

ANCHOR-004 / REV A

Cable and foundation assembly

STATUS: CONCEPT / UNQUALIFIED. Cost unknown. Patent review not performed. EU conformity not determined.

Source and requirements

Original extraction paragraph references: 849, 855, 863, 3662

Source span 500 m, cable nominal diameter 140 mm, concrete head 24 x 24 m, sixteen proposed 48 m micropiles. Dimensions remain unqualified.

Candidate manufacturing route

Fab 3: machined connection hardware

Fab 4: cable and reinforced-concrete fabrication

Fab 5: tensioning, surveying and monitored assembly

Governing models

E12, E13, E26, E27, E47, S09, S10 — see the English formula register; use only within each stated domain.

Critical missing evidence

Ground investigation and rock-joint data

Combined wind, uplift, seismic, fatigue and accidental load cases

Rope construction, terminations, corrosion and inspection access

Cost model and missing quotations

$C_{unit} = (\text{materials} + \text{machine/setup} + \text{energy} + \text{labour} + \text{QA} + \text{overhead}) / \text{accepted units}$. Record currency, price date, batch quantity, yield, rework, contingencies and uncertainty. Avoid double-counting costs included in machine rates. No supplier quotes have been obtained.

Steel cable grade and length

Excavation, drilling and concrete

Prestressing, testing and access logistics

Patent-review record

Search seed (not executed): prestressed cable anchorage micropile aerostat tether foundation damping

Required records: jurisdictions, search dates, CPC/IPC classifications, patent families, publication PDFs, independent claims chart, legal status and expiry/lapse review. Product geometry and intended use must be frozen sufficiently for a meaningful review.

Patent publication PDFs are not attached because no product-specific patent search or claims assessment has been performed. This dossier is not a patent, clearance opinion or claim of novelty.

EU and other regulatory applicability

Site-specific structural and geotechnical rules and local permits

Construction-product classification and applicable conformity route require assessment

Starting sources: EUR-Lex Regulation (EU) 2023/1230 and Directive 2014/68/EU where relevant; EPO Espacenet and official registers for patent research. Full applicable standards, legal classification and jurisdiction-specific approvals must be verified.

Acceptance and reproducibility

Define the product measurands, test environment, tolerances, calibrated instrumentation, lot traceability and a statistically justified sampling plan. Numerical convergence, manufacturing yield and service reliability are separate criteria. No 99% feasibility or 98% product-equivalence claim is established.

Release gate

Do not treat a proposed route as a toolpath. Complete geometry, material allowables, process qualification, simulation verification, prototype tests, inspection, conformity review and responsible engineering approval before release.