



# HELIX

Rope Control Devices



Helix Operations provide a complete capability for vertical access and rescue in mountain, maritime and urban environments.

We are based in the mountains of North Wales and have a heritage of over 40 years supplying tactical climbing solutions to end users. Over that time, we have worked with and become a main supplier of technical height access and rescue equipment to the UK MOD and have provided equipment, systems and training to many other nations.

The capability offered by our close relationship with DMM has been extended by partnering with manufacturers such as CTOMS, Henriksen, HQH, Protection, Rock Exotica, Highnovate and Cadex Defence to offer complete solutions for working at height in a tactical environment.

Company Number: 10316654  
DUNS: 221986629  
NCAGE: UIAG3





## Mission Statement



To be the leading worldwide provider of comprehensive vertical access, rescue and mobility capabilities to the tactical operator in the mountain, urban and maritime environments.

To support vertical access operations for the tactical operator with a range of services including:

- Advice
- Equipment
- Training
- Servicing



# Key Brands

**REBS®**

REBS supply many critical components of any maritime or urban access system. Rapid Entry Boarding Systems - the best maritime boarding equipment that also works well for urban operations. They supply the best grapnel launchers and the lightest carbon ladder systems on the market.



**HQH SYSTEM**

Robust carbon ladder systems - these are the go to ladders if TLC is in short supply. The FIX-LITE being the new ladder of choice for dismantled troops in urban environments with the ATV carbon bridge ladder demonstrating how tough carbon can be.



The best motorised ascenders on the market with a real-life combination of versatility, ruggedness and battery life that is hard to beat.

**CTOMS™**

CTOMS was founded on the concept of evolving tactical medicine and expanded to encompass aspects of remote and improvised rescue. A key part of this evolution was the development of the TRACE™ system as micro rope system with a comprehensive capability that includes access, egress, hauling and high-lining. CTOMS are our longest standing partner and Helix are one of the very few authorised providers of training for the TRACE™ system.

**LIBERVIT**

LIBERVIT are an French company with over 25 years in design and manufacture of hydraulic tools and manual equipment for the industry, the special forces and the rescuers.



The DMM International group specialise in the manufacture of equipment and systems for operating safely at height. They have proudly manufactured all their hardware in the United Kingdom since 1981 and over that time they have established a reputation for innovation and quality.

**PROTECTION**

As part of the same group of companies Helix Operations rely heavily on DMM to design, prototype and manufacture much of the core product in our range.

An impressive micro rope system that is very intuitive to use, fast to deploy and incredibly robust. The system that came top in a recent egress system tender and impressed with its ability to meet the criteria of EN341 with a 160kg load.



Innovative rescue equipment designed and made in their factory in the USA. The range includes products that complement the DMM range of hardware - the Aztec pulley system, the Omni pulleys and the Arizona Vortex are all unique products that we are proud to offer.



Forward thinking equipment and systems designed by former operators to address gaps in current vertical assault capability. The QRAB is a class leading descender for medium diameter ropes that allows fast disengagement whilst the RAFA portable anchor gives security where normal anchors are not viable.



Precision engineering from the USA that specialises in high end rifle systems, but also produce the best small ledge hooks on the market.

**Marlow**

Designed and manufactured in the United Kingdom with a reputation for outstanding quality and a long history of providing specialist rope solutions to military and rescue units. Marlow Ropes have a proven record as a key manufacturer of quality ropes for access, rescue and specialist products for use in helicopter operations.



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# Understanding Rope Control Devices Standards

## EN 341:2011 Descender Devices

EN 341:2011 includes general requirements which call for manufacturers to specify the minimum and maximum rated load, the latter being at least 100kg. It also includes requirements for design, materials and construction – such as a line integrity test, so that appropriate materials are used in the production of the device.

EN 341 - Personal fall protection equipment. Descender devices for rescue. There are also four classes which fall under EN 341; Class A, B, C and D. These classes categorise the amount of energy the device is capable of withstanding. A Class D device is certified for a single descent.

### DESCENT FUNCTION TEST

For Classes A, B and C, assessment of function is carried out using the same device previously tested for dynamic strength. For the dry condition assessment prior to testing, the device is conditioned at a temperature of  $20 \pm 2^\circ\text{C}$  and relative humidity (RH) of  $65 \pm 5$  per cent for at least 72 hours. Two descents for each test condition and device set-up are then carried out; one under the minimum rated load and one under the maximum plus 25 per cent.

Manually operated devices should be tested in the hands-off position or, if applicable, with any panic locking element engaged. The descent speed should be 0.5m-2m per second and measured within 30 seconds of the completion of the maximum descent. The temperature of any parts of the device that will be touched to control the descent according to the user instructions should be a maximum of  $48^\circ\text{C}$ .

The same test must then be performed on the same device after submerging the descender in fresh water for 60 minutes and allowing it to drain for 15 minutes before the test commences. A new device must then be used to carry out the same test after submerging the descender in fresh water for 60 minutes and allowed to drain for 15 minutes, before it is placed in a conditioned atmosphere of  $-4^\circ\text{C}$  for a minimum of four hours.

For a Class D unit designed for a single descent, the same tests are conducted. However, a new device may be used for each condition. The manufacturer may also claim the descender can be used in very cold conditions, in which case the same process as above is used and then the product is placed into the coldest atmosphere for which it is claimed to be suitable.

### DYNAMIC STRENGTH TEST

Manually operated descender devices are tested for both dynamic and static strength in each locked position intended by the manufacturer. Dynamic strength (an assessment of the device's ability to withstand shock loading) is tested with 4m of the line extracted, after which it is subjected to a 60cm freefall with a test mass in accordance with the maximum rated load. The descender device should not release the test mass, and no part of the descender device should show any signs of breaking or tearing.

For Class D devices, the impact force is recorded, as this measurement is required in the static strength test.

### STATIC STRENGTH TEST

To assess if the overall breaking strength of the device is sufficient, a test referred to as a 'static strength test' is conducted. Once again, the same descender sample as used for the previous tests is subject to this test force. Class A, B and C descender devices are subjected to static strength tests of ten times the maximum rated load, but at least 12kN which is applied for three minutes, during which time the descender must withstand the force.

For Class D devices, the static strength requirement is twice the impact force recorded in the dynamic strength test.

### DESCENT ENERGY TEST

To assess a Class A, B or C device's ability to perform in line with the manufacturer's stated rating, a test is conducted using the same descender after the wet conditioned test, with the number of descents required calculated according to the class of the descender (see box 1). Note that single-use Class D products are not tested in this way. The descents are carried out at regular intervals with a mass equivalent to the maximum rated load. During the last descent, the descent speed is measured and should be 0.5m-2m per second. Once again, the temperatures are measured and assessed as before. Clearly for this type of test, a facility to carry out large drop heights is necessary. Some test facilities use a powered capstan which is an accepted method, but it is no substitute for carrying out a test over the actual height claimed. SATRA works with the National Lift Tower in Northampton, UK, which has a long drop testing facility. This is situated within the main structure of the building, where one of the lift shafts has been adapted to carry out descent tests on equipment, including fall arresters and descenders, at heights of up to 100m. Tests can be repeated in rapid succession.

# Understanding Rope Control Devices Standards

## Example: EN 341-2A:2011

### EN 341-2A:2011 OTHER TESTS

The standard includes two requirements specifically for manually operated descender devices. One requirement, applying to all manually operated devices, relates to the force to release and operate the control element of the device - referred to as 'operating force'. The other requirement relates to what is termed the 'holding force' and applies to those devices where the user controls the descent manually by holding the line.

The operating force test is carried out before the function tests. It involves attaching a mass or force equivalent to the device's maximum rated load in a specified manner, and then measuring the force required to activate the manual control to allow the descent to start. The force should not exceed 450N. Devices that are designed both to move with the user, and to be operated from a fixed position, are tested in both configurations.

The holding force test is carried once before the function tests and once after the descent energy test. As in the procedure for measuring operating force, the test involves attaching a mass or force equivalent to the device's maximum rated load in a specified manner. However, in this case, the force applied to the line going in the descender device necessary to hold the mass is measured. This should not exceed 200N.

Corrosion resistance is assessed by subjecting the device to a warm salt water mist. Descenders are required to pass a 48-hour corrosion test in accordance with EN ISO 9227. A check is made to ensure that the function of the device is not impaired and that there is no visual evidence of corrosion - either externally or internally.



Manually operated descender devices are tested for both dynamic and static strength in each locked position intended by the manufacturer. Dynamic strength (an assessment of the device's ability to withstand shock loading) is tested with 4m of the line extracted, after which it is subjected to a 60cm freefall with a test mass in accordance with the maximum rated load. The descender device should not release the test mass, and no part of the descender device should show any signs of breaking or tearing.

Test	CLASS			
	A	B	C	D
DESCENT FUNCTION TEST	Descent speed should be 0.5m-2m per second and measured within 30 seconds of the completion of the maximum descent.			The same tests are conducted. However, a new device may be used for each condition.
DYNAMIC STRENGTH TEST	An assessment of the device's ability to withstand shock loading			Impact force is recorded, as this measurement is required in the static strength test.
STATIC STRENGTH TEST	Descender devices are subjected to static strength tests of ten times the maximum rated load, but at least 12kN which is applied for three minutes, during which time the descender must withstand the force			the static strength requirement is twice the impact force recorded in the dynamic strength test.
DESCENT ENERGY TEST	Device's ability to perform in line with the manufacturer's stated rating, a test is conducted using the same descender after the wet conditioned test			
	Up to 7.5 x 10 <sup>6</sup>	Up to 1.5 x 10 <sup>6</sup>	Up to 0.5 x 10 <sup>6</sup>	For only one descent - descent energy depends on the maximum descent height and the maximum rated load.

# Understanding Rope Control Devices Standards

## EN 12841 - Rope Adjustment Devices

EN 12841 - Personal fall protection equipment. Rope access systems. Rope adjustment devices. Type C refers to descenders.

Type A: Rope adjustment device for safety lines  
 Type B: Ascending device for working lines  
 Type C: Descending device for working lines

### STATIC STRENGTH TEST

Type A rope adjustment devices must withstand a force of 15 kN on an anchorage line for 3 minutes.  
 Type B devices: 4 kN; Type C devices: 12 kN

### LOCKING

The rope adjustment device is attached and suspended 1000 mm from the anchor point. A test mass of 5 kg is attached by a connector or lanyard and connector, 400 mm maximum, to the attachment point on the rope adjustment device. The test mass is raised and then dropped. The rope adjustment device must lock and remain locked.

### MINIMUM WORKING STRENGTH

The rope adjustment device is suspended on the anchor line 300 mm below the anchor point. The rope adjustment device is locked. A force of 1 kN is applied and then increased to force F as required in each case

	Type A	Type B	Type C
Minimum Working Strength The force is maintained for 3 minutes.	rated load +1 kN	- for type B: 4 kN;	- for type C: 3 kN; - for type C with panic locking element: 3 kN with an operating force of 450 N on the lever.
Measurements are carried out to test how far the anchorage line slips. Visual inspection according to type: Samples of all classes must withstand loads without any sign of damage.	- for type A: <100 mm slippage;	- for type B: <100 mm slippage;	- for type C: <300 mm slippage.

### DYNAMIC TEST TYPE A

The rope adjustment device is attached to an anchor line 1000 mm below the force measuring device. A test mass of at least 100 kg nominal load is attached by a connecting element and raised to twice the length of the lanyard. The test mass is released and the peak force measured. The max. braking force must not exceed 6 kN. The braking distance must not exceed 2000 mm.

### DYNAMIC TEST AND CAPACITY RESERVES

The rope adjustment device is attached to an anchor line 1000 mm below the anchor point. The max. rated load or at least 100 kg is raised by 2000 mm. The test mass is dropped. The rope adjustment device may not release the anchor line and the braking distance may not exceed 2000 mm. Following the dynamic test, the test mass is increased without any shock applied 3 kN. The device must withstand the mass for 3 minutes

### DESCENT VELOCITY TYPE C

The maximum descent velocity is tested using a 50 m rope (narrowest and thickest specified on the device). The ropes are pulled twice through the rope adjustment device and then left in the device for 30 seconds. After testing, the condition of the rope and the device is checked. Operating elements must not get hotter than 48° C. The rope must show no signs of melting or burning.



# Understanding Rope Control Devices Standards

## EN 15151 Manual braking devices

EN 15151-1 Mountaineering equipment – Braking devices – Braking devices with assisted locking, safety requirements and test methods

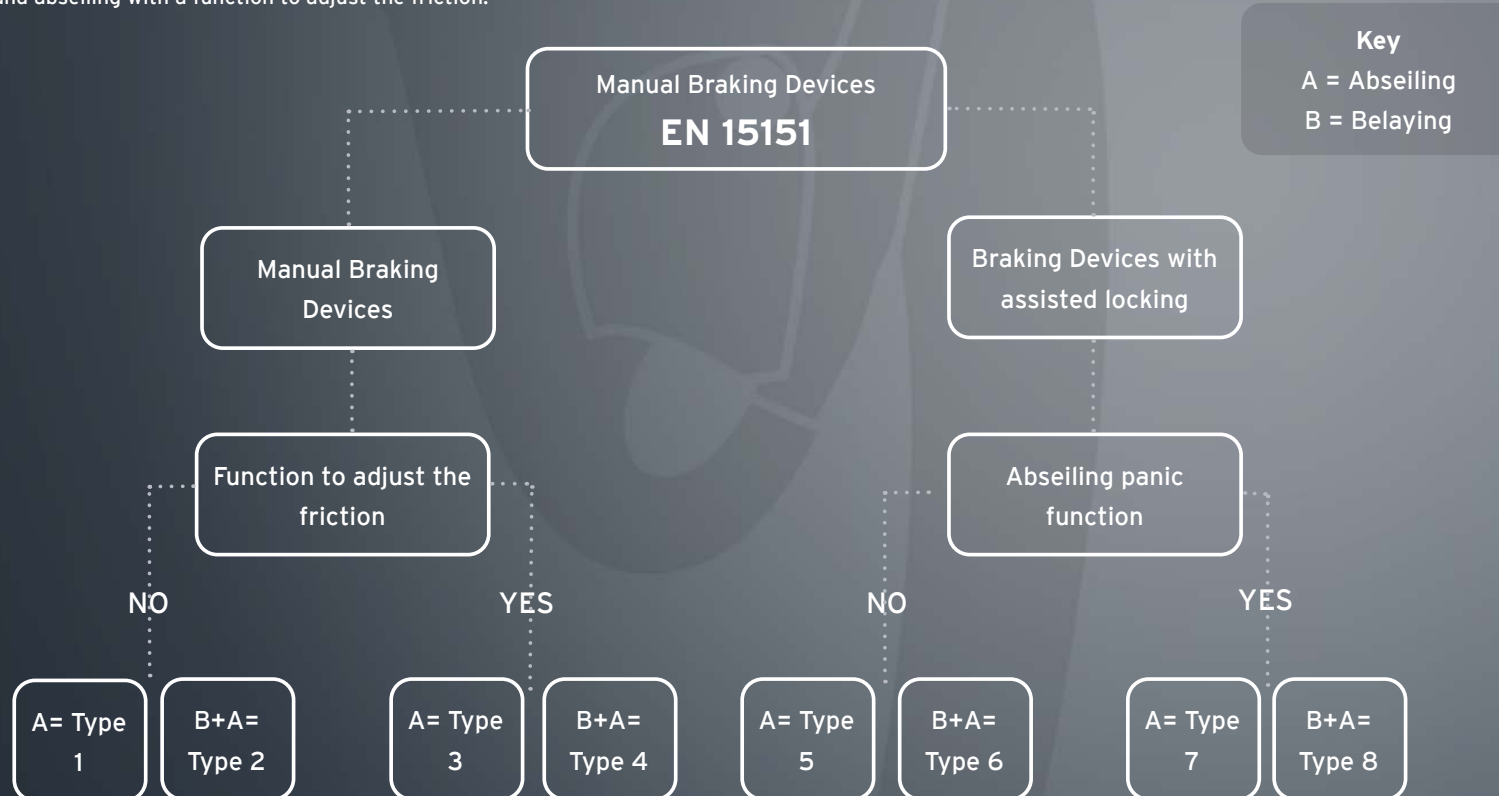
EN 15151-2 Mountaineering equipment – Braking devices – Manual braking devices, safety requirements and test methods

**Type 1:** devices for abseiling without a function to adjust the friction;

**Type 2:** devices for belaying and abseiling without a function to adjust the friction;

**Type 3:** devices for abseiling with a function to adjust the friction;

**Type 4:** devices for belaying and abseiling with a function to adjust the friction.





## Tactical Descenders & Belay Devices



Advances in manufacturing have allowed for significant improvements in rope control devices, even simple belay devices for mountaineering are now hot forged and CNC machined allowing for tighter tolerances, ease of use and improved control. Auto locking devices and force limiting devices have also greatly influenced the techniques and systems used in modern rope access and rescue whilst significantly improving safety.

# Comparing Descenders with Automatic Locking



WEIGHT



DIMENSIONS (MM)



STRENGTH

Product Description

Product Description	Product Code	KG	WIDTH	LENGTH	DEPTH	Rope Compatibility *	Maximum Load	Anti-Panic Feature	Colour	Certification
Skylotec Spark Tactical	SKA-057	510g	79	175	47	9.0-11.0mm ANSI/ASSP Z359.4-2013	250kg	No	Black	EN 12841-C:2006, EN 15151-1:2012, EN 341-2A:2011
Skylotec Sirius	SKA-050	510g	79	175	47	9.0-12.0mm EN 1891A LSK (Static) and 9.0-11.0 Dynamic Single Ropes	250kg	Yes	Black	DIN EN 12841-C:2006, DIN EN 15151-1:2012, DIN EN 341-2A:201 EN 1891A LSK (Static) and Dynamic Single Ropes
Petzl I'D S	PZD020AA01	600g	80	200	55	10.0-11.5mm on EN 1891A LSK (Static) and 10.0-11.0mm Dynamic Single Ropes	250kg	Yes	Black	EN 341 type 2 class A, CE EN 12841 type C, CE EN 15151-1, ANSI Z359.4, NFPA 1983 Technical Use
Petzl I'D L	PZD020BA01	600g	90	255	65	12.5-13.0mm	280kg	Yes	Black	EN 341 type 2 class A, CE EN 12841 type C, CE EN 15151-1, ANSI Z359.4, NFPA 1983 Technical Use
Petzl Rig	PZD021AA01	400g	70	180	54	10.0-11.5mm	200kg	No	Black	EN 341 type 2 class A, CE EN 12841 type C, ANSI Z359.4, NFPA 1983 General Use
Petzl Rig	PZD021AA00	400g	70	180	54	10.0-11.5mm	200kg	No	Red	EN 341 type 2 class A, CE EN 12841 type C, ANSI Z359.4, NFPA 1983 General Use
Petzl I'D Evac	PZD020CA01	615g	85	200	54	10.0-11.5mm	250kg	Yes	Black	EN 341 type 2 class A, CE EN 12841 type C, ANSI Z359.4, NFPA 1983 Technical Use
Petzl I'D Evac	PZD020CA00	615g	85	200	54	10.0-11.5mm	250kg	Yes	Yellow	EN 341 type 2 class A, CE EN 12841 type C, ANSI Z359.4, NFPA 1983 Technical Use
Harken CMC Clutch	HRIN401	836g	122	208	47	10.5-11mm	272kg	Yes	Graphite	EN 12841:2006/C, EN 341:2001/2A, EN 15151-1: 2012/8
Skylotec Mark 1 Tactical	SKA-039	450g	85	205	34	9.0-12.0mm	EN 12841-C: 130kg for 9.0mm and 200kg for 10.0 to 12.0mm	Yes	Black	EN 12841-C:2006, EN 341-2A:2011

\* Devices certified to multiple standards may be certified on different diameter/ types of rope depending on the standard. This is a simplified guide for full details see the product page.

# Comparing Belay and Abseil Devices



WEIGHT



DIMENSIONS (MM)

ROPE SPECIFICATIONS

Product Description	Product Code	KG	WIDTH	LENGTH	DEPTH	Rope Compatibility *	Assisted Locking	Anti-Panic Feature	Colour	Certification
Petzl GRIGRI	PZD014BA00	175g	125	210	50	8.5-11.0mm Dynamic Single Rope	Yes	No	Grey	CE EN 15151-1, UKCA, UIAA
CT Click Up Plus	AD2K670BWNSYF	110g	74	98		8.5-11.0mm Single Rope	No	No	Blue	EN 15151-2
CT Click Up Plus	AD2K645BSISYH	110g	74	98		8.5-11.0mm Single Rope	No	No	Yellow	EN 15151-2
DMM Anka	A1100MG	169g	85	14	24	8.9-11.0mm Single, 7.3-9.2mm Half & Twin	No	No	Matt Grey	EN 15151-2
DMM Anka	A1100BLK	169g	85	14	24	8.9-11.0mm Single, 7.3-9.2mm Half & Twin	No	No	Black	EN 15151-2
DMM Figure of Eight	A1150MG	116g	74	144	13	Half/Twin: 7.3mm-9.2mm   Single: 8.5mm-11mm	No	No	Matt Grey	EN 15151-2
Rock Exotica MiniEight	R3F1	60g	82	92		13.0mm Single & 10.5mm Double	No	No	Black	NFPA Type G - 14kN
Kong Big 8 - Aluminium	KN80506N400KK	260g		172		9.0-16.0mm	No	No	Black	
Kong Big 8 - Stainless Steel	KN805050000KK	750g		172		9.0-16.0mm	No	No	Silver / Black available with MOQ	
DMM Pivot	A1160MGWW	72g	100	90	47	Half/Twin: 7.3mm-9.2mm   Single: 8.7mm-11.0mm	No	No	Matt Grey	EN 15151-2
DMM Mantis	A1165MG	45g	55	90	40	Half/Twin: 7.3mm-9.2mm   Single: 8.5mm-11.0mm	No	No	Matt Grey	EN 15151-2

\* Devices certified to multiple standards may be certified on different diameter/ types of rope depending on the standard. This is a simplified guide for full details see the product page.

# Comparing Specialist Tactical Descenders



WEIGHT



DIMENSIONS (MM)

ROPE SPECIFICATIONS

Product Description	Product Code	KG	WIDTH	LENGTH	DEPTH	Rope Compatibility *	Colour	Certification
Highnovate QRAB	HNQRAB	150g	5	120	40	150g/ 5oz	Black	Meets NFPA spec
Marlow Fast Rope Descender		980g	105	330	45	250kg	Type 316 Stainless Steel	
Marlow Fast Rope Descender with Lanyard	MWFAA126	1600g	105	330	45	250kg	Type 316 Stainless Steel	
Marlow Fast Rope Descender with Lanyard and Quick Out	MWFAA125	1830g	105	330	45	250kg	Type 316 Stainless Steel	
Roco RDX Fast Rope Descent Kit	K-RDX		304.8	330.3	76.2	160kg	Technora Rope	

\* Devices certified to multiple standards may be certified on different diameter/ types of rope depending on the standard. This is a simplified guide for full details see the product page.

# Skylotec Spark Tactical

The Skylotec Spark Tactical is an auto locking descender based on the successful Sirius descender, but with features optimised for the tactical user whilst retaining the outstanding handling of the Sirius and the ability to descend with 250kg rescue loads.

The main improvement for tactical users is that the anti-panic function has been removed to allow fast descents to be made without having to worry about triggering the brake - control is simple; pull back to go, pull back harder to go faster and slow down by letting the handle return. Hard stops are made by just letting go. When let go the handle returns to the full stop position and does not need locking off.

Certified be used on both static and dynamic ropes and on a wider range of rope diameter ropes (10.0mm to 12.0mm on static ropes and 9.0mm to 11.0mm on dynamic ropes) than most devices which allows the use on skinnier, lighter ropes.

The auto-returning operating lever has a particularly small radius of motion so that you can work fast, accurately, more comfortably and safely. The operating handle includes a safety latch that prevents inadvertent handle operation. It also includes a hole that allows a leash to be attached to facilitate remote operation in rescue situations.

Intuitive and simple, the Skylotec Spark Tactical sits perfectly in the hand. A nice feature is that during rope insertion, the carabiner can stay connected to both the harness and the device.

The Spark was developed for extended use in tough environments and is made of up to 100 % metal.

Approved according to:

EN 12481-2006 C with 10-12mm EN 1891A LSK rope to 250kg.  
EN 341:2011 Class A with 11mm EN 1891A LSK rope.  
EN 15151-1 - Dynamic: 9 - 11 mm and LSK: 9 - 11 mm.

EAN Code: 4030281011026  
NSN Code: 8465-12-417-5777



# Skylotec Sirius

The Skylotec Sirius is a relatively new descender and probably the first to give the Petzl I'D proper competition. Not only is it smaller than the I'D so it fits perfectly in your hand, but it's lighter, which is remarkable considering it's made completely of metal.

It is compact, tough with a very smooth action combined with an impressive feature set that offers increased capability and safety.

It incorporates an anti-panic feature that stops descent if the handle is pulled back too far - however the sweet spot is really easy to hit and maintain - this avoids the jerkiness that can frustrate use with other devices.

The handle auto-locks when released and so avoids the need to deliberately lock off the descender. The handle has a safety latch that stops accidental release and a hole at its tip that will take a cord - this in combination with a carabiner in the top becket allows the Sirius to be towed down the rope in a rescue situation.

Rope insertion is very intuitive, and the design of the locking cam means that it resists the rope being inserted incorrectly - you have to try to deliberately override the cam to do so.

The route of the rope through the device prevents rope twisting and kinking. This also makes the descender very smooth to use and pulling rope through (i.e., if using as part of an ascending system) is really easy.

The rope can be loaded without removing the device from the harness.

The descender is certified to 250kg under EN 12481-2006 C for rescue loads and 141kg for single operators.

EN 12481-2006 C with 10-12mm EN 1891A LSK/Static rope to 250kg.  
EN 341:2011 Class A with 11mm EN 1891A LSK/Static rope.  
EN 15151-1 - Dynamic: 9 - 11 mm and LSK/Static: 9 - 11 mm.  
ANSI/ASSP Z359.4-2013.

NSN Code: 8465-12-416-6810



# Petzl I'D

NFPA 1983 General Use when used with a 12.5 to 13 mm rope.

The Petzl I'D's are self-braking descenders with anti-panic functions. There are two variants the Petzl I'D S (small) which is for roped access operations using 10.0 to 11.5 mm diameter ropes and the I'D L (large) which is designed for rescue applications using thicker 12.5mm - 13.0mm ropes.

The Petzl I'D S has long been the default self-locking descender for tactical operations involving abseiling or rappelling as it allowed operators to instantly to stop or start a descent with needing to lock-off/un-lock the rope. It also allows transitioning into ascent easily if a position is overshoot - the rope can be pulled through the device without needing to release the handle. The descender allows operators to move both horizontally and vertically whilst being able to position themselves without tying off the device or physically moving the handle to a "safe" position.

Both the I'D S and I'D L include an anti-panic function that stops the descent if the handle is pulled too far and an anti-error safety catch that reduces the risk of an accident if the device is rigged incorrectly.

There is a safety clip on the swinging side plate that reduces the risk of dropping the device when removed from rope, such as when passing intermediate anchors. The latest models also allow the rope to be inserted whilst the I'D is still connected to the harness.

The I'D S can be used with rescue loads up to 250kg and 150kg for single operators whilst the I'D L can be used for rescue loads up to 280kg.

The I'D's allows the rope to be either run over the side of the device onto a chunky stainless steel wear plate or if you want more friction through a V-channel in the front of the device. The I'Ds can also be fitted with an optional open or closed friction brake that bolts onto the side of the body - this allows additional friction to be created when handling heavy loads.

I'D S is certified for use on a wide range of ropes:

EN341 type 2 class A when used with a PARALLEL 10.5 mm or AXIS 11 mm EN 1891A rope.  
EN 12841 type C when used with a 10.0 to 11.5 mm EN 1891 A rope.  
EN 15151-1 when used with a 10.0 to 11 mm Dynamic and LSK (LSK = descent only).  
ANSI Z359.4 when used with a 10.0 to 11.5 mm rope.  
NFPA 1983 Technical Use when used with a 10.0 to 11.5 mm rope.

I'D L is certified for:

EN 341 type 2 class A when used with a VECTOR 12.5 mm rope.  
EN 12841 type C when used with a 12.5 to 13 mm EN 1891 A rope.  
ANSI Z359.4 when used with a 12.5 to 13 mm rope.





# Petzl Rig

The Petzl Rig is essentially a compact, lighter version of the I'D without a panic brake and with a feature set suited for skinnier ropes and lower maximum loads compared to the Petzl I'D. It was primarily designed as an auto-locking descender for rope access; however it can also be used as a rescue descender when connected to an anchor, a releasable anchor or a belay device.

At 400g it is lighter than most of the competition and Petzl say it is best suited for experienced users because of the lack of a panic function, but for use as a tactical descender being light, small and able to descend fast without locking up is an advantage.

As with other self-locking descenders for tactical operations involving abseiling or rappelling it allows users to instantly to stop or start a descent with needing to lock-off/un-lock the rope. It also allows transitioning into ascent easily if a position is overshoot - the rope can be pulled through the device without needing to release the handle. The descender allows operators to be able to position themselves without tying off the device or physically moving the handle to a "safe" position.

The Petzl Rig includes a safety gate on the moving side plate that allows the rope to be installed easily while the device remains connected to the harness - this makes dropping the device less likely and helps users when, passing intermediate anchors.

The Rig can be used with rescue loads up to 200kg and up to 150kg for single operators.

The Rig allows the rope to be either run over the side of the device onto a chunky stainless steel wear plate or if you want more friction through a V-channel in the front of the device.

EN 341 type 2 class A when used with PARALLEL 10.5 mm or AXIS 11 mm EN 1891A rope.

EN 12841 type C when used with a 10 to 11.5 mm EN 1891 A rope.

EN 15151-1 when used with a 9 to 11 mm Dynamic and LSK (LSK = descent only).

NFPA 1983 Technical Use when used with a 10 to 11.5 mm rope.

NSN Code (Black Version) : 8465-99-959-5180



# Petzl I'D Evac

The Petzl I'D Evac is a self-braking descender with a panic brake that is used solely for lowering personnel or loads from an anchor point, rated for loads up to 250kg.

This change in focus compared to the standard I'D has resulted in the lowering handle being turned the opposite way to the standard I'D. This means that when lowering from an anchor, the handle is pulled more easily downwards than upwards such as on the I'D. The I'D Evac also incorporates a friction spur as standard on the body of the device to increase control when dealing with heavy loads.

The I'D Evac is versatile to use. Once locked, the rope can be taken up without manipulating the handle, which allows the user to make a reversible haul system. An open auxiliary brake allows the user to increase the friction in accordance with the weight of the load and the rope diameter, and to install or release a rope at any time.

It can be integrated into evacuation kits as the moving side plate can be locked shut with a screw.

Compatible with 10 to 11.5mm ropes. Allows handling of loads up to 250kg.

## Certification:

EN 341 type 2 class A when used with a PARALLEL 10.5 mm or AXIS 11 mm EN 1891A rope.

EN 12841 type C when used with a 10 to 11.5 mm EN 1891 A rope.

ANSI Z359.4 when used with a 10 to 11.5 mm rope.

NFPA 1983 Technical Use when used with a 10 to 11.5 mm rope.

NSN Code (yellow version): 8465-14-602-4066



# Harken CMC Clutch

The 11mm CMC Clutch by Harken Industrial is a multi-purpose device for hauling, controlled lowering, smooth personal descent, easy ascending, and reliable progress capture - it is the latest evolution in rescue and rope access hardware that enables the technical rope professional to do more with less.

Suited to a multitude of rigging operations, the CLUTCH delivers efficient operation, ease of use, and optimal control. It moves seamlessly between anchor-based systems and personal use.

## Features

- The Clutch is a single device that offers efficient hauling, controlled lowering, smooth personal descent, easy ascending, belaying, and Dual Capability Twin Tension Rope Systems.
- The Clutch offers a 38% increase in efficiency when hauling and ascending compared to a cam-style device.
- It allows a seamless transition between anchor-based systems and personal use thus doing the job of multiple pieces of equipment.
- Combines the key features of load management devices and personal descenders into one device helping to minimise training burdens and cost.
- Very fast transitions between hauling and lowering or ascent and descent without having to transfer the load.
- The body design allows two devices to be run side by side so allowing main and belay lines to be twin tensioned in mirrored or nested configurations.
- Replaces up to 8 pieces of traditional equipment: pulley, anchor plate, rescue rack, load release strap, prusik cord, and 3 carabiners.

Certifications for 11mm (grey version):

CE

EN 12841: 2006/C.

10.5-11.0 mm (Max 200kg @ 2.0 m/s).

10.5-11.0 mm (Max 240kg @ 0.50 m/s).

EN 341: 2011/2a

10.5-11.0mm LSK EN 1891A rope.

EN 15151-1: 2012/8

10.5mm -11.0mm Dynamic and LSK (LSK = descent only).

NFPA 1983 (2017 Ed)

General Use (G) Mbs 40kn (8,992 lbf) Pulley.

General Use (G), Descent Control, 10.5 - 11 mm.

General Use (G), Belay Device, 10.5 - 11 mm.

ANSI/ASSE

Z359.4-2013.



# Skylotec Mark 1 Tactical

The Skylotec Mark 1 Tactical descender device is a rebranded version of the Anthron DSD Pro de-scender as Anthron were taken over by Skylotec.

The Skylotec Mark 1 Tactical is a tactical variant of the popular Anthron DSD Plus/Skylotec Mark 1 Plus. It was specifically designed for intervention and tactical purposes.

Just like DSD Plus/Mark 1Plus, the Mark 1 Tactical may be controlled with one hand only. It features an incredibly strong yet non-damaging grip on the rope. Start of slippage with an 11 mm rope is at unbelievable 10 kN and still retains solid 6 kN with 9 mm. The transition between stop and go is a bit smoother to avoid unpleasant jerks during the starting process.

The device autolocks - once the handle is released the device blocks on the rope instantly.

The downside of these changes is a slightly smaller range of functionality compared to Mark 1 Plus.

- Extremely robust construction: two moving parts only, very high breaking loads, no exposed parts that could be easily broken.
- Extremely high braking forces (> 10 kN with 11 mm rope).
- Gentle transition from stop to go.
- Braking by pressing is a more intuitive operation.
- No creep on the rope once the handle is released. You stay where you stopped.
- Single handed operation: allows one hand to stay free to operate equipment.
- Rubber covered handle and side plates reduces noise and allows covert movement.
- Possibility of installing a quick release device for window entry.

Standard: EN 12841-C:2006, EN 341-2A:2011



# Petzl GRIGRI

The GRIGRI is a belay device featuring assisted braking, an ergonomic handle, and the ability to have progressive control over the rope. It is primarily designed for belaying on the crag and in the gym.

The assisted braking function improves comfort while belaying, holding a climber, or catching a fall. The design of the handled camming mechanism enables exceptional descent control.

Feeding slack and catching falls are accomplished using standard belay techniques, always keeping a hand on the brake side of the rope.

Cam-assisted blocking for a more comfortable belay: when the climber falls or weights the rope, it tightens, making the cam pivot to pinch and block the rope.

Cam-assisted blocking offers leeway for the brake-side hand position, regardless of the angle between the climber side and brake side of the ropes.

Rope installation diagram engraved on both the inside and outside of the device.

Comfortable and convenient when lowering:

The ergonomic handle allows you to easily unblock the rope and lower someone.

Progressive control of rope feed provides a smooth and comfortable descent.

3:1 mechanical advantage of the handled camming mechanism helps control rope feed on small-diameter ropes and requires less effort on the handle for large-diameter ropes.

Intended for all users:

- Simple to use for belaying both lead and top rope climbers.
- Optimally balanced design: lightweight (175 g), compact, and durable.
- Compatible with 8.5 to 11 mm dynamic single ropes and optimized for those 8.9 to 10.5 mm.

Certification:

CE EN 15151-1, UKCA, UIAA.



# CT Click Up Plus

The Click Up Plus improves on the original version, with better ergonomics and geometry which allows for quicker and smoother paying out of the rope and more comfortable top rope belays.

As with the original, the Plus can arrest a fall with only the free end of the rope being held with the braking hand. When the fall has been caught, slight pressure on the device allows lowering.

The new version of this device has polarised users - some like it more because it activates more quickly and so locks up more easily. Thus it can be perceived as being safer than the original in certain circumstances; however experienced users feel that it is now too sensitive for belaying a leader.

We would tend to agree; a great tool for top rope belaying but needs a bit of practice to belay a leader effectively.

The Click Up Plus is supplied and must be used with the specific HMS carabiner Concept SGL HC. This carabiner features wear resistant anodizing and ACL system that prevents the possibility of minor-axis cross loading.

## Specification

Guide Mode: No

Lock Mechanism: Assisted Braking

Number of Ropes: One

Carabiner Included: Yes

Handles Ropes from 8.5 to 11mm

Weight: 110g (Additional 75g for HMS)

EN 15151-2:2012 type 2 8.5-11.0mm ropes



# DMM Anka

The DMM Anka is a heavy duty, figure 8 descender for long, fast abseils and rappels. It is substantially chunkier than most figure 8 abseil devices and this increased mass helps heat dissipation and so keeping it cooler under intensive use.

The design incorporates a stem that is twisted 90 degrees to the main body so that on harnesses with a vertical belay loop (i.e. most harnesses) the Anka is orientated to minimise twisting of the ropes. The DMM Anka also features two horns that stop the rope from jumping or being forced over the front of the body and locking up the rope in a larks foot knot that can be very hard to undo under load.

The Anka has been a long-time favourite of military units around the world because of the advantages it is built for intensive use, has a large body that effectively dissipates heat and has high resistance to wear.

The DMM Anka is anodised to BS EN 7599:2010 AA10.

It meets the requirements of EN15151-2:2013 and is recommended for ropes with the following diameters:

Ropes classified as Single Ropes: 8.9 - 11.0mm.

Ropes classified as Half Ropes 7.3 - 9.2mm

Ropes classified as Twin Ropes 7.3 - 9.2mm



# DMM Figure 8

The DMM Figure 8 abseil device has a classic design with the emphasis on the device being light and compact. This figure 8 offers a very smooth descent and good lock-off. Extra friction can be generated on skinny ropes by feeding them into the smaller hole and clipping into the larger hole.

The Figure 8 has a simple design that is finished to the usual high DMM standard; a hot forged body to maximise strength and minimise weight combined with heavy rumbling that results in fully rounded smooth surfaces that help minimise any jerkiness when abseiling.

The DMM Anka is anodised to BS EN 7599:2010 AA10.

It meets the requirements of EN15151-2:2013 and is recommended for ropes with the following diameters

- Ropes classified as Single Ropes: 8.9 - 11.0mm
- Ropes classified as Half Ropes 7.3 - 9.2 mm
- Ropes classified as Twin Ropes 7.3 - 9.2 mm





# Rock Exotica MiniEight

The MiniEight from Rock Exotica is a Figure 8 descender which is compact and light whilst offering a lot of variation in both the diameters of ropes that can be used and in the amount of friction that can be generated.

It is manufactured in the USA from a solid piece of 7075 aluminium - 7075 is a lot harder than the 6082 often used for generic abseil devices and helps increase lifespan - especially important for a lightweight device.

The side ears on the Rock Exotica MiniEight allow several possibilities for loading and locking-off the rope depending on what size rope is being used and how much friction is required - friction can be increased or reduced on the fly by adopting a different wrap. Not only do the side ears let you easily adjust friction, but they also make it easy to tie off the rope if you need to stop and release our hands from the rope.

The attachment hole has a rubber gasket that fits tightly to the carabiner and is designed to be a tight fit on a 12mm diameter carabiner body - so matching carabiners need to be chosen carefully to ensure they are compatible.

- Max Rope Diameter. (Single Rope): 13 mm
- Max Rope Diameter. (Double Rope): 10.5 mm
- Strength: MBS 14kN
- The Rock Exotica MiniEight is US manufactured and is not tested to the European requirements of CE15151 and so access in the UK + EU is restricted to organisations exempt from compliance.



# Kong Big 8

The Kong Big 8 is a Figure 8 descender for abseiling and rappelling that is available manufactured in either Aluminium or Stainless Steel.

As the name suggests this is a large Figure 8 device that is best on thicker ropes, although skinnier ropes can be connected through the small middle slot for increased friction. The stainless-steel version is available in black as a bespoke item (MOQs apply) and provides a virtually indestructible abseil/rappel device.

The design features include wings/ears to stop the rope from being pushed back over the top of the Figure 8 when going over edges and accidentally locking itself off with an impromptu larks-foot knot. A large central hole that increases the probability of the device to be able to pass knots in the system.

This descender is tested to meet the requirements of EN15151-2 for ropes 9 to 16 mm thick, although it is very fast on skinny ropes unless the middle slot is used.



# DMM Pivot

The DMM Pivot is a belay and abseil device that can be used with either single, half or twin ropes and can be used to belay in either guide mode or from the waist. It has a unique, patented pivoting "guide mode" connection hole that makes releasing the Pivot when loaded in guide mode a lot easier and with more control than any other belay plate.

The DMM Pivot takes its name from this pivoting guide mode connection point. This connection point minimises the leverage to release the load and allows the belayer to lower a single second or two seconds, simultaneously or individually, with total control.

It has been designed for ropes from 7.3mm to 11mm but optimised for 8mm to 10.5mm ropes.

Hot forging and machining let us put metal precisely where it's needed to create a guide plate that weighs just 72g. These manufacturing techniques also allow internal design that gives confidence inspiring performance across a wide range of ropes. The Pivot belay device has two friction modes when used for normal belaying from the waist - increased friction using the V-grooves at the front of the belay device and less friction when running over the other side.

The Pivot is also a trusty abseil partner for descending steep terrain.

The DMM Pivot is anodised to BS EN 7599:2010 AA10.

It meets the requirements of EN15151-2:2013 and is recommended for ropes with the following diameters:

Ropes classified as Single Ropes: 8.7 - 11.0mm

Ropes classified as Half Ropes 7.3 - 9.2 mm

Ropes classified as Twin Ropes 7.3 - 9.2 mm

NSN Code: 8465-99-753-3903



# DMM Mantis

The Mantis is a featherweight belay device that is suitable for all round climbing with single, half or twin ropes from 7.3mm to 11mm. In comparison with rival devices roughly comparable in size and general design, the Petzl Verso weighs 57g, and the Black Diamond ATC-XP is 64g.

It has been optimised for 8mm to 10.5mm ropes.

Hot forging has allowed us to create a high-performance belay device that weighs just 45 grams, yet is robust enough for heavy use. The internal geometry is precisely machined with a subtle taper to give an optimum balance of smooth handling and braking friction. Extra friction is added by the deep V-shaped rope slots. Grooved for additional grip, they do a great job when you need to hold a fall, or when feeding out rope slowly and in control i.e. lowering a climber or abseiling.

The rope slot allows easy loading and the shape of the rear of the Mantis helps encourage "lift off" (lifting the belay device away from the carabiner) - this means it doesn't jam against the belay carabiner - so paying out rope to the lead climber is quick and smooth, not jerky or grabby.

The device conforms to the new EN Standard for belay devices EN15151-2.

Ropes classified as Single Ropes: 8.7 - 11.0mm

Ropes classified as Half Ropes 7.3 - 9.2 mm

Ropes classified as Twin Ropes 7.3 - 9.2 mm



# Highnovate Quick Release Abseil Device (QRAB)

The QRAB is a specialist, autolocking descender designed to work with skinny 7.5-8.0mm (aramid) kernmantle ropes. Its unique feature is that it can be very quickly released from the rope by pressing a button on the device. There are a number of safety features incorporated into the design such as no rope cutting, releasing only under no load, and an auto block when letting go. The device is very lightweight at only 150 grams making it easy to store and transport.

Meets NFPA spec



# Marlow Fast Rope Rack Descender

The Fast Rope Rack from Marlow is a specialist descender designed to be used with fast ropes to aid the rapid insertion of personnel/units, and for descending with heavy loads.

There are two variants one for use with 40mm Fast Ropes and one for 32mm Fast Ropes. This innovative device is quick and easy to install on the rope, is ideal for allowing non-Fast Rope qualified personnel to descend safely as well as working well to allow K9s to descend with their handlers.

The Marlow FRR descender is available in two sizes (40mm and 32mm) and can be specified with two different lanyards.

Made from Type 316 stainless steel with a black oxide coating for corrosion resistance and to eliminate the reflection of light.

## FRR Lanyard - Twin Legs:

- Personnel leg adjustable from 550mm to 650mm with blue 2-way 33kN locking snap-hook carabiner.
- Cargo leg adjustable from 650mm to 850mm with red 2-way 33kN locking snap-hook carabiner.
- 2-way 27kN locking swivel snap-hook for attachment to Fast Rope Rack.
- Optional quick-out detachment device (can be use when system under load).

NSN Code (Marlow Fast Rope Descender with Lanyard and Quick Out) - 8465-99-474-8804



# Roco RDX Kit

The Roco RDX kit offers a safer and faster method for fast roping, particularly when the user is carrying a heavy load. The kit includes the Roco Double X RDX friction lanyard along with an additional storage bag, Kong locking carabiner and an elasticated, MIL spec retention lanyard with a quick re-release that allows the operator to secure themselves to the fast rope anchor prior to despatch.

The RDX Double X friction lanyard is constructed from a custom rope with an integrated Friction Control Pad (FCP) and two sewn eyelets, one at each end. It is simple and fast to attach to the fast rope and when configured in a Sandal Wrap friction knot on the fast rope it allows for a controlled de-scent like using an autoblock descender. The RDX minimises the friction heat build-up on the hands that occurs during normal fast rope and allows the user to wear their normal operational gloves as opposed to a double or heavy pair that restricts use of equipment or weapons.

Multiple RDX users can effectively fast rope simultaneously on a single rope. Tandem (personnel or K9) fast roping operations can be accomplished safely by using the RDX. The maximum total loaded weight whilst fast roping on the RDX is 350lbs/160kg. The RDX is lightweight and can be easily towed in a cargo pocket. It is durable enough to be used repeatedly and has various other uses such as anchor sling, K9 leash or tie down.



ROCO  
RDX

## Ascenders and Rope Clamps



Helix Operations can provide a wide array of ascenders and rope grabs, from toothed or smooth cam devices to prussiks, from handled ascenders to foot and chest ascenders. These solutions have simplified personal ascent and hauling systems becoming easier to apply to a tensioned rope and in the case of devices like the Petzl Rescucender having a predictable slip point ensuring a high level of rope protection in rescue operations.



# Comparing Ascenders and Rope Clamps



WEIGHT



DIMENSIONS (MM)

ROPE SPECIFICATIONS

Rope Compatibility \*

Colour

Certification

## Hand Ascenders

Product Description	Product Code	Weight	Dimensions (mm)			Rope Compatibility *	Colour	Certification
Petzl Ascension Right Hand	PZB17ARN	165g	90	190	20	8-13mm	Black	CE EN 567, UKCA, UIAA
Petzl Ascension Left Hand	PZB17ALN	165g	90	190	20	8-13mm	Black	CE EN 567, UKCA, UIAA
Kong Lift Right Hand	KN896NN4D00KK	225g	94	200	31	8-13mm	Black	EN 567 EN 12841/B UIAA
Kong Lift Left Hand	KN896NN4S00KK	225g	94	200	31	8-13mm	Black	EN 567 EN 12841/B UIAA

## Chest Ascenders

Camp Turbo Chest Ascender	CA-2256.01	110g	55	90	30	8-13mm	Black	EN 12841/B EN 567
Kong Futura Body	KN82401N400KK	80g	49	82	29	9-11mm	Black	EN 567 EN 12841/B UIAA
Petzl Basic	PZB18BAA	85g	38	76	29	8-11mm	Silver	EN 12841 : 2006 EN 567 : 2013
Kong Cam Clean	KN82400N400KK	150g	81	115	33	8-13mm	Black	EN 567 EN 12841/B

## Foot Ascenders

Camp Turbofoot Evo Right	CAB02CRA	150g	67	69	25	8-13mm	Red	
Camp Turbofoot Evo Left	CAB02CLA	150g	67	69	25	8-13mm	Red	
Harken Ninja Foot	HKIN400	178g	83	74	25	8-13mm	Red	

\* Devices certified to multiple standards may be certified on different diameter/ types of rope depending on the standard. This is a simplified guide for full details see the product page.

# Comparing Ascenders and Rope Clamps



## Foot Slings and Etriers

Product Description	Product Code	WEIGHT KG	DIMENSIONS (MM)			Colour	Rope Compatibility*
			WIDTH	LENGTH	DEPTH		
Petzl Foot Tape	PZC47A	65g		840-1250		Black	
Metolius Easy Aider RH	MTEA-RH	215g		820-1420		Grey	
Metolius Easy Aider LH	MTEA-LH	215g		820-1420		Red	
Metolius 5 Step Aider	MEAIDE003.02	284g		1820		Blue	
CTOMS Etrier 6 Step	CT31118-MC	165g	25	1600	15	Multicam	
CTOMS Etrier 6 Step	CT31118-CB/FG	165g	25	1600	15	Coyote - Foliage	
CTOMS Etrier 6 Step	CT31118-FG/CB	165g	25	1600	15	Foliage - Coyote	

## Daisy Chains

			WIDTH MM	LENGTH MM	DEPTH MM		Pocket Strength	Sling Strength	Certification
Sterling Chain Reactor Daisy Chain	STSW174NYCR0412	125g		1040		Black	14kN	14kN	EN 795B
Metolius PAS 22 Daisy Chain 104cm	MTPAS22BLK	94g		960		Black/White/ Green	22kN	22kN	EN 566: 2017
16mm Nylon Daisy Chain	DCNYLON135BLK	155g		1350		Black	2.5kN	22kN	EN 566: 2017

## Rope Clamps

			WIDTH MM	LENGTH MM	DEPTH MM	Rope Compatibility			
Petzl Rescuscender	PZB50A	260g	83	11	35	Black	9-13mm		CE EN 567 CE EN 12841 type B
Petzl Tibloc	PZB01BN	35g	125	165	25	Black	8-11mm		EN 567:2013

## Sewn Prusiks

	PRODUCT CODE	MBS RATING		LENGTH MM					
Sterling 8mm Bound Loop Prusik	STSC080320116	4.496lb / 20kN		410		Teal			EN 566:2017
Sterling 8mm Bound Loop Prusik	STSC080320416	4.496lb / 20kN		410		Black			EN 566:2017
Sterling 8mm Bound Loop Prusik	STSC080320422	4.496lb / 20kN		560		Black			EN 566:2017

# Petzl Ascension

The Petzl Ascension handled rope clamp is designed for rope ascents and features an over-moulded grip and ergonomic upper part for a comfortable and powerful grip when pulling with one or two hands. The handled rope clamp has a wide lower hole for easily attaching two carabiners for a lanyard and foot loop.

- Simple and effective to use:
- Ergonomic moulded handle allows a comfortable yet powerful grip.
- Wide opening allows the handle to be easily grasped, even with thick gloves.
- the ergonomic shape of the upper body allows two hands to be used to maximize power when pulling up with both hands.
- Safety catch is totally integrated into the body of the ascender to prevent snagging
- Toothed cam with self-cleaning slot optimizes performance under most conditions i.e.frozen or dirty ropes.
- Wide lower hole allows two carabiners to be attached so both a personal lanyard and an etrier can be easily attached.
- Upper hole for clipping a carabiner around the rope to prevent the rope from becoming detached from the ascender.
- Available in left-handed and right-handed versions.

Certification:

CE EN 567, UKCA Rope compatibility: 8 to 13 mm, UIAA



# Kong Lift

The Kong Lift rope clamp is a well-designed and very functional handled ascender.

It is the design and manufacture of the cam that sets it apart from a lot of other ascenders; the holes in the cam and side plate means that the cam self-clean effectively and this helps improve performance on icy or dirty ropes.

In addition, the cam is manufactured using a very specific chemical and thermal process that gives the cam a much higher surface hardness which gives increased wear resistance.

It is also worth noting that the teeth are conical rather than barbs - so release is far easier, especially if the ascender is pushed up against a knot or anchor point.

The Kong Lift has been designed to work with rope diameters of 8-13mm, and features a comfortable and ergonomic handle that allows a lot of power to be applied. The safety catch is well recessed into the body and so won't be released accidentally when working in confined areas but is easy to release with the thumb when needed.

The bottom of the ascender has a hole that will take a single carabiner and there is a second hole that will take a PPE maillon.

The top of the ascender has a carabiner hole that stops the rope from accidentally disengaging from the rope.

Available in both left and right-handed versions.  
Rope compatibility: 8 to 13 mm

Certification:  
EN 567 EN 12841/B UIAA



# Camp Turbo Chest Ascender

The Camp Turbo Chest Ascender features two proprietary rollers which reduces abrasion on the device where the rope rubs and makes the upward glide a lot smoother. The proprietary rollers also allow the Turbochest to be rigged as a locking pulley for light hauling with a max load of 50kg/110lbs.

During tight pendulums and traverses, the device stops the rope from escaping thanks to the perfectly profiled closure. Self-cleaning holes on both the body and the cam help prevent the build up of dirt. The opening mechanism is simple and secure to lock and is to operate with gloves thanks to a removable pull cord.

#### Standards:

- EN 12841/B for semi-static ropes ranging from 10 to 13 mm.
- EN 567 for semi-static and dynamic ropes ranging from 8 to 13 mm.

NSN Code: 8465-99-602-2002



# Kong Futura Body

The Kong Futura Body is a lightweight and compact chest ascender, offering advantages for ascending in constricted spaces and when a high connection point is required.

The Kong Futura Body weighs only 80g and when run over the top of a plate carrier occupies minimal space allowing users to run their chest rigs with minimal change.

The connection holes are twisted through 90 degrees so that the unit lies flat against your chest to allow movement in tight places. The cam profile and body shape has been designed to let the rope slide through the device with minimal friction.

Rope Diameter: 9 - 11 mm.

Certification:

EN 567:2013 - 9-11mm

EN 12841:2006/B 10-11mm

UIAA

NSN Code: 8465-99-310-1264



# Petzl Basic

The Petzl Basic is a compact ascender with excellent grip that fits well in the hand for rope ascents. It can be used for rope ascent on a fixed line or as progress capture in a hauling system.

The Basic will continue to function well in frozen or muddy conditions due to the toothed cam with self-cleaning slot. The cam is constructed from stainless steel making it corrosion resistant.

The lower attachment hole is large enough to accept carabiners for the lanyard and the foot loop. An upper connection hole guides the rope.

Rope compatibility: 8 to 11 mm  
Weight 85g

Certification:  
EN 567:2013 - 9-11mm  
EN 12841:2006/B 10-11mm  
UKCA



# Kong Cam Clean

The Kong Cam Clean chest ascender includes a lot of the same key cam features as the Kong Lift handled ascender.

It is the design and manufacture of the cam that sets it apart from a lot of other ascenders; the holes in the cam and side plate means that the cam self-clean effectively and this helps improve performance on icy or dirty ropes.

In addition, the cam is manufactured using a very specific chemical and thermal process that gives the cam a much higher surface hardness which gives increased wear resistance.

It is also worth noting that the teeth are conical rather than barbs - so release is far easier, especially if the ascender is pushed up against a knot or anchor point.

The top of the body is flared slightly to allow greater freedom of movement/reduce friction when the rope is running slightly at an angle.

The Cam Clean chest ascender sits close to the body and is a very functional, traditional style chest ascender.

Rope compatibility: 8 to 13 mm  
Weight: 150g.

Certification:  
EN 567 EN 12841/B





# Camp Turbofoot Evo

The Camp Turbofoot Evo ascenders allow the user to climb more efficiently; small pulley wheels positioned where the rope would normally rub on the body of a traditional ascender reduce friction, ensure a smoother action, and increase product life for both the ascender and the rope. In addition to being used as a foot ascender then it can also be set up as a progress capture pulley for light (50kg max) hauling duties.

The Camp Turbofoot can be used in two different modes by flicking a switch that locks and unlocks the cam. If fast insertion or removal from the rope is needed then the cam is left unlocked, but if pre-venting accident release is the priority then the cam can be locked.

The fastening straps adapt to any type of boot with auto-locking buckles for fast and secure adjustment.

Constructed with an aluminium alloy main body and precision cast stainless steel cam.

The toothed cam is finished with a special anti-wear treatment and features drain holes to help prevent the build-up of mud, grit, and ice.

Comes in Left hand and right-hand versions.

Rope compatibility: 8 to 13 mm.

Weight: 135g.



The Camp Turbo Foot Ascender can be used as a lightweight progress capture pulley if needed.



# Harken Ninja Foot

The Harken Ninja is the smoothest foot ascender we have used - this not only makes climbing really efficient, but importantly makes starting the climb easier as no or minimal counterweight is required for the ascender to move up the rope on the first few meters of ascent.

The Harken Ninja Foot Ascender is the only foot ascender which can be used on either foot, with a maximum working load of 1.5kN (330 lbf) and rope compatibility from 8mm to 13 mm (1/2").

Unlike every other foot ascender on the market, the Ninja's dual cam system applies pressure to both sides of rope simultaneously. This provides more thorough holding power and even force than competitive designs whose cams act on just one side of the rope against a fixed wall on the other side.

The dual cam design allows the cams to be very lightly sprung and this gives the ascender its class leading smoothness.

Another advantage of the dual cam design is that it helps prevent accidental kick-outs.

The Ninja Ascender uses stainless steel cams with transverse ribs instead of barbs which reduces damage to the rope sheath and makes release easier.

Rope compatibility: 8 to 13 mm.  
Weight 178g.



# Petzl Foot Tape

The adjustable Petzl Foot Tape for rope ascents.

Can be used with the CTOMS Quickie Ascender or handled rope ascenders.

A height adjustable elastic keeps the foot in the loop, regardless of the shoe type.

The Underfoot strap is abrasion-resistant and is slightly rigid to make it easier to step into. A double back buckle effectively adjusts the length of the foot loop.

# Metolius Easy Aider

The Metolius Easy Aider is one of the best single step aiders out there - it is light, easy to adjust, and comfortable to stand in. It has an adjustable design that allows you to operate both the buckle and the carabiner without changing your grip. The aider is constructed from 19mm nylon webbing and has anodized CNC aluminium buckles for durability.

The wide, comfortable foot stirrups come with top straps to keep your feet from coming out which makes ascending easy and secure.

Easy Aiders are color-coded specifically for the right and left foot.

Weight: 213 g

Strength: 1.3 kN (Body weight only)

Length: Very short to 230cm +

Colours: Maroon Red(left), Grey (right)



# Metolius 4 + 5 Step Aider

The Metolius 5 Step and 4 Step Aiders share a lot of features:

- A classic, staggered, triangular step construction.
- Biothane™ step stiffeners ensure that the steps always stay open.
- Reinforced clip-in point, a full-strength grab loop, and sub-steps in the top two steps.
- A dedicated clip-in point at the bottom for enchaining aiders without collapsing the bottom step.

When Outdoor GearLab tested 5 step etriers they said: This is the best etrier-style aider we have tested. Chris McNamara has used this aider on more walls than any other aider and says it is comfortable and easy to walk up in due to its reinforced Biothane step. It is also the best aider at top-stepping of all the aiders we have tested because of the many sub steps. The only downside is durability, which only matters if you climb a ton of walls.

This review of the 5 Step Aider also applies to the 4 Step Aider. The only difference between the two is that the 5 step has an additional step that adds 12 inches to the length. The 4 Step is probably the best choice for use with an ascending system unless you are over 6+ feet in which case you might prefer the 5 Step.

4 Step Aider:

Weight: 241 g

Strength: End-to-end: 18 kN, Grab loop: 22 kN, Steps: 4.4 kN

Overall length: 1524 mm

Step spacing: 14" 356 mm

Colors: Green

5 Step Aider:

Weight: 284 g

Strength: End-to-end: 18 kN, Grab loop: 22 kN, Steps: 4.4 kN

Overall length: 1829 mm

Step spacing: 356 mm

Colors: blue, red



## CTOMS Etrier 6 Step

The CTOMS tactical etrier is a 6 step, ladder style etrier in subdued and camouflage colour options. The top attachment point is separated so that multiple etriers can be daisy chained together. The steps have HDPE inserts to keep the rungs open and stop the sides from compressing onto your feet. The top of the ladder has a grab loop to make the transition at the edge easier to manage.



## Metolius Alpine Aider

The 19mm webbing Alpine Aider features classic, staggered, triangular step construction. Biothane™ step stiffeners ensure that the steps always stay open. This aider offers a reinforced clip-in point, a full-strength grab loop, and sub-steps in the top two steps. It also has a dedicated clip-in point at the bottom for enchaining aiders without collapsing the bottom step. For body weight only.

Weight: 198 g  
Strength: End-to-end: 18 kN , Grab loop: 22 kN , Steps: 4.4 kN  
Overall length: 1524 mm  
Step spacing: 356 mm  
Colors: blue, red



# Sterling Chain Reactor Daisy Chain

The Chain Reactor is a multi-functional, 104cm long daisy chain manufactured using 18mm nylon loops.

Sterling chose nylon as it has slightly more give than polyester and nylon/dyneema blends. This is the only anchor chain we know of rated to hold three factor two falls.

It is most frequently used for personal anchor connections, connecting to a hand ascender and extending belay or abseil devices.

The disadvantage of most traditional daisy chains is that although the sling as a whole will meet the EN 566 requirement of 22kN, the individual pockets will blow at 2-3kN. Thus a heavy fall or load risks blowing pockets causing the user to drop onto the next pocket and if that breaks falling onto the next one.

The Sterling Chain Reactor and Metolius PAS were the original daisy chains using an alternative design whereby the sling was constructed of several interlocking full strength loops. This gives far higher breaking strength for each pocket.

There are other versions now available, but copying is easy so we stick with the two originals.

MBS Rating, End-to-End : 14kN  
MBS Rating, Basket; 24kN  
MBS Rating, Girth/Choke 12.5kN

EN 795B

## Metolius PAS 22

The Metolius Personal Anchor System or PAS is the original full-strength daisy chain anchor sling that uses Monster sling material which will maintain its 22kN strength rating which ever link you clip into.

The Monster Webbing slings are custom woven from a blend of 36% Dyneema and 64% nylon. This blend yields an incredible strength-to-weight ratio, allowing them to slim down to a narrow 11mm width sling. The Monster Web exhibits excellent mechanical properties including high tensile strength and excellent abrasion resistance. The Dyneema fibers also lower the amount of water absorption, making them ideal for alpine rock, ice and mountaineering applications.

It is compact and has a contrasting colour on the end loop to simplify use.

- Strength: 22 kN
- Weight: 93.5g
- Length: 96.5cm

EN 566: 2017



# DMM Nylon Daisy Chains

The DMM nylon Daisy Chain is a traditional daisy chain for aid climbing progression and can be used to extend a handled ascender to the correct length.

It is manufactured from 16mm nylon webbing and is 135cm long.

The daisy chain is full strength (22kN) end to end, while the pockets are designed to hold body weight only (2kN), and should not be used to anchor directly to the belay.

EN 566: 2017

# Petzl Connect Adjust

Designed for climbing and mountaineering, the Petzl Connect Adjust is a single positioning lanyard with an adjustable arm offering quick adjustment when required.

It is suitable for a multitude of uses and is an essential piece of equipment carried by instructors and operators. It is micro adjustable, compatible with a wide range of connectors and simply attaches via a larks foot onto a belay system, thus keeping the system light and reducing the requirement to carry additional equipment.

Lanyards in subdued colours are not readily available so we are very pleased to have the first (and only) stock of the new Black Petzl Connect Adjust lanyards. It is also available in orange for AT use. The Connect Adjust meets the EU regulation 2016/425 on Personal Protective Equipment and the applicable standard: UIAA 109:2018

Length: 15-95cm

Weight 125g



# Petzl Rescucender

The Petzl Rescucender is an openable cam-loaded rope clamp designed for use in haul systems as a tractor or progress capture device.

The openable cam allows installation or removal of the rope clamp at any point on the rope. An independent safety catches on each side of the device allow easy opening while reducing the risk of accidental opening. These safety catches are equipped with indicators that show when they are unlocked.

The cam integrated into frame of device for ease of handling and a large attachment hole facilitates carabiner rotation. An integrated cam spring helps avoid accidental snagging and increases durability.

Certification(s): CE EN 567 for use with 9 to 13 mm rope.

Certification(s): CE EN 12841 type B, NFPA 1983 Technical Use, EAC for use with 10 to 13 mm rope.





# Petzl Tibloc

An extremely compact and lightweight emergency rope clamp. The Tibloc is easy to use with a locking carabiner for ascending ropes or setting up hauling systems.

It is recommended for ropes between 8mm and 11mm. Teeth on the cam and a self cleaning slot optimises performance under most conditions.

It can be used in the following ways:

- Emergency ascender for going up a fixed rope.
- The "tractor" pulley in a mechanical advantage hauling system.
- Progress capture on the anchor.

The original version of the Tibloc (no plastic hood and discontinued in 2018) had a reputation for shredding ropes - especially with heavy falls (slack in the system) onto skinnier ropes. The new version seems friendlier, but still has the potential to tear into sheaths if care is not taken - don't try moving it when weighted and don't let slack into the system.

The older Tibloc was quite carabiner sensitive (Ovals/HMS only), but the latest version will work with Offset Ds as well.

A great little emergency ascender, but there are better tools for more planned use.

Weight: 35 g

Rope compatibility: 8 to 11 mm

Certification(s): CE EN 567, UKCA, EAC



# Sterling 8mm Bound Loop Prusik

Provides progress capture, tandem prusik belay and optimal rope grab for rope rescue. Does away with bulky, time-consuming knots and is stronger with its sewn loop construction.

The innovative Sterling Bound Loop Prusik consists of 8mm Prusik cord sewn into either 40cm or 56cm loops.

The bar-tacked join is covered with heat shrink tubing allowing the carabiner connection end to be pulled up snug around the carabiner. This keeps the connection point located near the spine of the carabiner (the strongest point) and prevents the prusik jumping up over the becket of a pulley during a dynamic event (as can happen with conventional 'tied' prusiks).

The Sterling Bound Loop Prusiks are perfectly matched to prusik minding pulleys and can be used together (one 40cm and one 55cm) as a 'tandem prusik'.

- 8mm Prusiks offer the greatest purchase on 11mm rope.
- Bound Loop Prusiks are very strong yet will not overload a system; the prusik will slip under excessive load.
- Bound Loop Prusiks negate the need for any mechanical rope grabs or ascenders in wilderness rescue kits.

Available in 40cm (16 inch) and 56cm (22 inch) lengths

Strength: 20kN  
Certified to EN 566.



# Beal Jammy

The Beal Jammy is a sewn Prusik Loop made from 5.5mm cord with an aramid core and polyamide sheath. It can be used with either single or half ropes.

It is ideal for making a Prusik knot for increased safety and control during an abseil and also to create a progress capture for hauling/crevasse rescue. The sling works well either with the standard Prusik where the cord is wound round the rope several times before one end is poked through the other and clipped to a carabiner, or the French Prusik where both ends are clipped to the carabiner. The former is less likely to slip but more likely to jam.

- Aramid is similar to Kevlar so it is very strong and also highly heat resistant, unlike Dyneema which melts easily.
- The Aramid core has a very high resistance to heat (>500C).
- The cord is thin and supple so it can grip small diameter ropes.
- Stitching on the bar tack is protected by a heat shrunk sleeve.
- Much lighter than mechanical systems.

Certified to EN 566 and UIAA 104 Slings  
Strength: 22kN



An essential component of any safe training programme, back up devices should provide the maximum level of security whilst being simple and reliable in operation. The ideal is a device which is unobtrusive until it is required, allowing attention to be focussed on the main training objective rather than the safety system.

# Comparing Fall Arrest Devices



## Fall Arrest Devices

Product Description	Product Code	WEIGHT	ROPE SPECIFICATIONS Rope Compatibility *	Colour	Certification
Petzl ASAP Lock	PZB071BA00	425g	10-13mm	Yellow	CE EN12841 Type A CE EN353-2 ANSI Z359.15 EAC, ANSI Z359.15
Petzl ASAP	PZB070AA00	295g	10-13mm	Yellow	CE EN 12841 type A, CE EN 353-2
Kong Back Up	KN8021NN412KK	420g	10-12mm	Orange	EN 353-2 EN 12841 A/B
Buddy	BUD100MG	192g	10.5-11mm	Matt Grey	EN 353-2:2002

## Fall Arrest Devices Lanyards

Petzl ASAP S'ORBBER AXESS	PZL071CB00	205g	40cm	Yellow/Black	CE EN 355
Petzl ASAP S'ORBBER	PZL071AA00	125g	20cm	Yellow/Black	CE EN 355
Petzl ASAP S'ORBBER	PZL071AA01	145g	40cm	Yellow/Black	CE EN 355

\* Devices certified to multiple standards may be certified on different diameter/ types of rope depending on the standard. This is a simplified guide for full details see the product page.

# Petzl ASAP Lock

Mobile fall arrester with locking function.

The ASAP LOCK mobile fall arrester is designed to facilitate handling during rope ascents. In normal use, the device moves freely along the rope without any manual intervention and follows the user in all his/her movements. In the event of a shock load or sudden acceleration, the fall arrester locks on the rope and stops the user. The integrated locking function allows the user to immobilize the device in order to reduce the potential fall distance. The connection arm makes the system drop-resistant when passing intermediate anchors. The ASAP LOCK is used with an ASAP'SORBBER or ASAP'SORBBER AXESS energy absorber to work at a distance from the rope.

CE EN12841 Type A CE EN353-2 ANSI Z359.15 EAC.



# Petzl ASAP

The Petzl ASAP is a mobile fall arrester with a unique locking system. The device moves freely along the rope without any manual intervention and follows the user in all movements. In case of shock or sudden acceleration, the ASAP locks on the rope and stops the user.

The ASAP offers constant fall protection in arrests, falls, slides and uncontrolled descents. It works on vertical or angled ropes, and locks on the rope even if grabbed during the fall.

It is very easy to use as it can move up or down the rope without any manual manipulation of the device. It is easy to install and remove at any point on the rope.

The ASAP can be combined with an energy absorber to work at a distance from the rope.

## Certification:

- CE EN 12841 type A, UKCA, when used with an OK TRIACT-LOCK carabiner and a 10-13 mm EN 1891 type A rope. An ASAP'SORBER or ASAP'SORBER AXESS energy absorber can be used when needed.
- CE EN 353-2, UKCA, when used with an OK TRIACT-LOCK carabiner and an ASAP'AXIS 11 mm rope. An ASAP'SORBER or ASAP'SORBER AXESS energy absorber can be used when needed.
- EAC when used with an OK TRIACT-LOCK carabiner and a 10-13 mm EN 1891 type A rope. An ASAP'SORBER or ASAP'SORBER AXESS energy absorber can be used when needed.
- ANSI Z359.15 when used with an ASAP'SORBER or ASAP'SORBER AXESS energy absorber, a Bm'D or OXAN TRIACT-LOCK (international version) carabiner, a CAPTIV positioning bar, and a RAY 11 mm static rope with sewn termination.



# Kong Back-Up

The Kong Back-Up is a fall arrester which follows the operator both up and down the rope to prevent falling. It is simple to use with one man operation. It can also be used as a positioning device or a normal locking device due to a special button which puts the Back-Up in lock mode. It can support the strongest stress without damaging the rope. A connector is included with purchase of the Back-Up.

EN 353-2 EN 12841 A/B





# Petzl ASAP'SORBBER AXESS

The Petzl ASAP'SORBBER is to be used with a Petzl ASAP or ASAP LOCK mobile fall arrester. When used together, the system allows the user to keep the rope at a distance in order to free up the work area, protect the rope from sharp tools and harmful contact points. Can be used for loads of up to 250kg in two person rescue situations.

In the instance of a fall, tearing of the energy absorber webbing limits the impact force on the user (designed for users who weigh between 50 and 130kg). Durable fabric pouches with an opening system at each end, the energy absorber from abrasion or contaminants while allowing for regular inspection of the absorber.

The ends are equipped with string to hold the connector in position and protect the webbing from abrasion.

Two different lengths are available, to provide the best balance between distance from the rope and reducing fall length.

CE EN 355



# Petzl ASAP'SORBBER

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CE EN 355





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Keep updated with Helix operations across platforms such as [helixoperations.com](http://helixoperations.com), Tactical and Rescue Instagram account as well as LinkedIn. We share exciting information regarding products we manufacture ourselves as well as key products from brands we work with.

Stay informed with key innovations across all product ranges in the tactical and rescue field as well as new courses.

Our website lists our entire range, including any certifications, technical specifications, and variations of products. You can also find information regarding courses and training, including our accreditation.



Helix Operations evolved out of DMM International when it became apparent that there was a need for a specialist company to support the government, tactical, and rescue markets.

DMM International has a global reputation as a leading manufacturer of superior height safety equipment and has supplied the UK and overseas military and government institutions with equipment since 1985. Growing demand for a broad range of complete, specialist systems where all components are selected and proven to work together led to Helix being founded on this broad wealth of expertise and experience. With a remit to bring together a portfolio of the best equipment, the resulting partnerships with companies such as REBS, CTOMS, and Atlas amongst others have allowed us to offer a complete capability for vertical access and rescue across Urban, Mountain, and Maritime environments.

Helix's mission is to provide the tactical end user with the very best equipment and systems for vertical access, egress, and rescue scenarios.

We understand that first class equipment is only one part of the equation, and that without a trained operator or enabler it is unlikely to be utilised to its true capacity. That is why Helix also offers training packages alongside systems and kit. Training can be delivered through a range of options; from standard courses for the operator, maintainer, or supervisor, through to bespoke courses covering specific scenarios. These training courses are either accredited by Helix or through external validation depending on the end user requirement and course syllabus.



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