



AISI 316 7×7 HDD & pipe-bursting tracer wire

Stainless Steel Tracer Wire 7x7

AISI 316 Stainless Steel 7x7

AISI 316 / 316L 7×7 stranded stainless steel wire rope with 45 / 60 mil
HMWPE/HDPE jacket



AISI 316 7×7 (49 Strands)

Up to 21,000 N (4,800 lbf) Break

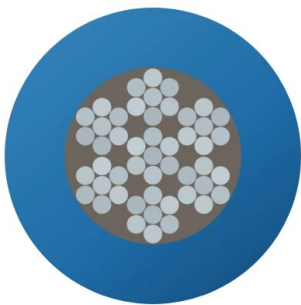
HDD & Pipe Bursting

Application

Ultra-high-tensile, corrosion-proof trenchless utility locator cable (Stainless Steel Tracer Wire 7x7) constructed from 49 strands (7×7 aircraft wire-rope lay) of molybdenum-bearing AISI 316 / 316L marine-grade austenitic stainless steel per ASTM A492.

Typical uses: Trenchless Static & Pneumatic Pipe-Bursting Sewer/Water Replacement, Hard-Rock & Cobble Horizontal Directional Drilling (HDD), Subaqueous River-Crossing & Coastal Salt-Marsh HDD Bores, High-Sulfide Sanitary Force Mains & Landfill Leachate Lines, Deep Slip-Lining & Swagelining Pipeline Rehabilitation

Construction



Cross-section, not to scale

- 1 AISI 316 / 316L 7×7 stranded stainless steel wire rope (49 wires)
- 2 Primary HMWPE direct-burial moisture & dielectric barrier
- 3 45 mil (1.14 mm) or 60 mil (1.52 mm) HMWPE / HDPE rock-shield jacket

Technical data

Typical values

Voltage rating	600 V direct-burial insulation rating	Recommended locating freq.	33 kHz, 65 kHz, 82 kHz & 83 kHz active conductive/inductive locating
Dielectric spark test	7.5 kV to 10 kV AC 100 % in-line spark test	Operating temperature	-55 °C to +75 °C (direct burial) · +80 °C short-term PE fusion proximity
Installation & storage temperature	-40 °C to +70 °C	Stranding architecture	7 × 7 = 49 individual AISI 316 / 316L stainless steel filaments
Minimum breaking load	1.2 mm (3/64"): 1,200 N (270 lbf) · 1.6 mm (1/16"): 2,135 N (480 lbf) · 2.4 mm (3/32"): 4,100 N (920 lbf) · 3.2 mm (1/8"): 7,560 N (1,700 lbf) · 4.0 mm (5/32"): 11,560 N (2,600 lbf) · 4.8 mm (3/16"): 16,450–21,350 N (3,700–4,800 lbf)	Min. bend radius	4 × OD (kink-resistant wire-rope lay)
Corrosion resistance	AISI 316 (UNS S31600) with 2–3 % Mo resists salt water, H2S sewer gas & acid sulfate soils	Cut-through & rock abrasion	45 mil HMWPE or 60 mil HDPE jacket resists fractured cast-iron/clay pipe edges
Standards	ASTM A492 · ASTM A580 (Type 316) · MIL-DTL-83420 (7×7 wire rope)		

Sizes

10 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	316 SS 7×7 Core mm (in. / Eq. AWG)	Jacket Wall mil (mm)	Overall OD mm (in.)	Min. Break Load N (lbf)	Nom. R20 Ω/km	Weight kg/km
Standard HDD & Corrosive-Soil 7×7 AISI 316 Tracer Wire (45 mil HMWPE Wall) 5 sizes						
☐ TW-SS316-7X7-3/64-45MIL	1.19 mm (3/64" · ~16 AWG)	45 (1.14)	3.47 (0.137")	1,200 N (270 lbf)	820.0	14.2
☐ TW-SS316-7X7-1/16-45MIL	1.59 mm (1/16" · ~14 AWG)	45 (1.14)	3.87 (0.152")	2,135 N (480 lbf)	465.0	20.5
☐ TW-SS316-7X7-5/64-45MIL	1.98 mm (5/64" · ~12 AWG)	45 (1.14)	4.26 (0.168")	2,890 N (650 lbf)	298.0	28.0
☐ TW-SS316-7X7-3/32-45MIL	2.38 mm (3/32" · ~10 AWG)	45 (1.14)	4.66 (0.183")	4,100 N (920 lbf)	206.0	37.5
☐ TW-SS316-7X7-1/8-45MIL	3.18 mm (1/8" · ~8 AWG)	45 (1.14)	5.46 (0.215")	7,560 N (1,700 lbf)	116.0	61.0
Heavy Pipe-Bursting & Rock-Bore 7×7 AISI 316 Tracer Wire (45 mil & 60 mil Wall) 5 sizes						
☐ TW-SS316-7X7-3/32-60MIL	2.38 mm (3/32" · ~10 AWG)	60 (1.52)	5.42 (0.213")	4,100 N (920 lbf)	206.0	43.8
☐ TW-SS316-7X7-1/8-60MIL	3.18 mm (1/8" · ~8 AWG)	60 (1.52)	6.22 (0.245")	7,560 N (1,700 lbf)	116.0	68.5
☐ TW-SS316-7X7-5/32-45MIL	3.97 mm (5/32" · ~6 AWG)	45 (1.14)	6.25 (0.246")	11,560 N (2,600 lbf)	74.5	90.2
☐ TW-SS316-7X7-5/32-60MIL	3.97 mm (5/32" · ~6 AWG)	60 (1.52)	7.01 (0.276")	11,560 N (2,600 lbf)	74.5	99.0
☐ TW-SS316-7X7-3/16-60MIL	4.76 mm (3/16" · ~4 AWG)	60 (1.52)	7.80 (0.307")	16,450 N (3,700 lbf)	51.8	138.0

– Also available in AISI 304 7×7 and ultra-high-strength 7×19 aircraft wire-rope constructions up to 21,350 N (4,800 lbf).

Standards and approvals

- ✓ ASTM A492 / A580 Type 316 & MIL-DTL-83420 7×7 Compliant
- ✓ ASTM D1248 45/60 mil Trenchless Direct-Burial Jacket

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

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Email

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Web

tebaoflex.com/cables/aisi-316-stainless-steel-7x7-stranded-hmwpe-horizontal-directional-drilling-tracer-wire



Typical values for this cable type, based on ASTM A492 / ASTM A580 (AISI 316 / 316L) · MIL-DTL-83420 · ASTM D1248. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.