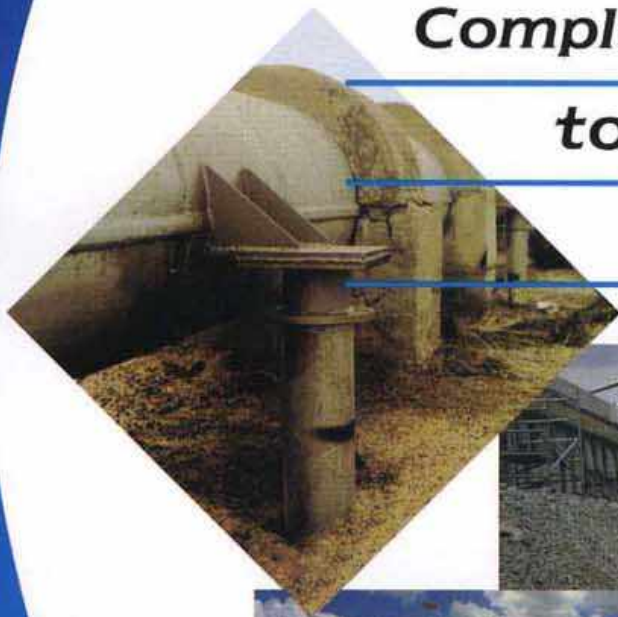




***Complete Solutions
to Foundation
Problems***



***Screw piling, anchoring &
underpinning experts***

Overview

The SIF (Screw in foundations) are used for a range of applications for structures where the founding soils have inadequate bearing strength.

The benefits of SIF piles Include:-

- Speed of installation (10 mins - 6m pile)
- Loads up to 150 Tonne
- Unlimited pile lengths (30m++) and reach (25m)
- No mess or waste (concrete or soil)
- Environmentally friendly - no vibration or noise
- Continuous load capacity record
- Segmented Piles where there is limited head height
- Rock anchoring into medium strength rock
- The best way to anchor into fissured clay soils



With a reach in excess of 25m & Vertical or multi directional installation



Scour Piles for beach front development

The SIF piles are being specified by designers for more cost effective solutions in place of traditional methods of piling for the following types of projects:-

1. Commercial and Residential
2. Earth Reinforcement Anchors
3. Pipelines and Conveyor Systems
4. Lightweight and Entertainment Structures
5. Temporary Buildings and Shade Structures
6. Towers and Signage Structures
7. Environmental Boardwalks and Jetty's



Specifically designed environmentally friendly for minimum vibration, noise & pollution in built up areas with no soil to be removed from site



Research and Development

A great deal of testing has taken place in the theoretical and practical development of SIF piles. Theoretical models have been developed for sand, clay and rock strata and calibrated back to field results for the performance of SIF piles. Relationships between soil strength parameters, strata density, installation torque and load bearing capacity have been established which provide a quality control method for utilisation in the field. This has resulted in the greatest engineering and consumer confidence in Instant Foundation's SIF piles.

Structural Strength

The SIF pile is designed in accordance with AS 2159-1995 and AS 4100-1990 for structural strength and serviceability. The load capacity is often limited by the torsional strength of the steel circular shaft component.

The effective length is determined in accordance with AS 4100 with due consideration being given to soil shear strength and helix location in the profile.

Corrosion allowance is made in accordance with AS 2159-1995 Table 6.3 and 6.4 for the five exposure classifications described. A minimum design life of 75 years is adopted.

Table 1 Safe Working Loads for Screw in Foundations - Normal Conditions*

Max. Load SWL (kN)	Shaft CHS	Max. Torque (Nm)	Helix
75	76.1 x 4.0	10,500	250 x 8
110	88.9 x 4.0	14,000	300 x 10
150	88.9 x 5.5	15,000	350 x 12
250	114.3 x 6.0	30,000	400 x 12
350	139.7 x 6.0	45,000	500 x 16
440	168.3 x 6.4	67,000	600 x 20
520	168.3 x 7.1	75,000	700 x 25
670	219.1 x 6.4	120,000	800 x 25
870	219.1 x 8.2	160,000	900 x 32
1200	273.0 x 9.3	260,000	950 x 32
1500	323.0 x 9.3	400,000	1200 x 32

* Indicative Only. Subject to design by suitably qualified professional engineer. Based on stiff clay ($c_u = 100$ kPa), maximum eccentricity = $0.05 D$, Steel Grade 350Mpa.

Quality

SIF piles are manufactured under a quality assurance system. First quality, high-grade steel is used. Under the requirements of the Steel Structures Code, AS4100, no second-hand steel is used whatsoever.

Under state regulatory control, only licensed contractors and installing contractors are permitted by law to operate. Instant Foundations fulfills every requirement for design, manufacture and installation of Screw Piles. Instant Foundations employs professional engineers and offers nothing but the most professional services including design and contracting for piling work around the globe.

When the W.A Water Pipelines traditional supports failed, Instant Foundations expertise succeeded at substantially lower cost than any other method



Piles can be reused for temporary installations





**For further information
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