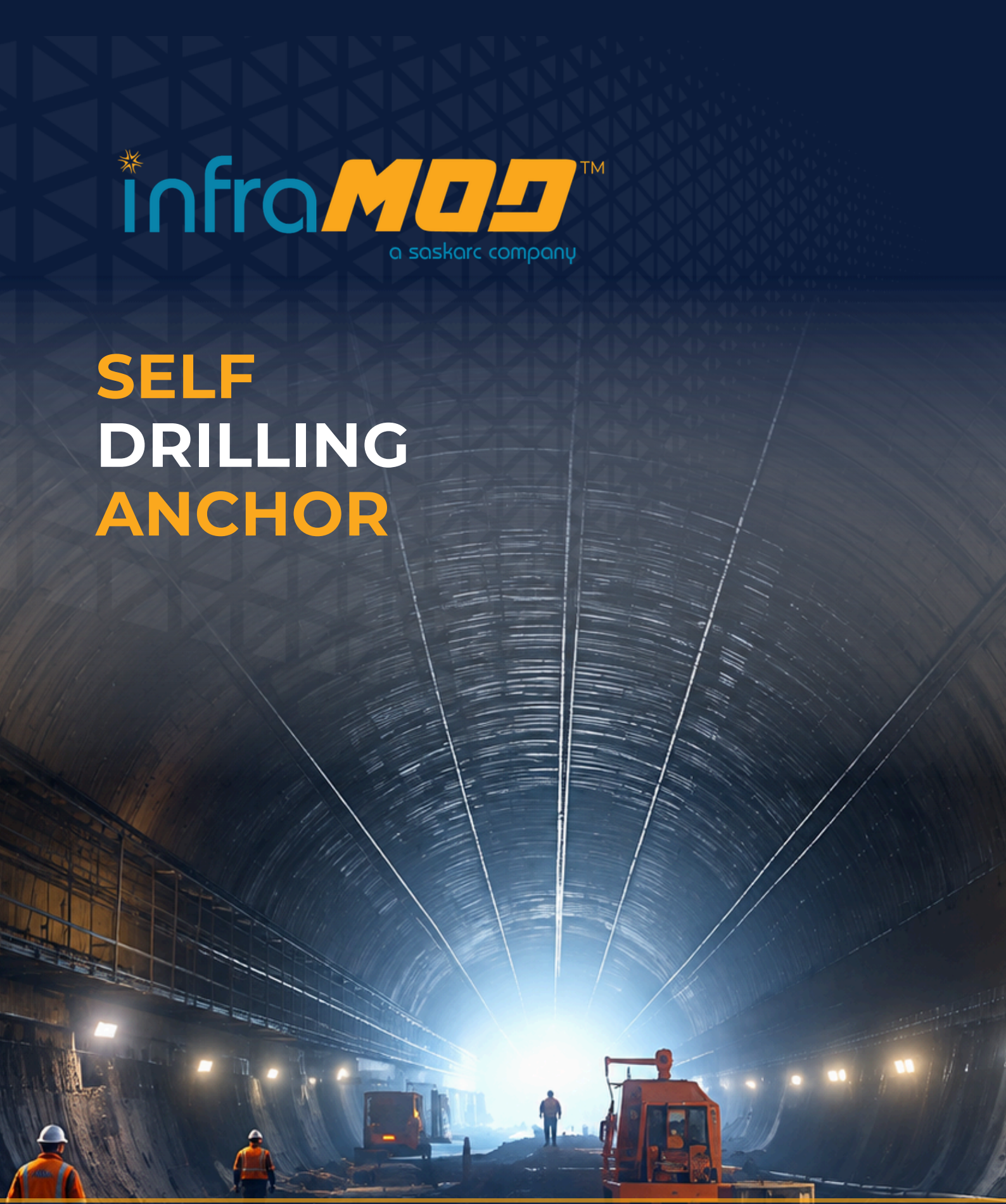
infraMOD™
a saskarc company

SELF DRILLING ANCHOR



This high-strength anchoring system, which incorporates innovation from our shoring and excavation support designs, provides reliable ground stabilization in challenging soil conditions, enabling drilling, installation, and grouting in a single pass while keeping projects on schedule.

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a saskarc company

SAFE / RELIABLE / BUILT FOR TOMORROW

PRODUCT BROCHURE



SELF-DRILLING ANCHOR BOLT SYSTEM

Reliable ground support for safer excavations and stronger foundations.



PRODUCT LINES

STANDARD SYSTEM

R-15 / R25 / R51 / T30-T20Q

STAINLESS STEEL SYSTEM

316L / 304 - R25-R51 - T30-T52

ANTI-CORROSION SYSTEM

Hot-dip galvanized - Epoxy - Duplex

HIGH STRENGTH

Engineered for maximum load capacity and reliability.

DURABLE

Built to perform in demanding environments.

CORROSION RESISTANT

Longer service life in harsh conditions.

FAST & EFFICIENT

Simpler installation, reduced downtime.

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01

THE SYSTEM

SELF-DRILLING ANCHOR BOLT SYSTEM

A hollow anchor bar acts as the drill rod, the grout pipe and the permanent tendon. The bar is drilled in with a sacrificial bit, pressure-grouted through its core and then locked off with a plate and nut — no casing, no hole collapse, one pass.

Available in **R-thread (R25-RS1)** and **T-thread (T30-T200)** systems, with bar size, grade and acerities selected to suit each project's leads and ground conditions.
Custom products available on request.



KEY FEATURES

01

ONE-STEP INSTALLATION

Drilling, grouting and anchoring combined. Combined with no casing pipes required, greatly improving productivity in broken or collapsing ground.

02

MATCHED TO THE GROUND

A wide range of sacrificial drill bits can be selected for the rock or soil type to maximise drilling efficiency.

03

RELIABLE GROAT BOND

Pressure grouting fills cracks and consolidates the surrounding rock and soil, giving a good grout spread radius and dependable anchorage.

04

WORKS IN TIGHT SPACES

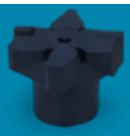
Bars can be cut to any length and extended with couplers — ideal where large equipment cannot access.

SYSTEM COMPONENTS



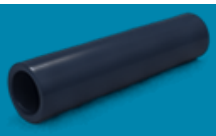
HOLLOW ANCHOR BAR

Continuously threaded with drill rod and grout conduit in one.



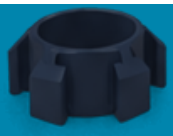
DRILL BIT

Sacrificial bit selected to suit the ground (see page 4).



COUPLER

Extends bars to any length, with or without sealing ring



CENTRALIZER



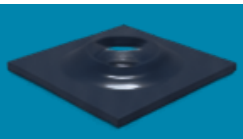
HEX NUT

Locks off against flat plates; most sizes heat treated.



DOMED / SPHERICAL NUT

Accommodates angled installation against the plate.



DOMED PLATE

Pressed bearing plate, 150-200 mm square.



FLAT PLATE

Heavy bearing plate, 150-450 mm square.

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HOLLOW ANCHOR BARS

02

STRONGER GROUND. SAFER TOMORROW.

Each size is offered in one or more grades — L (Light), N (Normal) and S (Strong) — varying wall thickness, capacity and weight. Ranges below cover all grades in a size, full per-grade data and accessible dimensions are available on request.



HIGH STRENGTH
Engineered for reliable load capacity and long-term performance.

VERSATILE GRADES
Available in L, N and S grades to suit different project requirements.

CUSTOM SIZES
Wide range of dimensions and specifications available on request.

COMPLETE SOLUTIONS
Compatible with a full range of accessories and installation systems.

R-THREAD SYSTEM

R25 – R51 · capacities up to 925 kN

Size	G ra des	OD mm	ID mm	Ultimate load kN (kips)	Yield load kN (kips)	Wei g ht kg/m	Coupler OD mm	Drill bit Ø mm
R25	N	25	12	200 (45)	150 (34)	2.35	36	3 5–51
R28	—	28	15	260 (59)	200 (45)	2.90	36	42
R32	L · L1 · N · S · S1	32	15–2 1	210–405 (47–91)	160–320 (36–72)	2 .6 0 –4.0 0	42	42 –110
R38	N · S	38	18 –2 2	500–550 (113–124)	400–450 (90–101)	4.95–5.90	51	56 –150
R51	L · L1 · N · S	51	28–36	550 –9 2 5 (124–208)	450–740 (101–167)	6.20–9.25	63	76–200

T-THREAD SYSTEM

T30 – T200 · capacities up to 14,230 kN

Size	G ra des	OD mm	ID mm	Ultimate load kN (kips)	Yield load kN (kips)	Wei g ht kg/m	Coupler OD mm	Drill bit Ø mm
T30	L · N · S	30	11–16	220–320 (50 – 72)	180–260 (41–59)	2.90–3.60	38	51–9 5
T40	N · S	40	16 –2 2	539–660 (121–149)	430–525 (97–118)	5.70–7.20	54–57	64–150
T52	N	52	24–26	929 (209)	730 (164)	9 .70 –10 .2 0	70	76–200
T64	—	64	40	1160 (261)	930 (209)	13.00	80	90–130
T73	L · N · S	73	40–53	116 0 –18 6 5 (261–420)	970–1430 (218–322)	13 .2 0 –2 1.2 0	89–95	130–280
T76	N · S	76	45–51	1600–1900 (360–428)	12 0 0 –150 0 (270–338)	16 .50 –19 .70	95	115–3 0 0
T103	N · S	103	51–7 8	2300–3660 (518–824)	1800–2670 (405–601)	24.80–44.60	12 5–13 3	175–3 0 0
T111	L · N	111	64–78	2640–3650 (594–821)	2000–2750 (450–619)	2 8 .50 –3 9 .50	140	170 –2 2 0
T127	L	127	105	2400 (54 0)	1810 (4 0 7)	3 0 .50	146	200–220
T130	N · S	130	60	6 3 40 –79 40 (1427–1787)	4200–5250 (945–1181)	78 .0 0	168	220–300
T150	S	150	66	8400 (1890)	5600 (1260)	108.00	194	300
T200	S	200	93	142 3 0 (3202)	9500 (2138)	183.00	273	350

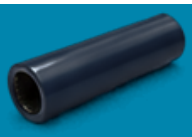
DRILLING ACCESSORIES

THE RIGHT TOOLS. A STRONGER FOUNDATION.

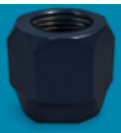
High-quality drilling accessories designed for reliable performance, durability and efficiency in ground support applications.



03 ACCESSORIES



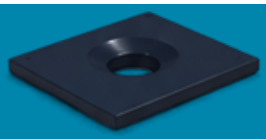
COUPLERS
36–275 mm CD. With sealing ring (SS) or without (SE).



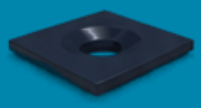
HEX NUTS
Most sizes heat treated. Key sizes 41–150 mm.



DOMED & SPHERALIC COLLAR NUTS
For angled lock-off. Up to 240 mm key size (T200).



DOMED PLATES
150–150 to 200–200 mm, 5–14 mm thick.



FLAT PLATES
95–95 to 450–450 mm, 8–120 mm thick.



CENTRALIZERS
48–220 mm CD to suit bit and borehole size.

04 DRILL BIT SELECTION

Choose the bit for the ground you expect to drill. All types are sacrificial and remain in the hole as part of the anchor.



EX
Sand, fills, gravel
AlsoavailableinVenturi version



Clay Bit
Clay,softsoil, marl, loose sand or gravel



ESS-F
Weathered rock, stone walls, rubble
Buttonbit(ESS-F / ESS-D)



EY
Chalk, gravel



ECC
Chalk, marl, fills, competent ground



EXX
Softer sedimentary rock — marl, mudstone, siltstone
Also available in Venturi version



ES-F
Gravel, soft rock
Buttonbit(ES-F / ES-D)



EYY
Competent ground, strong rock



EC
Chalk, marl, fills, competent ground

XX
Sand, clay, fills, gravel — large diameters up to 200 mm

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STAINLESS STEEL ACCESSORIES

05

BUILT TO LAST. DESIGNED FOR TOUGH CONDITIONS.

All the advantages of the self-drilling system, built from stainless steel bars, couplers, nuts and plates to resist attack from air and chemical media.



EXCELLENT CORROSION RESISTANCE
Ideal for coastal and aggressive environments.

LONGER SERVICE LIFE
An alternative to hot-dip galvanized bolts.

HIGH STRENGTH & WEAR RESISTANCE
Maintains performance in harsh conditions.

SUPERIOR WELDABILITY
Compared with carbon or alloy steel bars.

PRODUCT RANGE & SPECIFICATIONS

Material: 316L or 304 stainless steel. Matching stainless couplers, hex nuts and plates available for every size.

Size	Grades	OD mm	ID mm	Ultimate load kN (kips)	Yield load kN (kips)	Weight kg/m	Coupler OD mm	Drill bit Ø mm
SXR25	N	25	11	200 (45)	140 (32)	2.55	36	35–51
SXR32	N · N1 · S	32	13–17.5	280–360 (63–81)	200–250 (45–56)	3.50–4.40	42	42–110
SXR38	L · N · S	38	16–22	400–550 (90–124)	280–380 (63–88)	5.00–6.50	51	56–150
SXR51	L · N · S	51	28–34	550–800 (124–180)	380–560 (86–126)	6.80–9.90	63	76–200
SXT30	N	30	11	280 (63)	200 (45)	3.60	40	51–102
SXT40	N	40	18	539 (121)	380 (86)	6.90	60	90–130
SXT52	N	52	26	780 (176)	540 (122)	10.00	76	115–200

KEY PROJECT APPLICATIONS

- Ocean, lake and other corrosive projects
- Foundation stabilization in heavily corrosive ground
- Permanent support for repair of existing buildings
- Anti-floating piles with fluctuating groundwater
- Transmission tower bases
- Reinforcement in aggressive soil and rock

06

ANTI-CORROSION SYSTEM

MORE PROTECTION. LONGER PERFORMANCE.

Corrosion is the biggest factor in an anchor's service life. KELLEG offers three coating systems to match exposure and design life.



HOT-DIP GALVANIZED



For geotechnical work needing longer service life in complex environments – roads, railways, hydro projects and structures exposed to seawater.

EPOXY COATED



For industrial and civil construction, roads, bridges, ports and docks in humid or corrosive media.

DUPLEX COATED



Galvanized, epoxy and duplex coatings for extended service life.
Ideal for harsh environments and offshore structures.

07 APPLICATIONS

THE RIGHT SOLUTION FOR EVERY CHALLENGE

From deep excavations to complex ground conditions, our systems are designed to provide safe, reliable and cost-effective ground support solutions.



SCAN ME

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01 TUNNEL & UNDERGROUND

Initial support for tunnelling, High-pressure grounding through the hollow bar strengthens the surrounding ground and stabilises the excavation.



- Fore-poling
- Radial support
- Face support
- Portal reinforcement
- Foot locking

02 SLOPE ENGINEERING

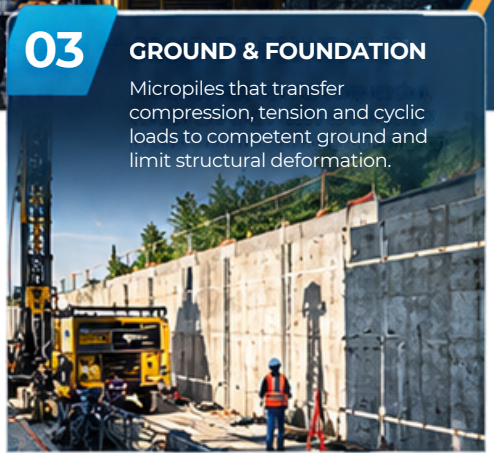
Stabilises slopes in poor ground, with the anchoring system resisting tott tensile and shear forces.



- Soil nailing
- Slope protection
- Retaining walls
- Embankments
- Roadbed reinforcement
- Rockfall protection

03 GROUND & FOUNDATION

Micropiles that transfer compression, tension and cyclic loads to competent ground and limit structural deformation.



- New pile foundations
- Underpinning & repair
- Bridge reinforcement
- Sound-wall foundations
- Tower foundations
- Anti-floating piles

08 QUALITY

BUILT ON STANDARDS, DRIVEN BY TRUST

INCOMING

Definedinspection items and sampling ratios control quality at the source.

IN-PROCESS

"Three-inspection" system on the shop floor: self, mutual and dedicated inspection.

OUTGOING

Dimensionand packaging checked, recorded and photographed for every batch.

Certified & traceable.

ISO 9001:2015 quality management and CWB certification to CSA W47.1 Division 2 for welding. AISC certified, with professional quality assurance and comprehensive project documentation on every project.

CWB CERTIFIED

ISO 9001:2015

AISC CERTIFIED FABRICATOR

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