

CONTINUOUS BELAY SYSTEM | OTHER MATERIALS

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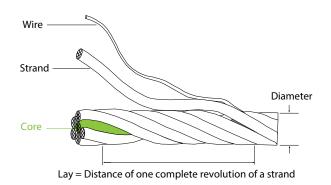


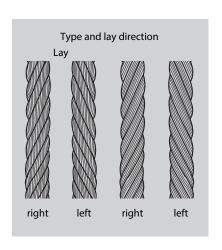
WIRE ROPES & ACCESSORIES

- > GENERAL INFORMATION
- > WIRE ROPES
- > WIRE ROPE ACCESSORIES
- > TOOLS
- > HARDWARE

GENERAL INFORMATION

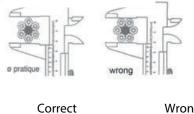




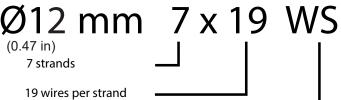


Measuring the diameter

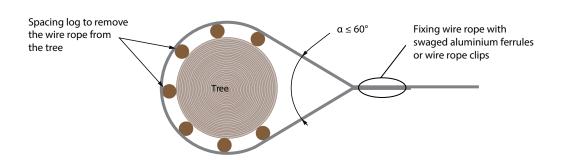
Interpreting wire rope information



Wrong

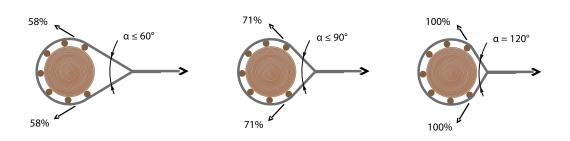


INSTALLING A WIRE ROPE



Wire strand cor e

ANGLES & FORCES



TRANSPORT & UNWINDING OF WIRE ROPES















SOME EXAMPLES OF DEFAULT



Increase in diameter due to the extrusion of the core



Kink



External wear



Broken wires



Reduction in wire rope diameter (hollowstand)



Broken wires in the grooves

WIRE ROPES













| USE | | | | | |
|-------------------------------|--------------|------------|-------------|-------------|-------------|
| LIFELINE | | C•U | C•∪ | | C•U |
| ZIPLINE | | C•∪ | C•∪ | | C•∪ |
| OBSTACLE SUPPORTING WIRE ROPE | ೧•೨ | | | | |
| BRACE CABLE | ຕ•ູກ | | | | |
| HANDRAIL | ຕ • ນ | | | C•∪ | |
| SAFETY LOOP | ೧•೨ | | C•u | C•∪ | ຕຸກ |
| TECHNICAL INFORMA | ATION | | | | |
| CORE | Wire strand | Fiber core | Wire strand | Wire strand | Wire strand |

| TECHNICAL INFORMATION | | | | | | |
|-----------------------|------------------|-----------------|---------------------|---------------------|---------------------|--|
| CORE | Wire strand core | Fiber core | Wire strand core | Wire strand core | Wire strand core | |
| STRAND RESISTANCE | 1770 N / mm2 | 1770 N / mm2 | 2160 N / mm2 | 1770 N / mm2 | 1960 N / mm2 | |
| MIN. BREAKING LOAD | 110 kN | 110 kN | 142 kN | 60 kN | 94 kN | |
| MAX. WORKING LOAD | 22 kN | 22 kN | | 12 kN | 19 kN | |
| SAFETY FACTOR | 5 | 5 | 5 | 5 | 5 | |







REF: CA04

REF: CA04-B100 100 m (3937 in) (328 ft)

REF: CA04-B250 250 m (9842 in) (820 ft) REEL





6 x 7 FC LANG'S LAY **GALVANIZED WIRE** ROPE Ø12 mm (Ø 0.47in)

REF: CA05

REF: CA05-B250 250 m (9842 in) (820 ft) REEL

REF: CA05-B500 500 m (19685 in) (1640 ft)





6 x 26 WSC GALVA-**NIZED SWAGED WIRE** ROPE IWRC Ø12 mm (Ø 0.47in)

REF: CA12

REF: CA12-B250 250 m (9842 in) (820 ft)

REF: CA12-B500 500 m (19685 in) (1640 ft)







7 x 19 WSC Ø12 mm **RED PLASTIC COATED** WIRE ROPE Ø10 mm INT (Ø 0.39 in) / 12 mm (Ø 0.47in) EXT

REF : CA01 RED | CUT TO SIZE

REF: CA01-B200 RED | 200 m (7874in) (656 ft) REEL

REF: CA02 GREEN | CUT TO SIZE





19x7 WSC ROTATION RESISTANT GALVA-NIZED WIRE ROPE Ø12mm (Ø 0.47in)

REF: CA11-B250 250 m (9842 in) REEL

WIRE ROPE ACCESSORIES





Ø12 mm (0.47 in) SWAGED THIMBLED WIRE ROPE 2 SOLID **THIMBLES**

REF: CA07-10 CUT TO SIZE

- Can resist tensions above 6000 daN: the wire rope thimbles doesn't deform under high tension
- Ø12 mm 7x19 WSC
- 2 swaged solid thimbled ends
- Length: cut to size | Up to 10 m (33 ft) Weight: 5 kg (11 lbs) for 7 m (23 ft)

Ø12 mm (0.47 in) SWAGED THIMBLED WIRE ROPE 1 SOLID THIMBLE

REF: CA08-10 CUT TO SIZE

- Can resist tensions above 6000 daN
- Ø12 mm 7x19 WSC (Galvanized wire rope sling)
- 1 swaged solid thimbled end
- 1 free end
- Length: cut to size | Until 10 m (33 ft)
- Weight: 6 Kg (13 lbs) for 10 m (33 ft)

Ø12 mm (0.47 in) SWAGED THIMBLED WIRE ROPE 2 **THIMBLES**

REF: CA06-10 CUT TO SIZE

- For tensions below 6000 daN
- Ø12 mm 7x19 WSC (Galvanized wire rope sling)
- 2 swaged thimbled ends
- Length: cut to size | Up to 10 m (33 ft)
- Weight: 4.6 kg (10 lbs) for 7 m (23 ft)

WIRE ROPE CLIP « CE » FOR Ø12 mm (0.47 in) WIRE **ROPE**



- Hot drop forged wire rope clip
- Compliant with European Standard EN 13411-5
- « Steel ends / Security / U-shaped wire rope clip »
- Weight: 130 g (0.3 lbs)



WIRE ROPE CLIP « DIN 741 » FOR Ø12 mm (0.47 in) **WIRE ROPE**

REF: QU52-13

- Zinc plated wire rope clip DIN 741
- Weight: 122 g (0.3 lbs)



SOLID ROPE THIMBLE S412-1/2

REF: QU13

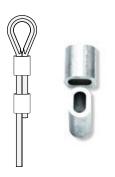
- Allows 16 insert a connector and expert a strong tension on the wire rope
- For Ø12 mm (0,47 in) wire rope Weight : 270 g (0.6 lbs)



Ø13 mm WIRE ROPE THIMBLE

REF: QU01-13

- For Ø 12 mm (0,47 in) and Ø13 mm (0,51 in) wire rope
- Weight: 80 g (0.2 lbs)



ALUMINIUM FERRULE N°13 FOR SWAGING 2 Ø12 mm WIRE ROPES

REF: QU36-13

- To attach 2 wire ropes together Aluminium ferrule Ø int : ½" in To crimp with crimping tool REF : OU01-42CFM
- Weight: 60 g (0.1 lbs)



2 CLEVIS TURNBUCKLE HR

REF: QU55-305 STROKE 305 mm (12 in) REF: QU55-457 STROKE 457 mm (18 in)

- Installed at the end of the zipline, to adjust zipline rope tension
- Threaded rod \emptyset : 22.2 mm ($\dot{\emptyset}$ 7/8 in)
- WLL: 3.27 t
- Weight: 4.3 kg (9.5 lbs) and 4.9 kg (10.8 lbs)

TOOLS





ELECTRO-HYDRAULIC CRIMPING TOOL - 120 kN (KLAUKE)

REF: OU01-42CFM TO PURCHASE FOR RENT

- Crimping tool for swaging lifeline ferrules, aluminium and copper ferrules
- 2 speed hydraulic pump with fast-forward, automatic return after crimping, manual return if needed
- Power : 120 kN
- Included: 1 battery (Lithium ion 18 V) MAKITA
- To be used with apairof dies adapted to the wire rope / not included
- Weight: 13 kg (28.7 lbs)



BATTERY FOR KLAUKE CRIMPING TOOL (MAKITA)

REF: OU10-5A

- Fast battery charger
- -18V/5A
- Weight: 640 g (1.4 lbs)



BATTERY CHARGER DC18RA - 18V (MAKITA)

REF: OU11

- 18 V
- Weight: 950 g (2.1 lbs)



HAND-OPERATED HYDRAULIC CRIMPING TOOL 120 kN

REF: OU05-HK12042

- Crimping tool for manually swaging lifeline ferrules, aluminium fer and copper ferrules
- Power : 120 kN
- To be used with a pain of dies adapted to the wire rope / not included
- Weight: 9.3 kg (20.5 lbs)





PAIR OF DIES « 13 / 95 » - MONOCABLE FERRULE Ø12 mm (Ø 0.47 in)

REF: OU02-1395 FOR CONTINUOUS BELAY SYSTEM FERRULES - Weight: 220 g (0.5 lbs) | Price per pair

PAIR OF DIES « 13 / 120 » - MONOCABLE FERRULE Ø1/2" in

REF: OU02-13120US FOR CONTINUOUS BELAY SYSTEM FERRULES



PAIR OF DIES « 13 / 235 » - FOR ALUMINIUM FER-RULES ON DOUBLE WIRE ROPE Ø12 mm (Ø 0.47 in)

REF: OU02-13235

- Weight: 220 g (0.5 lbs) | Price per pair



IZUMI S-20 MANUAL HYDRAULIC CUTTER

REF: OU08

- Weight : 2.8 kg (6.2 lbs)



IZUMI S-20 BLADE FOR MANUAL CUTTER

REF: OU09

- Weight: 37 g (0.1 lbs)



FLAT WEB SLING EYE

REF: OU15-150 FLAT WEB SLING EYE & EYE SWL 20kN - Length 1.5m (4'11") | Weight: 570 g (1.3 lbs)



REF: OU15-300 FLAT WEB SLING EYE & EYE SWL 20kN - Length 3m (9'10") | Weight: 1 kg (2.2 lbs)

CABLE PULLER



REF: OU06-LMG1 LMG1

- For wire rope Ø5-15 mm (Ø 0.2-0.6 in) - Load 20 kN | Weight : 1.62 kg (3.6 lbs)

REF: OU06-LMG2 LMG2

- For wire rope Ø8-20 mm (Ø 0.3-0.8 in) - Load 30 kN | Weight : 2.9 kg (6.4 lbs)





LEVER HOIST

REF: OU14-250 REF: OU14-750 REF: OU14-1600 250 kg (551 lbs) ELEPHANT / Weight: 2.15 kg (4.8 lbs) 750 kg (1764 lbs) ELEPHANT / Weight: 3.50 kg (7.7 lbs) 1600 kg (3527 lbs) ELEPHANT / Weight: 9.50 kg (21 lbs)

- ELEPHANT lever hoist specially designed for the tensioning of ziplines and heavy load handling



PIEZO EXPRESS BLOW TORCH 8900

REF: OU17

- Open and adjust the gas flow
- Piezo ignition and locking plate
- Weight : 630 g (1.4 lbs)
- Sold without gas cartridge
- Great autonomy (1h15)



GAS CARTRIDGE EXPRESS 8191

REF: CS05-8191 FOR EXPRESS 8900

- For blowtorches or other appliances that use type 200 butane gas cartridges
- Weight: 190 g (0.4 lbs)



RATCHET PODGER SPANNER - 17 mm (0.67 in) and 19 mm (0.75 in)

REF: OU26-17 19

- Double wrench, ratchet
- Reversible right / left
- Weight : 475 g (1.1 lbs)





REF: OU12

- Diameter : 4 mm (0.15 in) - Weight : 60 g (0.1 lbs)



THREADLOCKER LOCTITE 243 - MEDIUM STRENGTH

REF: CS17-243 05

- Prevents loosening on vibrating connections

- Works on all metals, including passive substrates (e.g. stainless steel, aluminium, plated surfaces) - P1 NSF Reg. No.: 123000

- Color : Blue

- Weight: 5 g (0.01 lbs)



THREADLOCKER LOCTITE 270 - HIGH STRENGTH

REF: CS17-270 05

- High-strength general threadlocker for maximum efficiency

Prevents loosening on vibrating connections
Works on all metals, including passive substrates (e.g. stainless steel, aluminium, plated surfaces) - P1 NSF Reg. No.: 123006

- Color : Green

- Weight: 5 g (0.01 lbs)

HARDWARE





THREADED ROD

REF: QU57-12X1000 Ø M12 x 1 m (Ø 3.3 ft) / Classe: 4.8 REF: QU57-18X1000 Ø M18 x 1 m (Ø 3.3 ft) / Classe: 4.8 REF: QU58-18X1000 Ø M18 x 1 m (Ø 3.3 ft) / Classe: 8.8

REF: AC10-1500 Ø M18 (Ø 0.7 in) x 1.50 m (4.9 ft) WITH ACCESSORIES

- Fully threaded



WELDED CHAIN Ø6 x 42 mm (Ø 0.2 x 1.7 in)

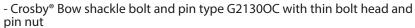
REF: OU09

- Weight : 620 g (1.4 lbs) - Galvanized steel



BOW SHACKLE BOLT

REF: QU112-325 WORKING WLL: 32.5 kN REF: QU112-475 WORKING WLL: 47.5 kN REF: QU112-650 WORKING WLL: 65 kN



- Complies with the Federal Specification RR-C-271D Type IVA, Grade A, Class 3

- High strengh alloy steel



2 EYE TURNBUCKLE

REF : QU53-08 Ø8 mm (Ø 0.3 in) REF : QU53-12 Ø12 mm (Ø 0.5 in)



GALVANIZED STEEL CLAMP Ø125 mm (Ø 4.92 in)

REF: PR16-GAL FOR PVC TUBE Ø125 mm (4.92 in)

- Internal diameter : Ø160mm (Ø 6.29 in) - Eternal diameter : Ø220mm (Ø 8.66 in)

- Weight: 45 g (0.1 lbs)



REINFORCED CLEAR HOSE ØINT 22 mm (0.9 in) ØEXT 16 mm (0.6 in)

REF: PR20-45 LENGTH: 45 cm (17.71 in) REF: PR20-65 LENGTH: 65 cm (25.59 in)

SALES, DELIVERY TERMS & CONDITIONS

GENERAL PRINCIPLES

These General Terms of Sale apply in their entirety to all sales of ALTUS / KOALA EQUIPMENT products in France and

They prevail over any general terms of purchase or other documents issued by the Client, regardless of the terms. Any order sent to ALTUS / KOALA EQUIPMENT implies unconditional acceptance of ALTUS / KOALA EQUIPMENT's prices and these General Terms of Sale. They supersede all previous general terms of sale.

The fact that ALTUS / KOALA EQUIPMENT does not invoke at a given time, any of these General Terms of Sale shall not be construed as a waiver to subsequently enforce any of the said terms.

There are different ways of ordering:

- online on our website : www.koala-equipment.com
- by phone on 0033 (0)4 50 97 50 19 from Monday to Friday from 8am to 12am and from 1:30pm to 5pm (French hours)
- by e-mail at: info@koala-equipment.com
- by fax on 0033(0)4 50 97 50 11 or by (snail) mail: ALTUS / KOALA EQUIPMENT 1191 route de Bidaille 74930 SCIENTRIER FRANCE.

To validate your order, please fill out the required information (selected products, payment method, delivery information, e-mail) and make your payment.

Orders can only be carried out by an adult (≥18 years old).

Confirmation of your order

Upon receipt of your order, a quote will be sent indicating the shipping cost of your package and the amount for the materials ordered. We undertake to send you this quote within 48 hours (French working days).

Upon receipt of our e-mail quote, 3 methods of payment are available to confirm your order:

- by credit card through a secured link.
- by phone with your credit card number.
- by check if your bank is in France.

The order will become final once ALTUS / KOALA EOUIPMENT has confirmed by e-mail.

Product prices are shown without VAT. Your invoice will include VAT if applicable. The VAT rate applied will be the one in place in France when you validate your order. An order is validated when the payment is received. In case of a change in the VAT rate the new rate will apply to all those orders not validated with a payment.

Product prices are exclusive of shipping costs, customs fees and tax.

All prices may be subject to typographical errors.

Discounts apply to the online store pre-tax prices and do not include transport fees. There are no discounts on the purchase of Freestanding courses.

Pricing could change due to exchange rate modifications.

Package, postage & shipping costs

Shipping costs will be charged in addition to the price of the product, according to the weight and size of the parcel. They are calculated as accurately as possible by choosing the most suitable carrier for your package based on your shipping address.

Upon receipt, open the package in front of the carrier. If damaged in shipping, inform the carrier by making all reservations on the carrier's delivery voucher as he alone is responsible. Confirm in writing by registered letter within three days. The shipping company should compensate you.

Payment

You can make your payment by check if your bank is in France or by credit card which is the fastest and the most convenient method.

Credit cards issued by banks outside France must be international bank cards. When paying by credit card, the amount of your order is debited at the time of dispatch.

Payment by check is only possible for checks in Euros drawn on a bank in France. The check will be cashed upon receipt.

The check should be made payable to «ALTUS / KOALA EQUIPMENT», and sent to the following address:

ALTUS / KOALA EOUIPMENT 1191 Route de Bidaille 74930 SCIENTRIER FRANCE

The items will only be sent once the check has been cashed.

Retention of title

The goods remain our property until full payment. Risks relating to the goods sold (loss, damage) are however transferred to the buyer upon dispatch from our premises.

Invoices

The invoice is sent in the package with your delivery. If the billing address is different from the delivery address, the invoice will be sent by e-mail or by post. Please note that purchase orders and confirmations cannot serve as invoices.

Complaints

Any dispute about the nature or quantity of items received must be communicated to us within 48 hours of receipt. We will attempt to solve any difficulties to do with your orders and their payment with you directly. Understanding and good will can dispel many incidents ... of which there are thankfully few.

However, if no solution were to be found, all disputes will be dealt with by the Commercial Court, 10 rue de l'Hotel de Ville, 74200 Thonon les Bains, France.

Cancellation rights

You have 7 days after purchase, to return a product without having to justify its return. The material must obviously be new, in perfect condition and returned in its original packaging.

Together with the material, which must be returned at your own expense (any collect shipment will be refused), please enclose an explanatory letter and the invoice or a photocopy of the invoice. In case of an error on our part or a product defect, the shipment costs will be refunded based on standard postage fees.

Guarantee

Before returning a product, to avoid any misunderstanding please consult with us.

Used items: the items are sold under manufacturer warranty.

Wear and tear is obviously excluded from this warranty.

Any items returned for repair or warranty claim must be clean and dry.

Precautions regarding the use of material

Improper installation or use of equipment and materials for High Wire Adventure Courses is potentially dangerous (risk of death); for your safety you must ensure that you fully master the installation of materials and equipment before use. ALTUS / KOALA EQUIPMENT disclaims any liability or responsibility for accidents.

Compliance with the instructions for use of PPE

Each PPE (Personal Protective Equipment) comes with an instruction manual as laid down by the European standard. It is the buyer's responsibility to comply.

TERMS OF DELIVERY

Shipping costs

The first stage of the confirmation of the order requires that you create an account as the shipping address is important for shipping fees.

Shipping fees are always calculated on a case by case basis, upon receipt of your order.

A quote is then sent indicating the shipping costs for your package and the amount for the materials ordered.

We undertake to send you this quote within 48 hours (French working days).

Upon receipt of our e-mail quote, 3 methods of payment are available to complete your order:

- by credit card through a secured link
- by phone with your credit card number
- by check if your bank is in France.

We can dispatch items to virtually any address in the world. However, warranty issues, manufacturer restrictions and customs laws prevent us from shipping certain products to certain geographical locations.

Delivery

Orders are dispatched the day we receive your payment (depending on the availability of the product and the delivery company).

In France: Delivery time is 48 to 72 hours (depending on the availability of the product and the delivery company).

Availability

In case the product is not in stock, delivery times will be in function of manufacturers' and/or suppliers' deadlines. In the event of unavailability of a product after placing your order, we will notify you by e-mail or phone once we have received the information from the suppliers. Your order will be cancelled and you will be refunded within 30 days of your payment.

ALTUS / KOALA EQUIPMENT - 1191 route de Bidaille 74930 SCIENTRIER -FRANCE) RCS Thonon les Bains : 411 354 962 00044 / Legal Notice/ Sales terms TEL : 00 33(0)4 50 97 50 19 / e-mail : info@koala-equipment.com

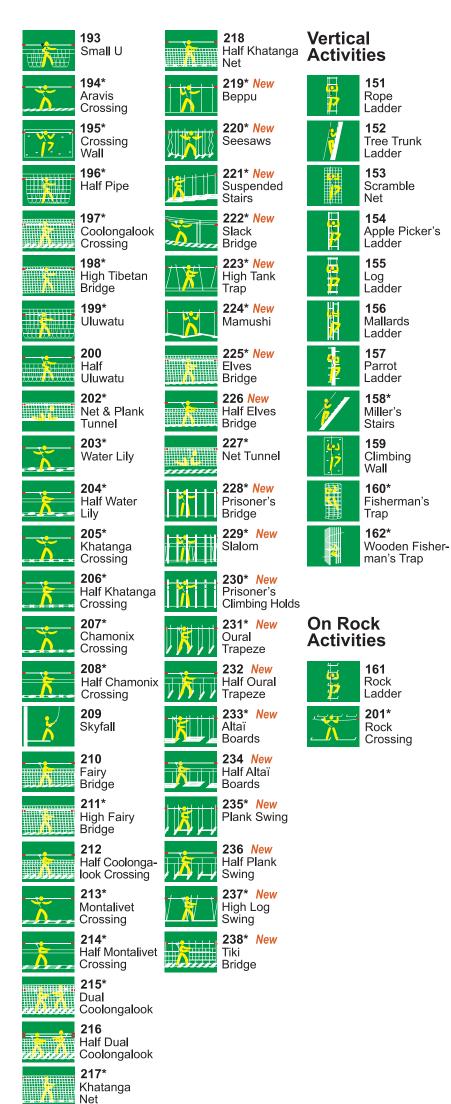
PRICES EUR

| REFERENCE | NAME | PRICE |
|-----------|---|------------|
| CA04-B100 | 7x19 WS Galvanized wire rope Ø12 mm (0,47 in) - 100 m reel (328,08 ft) | 195,00 € |
| CA04-B250 | 7x19 WS Galvanized wire rope Ø12 mm (0,47 in) - 250 m reel (820,21 ft) | 487,50 € |
| CA05-B250 | 6x7 FC Lang's lay galvanized wire rope Ø 12mm (0,47 in) - 250 m reel (820,21 ft) | 1 341,25 € |
| CA05-B500 | 6x7 FC Lang's lay galvanized wire rope Ø12 mm (0,47 in) - 500 m reel (1640,42 ft) | 2 682,50 € |
| CA12-B500 | 6x26 WS Galvanized swaged wire rope IWRC Ø12 mm (0,47 in) - 500 m reel (1640,42 ft) | |
| CA01-B200 | 7x19 WS Red plastic coated wire rope EXT Ø12 mm (0,47 in) INT Ø10 mm (0,39 in) - 200 m reel (656,16 ft) | 806,60 € |
| CA11-B250 | 19x 7 WSC Rotation resistant Galvanized wire rope Ø12 mm (0,47 in) - 250 m reel | 575,00 € |
| CA07-10 | Ø12 mm (0,47 in) Swaged thimbled wire rope with 2 solid thimbles | 135,47 € |
| CA08-10 | Ø12 mm (0,47 in) Swaged thimbled wire rope with 1 solid thimble | 90,84 € |
| CA06-10 | Ø12 mm (0,47 in) Swaged thimbled 12 mm wire rope with 2 thimbles | 65,73 € |
| QU130-12 | Wire rope clip CE for Ø12 mm (0,47 in) wire rope | 1,09 € |
| QU052-13 | Wire rope clip DIN 741 for Ø12 mm (0,47 in) wire rope | 0,69 € |
| QU13 | Solid rope thimble S412-1/2 | 32,57 € |
| QU01-13 | Ø13 mm (0,51 in) wire rope thimble | 0,74 € |
| QU36-13 | N°13 Aluminium ferrule for swaging 2 wire ropes Ø12 mm (0,47 in) | 0,84 € |
| QU55-305 | 2 Clevis turnbuckle, stroke 305 mm (12 in) | 66,00 € |
| QU55-457 | 2 Clevis turnbuckle, stroke 457 mm (17,99 in) | 99,00 € |

PRICES \$

| REFERENCE | NAME | PRICE |
|-----------|---|------------|
| CA04-B100 | 7x19 WS Galvanized wire rope Ø12 mm (0,47 in) - 100 m reel (328,08 ft) | \$259,55 |
| CA04-B250 | 7x19 WS Galvanized wire rope Ø12 mm (0,47 in) - 250 m reel (820,21 ft) | |
| CA05-B250 | 6x7 FC Lang's lay galvanized wire rope Ø 12mm (0,47 in) - 250 m reel (820,21 ft) | \$1 785,20 |
| CA05-B500 | 6x7 FC Lang's lay galvanized wire rope Ø12 mm (0,47 in) - 500 m reel (1640,42 ft) | \$3 570,41 |
| CA12-B500 | 6x26 WS Galvanized swaged wire rope IWRC Ø12 mm (0,47 in) - 500 m reel (1640,42 ft) | |
| CA01-B200 | 7x19 WS Red plastic coated wire rope EXT Ø12 mm (0,47 in) INT Ø10 mm (0,39 in) - 200 m reel (656,16 ft) | \$1 073,58 |
| CA11-B250 | 19x 7 WSC Rotation resistant Galvanized wire rope Ø12 mm (0,47 in) - 250 m reel | \$765,33 |
| CA07-10 | Ø12 mm (0,47 in) Swaged thimbled wire rope with 2 solid thimbles | \$180,31 |
| CA08-10 | Ø12 mm (0,47 in) Swaged thimbled wire rope with 1 solid thimble | \$120,91 |
| CA06-10 | Ø12 mm (0,47 in) Swaged thimbled 12 mm wire rope with 2 thimbles | \$87,49 |
| QU130-12 | Wire rope clip CE for Ø12 mm (0,47 in) wire rope | \$1,45 |
| QU052-13 | Wire rope clip DIN 741 for Ø12 mm (0,47 in) wire rope | \$0,92 |
| QU13 | Solid rope thimble S412-1/2 | \$43,35 |
| QU01-13 | Ø13 mm (0,51 in) wire rope thimble | \$0,98 |
| QU36-13 | N°13 Aluminium ferrule for swaging 2 wire ropes Ø12 mm (0,47 in) | \$1,12 |
| QU55-305 | 2 Clevis turnbuckle, stroke 305 mm (12 in) | \$87,85 |
| QU55-457 | 2 Clevis turnbuckle, stroke 457 mm (17,99 in) | \$131,77 |





^{*} Recommended activities on children's courses





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