

SPECIFICATION - OMEX-RQ Cordage

Material	: HT Polyester Fibre
Specific Gravity	: ~1.38kg/dm ³
Construction	: 12-Strand Hollow Braid
UV Resistance	: Good
Chemical Resistance	: Good
Melting Point	: 230 °C
Critical Temperature	: 150 °C
Wet Abrasion	: Good
Dry Abrasion	: Good
Protective Coating	: Yes (PU Derived)

NAME	DIA	WEIGHT	Colour Code
	(mm)	(g/1m)	
OMEX-RQ 10	10	71	Blue/Grey with Red Tracer
OMEX-RQ 12	12	119	Blue/Grey with Orange Tracer
OMEX-RQ 14	14	162	Blue/Grey with Pink Tracer
OMEX-RQ 16	16	208	Blue/Grey with Yellow Tracer
OMEX-RQ 18	18	299	Blue/Grey with Green Tracer
OMEX-RQ 24	24	491	Blue/Grey with Purple Tracer

NAME	DIA	MBS - Rope Body	MBS - SPLICED
	(mm)	(kgf)	(daN)
OMEX-RQ 10	10	3302	3238
OMEX-RQ 12	12	3886	3811
OMEX-RQ 14	14	5863	5749
OMEX-RQ 16	16	7285	7145
OMEX-RQ 18	18	9791	9601
OMEX-RQ 24	24	19533	19155

Rope body: un-terminated:

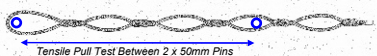
- Minimum Breaking Strength (MBS) un-terminated (Sigma-derived)
- Test method: Non-Terminated over two Rope Bollards

Termination: Spliced Eyes:

- Spliced-Eye Strength Rating (Sigma-derived)
- Basis: Calculated using Sigma standard deviation from 5 tensile test results (hand-spliced eyes to RIGIQ Specification).
- Test setup: Pin-to-pin tensile test; pin Ø50 mm; eye internal length 500 mm; overall specimen length 2,500 mm.

Reporting note: The spliced-eye rating is configuration and method-dependent and is provided as a statistically derived performance rating. It should not be used as a substitute for rope-body MBS unless the end-use configuration matches the stated test setup.

ULTRA-Sling MBS Rating



Understanding the Ultra-Sling Rating

The rating applied to all RIGIQ Ultra-Slings is based on the above test showing a tensile force in a straight pull between the Spliced Eye on one end and the force against the Brummel Splice which makes up the Rope Pocket. This rating is the same whether fitted with an LFR Friction Ring or a Plain Eye. If fitted with other hardware refer to the individual hardware rating.

WARNING – Load Angle Factors and Sling Protection

The correct load angle factors must be applied to every lifting, lowering, or rigging procedure. The angle at which a sling is loaded can significantly affect the forces applied to the sling, anchor point, hardware, and load. Failure to calculate and apply the correct load angle factors may result in overloading, equipment failure, serious injury, or death.

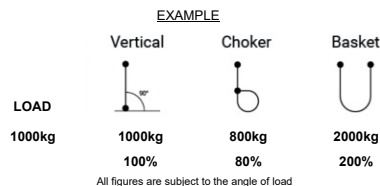
Always ensure that the selected sling, configuration, hardware, and anchor points are suitable for the intended application, taking into account the working load limit, safety factor, load direction, sling angle, and any additional forces generated during use. In order to carry out safe procedures, many applications require additional protection between the load and sling. To help protect the sling from abrasive damage, webbing sleeves are strongly recommended.

Understanding Forces in Straight, Choker, and Basket Configurations

The configuration of a sling directly affects the forces applied to the sling, anchor point, hardware, and load. The same load can generate significantly different forces depending on whether the sling is used in a straight, choker, or basket configuration.

A sling does not always experience the same force as the visible load. Factors such as sling angle, choke position, bend radius, friction, load movement, and the method of attachment can all increase or reduce the forces applied during use.

The working load limit must always be assessed and adjusted according to the configuration being used. Never assume that a sling has the same capacity in straight, choker, and basket arrangements.



Scannable

All RIGIQ spliced products are enabled with SCANNABLE SMARTPPE traceability for fast product ID and trace records, deal for Inspection management and gear tracking.

Scan the label with your mobile and add this product to your Scannable inventory.

www.scannable.io

Disclaimer

All information, specifications, illustrations and statements contained in this manual are believed to be accurate at the time of publication. RIGIQ / STEIN Products Ltd reserves the right to make changes to products, materials, specifications and this documentation at any time, without prior notice, as part of ongoing product development and improvement. Where applicable, users should ensure they are working from the most current version of this manual before use.

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ROPE CARE MANUAL

OMEX-RQ

This Rope Care Manual contains important information on maintaining Products made from **OMEX-RQ** Cordage

This Rope Care leaflet contains important information which must be read and understood before the product is used and must be kept with the equipment as reference whilst it is in use.

Warning

Failing to follow these guidelines for the correct use and care of the rope may give rise to a situation that could endanger the user's life or persons in the vicinity of use. The manufacturer cannot be liable for the abuse or misuse of equipment. All risk is the responsibility of the user.

Activities using this type of equipment are inherently dangerous. It is not possible to cover every eventuality relating to the use of this equipment. Purchasers and users should seek professional training from a fully qualified and competent instructor prior to engaging in any activity. If you are not able, or not in a position to assume this responsibility, do not use this product. The manufacturer its distributors and retailers do not accept any liability if users do not follow the instructions correctly.

Prior to each use a complete risk assessment must be carried out to ascertain that the product chosen configures with and is appropriate to the work being undertaken. The product chosen must also be compatible with all the other components within the system. Users must always ensure that all components of the system are suitable for the foreseeable loadings that may be applied during use. Poor technique and shock loading may cause catastrophic failure of this product and should be avoided. Where a foreseeable failure of the product may occur a suitable backup system must be installed and used. All components of the system used with this product must be inspected before and after each operation.

Each product is issued with either a SABL (Spliced Average Break Load), ABL (Average Break Load), or MBS (Minimum Breaking Strength). These values represent the breaking strength of the product and are determined under controlled test conditions using static loading. They must not be interpreted as a Working Load Limit (WLL) or Safe Working Load (SWL). Dynamic effects such as shock loading, sudden stops, or uncontrolled movement can generate forces significantly higher than the weight of the load and may result in sudden failure.

It is the user's responsibility to ensure that all components used within the system (including anchors, attachment points, connectors, pulleys, and friction or lowering devices) are compatible and suitably rated, and that the expected loads remain within safe limits by applying an appropriate Safety Factor (SF). The user must never exceed the rating of the lowest-rated component or the weakest section of the system.

If there is any uncertainty regarding product specification, compatibility, or suitability for the intended application, the user must contact the manufacturer or consult a competent person. Users must fully understand this terminology and apply correct safety factors when calculating and operating any system.

- NOT FOR USE AS PPE "PERSONAL PROTECTIVE EQUIPMENT"
- Not for lifting, lowering, or suspending persons
- Not for life-support, fall arrest, or work positioning
- Not for towing vehicles, snatch loading, or high-energy dynamic loading

Terminology & Units of Measurement (Force Units)

Strength ratings for ropes and rigging systems are measured as a force (pulling load). Force is commonly expressed in N (newtons), kN (kilonewtons), daN (decanewtons), or kgf (kilogram-force). **Important note:** Where strength is shown as "kg" on the product label, this refers to kgf-equivalent (kilograms-force) as a guide only. It is not a mass rating and must not be interpreted as the mass of an object that can be lifted or suspended.

Breaking Strength and Maximum Working Load

SABL (Spliced Average Break Load) / ABL (Average Break Load) values are determined under controlled test conditions and represent break test performance under primarily static loading. These values are not a Working Load Limit (WLL). MBS (Minimum Breaking Strength) / MBL (Minimum Breaking Load) may also be stated on product labels and data sheets. MBS/MBL is the minimum breaking value specified by the manufacturer and should be treated as the limiting strength value when assessing system capacity.

This product is supplied with breaking strength information (MBS/MBL and/or SABL/ABL). A maximum intended working load must be determined by the competent person by applying an appropriate Safety Factor (SF) to the breaking strength and ensuring the expected loads remain below that limit and below the ratings of all other components in the system.

Safety Factors (SF) / Design Factors - System Working Loads

Rope and cordage systems are commonly managed using a Safety Factor (SF) (also referred to as a Design Factor or Coefficient of Utilisation). The Safety Factor is the relationship between the product's breaking strength (e.g., MBS/MBL/SABL/ABL) and the maximum intended working load applied during use. The correct Safety Factor depends on the application, the environment, the expected loading type (static or dynamic), and the consequences of failure. In many rope rigging and lowering operations (including tree work), loads may be applied dynamically (e.g., during catches). The system and technique must be planned to minimise peak forces and avoid uncontrolled shock loading such as excessive free-fall, abrupt stops, or hard catches.

Typical Safety Factor guidance (set by the competent person/system designer):

- 5:1 – commonly used in controlled lifting system design
- 7:1 – commonly used for textile lifting slings in many EN-rated systems
- 10:1 (or higher) – often applied in rope rigging and lowering where dynamic effects and higher peak loads may occur

Important: These figures are provided as general guidance only. The required Safety Factor may be higher depending on the risk assessment, local regulations, industry practice, and operational conditions.

Note on terminology: "WLL" is typically a single limit assigned to equipment by the manufacturer under a defined standard. For rope systems, the competent person may determine a system working load / maximum intended working load by applying a Safety Factor appropriate to the task and conditions.

Dynamic loading and peak forces

Even where the suspended weight appears low, dynamic effects such as shock loading, sudden stops, uncontrolled movement, impact loading, or swing can generate forces significantly higher than the load weight. Users must account for these factors when determining system capacity and safety margins. Users must never exceed the rating of the lowest-rated component or weakest section of the system, including anchor points, attachment points, connectors, devices, terminations, knots, and any configuration that may reduce rope strength.

Compatibility with other Equipment / Components

This product must only be used as part of a system where all components are compatible in terms of function, rope diameter, and strength rating. The user is responsible for ensuring the product is suitable for use with the selected equipment, including (but not limited to):

- Pulleys and blocks
- Lowering and friction devices
- Capstan winches and rigging hardware
- Anchors, slings, connectors and attachment points
- Edge protection sleeves and hardware interfaces

Before use, confirm that the rope diameter and construction are approved by the manufacturer of any device it is run through or attached to. Incorrect sizing or unsuitable device selection may cause excessive wear, sheath damage, slippage, or uncontrolled movement. The product must not be used with equipment that may damage or cut the rope, including sharp edges, burrs, aggressive cams, serrated/toothed components, or incompatible friction surfaces. Any component which shows signs of damage, sharpness, or excessive wear must be removed from service immediately. Users must never exceed the lowest-rated component or weakest section of the system. Where necessary, system compatibility must be confirmed by a competent person.

Anchoring

The system that incorporates the product should include a reliable anchorage point. Anchor selection and set-up should be carried out by a competent person. The anchorage point must be structurally sound, stable and capable of withstanding the expected forces (including any dynamic effects). The anchorage must be positioned to provide a clear load path and to minimise abrasion, sharp edge contact and unwanted side-loading of hardware. Use suitable edge protection or protective sleeves wherever the product may contact abrasive surfaces or edges.

Where slings, strops or connectors are used to form an anchor, ensure they are correctly oriented and rated. Avoid cross-loading or tri-loading connectors and ensure that gates close fully and are not forced open by the system. If a multi-point anchor or bridle is used, consider the increase in forces created by wide angles between legs. As a general guide, keep the included angle between anchor legs as small as practical (ideally below 60 degrees) to reduce loading on each leg and on the master point. Anchors must be protected from movement, rolling, deformation or collapse during use. Do not anchor to unstable structures, dead or decayed timber, loose branches, sharp-edged steelwork, or any component with unknown strength. The overall system must never be loaded beyond the rating of the lowest-rated component. The strength of the anchorage, attachment points and all connectors must be taken into account when calculating system capacity and Safety Factors. If there is any uncertainty regarding anchor suitability, integrity or system layout, stop work and consult the manufacturer or a competent person before proceeding.

Environment

The working temperatures range from minus 10 Centigrade to 40 Centigrade. Working outside these temperatures and even with them brings certain risks. Wet rope can freeze and become stiff. Heat can damage the fibres, externally fibres will be melted or welded together, and visual inspection will reveal the damage. Internally generated heat can cause the fibres to fuse or wear. A sign is a dusty interior or reduced core yarn bulk. This is not easy to see and would only be caused by incorrect use of the rope.

Cleaning

Contamination can damage Core Fibres and any contamination should be avoided. Dilute reagents or dirt and effluent encountered in the environment if contacting the rope should be washed out by repeated immersion in clean water. If necessary, the rope can

be disinfected using a neutral proprietary textile disinfectant applied by using a lukewarm solution with agitation followed by rinsing in clean water and air drying in a naturally warm environment. Do not dry at a temperature exceeding 70°C.

Storage and Transport

Ropes should be stored in a relaxed state, loosely coiled. Undo any knots and remove hardware. Dry the rope or store it in free air circulation at room temperature. This rope is not biodegradable and will not rot. If stored in a dirty condition it can take on a smell, it is best to wash it first. Sunlight can degrade this rope over time, and although only the cover is exposed and the core yarns are protected, long term exposure to strong sunlight should be avoided and the rope stored under shelter. Any change in the outside fibres due to the effect of sunlight will appear as wear when visually inspected. During transportation, the ropes should be packed in sealed bags to prevent contamination, protected from mechanical damage, extremes of temperature and other factors documented in this leaflet known to adversely affect the rope's condition.

ID Label

The ID Label on the rope documents the rope's information. If the rope has been cut from a longer length, then it should be marked with ID labels. A rope's life cycle and history can only be traced through correct product labelling. Product label information may include: rope type, diameter, length, batch/serial reference, date of manufacture, and strength rating (SABL/ABL and/or MBS/MBL) expressed in a force unit (kN / daN / kgf-equivalent). The label must remain legible throughout the rope's service life. If the rope is cut or re-terminated, appropriate re-labelling is required to maintain traceability and correct identification.

Rope Care

The rope has been tested to conform to the manufacturer's standards but once in use, it is the user's liability, to ensure the on-going integrity of the rope and to decide the correct time for obsolescence. Ropes made from any material are susceptible to wear and tear and can be weakened to some extent by various agencies such as chemicals, heat and light. Please be aware that no matter what agency has weakened the rope, the effect will be more serious on the small sizes than on the larger sizes of rope.

External Wear & Repeated Loading

Over-time the rope will become worn from load holding, rubbing over abrasive surfaces or worn on the terminating hardware. Protective sleeves should be used if there is a possibility of the rope contacting sharp edges or surfaces likely to corrupt the cover fibres. Typically, the higher the load the more wear will occur to the point of fixing, and the result will be seen as damage to the cover fibres. This wear will appear as a matt finish to the area where fibres become broken. This is acceptable wear and will not initially diminish the rope's safe holding capacity. As wear increases the yarns may become broken and eventually allow the core rope to show. Before wear reaches this stage the integrity of the rope is compromised, and it should be replaced. This visual inspection is a reliable procedure for ropes wearing in a normal safe load holding situation. Any mechanical damage to the rope, crushing, cutting, burning, melting or pinching that has caused trauma to the construction may have compromised the integrity of the rope. In this case the rope should be retired.

Heat & Chemicals

Heat may, in extreme cases, cause fusing. Any signs of this should merit rejection but a rope may be damaged by heat without any such obvious warning. The best safeguard is proper care in use and storage. A rope should never be dried in front of a fire or stored near a stove or other source of heat. Acidic and alkali contamination should be avoided as it will over time reduce the strength of the fibres possibly leading to early discarding of the safety rope. Ropes will lose significant strength if subject to contamination by acids. If it is believed that the rope has been subject to contamination by any acid, it must be rendered unusable and disposed of immediately.

Inspection and Obsolescence

The whole length of the product should be checked before and after use by an experienced person to ensure continued serviceability. Use visual and tactile inspection to identify cuts, tears, abrasion damage and powdering due to ageing, contact with heat, acids, alkalis and other corrosives. If the product has been subjected to a fall, contamination, damage or abrasion and there is any doubt about the integrity of the product it should be taken out of use. A record card or digital record should be kept for each product. The record should show the details of the product, its identification, model, serial number, date of first use, date of purchase, year of manufacture, frequency of use, history of periodic examinations, who conducted examination, due date for periodic examination, and applications for which it is suitable. The name and contact details. The product should be the property of only one user, and the record shall be maintained by this user to ensure they are aware of the use of the product. The record should also be used as a log to record the user's name, the date used and application, the conditions encountered in use and any relevant comments about the condition of the product. Knowing your product is an essential to ensure safe working. Only use a product that is either new or has a known working life. A product can look good but have compromised properties. Discard unknown products as unsuitable for safe working. Retire after 5 years from first use and 10 years from date of manufacture (maximum life-span up to 10 years, subject to conditions of use and storage). In extreme exposure (chemicals, extreme temperatures, sharp edges, major fall/impact), lifetime can be reduced to a single use.

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