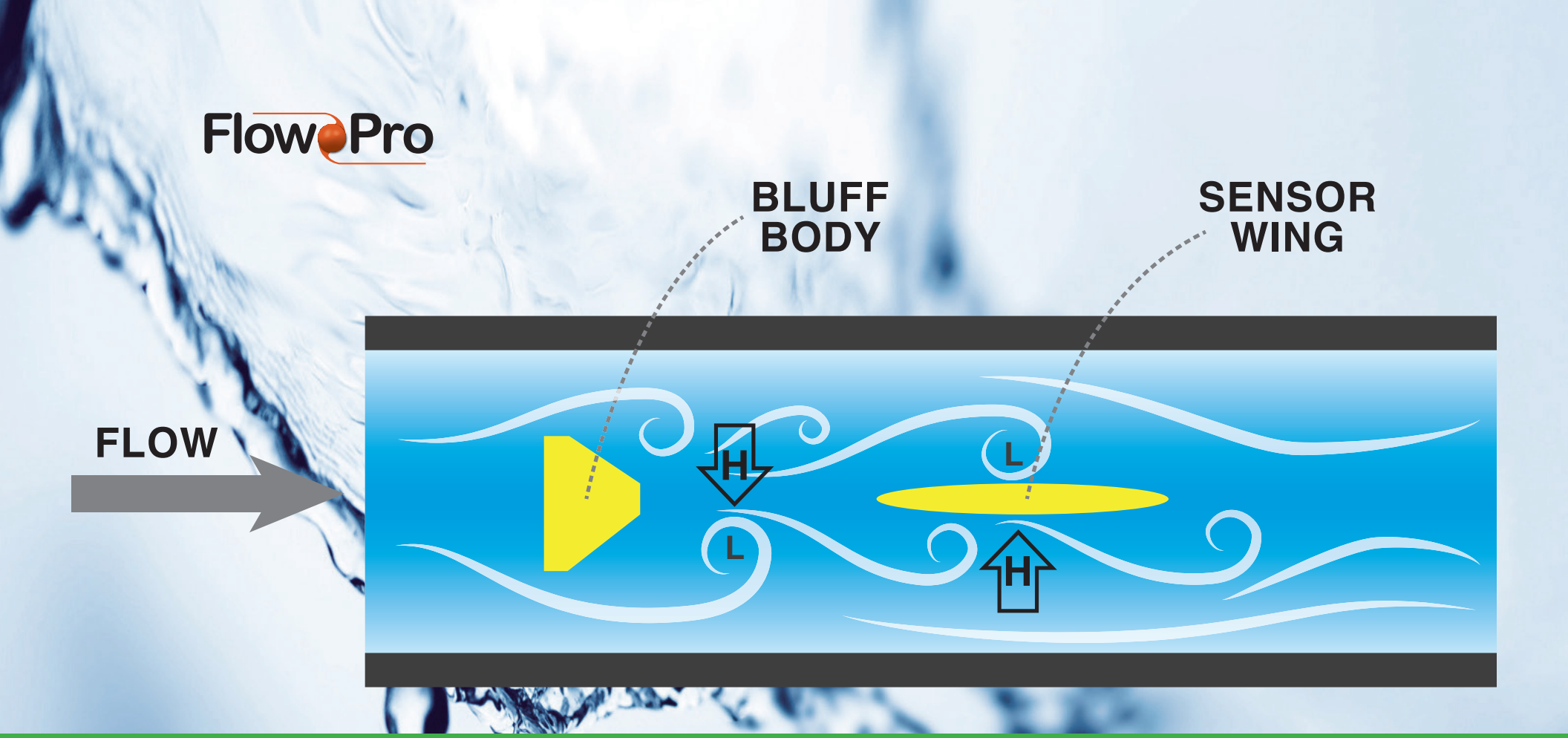

A vortex flow meter works based on the principle of 'Kármán vortex street' demonstrated in the figure above. This principle essentially means that when an obstruction is placed in path of a flow (similar to a flagpole in the wind), it can produce a series of vortices alternating from each side of the obstruction as seen in the figure. The frequency of alternating of these vortices is proportional to the flow rate of being obstructed. The sensor detects the passage of vortices which is fed to a computer that calculates the volumetric flow rate:

$F = Sr\,V / W$	EQ (1)
$Q = AF / K$	EQ (2)

Where: **F** = Vortex Shedding Frequency
Sr = Strouhal Number
V = Velocity
W = Width of Bluff Body
A = Cross-sectional Area
K = Calibration Constant