

MAGNACORE SELF-DRILLING ANCHORS

Micropile and Anchoring System



MAGNACORE SELF-DRILLING ANCHORS

The Magnacore Self Drilling Anchor (SDA) from Intech is a hollow bar injection-bore micropile and anchor that serves as an economical solution for challenging soil conditions where installing conventional micropiles may not be the best option. For example, those with collapsible soils (those not conducive to open-hole drilling), large boulders, or other obstructions.

The micropile is formed in a single, top-down operation by the injection of a high-pressure, neat cement grout mixture that is pumped through the bar, which also serves as the drill string. The grout mix flows under pressure, through the hollow bar, and exists at the bottom through the open ports in the sacrificial drill bit. As the grout exits the bit, the neat cement permeates the adjacent soils, forming a competent, reinforced grout column

SOLID BAR VS. MAGNACORE HOLLOW BAR

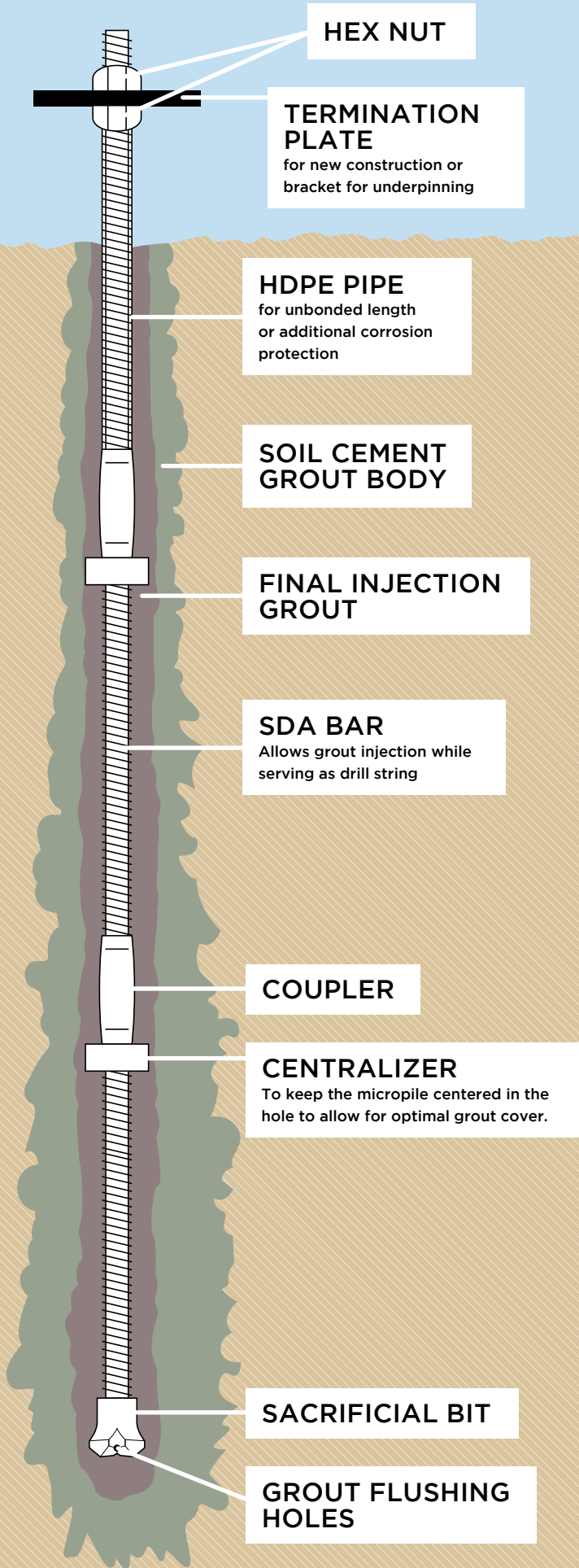


Predrilling required
 Limited to shallow rock
 Very stiff throughout soil strata
 Casing needed in soft soils
 Pre/Post grouting required
 Multiple equipment required at each pile/anchor location

No predrilling
 Rock at any depth
 Can be installed in all soil types
 Casing for lateral loads
 Grout and bar are installed simultaneously
 Only need rock drill & grout plant

MAGNACORE BAR TYPES & SPECIFICATIONS

Bar Type	R32S	R38N	R51N	T40/16	T52/26	T76S	Unit
Outer Diameter	1.26	1.50	2.01	1.57	2.05	2.99	in
Inner Diameter	0.59	0.75	1.18	0.63	1.02	1.77	in
Area	0.81	1.09	1.66	1.40	1.99	3.89	in ²
Ultimate Tensile Load (Pu)	80.93	112.40	179.85	148.37	208.85	427.14	kip
Yield Load (Py)	62.95	89.92	141.63	118.02	164.11	337.21	kip
Ultimate Tensile Stress (Fu)	99.96	103.49	108.42	105.82	104.71	109.80	ksi
Yield Stress (Fy)	77.75	82.79	85.38	84.18	82.28	86.68	ksi
Weight	2.76	3.70	5.64	4.77	6.79	13.24	lb/ft



APPLICATIONS

- New construction
- Underpinning
- Settlement/stabilization
- Earth retention
- Slope stabilization
- Tunneling

BENEFITS

- Difficult soil conditions
- Fast installation rate
- Limited access
- Permeation of surrounding soils
- No casing required
- Extra corrosion protection
- Decreased labor & material cost
- Single pass installation; only set up equipment once at each location

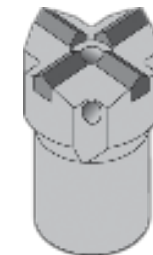
SACRIFICIAL BITS

The holes in each bit allow the grout/drilling solution to flow as the SDA is advanced, simultaneously creating the column.



TUNGSTEN CARBIDE BUTTON BIT

For hard rock (Limestone, shale).



TUNGSTEN CARBIDE CROSS CUT BIT

For softer rock (sandstone, soft shale, or fractured rock).



CLAY BIT

Ideal for mixed fills and clay.



SUPPORT & RENTAL EQUIPMENT

WHY INTECH?

In addition to materials and service, Intech will provide continual support through the entire project, including: engineering/design, on-site support, load testing, installation expertise, competitive pricing, and rental equipment.

Contact Intech for your equipment needs.



INSTALLATION EQUIPMENT



LIMITED ACCESS CAPABILITIES



GROUT PLANTS

MAGNACORE
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ANCHORS