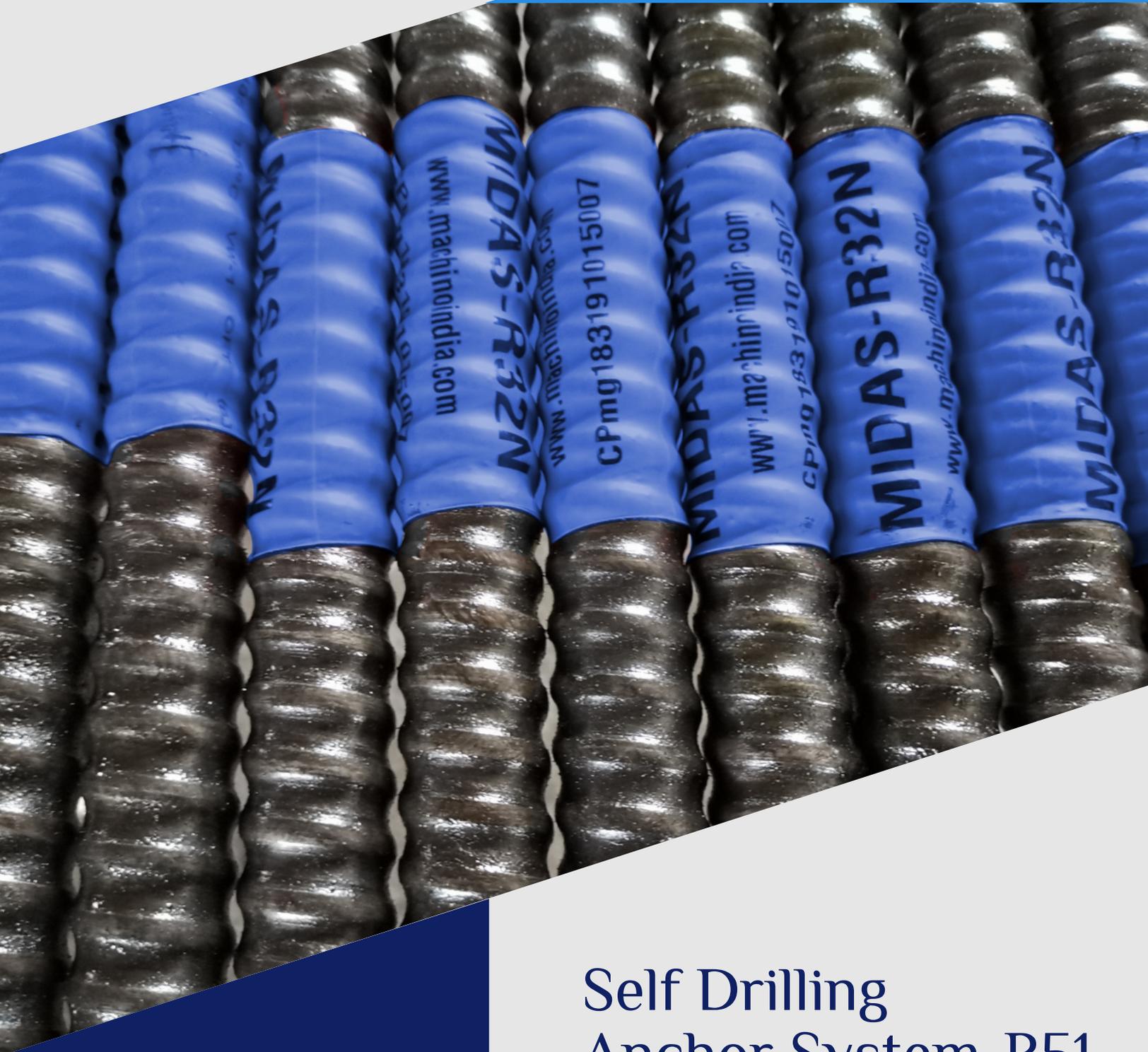


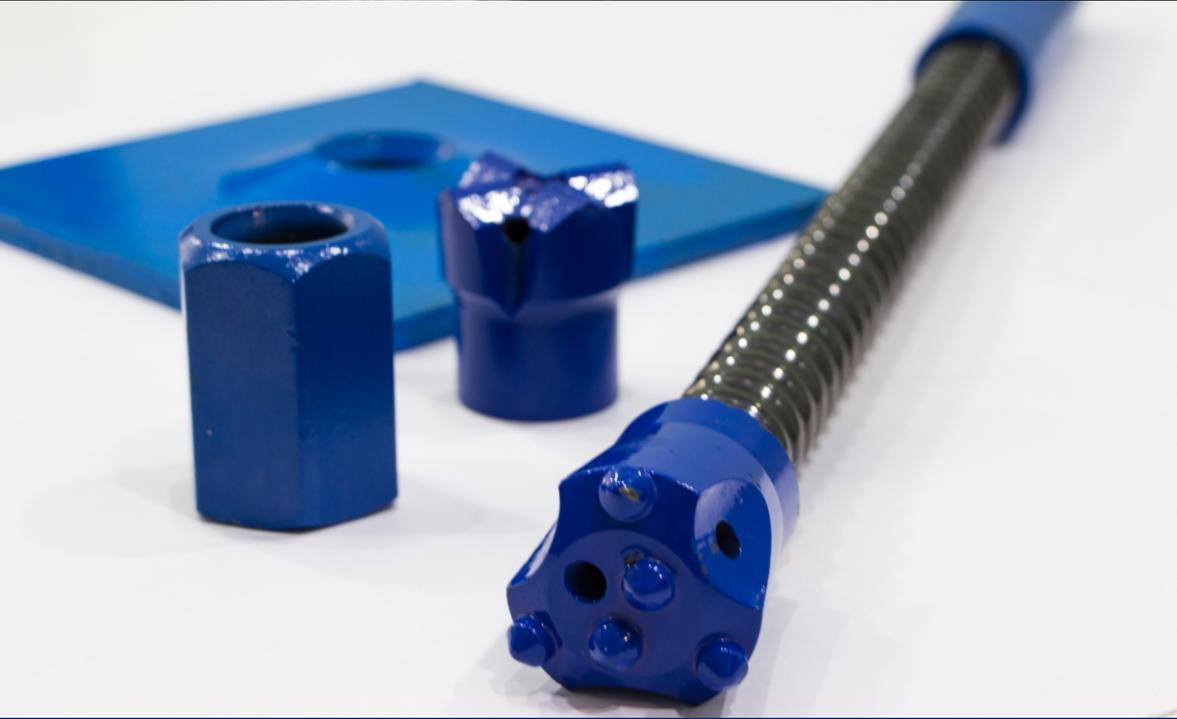
Superior & Cost Effective Bolting Solution



Self Drilling Anchor System-R51

ISO 9001 : 2015
ICIUK

Self Drilling Anchor System-R51

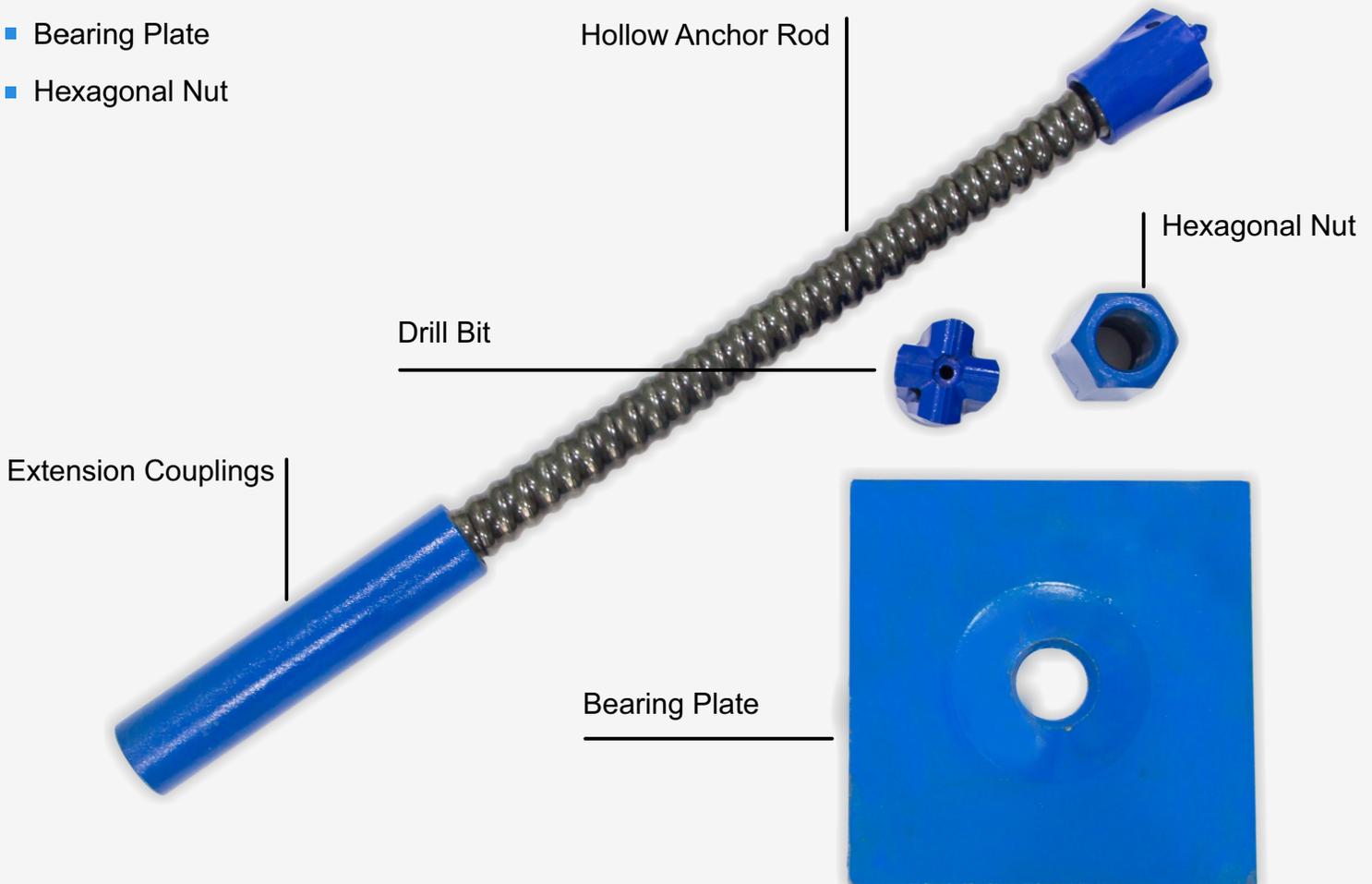


The MIDAS Hollow Bar is a fully threaded self-drilling anchorage system which can be simultaneously drilled and grouted into loose or collapsing soils and brittle rock without the need for a casing. MIDAS Self Drilling Anchor System provide superior and cost effective bolting solution for unstable ground conditions such as sand, gravel, silt and clays and in fractured rock formations. The Self Drilling Anchor is optimized and tailored to the projects needs. Lean manufacturing methods are adopted to keep the lead times low and deliveries reliable. The production process is closely monitored and quality is controlled at every stage of the manufacturing process.

The self drilling anchor bolt works with drilling a hole in cohesive and non-cohesive soil or loose rock, with a sacrificial drill bit and a hollow rod. A resin is injected at high pressure into the hollow and cavity which reinforces the surrounding area, later the hollow rod is locked with a retaining plate.

A Self-Drilling Anchor Consists of:

- Hollow Anchor Rod
- Drill Bit
- Extension Couplings
- Bearing Plate
- Hexagonal Nut



Hollow Anchor Rods

The anchor rod has a hollow bore for flushing and grouting and has a left-hand thread for connection to standard drill tooling. It is manufactured from API standard thick wall steel tubing, cold rolled to a standard ISO rope thread profile. The rolling process refines the crystalline structure of the steel, increasing the yield strength, and producing a durable drill rod suitable for a wide range of applications. The standard rope thread of the anchor rod produces an excellent bond between the rod and grout.

Extension Couplings

The couplings enable direct end-to-end energy transmission between each bar, reducing losses and ensuring maximum percussive energy at the drill bit. To enable the correct seating of each bar within the coupler, all bars are chamfered with precision to enable the bars' ends to have face-to-face contact.

Anchor Drill Bits

The Anchor drill bit is the most crucial part of the anchoring system and is responsible for the productivity of the installation. MIDAS offers a wide variety of drill bits to suit the changing geology encountered during projects with reliable performance and cost efficiency.

Anchor Drill Bits includes: EX, EXX, ESF, ESSF, EW.

Bearing Plates

The bearing plates are forged steel plates with a centre hole, allowing articulation of seven degrees in all directions.

Hexagonal Nuts

The hexagonal nuts are manufactured from high precision steel with chamfered edges on both ends and tempered. All nuts exceed the ultimate strength of the bar.

Galvanised System

Extra corrosion protection over the full nail length if the full nail length is in fill material or where corrosion potential is higher. The galvanizing of all MIDAS Drill hollow bars is in accordance with EN **1461/ASMT A-153**

Technical Data

ANCHOR BAR	R51L/36	R51L/34	R51N/33	R51N/31	R51/950	R51/660
Outside Diameter (mm)	51					
Internal Diameter (mm)	35.5	34	33	30.6	30.2	33
Cross Section (mm ²)	802	890	968	1070	1146	968
Ultimate Load (kN)	≥550	≥550	≥800	≥800	≥950	≥660
Yield Load (kN)	≥450	≥450	≥630	≥630	≥760	≥540
Weight (kg/m)	6.30	7.00	7.60	8.40	9.00	7.60
Thread Type	ISO 10208 - R51 / Left or Right					
Type of Steel	40Cr / 20Cr / Q345B					
Length (m)	(1) x2, x3x4,					



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