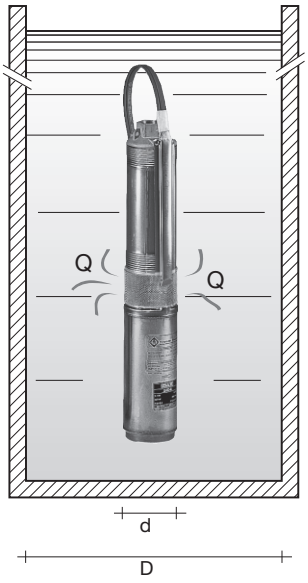
# HOW TO SIZE A COOLING JACKET

**(these considerations are valid for water temperatures below 40°C)**




## **Step 1.** *Check proper motor cooling*

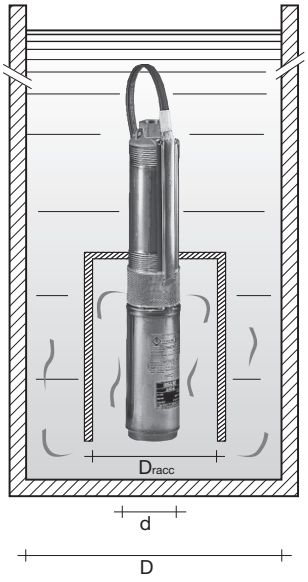
- Calculate the flow speed according to the following formula:

$$v_{[m/s]} = \frac{Q_{[m^3/h]} \times 353{,}7}{(D_{[mm]})^2 - (d_{[mm]})^2}$$

where:
Q = flow rate
D = well diameter
d = motor diameter

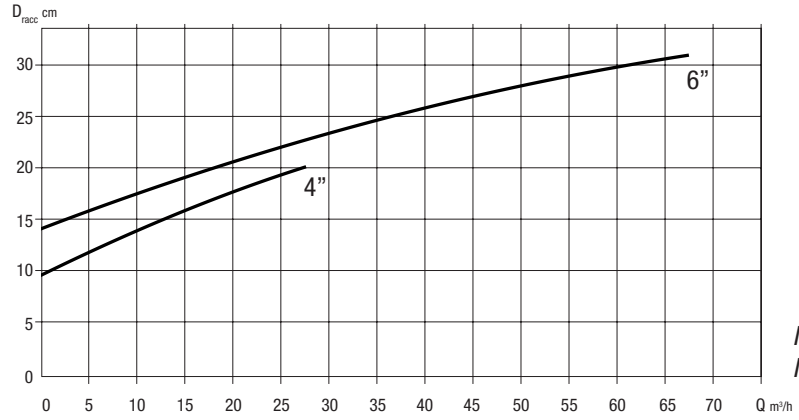
- If v > 0.3 m/s
  (0.08 m/s for 4" Franklin and 0.15 m/s for 6" Franklin)
  **No cooling jacket is required**, the motor is adequately cooled.

- If v < 0.3 m/s
  (0.08 m/s for 4" Franklin and 0.15 m/s for 6" Franklin)
  **go to Step 2.**

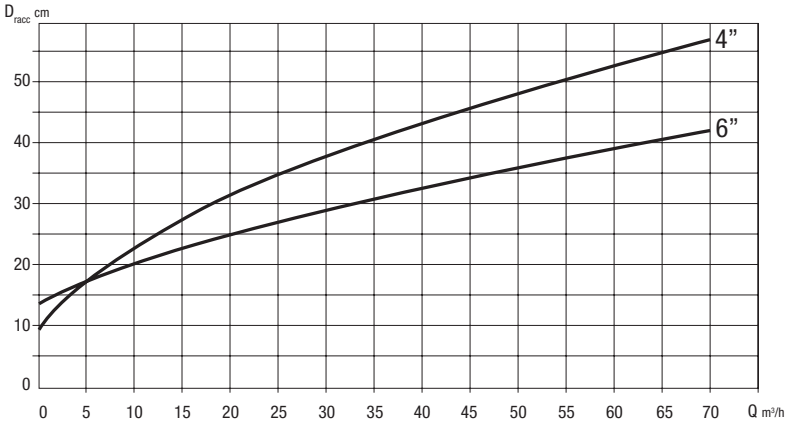



## **Step 2.** *Calculate the recommended diameter of the jacket*

- Given the system flow rate (Q), use the graph to interpolate the maximum diameter recommended for the jacket




*Maximum diameter recommended*
*Motors DAB*




*Maximum diameter recommended*
*Motors FRANKLIN*



DAB PUMP PERFORMANCE