

# Lateral Pole Capacity

(Brinch-Hansen)

Example; 10m timber pole in "Firm Silts & Clays - SC"

	Ground Water Level (m)	Embed (m)	GL Diam (m)	$\varphi$ x Lateral Capacity (kN)	% Increase
No AP40, no blocking	2	1.8	0.29	7.12	
i) Increase GL diam by 10%	2	1.8	0.32	7.53	<b>1.06</b>
ii) Increase embedment by 10%	2	1.98	0.29	9.05	<b>1.27</b>
No AP40, no blocking	1	1.8	0.29	6.08	
i) Increase GL diam by 10%	1	1.8	0.32	6.43	<b>1.06</b>
ii) Increase embedment by 10%	1	1.98	0.29	7.67	<b>1.26</b>
With AP40, no blocking	2	1.8	0.445	9.12	<b>1.28</b>
With AP40, no blocking	1	1.8	0.445	7.79	<b>1.28</b>
No AP40, Breast Block only	2	1.8	0.29	8.46	<b>1.19</b>
No AP40, Breast Block + Heel	2	1.8	0.29	9.14	<b>1.28</b>
No AP40, Breast Block only	1	1.8	0.29	6.83	<b>1.12</b>
No AP40, Breast Block + Heel	1	1.8	0.29	7.47	<b>1.23</b>
				<b><math>\varphi = 0.65</math></b>	
<i>Breast Block; 1.6 x 0.25 @ 0.8m below GL</i>					
<i>Heel Block; 0.5 x 0.25 @ 0.25m above Butt</i>					