

# Helicopter External Load Equipment

TECHNICAL DATA SHEETS



*Longlines*



*Cargo Nets*



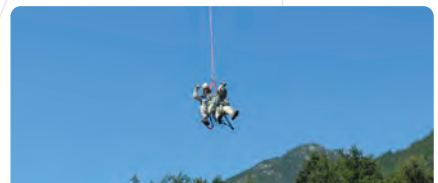
*Dielectric & Utilities Equipment*



*Defence & Military Products*



*Airborne Geophysical Equipment*



*Human External Cargo*

Canada and USA: **1.800.305.2673**  
Local and International: **+1.514.328.3888**

[www.barry.ca](http://www.barry.ca)



# Barry Cordage Ltd.

Website: [www.barry.ca](http://www.barry.ca)

## Phone Order:

Toll-Free in Canada and the  
United States: 1.800.305.2673  
Telephone: +1 514.328.3888

## Email Order:

Customer Service:  
[jduranleau@barry.ca](mailto:jduranleau@barry.ca)

Toll-Free telephone support:  
Monday - Friday, 8:30 am - 12:30 pm and 13:00 pm - 5:00 pm EST .

Mailing address:

6110 boul. des Grandes Prairies, Montréal (Québec) Canada, H1P 1A2

## Vision

Quality, safety and sustainability are essential to us; we take people's lives to heart. After more than 40 years of design and manufacturing, our passion continues to be the difference. The team at Barry strongly believes in advancing the safety and quality of our products through continuous R&D and testing.

Products and services bearing the Barry Quality & Safety Seal reflect our commitment, unique expertise and innovative solutions in rope and net systems. By keeping safety and quality at the forefront of our business model, Barry has remained an industry-leading producer of high-quality products designed to excel in the harshest environments.



## Mission

Barry designs, manufactures and transforms high quality textile-based products and services aimed at protecting people and assets.

Barry listens to the industry's requirements and finds the most appropriate and cost effective solution. We are your solution finder!

# About Barry

Established in 1978, Barry Cordage Ltd. designs, manufactures and distributes an extensive range of textile-based products and systems across the globe, while affiliate company Barry USA Inc. serves the U.S. market.



**At any given time on the seven continents, hundreds of lives are being protected, preserved and saved by Barry products, systems and services.**

Our products are aimed at protecting people and assets, and we are recognized worldwide for our high-quality products, excellent service and knowledgeable customer support.

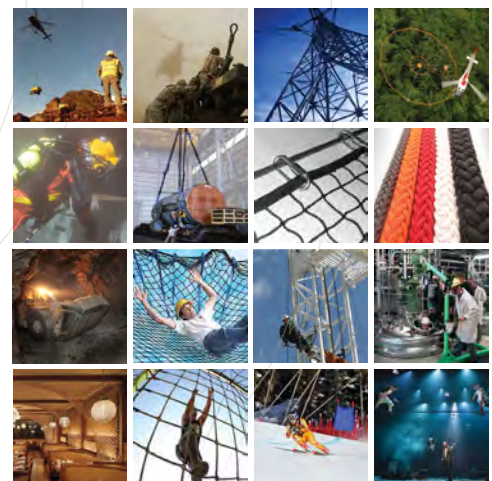
The Barry team is driven by passion for innovation, safety and quality. Our highly-skilled team receives ongoing technical training, and our state-of-the-art production processes, materials and techniques ensure that only products of the highest quality leave our facilities.

## Barry Markets

Companies and government agencies around the world choose Barry products and services for our expertise, quality of workmanship and service. **Our diverse products and systems are used in over 70 countries around the world, in a wide range of industries.**

We specialize in developing custom solutions to complex problems in the following markets:

- Aeronautical & Aerospace
- Defence & Military
- Utilities & Energy
- Mining
- Oil & Gas
- Industrial Manufacturing
- Fall Protection
- Geophysical Exploration
- Marine and Off-Shore
- Safety & Rescue Response
- Worksite Safety
- Infrastructure & Transport
- Construction
- Product Testing / R&D
- Commercial Diving
- Sport Safety
- Entertainment & Theatrical
- Pharmaceutical
- Design and Architecture
- Public Safety



### Barry D.E.W. Line® Dielectric Helicopter Longline

The Barry D.E.W. (Dielectric Even Wet) Line® is the most advanced helicopter longline available. This insulating helicopter longline is designed for work in energized fields on high voltage systems (AC or DC).

Barry D.E.W. Line® technology uses proprietary materials which offer unique insulating properties with exceptionally low leakage currents, whether dry or wet.

#### System Includes

- Dielectric longline
- Master link at top end
- Stainless steel thimbles at both ends
- Permanent ID tag
- Certificate of compliance (COC)
- User instructions manual
- Transport/storage bag

#### Optional / Accessories

- Weighted bottom end-cover for increased load-stability and velocity without load\*
- Swivel hook at bottom end

#### Technical

- 10-year service and shelf life
- Proof-loaded to 1.5 x WLL
- Supported by Airworthiness Analysis to FAA CFR Title 14, Parts 27 & 29
- Proof-loaded to WLL
- Meets or exceeds the dry or wet electrical requirements of:
  - ASTM F1701 – 12
  - IEC 62192:2009
- Arc-Flash rated - Resistant to 40 cal/cm<sup>2</sup> (category 4)
- EC Machinery Directive 2006/42/EC compliant



[www.barry.ca](http://www.barry.ca)



Stainless steel thimble with master link at top end



Optional self-locking swivel hook at bottom end

## SPECIFICATIONS

- **Working Load Limit:** 3 900 lb (1 769 kg)
- **Diameter:** 5/8" (16 mm)
- **Colour:** Orange with green terminations
- **Weight:** 31 lb (14.1 kg) for 100' (30 m)
- **Standard lengths:** 50', 75', 100', 125' and 150' (Other lengths available upon request)

| Max. shelf life   | Max. service life | Max. combined life (shelf + service) |
|---|-------------------|--------------------------------------|
| 10 years  | 10 years          | 10 years                             |
| <i>Important: Parts are considered on-condition throughout their shelf &amp; service life and must pass inspections and maintenance recommendations as per the manufacturer's user instructions manual.</i> |                   |                                      |

#### \* Recommended weighted end-covers:

- # LLEC-W25NC-NDR5: 25 lb (11 kg) weighted end-cover for V<sub>ne</sub> 60 knots without underslung load
- # LLEC-W50NC-NDR5: 50 lb (22 kg) weighted end-cover

### Helicopter Longline (Non-Wired)

Barry synthetic longline systems offer helicopter operators a lightweight, easy-handling and reliable option for external load/underslung applications.

#### System Includes

- Synthetic rope longline (Dyneema® fiber)
- Master link at top end
- Protective end-covers (top & bottom)
- Permanent ID tag
- Certificate of compliance (COC)
- User instructions manual
- Transport/storage bag

#### Optional / Accessories

- Protective zipper jacket (recommended)
- Weighted bottom end-cover for increased load-stability and velocity without load
- Non-electric swivel hook at bottom end
- Custom hardware

#### Technical

- 10-year service and shelf life
- Proof-loaded to 1.5 x WLL
- Supported by Airworthiness Analysis to FAA CFR Title 14, Parts 27 & 29
- EC Machinery Directive 2006/42/EC compliant



Optional: Swivel hook with handle installed at bottom end of longline

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## SPECIFICATIONS

| Product Code | Diameter      | Working Load Limit  | Weight (for 100') |
|--------------|---------------|---------------------|-------------------|
| BLL-3000     | 7/16" (11 mm) | 3 000 lb (1 361 kg) | 8 lb (3.6 kg)     |
| BLL-4500     | 1/2" (13mm)   | 4 500 lb (2 041 kg) | 9 lb (4.1 kg)     |
| BLL-6400     | 5/8" (16 mm)  | 6 400 lb (2 903 kg) | 14 lb (6.4 kg)    |
| BLL-8300     | 3/4" (19 mm)  | 8 300 lb (3 764 kg) | 19 lb (8.6 kg)    |

Standard lengths: 25', 50', 75', 100', 125', 150' and 200'  
(Other lengths available upon request)

| Max. shelf life | Max. service life | Max. combined life (shelf + service) |
|-----------------|-------------------|--------------------------------------|
| 10 years        | 10 years          | 10 years                             |

Important: Parts are considered on-condition throughout their shelf & service life and must pass inspections and maintenance recommendations as per the manufacturer's user instructions manual.

Barry synthetic longline systems offer helicopter operators a lightweight, easy-handling and reliable option for external load/underslung applications.

#### System Includes

- Synthetic rope longline (Dyneema® fiber)
- Master link at top end
- Protective zipper jacket for easy inspection of longline & wire
- Electrical cable with connectors\*
- Permanent ID tag
- Certificate of compliance (COC)
- EC Declaration of conformity
- User instructions manual
- Transport/storage bag

#### Optional / Accessories

- Weighted bottom end-cover for increased load-stability and velocity without load
- Protective double zipper jacket
- Electric swivel & remote hook

#### Technical

- 10-year service and shelf life
- Proof-loaded to 1.5 x WLL
- Supported by Airworthiness Analysis to FAA CFR Title 14, Parts 27 & 29
- EC Machinery Directive 2006/42/EC compliant



\* Standard electrical cable: 3C/14 SJTW/SJOOW 300V (Other gages, conductors and multiple wire configurations available upon request)

\* Male/Female connectors supplied, to be installed by end-user



Optional: Swivel hook with handle installed at bottom end of longline



## SPECIFICATIONS

| Product Code | Diameter      | Working Load Limit  | Weight (for 100' w/ LLJZ) |
|--------------|---------------|---------------------|---------------------------|
| DLL-3000     | 7/16" (11 mm) | 3 000 lb (1 361 kg) | 25 lb (11.3 kg)           |
| DLL-4500     | 1/2" (13mm)   | 4 500 lb (2 041 kg) | 26 lb (11.8 kg)           |
| DLL-6400     | 5/8" (16 mm)  | 6 400 lb (2 903 kg) | 30 lb (13.6 kg)           |
| DLL-8300     | 3/4" (19 mm)  | 8 300 lb (3 764 kg) | 34 lb (15.4 kg)           |

Standard lengths: 25', 50', 75', 100', 125', 150' and 200'  
(Other lengths available upon request)

| Max. shelf life | Max. service life | Max. combined life (shelf + service) |
|-----------------|-------------------|--------------------------------------|
| 10 years        | 10 years          | 10 years                             |

Important: Parts are considered on-condition throughout their shelf & service life and must pass inspections and maintenance recommendations as per the manufacturer's user instructions manual.

[www.barry.ca](http://www.barry.ca)

### Heavy-Lift Helicopter Longline

Barry heavy-lift synthetic longline systems offer helicopter operators a lightweight, easy-handling and reliable option for external load/underslung applications.

#### System Includes

- Synthetic rope longline (Dyneema® fiber)
- HD shackle end-fittings with protector
- Protective HD double zipper jacket
- Electrical cable with connectors\*
- Permanent ID tag
- Certificate of compliance (COC)
- User instructions manual
- Transport/storage bag

#### Optional / Accessories

- Load cell shackle with remote reader
- Weighted bottom end-cover for increased load-stability and velocity without load
- Jacket with external helix for vibration control
- Non-electric swivel hook at bottom end
- Custom hardware & accessories

#### Technical

- 10-year service and shelf life
- Supported by Airworthiness Analysis to FAA CFR Title 14, Parts 27 & 29
- Proof-loaded to WLL

\* Standard electrical cable: 3C/14 SJTW/SJOOW 300V (Other gages, conductors and multiple wire configurations available upon request)  
 \* Male/Female connectors supplied, to be installed by end-user



Double Zipper Longline Jacket



Optional Swivel Hook Installed at Bottom End



Optional Load Cell Shackle with Remote Reader

## SPECIFICATIONS

| Product Code | Diameter       | Working Load Limit    | Weight (for 100' w/ LLJZ-HL) |
|--------------|----------------|-----------------------|------------------------------|
| DLH-11500    | 7/8" (22 mm)   | 11 500 lb (5 216 kg)  | 56 lb (25.4 kg)              |
| DLH-14000    | 1" (25 mm)     | 14 000 lb (6 350 kg)  | 58 lb (26.3 kg)              |
| DLH-21000    | 1-1/4" (32 mm) | 21 000 lb (9 525 kg)  | 105 lb (47.6 kg)             |
| DLH-29000    | 1-1/2" (38 mm) | 29 000 lb (13 154 kg) | 120 lb (54.4 kg)             |

Standard lengths: 25', 50', 75', 100', 125', 150' and 200'  
 (Other lengths available upon request)

| Max. shelf life | Max. service life | Max. combined life (shelf + service) |
|-----------------|-------------------|--------------------------------------|
| 10 years        | 10 years          | 10 years                             |

Important: Parts are considered on-condition throughout their shelf & service life and must pass inspections and maintenance recommendations as per the manufacturer's user instructions manual.

[www.barry.ca](http://www.barry.ca)

## # BSLR Helicopter Short Line

Barry short lines act as a lightweight and easy-handling intermediary between the helicopter cargo-hook and the load, when the use of a longline is not required or possible.

### System Includes

- Synthetic rope line (Dyneema® fiber)
- Master link at top end
- Permanent ID tag
- Certificate of compliance (COC)
- User instructions manual
- Transport/storage bag

### Optional / Accessories

- Protective zipper jacket (recommended)
- Non-electric swivel hook at bottom end
- Custom hardware

### Technical

- 10-year service and shelf life
- Proof-loaded to 1.5 x WLL
- Supported by Airworthiness Analysis to FAA CFR Title 14, Parts 27 & 29
- EC Machinery Directive 2006/42/EC compliant



Optional: Protective zipper jacket



Available with or without self-locking swivel hook



Master link in top thimble

## SPECIFICATIONS

| Product Code (without Hook) | Product Code (with Hook) | Diameter      | Working Load Limit  |
|-----------------------------|--------------------------|---------------|---------------------|
| BSLR-3000                   | BSLRH-3000               | 7/16" (11 mm) | 3 000 lb (1 361 kg) |
| BSLR-4500                   | BSLRH-4500               | 1/2" (13mm)   | 4 500 lb (2 041 kg) |
| BSLR-6400                   | BSLRH-6400               | 5/8" (16 mm)  | 6 400 lb (2 903 kg) |
| BSLR-8300                   | BSLRH-8300               | 3/4" (19 mm)  | 8 300 lb (3 764 kg) |

Standard lengths: 6', 8', 10', 12', 16' and 20'  
(Other lengths available upon request)

| Max. shelf life | Max. service life | Max. combined life (shelf + service) |
|-----------------|-------------------|--------------------------------------|
| 10 years        | 10 years          | 10 years                             |

Important: Parts are considered on-condition throughout their shelf & service life and must pass inspections and maintenance recommendations as per the manufacturer's user instructions manual.

Dyneema® is a trademark of DSM. Use of this trademark is prohibited unless strictly authorized.

[www.barry.ca](http://www.barry.ca)



## Custom Tow Lines, Lifting Stropps and Bridles

Barry manufactures highly customized airborne lifting systems. Our wide range of innovative products offer easy-handling and lightweight solutions for external load applications.



*Custom Longline*



*Lifting Bridles*

**Barry Cordage Ltd.**  
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Barry has a policy of continuous improvement and reserves the right to update product or components without prior notice.  
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Photo courtesy of Geotech Airborne



### SPECIFICATIONS

We specialize in applications such as:

- Airborne Geophysical Surveying
- HEC/NHEC
- Downed Aircraft Recovery
- Heavy-Lift & Specialized Rigging
- Lifting Bridle Assemblies
- Drone Tow-Lines
- Specialized Longlines for Aerial Fire Suppression
- Bungee Assemblies
- Multiple Lines & Adjustable Splices

Contact us to discuss your specific requirements.

### Helicopter Cargo Net – 1500 lb WLL – Model A1

These compact, lightweight and cost-effective cargo nets are designed for the transport of non-abrasive loads.

#### System Includes

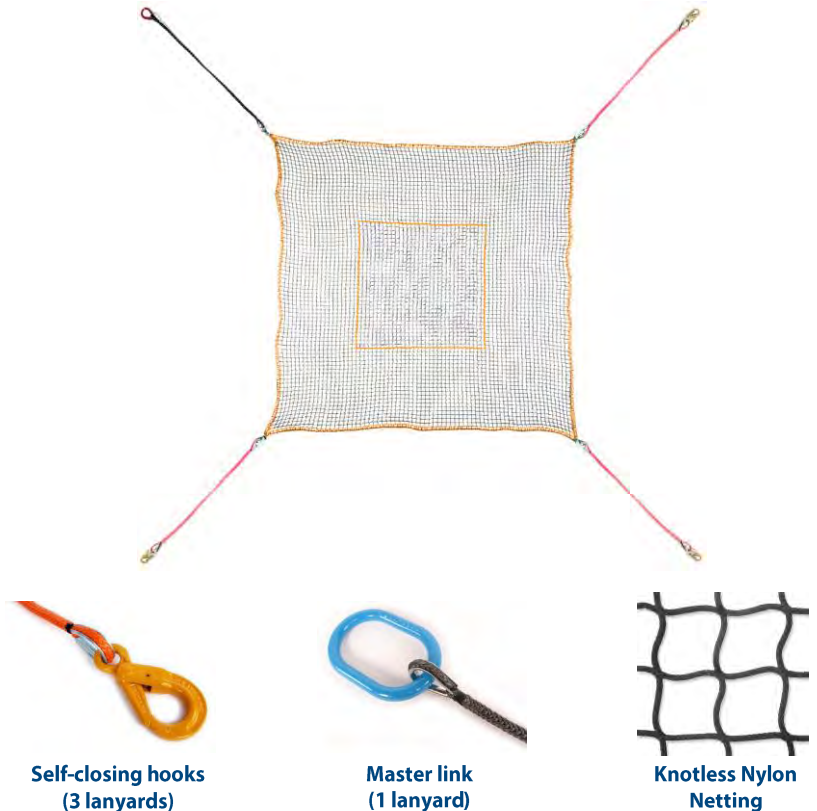
- Knotless nylon cargo net
- 3 lanyards with hooks, 1 lanyard with master link
- Reinforced center with marker for durability and facilitated loading
- Permanent ID tag
- Certificate of compliance (COC)
- User instructions manual
- Transport/storage bag

#### Optional / Accessories

- # HCN-RKP-A Repair Kit for quick minor field repairs

#### Technical

- 5-year service / 10-year shelf life
- Supported by Airworthiness Analysis to FAA CFR Title 14, Parts 27 & 29



## SPECIFICATIONS

- **Working Load Limit (WLL)\*:** 1 500 lb (680 kg)
- **Knotless Nylon Netting Mesh Size:** 1.75" (45 mm)

| Product Code | Shape  | Size                      | Weight         |
|--------------|--------|---------------------------|----------------|
| HCN1212-4A1  | Square | 12' x 12' (3.7 m x 3.7 m) | 21 lb (9.5 kg) |

| Max. shelf life | Max. service life | Max. combined life (shelf + service) |
|-----------------|-------------------|--------------------------------------|
| 10 years        | 5 years           | 10 years                             |

*Important: Parts are considered on-condition throughout their shelf & service life and must pass inspections and maintenance recommendations as per the manufacturer's user instructions manual.*

**\*Note:** Reduce working load limit in consideration of the load carried (Ex: irregularly shaped equipment, sharp edges, narrow heavy load, rough landing surface, dynamic effects, etc.). Certain environmental conditions and dynamic loading situations may also require the reduction of the working load limit to take into consideration these factors of critical use conditions.

[www.barry.ca](http://www.barry.ca)

### Helicopter Cargo Net – 3000 lb WLL – Model B1

Our medium-duty cargo nets are designed for endurance and use in rugged environments. Using many of the same materials and design as our higher WLL cargo nets, these lightweight 3K nets are a world-renown workhorse.

#### System Includes

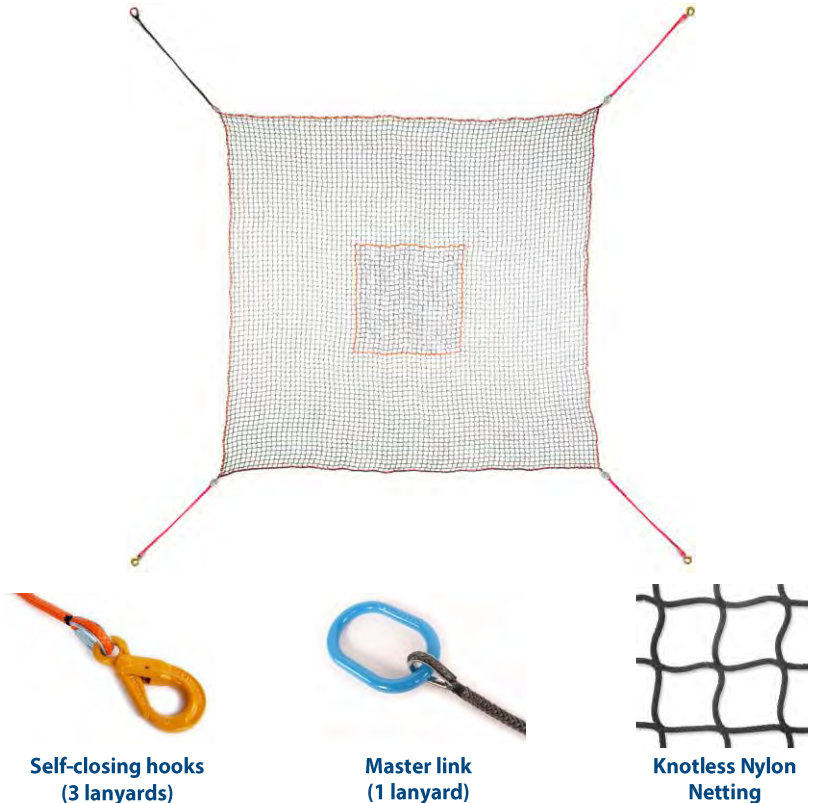
- Knotless nylon cargo net
- 3 lanyards with hooks, 1 lanyard with master link
- Reinforced center with marker for durability and facilitated loading
- Permanent ID tag
- Certificate of compliance (COC)
- User instructions manual
- Transport/storage bag

#### Optional / Accessories

- # HCN-RKP-BC Repair Kit for quick minor field repairs

#### Technical

- 5-year service / 10-year shelf life
- Supported by Airworthiness Analysis to FAA CFR Title 14, Parts 27 & 29



Self-closing hooks  
(3 lanyards)

Master link  
(1 lanyard)

Knotless Nylon  
Netting

## SPECIFICATIONS

- **Working Load Limit (WLL)\*:** 3 000 lb (1 361 kg)
- **Knotless Nylon Netting Mesh Size:** 2.5" (64 mm)

| Product Code | Shape  | Size                      | Weight          |
|--------------|--------|---------------------------|-----------------|
| HCN1212-4B1  | Square | 12' x 12' (3.7 m x 3.7 m) | 27 lb (12.2 kg) |
| HCN1616-4B1  | Square | 16' x 16' (4.9 m x 4.9 m) | 45 lb (20.4 kg) |

| Max. shelf life | Max. service life | Max. combined life<br>(shelf + service) |
|-----------------|-------------------|---|
| 10 years        | 5 years           | 10 years                                |

*Important: Parts are considered on-condition throughout their shelf & service life and must pass inspections and maintenance recommendations as per the manufacturer's user instructions manual.*

**\*Note:** Reduce working load limit in consideration of the load carried (Ex: irregularly shaped equipment, sharp edges, narrow heavy load, rough landing surface, dynamic effects, etc.). Certain environmental conditions and dynamic loading situations may also require the reduction of the working load limit to take into consideration these factors of critical use conditions.

### Helicopter Cargo Net – 6600 lb WLL – Model C1

The Barry C1 cargo net is a recently redesigned and improved version of our 5K WLL cargo net trusted and used worldwide for both civil and military applications.

#### System Includes

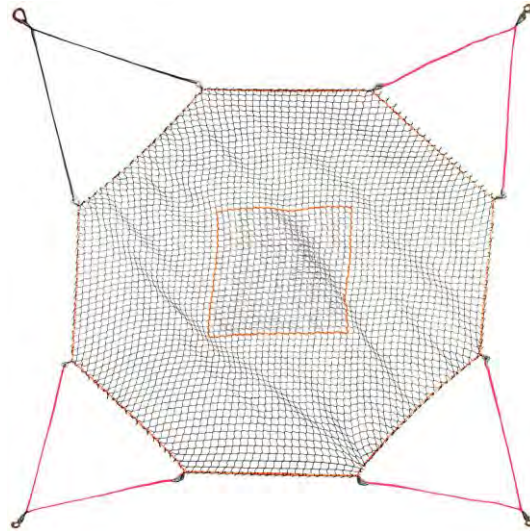
- Knotless nylon cargo net
- 3 lanyards with hooks, 1 lanyard with master link
- Reinforced center with marker for durability and facilitated loading
- Permanent ID tag
- Certificate of compliance (COC)
- User instructions manual
- Transport/storage bag

#### Optional / Accessories

- # HCN-RKP-BC Repair Kit for quick minor field repairs

#### Technical

- 5-year service / 10-year shelf life
- Supported by Airworthiness Analysis to FAA CFR Title 14, Parts 27 & 29



Self-closing hooks  
(3 lanyards)



Master link  
(1 lanyard)



Knotless Nylon  
Netting

## SPECIFICATIONS

- **Working Load Limit (WLL)\*:** 6 600 lb (2 993 kg)
- **Knotless Nylon Netting Mesh Size:** 2.5" (64 mm)

| Product Code | Shape     | Size                      | Weight          |
|--------------|-----------|---------------------------|-----------------|
| HCN1616-8C1  | Octagonal | 16' x 16' (4.9 m x 4.9 m) | 48 lb (21.8 kg) |
| HCN2020-8C1  | Octagonal | 20' x 20' (6.1 m x 6.1 m) | 60 lb (27.2 kg) |
| HCN2424-8C1  | Octagonal | 24' x 24' (7.3 m x 7.3 m) | 78 lb (35.3 kg) |

| Max. shelf life   | Max. service life | Max. combined life<br>(shelf + service) |
|---|-------------------|---|
| 10 years  | 5 years           | 10 years                                |
| <i>Important: Parts are considered on-condition throughout their shelf &amp; service life and must pass inspections and maintenance recommendations as per the manufacturer's user instructions manual.</i> |                   |   |

**\*Note:** Reduce working load limit in consideration of the load carried (Ex: irregularly shaped equipment, sharp edges, narrow heavy load, rough landing surface, dynamic effects, etc.). Certain environmental conditions and dynamic loading situations may also require the reduction of the working load limit to take into consideration these factors of critical use conditions.

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## Engineering & Consulting Services

Barry Cordage offers engineering and consulting services on many of the products we provide to our customers. Our engineering staff are considered subject matter experts (SME) in the stress analysis and airworthiness of flight vehicle components and structures. We use state-of-the-art finite element analysis (FEA) techniques and other methods to support the design of our products.

Barry's engineering staff specializes in the design, stress analysis, airworthiness substantiation, and certification testing of components used in helicopters, aircraft, spacecraft, missiles, and launch vehicles.

Our engineering staff has over 30 years of experience providing products and services that meet FAA, EASA, military, and NASA requirements. Barry Cordage is an approved supplier for many military, government and commercial entities, and holds many NSN part numbers that meet FAA, STANAG and STC requirements.



### SUMMARY OF ENGINEERING SERVICES

- CAD/CAE Mechanical Design
- Airworthiness Substantiation Analysis
- Cargo Net Certification
- Helicopter Long-Line Certification (HEC and NHEC)
- Helicopter Under-Slung Load Equipment (HUSLE)
- FAA DER/DAR Review, Approval, and Supplemental Engineering Support
- Stress Analysis
- Dynamics Analysis
- Fatigue and Fracture Analysis
- Thermal Analysis
- Computational Fluid Dynamics (CFD) Analysis
- Electrical and Avionics Design
- RF Engineering and Design
- Software Development and Testing
- Reliability and Maintainability Analysis (Conditioned Based Maintenance)
- Destructive and Non-Destructive Testing
- Flight Qualification and Acceptance Testing (Vibration, Shock, Thermal, Altitude, EMI/EMC, etc.)

#### Barry Cordage Ltd.

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## Barry Cordage Ltd.

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**CAGE CODE: L3907**



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