

# Stevmanta VLA

## Stevmanta VLA UPC chart

### Typical Ultimate Pull-out Capacity (UPC)

The prediction lines on the "UPC chart" can be expressed in the equations as stated below:

$$D = 1.5 * k^{0.6} * d^{0.7} * A^{0.3} * \tan^{1.7}(\ )$$

where,

D = Stevmanta penetration depth [m]

k = quotient Undrained Shear Strength clay [kPA] and depth [m]

d = mooring line or installation line diameter [m]

A = Stevmanta fluke area [m<sup>2</sup>]

= Stevmanta fluke / shank angle [deg]

$$UPC = N_c * S_u * A$$

where,

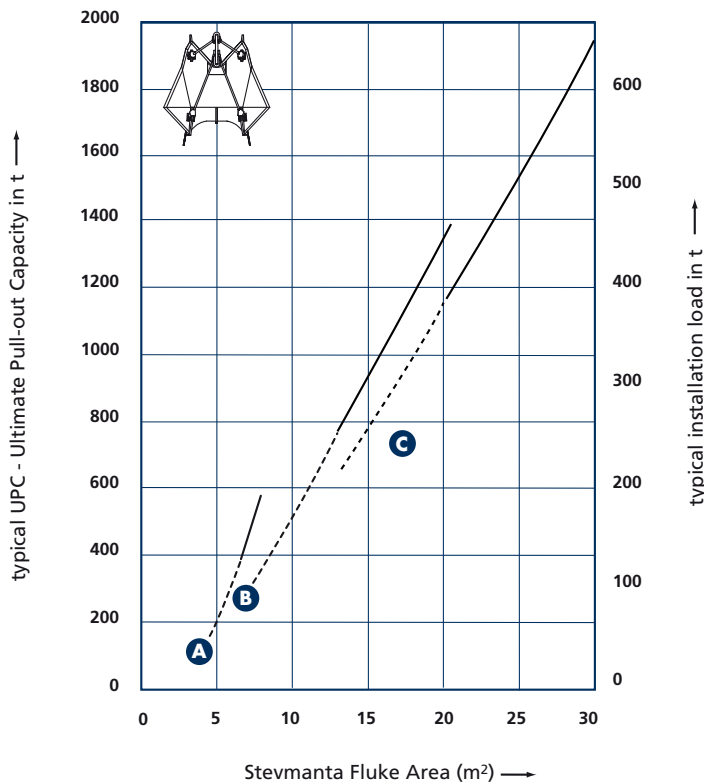
UPC = Ultimate Pull-out Capacity [kN]

N<sub>c</sub> = Bearing Capacity Factor

S<sub>u</sub> = (k \* D), Undrained Shear Strength clay [kPa]

A = Stevmanta fluke area [m<sup>2</sup>]

The UPC graph incorporates a N<sub>c</sub>-value of 10, -value of 50 degrees and k-value of 2. The graph clearly illustrates the influence of the diameter of the mooring line or installation line, and whether six strand or spiral strand is used. The typical installation load to obtain a specified UPC is presented on the right vertical axis of the graph.



Mooring lines in diameters;

**A** ø 76 mm **B** ø 121 mm **C** ø 151 mm

--- Six strand & spiral strand — Spiral strand