

Stainless Steel Self-Drilling Hollow Bar Anchors



Stainless UK supplies a comprehensive range of stainless steel self-drilling hollow bar anchors, suitable for soil nailing, ground anchoring, and permanent geotechnical applications in aggressive or corrosive environments.

Manufactured in AISI 316 stainless steel, the system provides high strength, reliable grout bond performance, and long-term corrosion resistance for permanent works in civil engineering, geotechnical, marine, tunnelling, and slope stabilisation applications.



System Description

The stainless steel hollow bar anchor system is a fully threaded, self-drilling solution that combines drilling, grouting, and anchoring into a single operation. The hollow bar functions as both the drill rod and grout conduit, enabling installation without casing, even in loose or collapsing ground.

Bars feature a cold-rolled ISO 10208 left-hand rope thread, providing high load capacity, self-cleaning performance, and compatibility with standard drilling equipment. Supplied in standard lengths or cut to project-specific requirements, the system offers flexibility for restricted access and complex site conditions.

Key Applications of Stainless Steel SDA Systems

- Permanent ground anchors and rock bolts
- Coastal and marine infrastructure works
- Tunnelling in aggressive or wet ground conditions
- Water conveyance and diversion tunnels
- Underground works with high moisture or chemical exposure
- Slope stabilisation in corrosive or environmentally sensitive soils
- Retaining structures requiring long design life
- Micropiles and foundation underpinning in aggressive ground conditions

- Sewage, wastewater, and contaminated ground environments
- Chemical plants, industrial sites, and saline groundwater locations

Performance and Components

Available in multiple bar diameters to suit varying load requirements and ground conditions, the system delivers high tensile strength and reliable grout bond performance for permanent works.

A full range of stainless steel load-bearing components and accessories is available, including:

- High-strength couplers
- Full load and hemispherical nuts
- Flat and dished bearing plates
- Centralisers and grout stoppers
- Sacrificial drill bits for soil, gravel, and rock

Corrosion Resistance

Stainless steel self-drilling hollow bar anchors provide superior durability and service life, making them the preferred solution for permanent works and environments where galvanised systems may be unsuitable.

AISI 316 stainless steel offers excellent resistance to aggressive ground conditions, groundwater, and marine exposure.

Technical Information	
Grades Available	304 or 316 stainless
Ultimate Tensile Stress	650 N/mm ²
Minimum elongation	20%
Typical lengths	3m–3.2m (6m–6.5m to order)
Straightness	2 in 1000
Standard bundle weight	1 tonne max
Thread (left hand)	ISO 10208

Bar Size	R25	R32	R38
Nominal Dia over threads (mm)	24.74	31.34	37.99
Nominal internal dia (mm)	13	18	24
Effective CSA (mm ²)	307	472	586
Ultimate strength min (kN)	200	320	400
Nominal weight (kg/m)	2.45	3.80	4.75
Coupler dia × length (mm)	36 × 140	44 × 150	51 × 160
Load Nut a/f × length (mm)	40 × 60	50 × 70	60 × 80
Cross sectional area (mm ²)	307	472	586

System Accessories

Stainless steel injection anchors can be supplied with a range of accessories, which can be manufactured to meet individual contract requirements.

The selection of any drill bit is based on experience, but a trial anchor must be satisfactorily tested before the project is finally commenced.

A full range of couplers, hemispherical load nuts, dished plates and grout stoppers are available in each size.

Hemispherical Seating and Washer

Hemi Seating with Hemi washers are to accommodate angular misalignment.



Dished plate with Hemi Washer

Dished plate washers with Hemi washers are to accommodate angular misalignment.



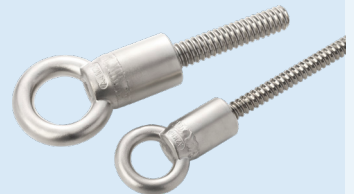
Taper Washer

Manufactured to provide a required static installation angle.



Eye Nut

Suitable for a variety of applications, including rock netting.



Nuts

Designed to provide an equal anchorage of the SDA bar.



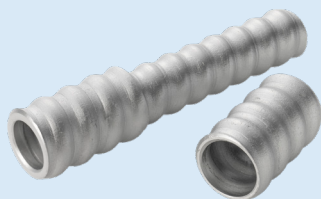
Couplers

Designed to provide an equal anchorage of the SDA bar.



Adaptor Sleeve

Adapter sleeve R25 to R32, enabling use of larger drill bits.



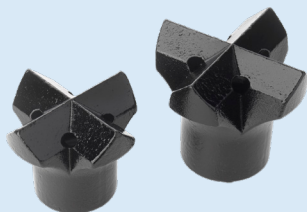
Wire Rope

Used in rock netting to secure and tension mesh, for effective rockfall containment.



Cross Drill Bit

EXX Cross Drill Bit with Tungston carbide inserts.



Button Drill Bit

Button drill bits either ES-F hardened ESS-F Tungston inserts.

