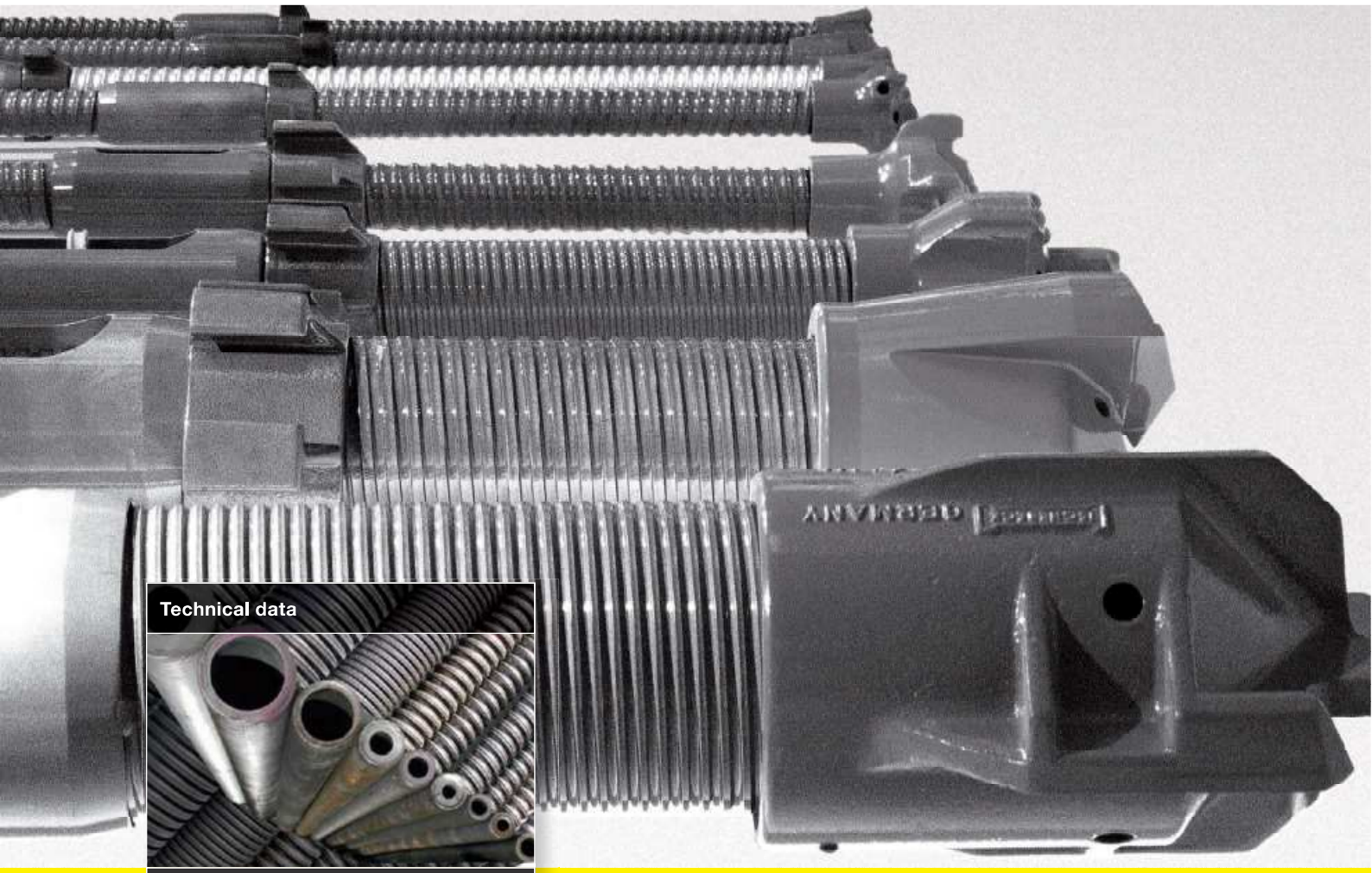
ISCHEBECK TITAN



Technical data

Drill bit types

TITAN Geotechnical System

Buy American • Made in the USA

Designation		Unit	TITAN 30/16	TITAN 30/11	TITAN 40/27	TITAN 40/20	TITAN 40/16	TITAN 52/29	TITAN 52/26	TITAN 73/56	TITAN 73/53	TITAN 73/45	TITAN 73/35	TITAN 103/78	TITAN 103/72	TITAN 103/51	TITAN 103/43	TITAN 127/103	TITAN 196/130
Outside Diameter	OD_{steel}	in (mm)	1.18 (30)	1.18 (30)	1.57 (40)	1.57 (40)	1.57 (40)	2.05 (52)	2.05 (52)	2.87 (73)	2.87 (73)	2.87 (73)	2.87 (73)	4.06 (103)	4.06 (103)	4.06 (103)	4.06 (103)	5.0 (127)	7.72 (196)
Inside Diameter	ID_{steel}	in (mm)	0.63 (16)	0.43 (11)	1.06 (27)	0.79 (20)	0.63 (16)	1.14 (29)	1.02 (26)	2.20 (56)	2.09 (53)	1.77 (45)	1.38 (35)	3.07 (78)	2.83 (72)	2.01 (51)	1.69 (43)	4.06 (103)	5.12 (130)
Cross Sectional Area	A_{eff}	in^2 (mm^2)	0.52 (336)	0.64 (415)	0.87 (560)	1.13 (730)	1.40 (900)	1.63 (1,050)	1.94 (1,250)	2.26 (1,460)	2.50 (1,615)	3.47 (2,239)	4.21 (2,714)	4.87 (3,140)	5.85 (3,780)	8.80 (5,680)	9.34 (6,025)	5.80 (3,744)	24.92 (16,077)
Yield Load (Force at .2% Proportionality Limit)	$P_{.02,k}$	kip (kN)	42.7 (190)	57.3 (255)	73.3 (325)	96.7 (430)	119.2 (530)	142.8 (635)	159.6 (710)	194.5 (865)	219.2 (975)	274.3 (1,220)	312.5 (1,390)	397.9 (1,770)	478.0 (2,125)	571.0 (2,540)	704.1 (3,132)	453.0 (2,015)	1,453.4 (6,465)
Ultimate Load	P_u	kip (kN)	53.1 (236)	73.3 (326)	94.4 (420)	117.6 (523)	151.3 (673)	182.8 (813)	202.1 (899)	237.4 (1,056)	282.8 (1,258)	353.8 (1,574)	419.0 (1,864)	504.5 (2,244)	607.0 (2,700)	823.9 (3,665)	934.1 (4,155)	521.6 (2,320)	2,158.4 (9,601)
Strain Stiffness	E*A	10^3 kip (10^3 kN)	13.9 (62)	18.7 (83)	21.0 (95)	30.3 (135)	37.5 (167)	43.8 (195)	51.9 (231)	61.1 (272)	67.2 (299)	93.1 (414)	112.9 (502)	130.4 (580)	155.0 (690)	229.8 (1,022)	243.5 (1,083)	155.3 (691)	722.8 (3,215)
Bending Stiffness	E*I	kip•in^2 (10^6 kN•mm^2)	1,289 (3.7)	1,603 (4.6)	4,181 (12)	5,227 (15)	5,924 (17)	12,893 (37)	14,635 (42)	48,087 (138)	49,829 (143)	62,025 (178)	67,949 (195)	196,529 (564)	218,830 (628)	276,674 (794)	292,006 (838)	388,180 (1,114)	3,800,261 (10,906)
Weight		lb/ft (kg/m)	1.81 (2.7)	2.22 (3.3)	3.09 (4.6)	4.10 (6.1)	4.84 (7.2)	5.78 (8.6)	7.2 (10.7)	7.5 (11.2)	9.34 (13.9)	11.96 (17.8)	14.25 (21.2)	17.00 (25.3)	19.62 (29.2)	29.77 (44.3)	31.7 (47.2)	19.08 (28.4)	85.54 (127.3)
Length		ft (m)	9.8 (3.0)	9.8 (3.0)	9.8 (3.0)	9.8 (3.0)	9.8 (3.0)	9.8 (3.0)	9.8 (3.0)	9.8 (3.0)	9.8 (3.0)	9.8 (3.0)	9.8 (3.0)	9.8 (3.0)	9.8 (3.0)	9.8 (3.0)	9.8 (3.0)	9.8 (3.0)	9.8 (3.0)
Left/Right Thread			Left	Left	Left	Left	Left	Left	Left	Right	Right	Right	Right	Right	Right	Right	Right	Right	Right
Origin			Germany	Germany	Germany	USA Germany	USA Germany	Germany	USA Germany	Germany	USA Germany	USA Germany	USA Germany	USA Germany	Germany	Germany	Germany	Germany	Germany
USA Stock Status			Stocked	Stocked	Stocked	Stocked	Stocked	Stocked	Stocked	Non-Stocked	Stocked	Stocked	Stocked	Stocked	Non-Stocked	Non-Stocked	Non-Stocked	Non-Stocked	Non-Stocked

1) The utilization of the yield load (characteristic load-carrying capacity, 5% fractile) depends on the cement grout cover according to approval Z-34.14-209.
2) In the case of deformation calculations, the specified values shall be used. The values are determined from testing. It is not possible to calculate the moduls of elasticity, cross-section or moment of inertia from these values.
3) Fy = Specified yield stress of hollow bar, or stress in hollow bar at a strain of .003 x 29,000 ksi (87 ksi) , whichever is less.
4) Material origin and USA stock status subject to change without notice. Inquire for most up-to-date information.
5) USA Domestic material meets Buy America, Build America (BABA) requirements.

	drill bits Ø mm	hardened clay bit	cross cut drill bit	button drill bit	tri-wing drill bit	carbide cross drill bit	carbide Y-cross drill bit	carbide cross cut 3-step drill bit	carbide button drill bit
	description								
		for clay, soft soil, and sand/gravel	for mixed soil with obstacles	for weathered soft rock and gravel	for hard rock, granite, dolomite, sandstone			for directional stability ± 2% of the total length	for very hard or high quartzire rock
left hand	TITAN 30/..	2.95 (75) 3.74 (95)	2.99 (76) 3.54 (90)	2.01 (51)		1.81 (46) 2.01 (51) 2.50 (64)	2.95 (75)	2.95 (75)	2.01 (51)
left hand	TITAN 40/..	4.33 (110) 5.91 (150)	3.54 (90) 4.53 (115)	2.76 (70)	3.54 (90)	2.76 (70) 2.50 (64) 3.94 (100) 4.53 (115)	3.54 (90) 4.53 (115)	3.54 (90)	2.76 (70) 3.54 (90) 3.94 (100)
left hand	TITAN 52/..	5.12 (130) 6.89 (175)	4.53 (115) 5.12 (130)			4.53 (115) 5.12 (130) 5.91 (150)	4.53 (115) 5.12 (130)		4.53 (115)
right hand	TITAN 73/..	7.87 (200)	5.12 (130) 6.89 (175)		5.12 (130)	5.12 (130) 5.91 (150)	5.12 (130) 6.89 (175)	5.12 (130)	5.12 (130)
right hand	TITAN 103/..	8.66 (220) 11.02 (280)	6.89 (175) 8.66 (220)		6.89 (175)	6.89 (175)	6.89 (175)		6.89 (175)
right hand	TITAN 127/..	8.66 (220)	7.87 (200)						7.87 (200)
right hand	TITAN 196/..					13.39 (340)			

*Special order clay bit sizes available

*Illustrations may differ

*If required, drill bits of a larger type can be used with an adapter. (Adapting from LH to RH is not compatible)

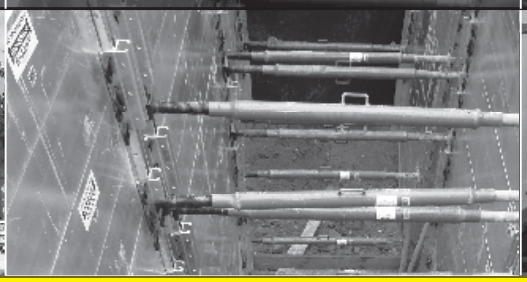
ISCHEBECK TITAN®

Slope stabilisation alongside Nuremberg-Regensburg railway line

Some 8000 lin. m of hot-dip galvanised TITAN 30/11 were used on this project.

Falsework and Formwork systems

Trench lining systems



Geotechnical solutions

Certified Management-System to DIN EN ISO 9001:2015

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