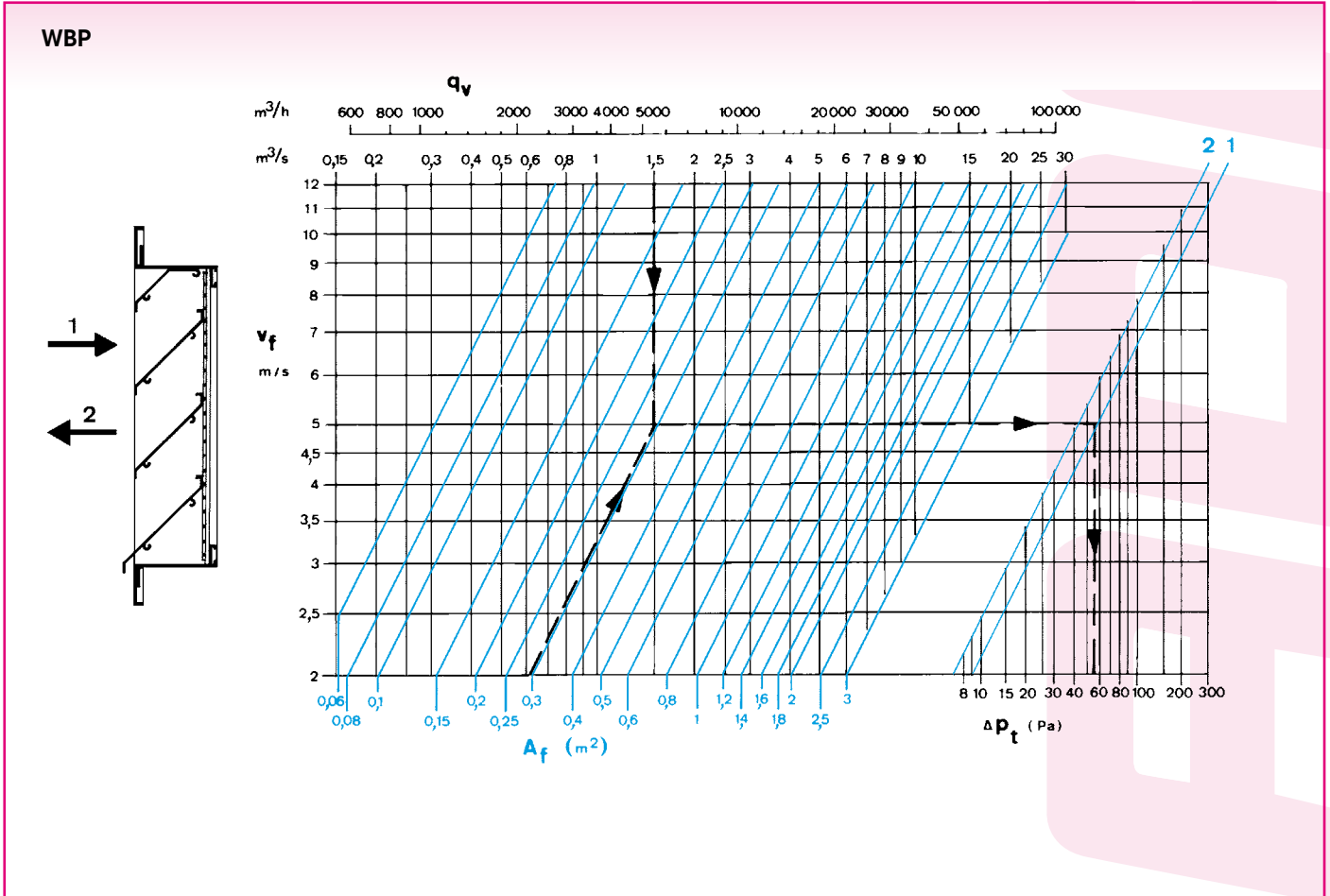


Pressure loss



Example

- suppose $q_v = 11000 \text{ m}^3/\text{h}$
 - at $v_f = 3,2 \text{ m/s}$ (air velocity between the blades) the necessary surface is: $A_f = \frac{11000 \text{ m}^3/\text{h}}{3,2 \text{ m/s} \times 3600 \text{ s/h}} = 0,96 \text{ m}^2$
 - with table (p. 5 050): nett surface of 1 m^2 gives a surface of $1,6 \text{ m}^2$ or $1600 \text{ mm} \times 1000 \text{ mm}$ or $2 \times (L + W) \times H = 1,6 \text{ m}^2$
 - suppose $H = 0,6 \text{ m}$
 $L + W = \frac{1,6}{2 \times 0,6} = 1,33 \text{ m}$
 - choice: $L = 800 \text{ mm}$ and $B = 500 \text{ mm}$
 - with L and B known, the height is calculated the same way
 - $\Delta P_t = 23 \text{ Pa}$ at $v_f = 3,2 \text{ m/s}$ for exhaust of air (1)
- Remark:**
- selection to apply with a regular flow
 - with combined penthouses, for supply and exhaust, there is a non-active part with a width of 200 mm