Extra-heavy-duty steel-armoured subsea trencher umbilical

RM0005

3.3–6.6 kV (1,975 kN) Steel-Armoured Trencher Umbilical

ISO 13628-5 / DNV · 3.6/6 kV · Extra-heavy-duty steel-armoured subsea trencher umbilical

ISO 13628-5 / DNV | 3.3–6.6 kV (18×10 mm²) | 1,975 kN MBL (Ø58 mm)

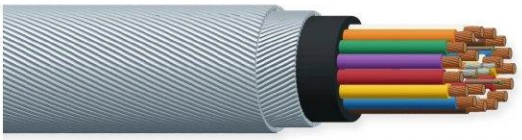


Application

RM0005 (58.0 mm OD, 1,975 kN MBL) Extra-Heavy-Duty Multi-Layer Steel-Armoured Subsea Trencher, Plough & Seafloor Mining Umbilical Cable (ISO 13628-5 / DNV, 3.6/6 kV, -30 to +80 °C, min. bend radius 15 × OD).

Typical uses: Work-Class & Observation ROV Systems, Offshore Wind & Subsea Power Grids, Oceanographic, Sonar & Seismic Survey, Commercial Diving & Subsea Intervention

Construction





Cross-section, not to scale

1. Triple Redundant FIST Units (3×4 SM)
2. Screened Twisted Quad (1×1.34 mm² STQ)
3. HV Power Conductors (18×10.0 mm²)
4. Water-Blocked Core & Heavy Bedding
5. 1,975 kN Multi-Layer Steel Armour

Technical data

Typical values

Rated voltage / transmission duty	3.6/6 kV (ISO 13628-5 / DNV-ST-E402 Heavy Trencher Umbilical)	**Core / conductor construction**	Triple Redundant FIST Units (3×4 SM) — Three independent laser-welded stainless-steel optical tubes (12 SM fibres)
Primary dielectric / buffering	Screened Twisted Quad (1×1.34 mm² STQ) — Central foil/braid-screened quad for emergency telemetry and control	**Continuous operating temperature**	−30…+80 °C (subsea, marine & submersible duty)
Short-circuit / peak thermal rating	Verified thermal stability per ISO 13628-5 / DNV-ST-E402 Heavy Trencher Umbilical	**Storage & transport temperature**	−40…+80 °C on export wooden/steel drum
Outer protection / armouring	1,975 kN Multi-Layer Steel Armour — High-Tensile contra-helical high-tensile galvanized steel wire armour (Ø 58.0 mm)	**Minimum bending radius**	15 × OD
Hydrostatic, tensile & crush duty	Water-Blocked Core & Heavy Bedding — Hydrophobic void filler + heavy-duty pressure-resistant inner sheath	**Hydrostatic pressure & water blocking**	Engineered for continuous submersion and hydrostatic integrity per ISO 13628-5 / DNV-ST-E402 Heavy Trencher Umbilical
Seawater, oil & chemical resistance	Resistant to seawater hydrolysis, hydraulic oils and abrasion per ISO 13628-5 / DNV-ST-E402 Heavy Trencher Umbilical	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	ISO 13628-5 / DNV-ST-E402 Heavy Trencher Umbilical		

Sizes

3 standard constructions

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

Order designation	Configuration	Core / stranding	Outer Ø ≈ mm	Net weight ≈ kg/km	Tensile rating kN ≈	Min. bend R mm
RM0005 Construction Schedule (−30…+80 °C) 3 sizes						
☐ **RM0005 Type A (Standard Lift)**	3 × 10 mm² HV + 6×2×1.0 + 12F FIMT	Class 5 tinned Cu + 316L FIMT	25.4	1,680	320.0	380
☐ **RM0005 Type B (Heavy Work-Class)**	3 × 16 mm² HV + 8×2×1.0 + 12F FIMT	Class 5 tinned Cu + 316L FIMT	32.2	2,650	480.0	485
☐ **RM0005 Type C (Ultra-Deep Trencher)**	3 × 25 mm² HV + 12×2×1.0 + 24F FIMT	Class 5 tinned Cu + 316L FIMT	38.1	3,890	680.0	570

– Custom core cross-sections, pair/fibre counts, armour grades and factory drum lengths available per ISO 13628-5 / DNV-ST-E402 Heavy Trencher Umbilical.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
3 × 10 mm² HV + 6×2×1.0 + 12F FIMT	1.91	3.6/6 kV (≤0.35 dB/km SM)	−30…+80 °C
3 × 16 mm² HV + 8×2×1.0 + 12F FIMT	1.21	3.6/6 kV (≤0.35 dB/km SM)	−30…+80 °C
3 × 25 mm² HV + 12×2×1.0 + 24F FIMT	0.78	3.6/6 kV (≤0.35 dB/km SM)	−30…+80 °C

– Every production length undergoes routine conductor DC resistance, high-voltage dielectric or OTDR continuity and dimensional verification.

Standards and approvals

- ISO 13628-5 / DNV Compliant
- EN 10204 3.1 Factory Test Certificate
- CE, RoHS 2 (2011/65/EU) & REACH

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
+86 185 9591 3361

Email
info@tebaoflex.com

Web
tebaoflex.com/cables/rm0005

Typical values for this cable type, based on ISO 13628-5 / DNV-ST-E402 Heavy Trencher Umbilical. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.