75mm Spirafix™ Ground Anchor Load Chart

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Designed & Manufactured In Britain

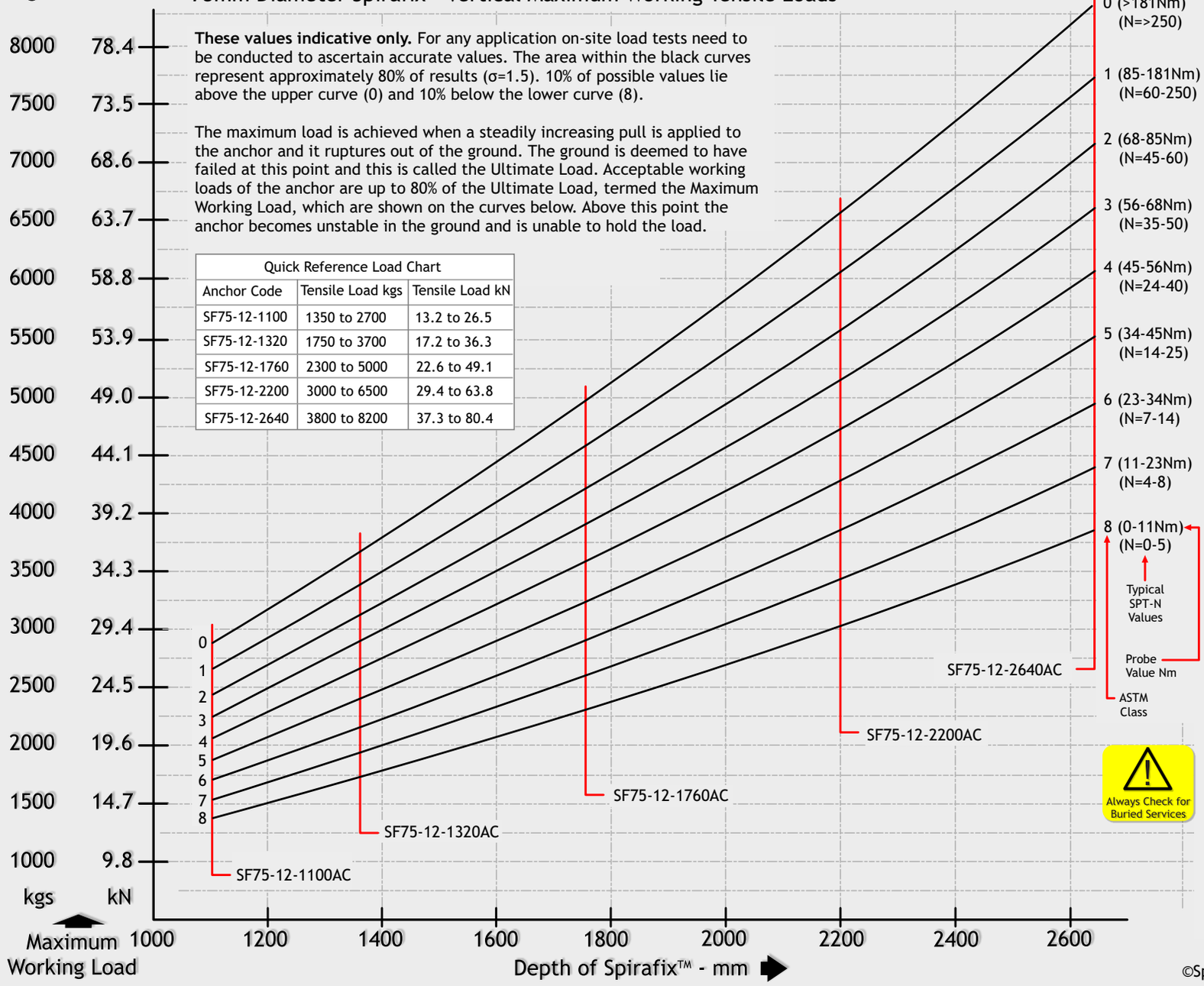
75mm Diameter Spirafix™ Vertical Maximum Working Tensile Loads

These values indicative only. For any application on-site load tests need to be conducted to ascertain accurate values. The area within the black curves represent approximately 80% of results (σ=1.5). 10% of possible values lie above the upper curve (0) and 10% below the lower curve (8).

The maximum load is achieved when a steadily increasing pull is applied to the anchor and it ruptures out of the ground. The ground is deemed to have failed at this point and this is called the Ultimate Load. Acceptable working loads of the anchor are up to 80% of the Ultimate Load, termed the Maximum Working Load, which are shown on the curves below. Above this point the anchor becomes unstable in the ground and is unable to hold the load.

Quick Reference Load Chart

Anchor Code	Tensile Load kgs	Tensile Load kN
SF75-12-1100	1350 to 2700	13.2 to 26.5
SF75-12-1320	1750 to 3700	17.2 to 36.3
SF75-12-1760	2300 to 5000	22.6 to 49.1
SF75-12-2200	3000 to 6500	29.4 to 63.8
SF75-12-2640	3800 to 8200	37.3 to 80.4



Soil Classification

Basic Soil Type	Sub Group	Compaction/ Strength	SPT-N	ASTM Class
Sands	Sand	Very Loose Loose Compact Cemented	0-3 3-8 8-30 30-58	8 5 3 1
	Sandy Clay/ Sandy Silt	Soft Firm Stiff	3-8 8-30 30-58	5 3 1
Silts	Silts	Very Soft Soft Firm	7-14 14-25 25-60	6 5 4
	Silty Clay	Soft Firm Stiff	7-14 14-25 25-60	6 5 4
Clays	Clay	Very Soft Soft Firm Stiff Very Stiff Hard	0-5 4-8 7-14 14-25 35-60 >60	8 7 6 5 3 1
Peats	Organic Clay Silt or Sand	Firm	0-5	8
	Peat	Spongy Plastic	0-5 0-5	8 8
Chalks	Very Weak Weak Moderately Weak Moderately strong to very strong		0-25 25-100 100-250 >250	6 2 1 0

Notes:

The above classifications are outlined in BS 5930 with the exception of chalk and the "Sands" and "Clays" sections have been expanded. Also chalk is not covered in the ASTM classification, but for the purposes of predicting loads it has been assigned values. The range of pull out loads in strong chalks can be considerably higher than shown on the chart and field tests need to be carried out to obtain accurate values.

The Standard Penetration Test (SPT) N values quoted above are in accordance with BS1377:1990 Part9, ASTM Standard D1586-84 and AS 1289.6.3.1-1993

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