

FIELD OF APPLICATION

The SWIVO single and double pulley are designed and manufactured as personal protective equipment (PPE) used for fall protection during work and rescue. They are classified to NFPA 2500 (1983), 2022 Edition as Load Bearing Pulleys. The SWIVO single pulley is also certified to EN 12278:2007, EN 12275:2013/B, and EN 362:2004/B. These products shall not be used outside of their limitations, or for any purpose other than for which they are intended.

Responsibility

These instructions explain the correct use of your equipment. The warning symbols inform you of some potential dangers related to the use of your equipment, but it is impossible to describe them all. You are responsible for heeding each warning and using your equipment correctly. Any misuse of this equipment will create additional dangers. Contact CMC if you have any questions or difficulty understanding these instructions. Check cmcpro.com for updates and additional information.

Before using this equipment, you must have a rescue plan in place to deal with any emergencies that could arise and be medically fit and capable of controlling your own security in emergency situations. Motionless suspension in a harness may cause severe injury or death. Check equipment before and after use.

User Information

User Information shall be provided to the user of the product. NFPA 1983, incorporated into the 2022 edition of NFPA 2500 recommends separating the User Information from the equipment and retaining the information in a permanent record. The standard also recommends making a copy of the User Information to keep with the equipment and that the information should be referred to before and after each use.

Additional information regarding life safety equipment can be found in NFPA 1500, and NFPA 1858 and NFPA 1983, incorporated in the 2022 edition of NFPA 2500. This document must be provided to the user by the retailer in the respective country's language and must be kept with the equipment while it is in use. Observe relevant national regulations.

TRACEABILITY AND MARKINGS

(A) Carabiner Strength Ratings (B) Button Release (C) Manufacturer of Record (D) Product Name (E) Sheave size (F) Rope Load Diagram (G) Minimum Breaking Strength (H) Working Load Limit (I) Mark and Information of NFPA certification body (J) Maximum Rope Diameter (K) Maximum Load Per Rope (L) Individual Number (M) Model Identification (N) Carefully Read the Instructions for Use (O) Notified Body Controlling Production of this Personal Protective Equipment (P) Country of Manufacture (Q) Manufacturing Site (R) Becket MBS (Double Model Only)

NOMENCLATURE

(A) Carabiner Swivel Top (B) Keylock (C) Lock icon (D) Sleeve (E) Swivel Axle Bolt (F) Button (G) Sideplate (H) Sheave (I) Main Axle Bolt (J) Chassis (K) Rear Button (Double Model Only) (L) Rear Sheave (Double Model Only) (M) Prusik Minding Flange (N) Becket (Double Model Only)

COMPATIBILITY

Verify that this product is compatible with the other equipment in the system and that its intended applications meet current standards. Equipment used with this product must meet regulatory requirements in your jurisdiction and/or country, and provide safe, functional interaction.

All connections should be evaluated for risk based on the loads, redundancy, and rigging practices involved. Always verify that connectors are properly positioned before loading them. Equipment used with this product must meet current standards in your country. When combining this product with other equipment and/or using this product in a rescue/fall arrest system, users must understand the instructions of all components prior to use and comply with them to ensure that safety aspects of these items do not interfere with each other.

Danger may arise and functionality may be compromised by combining other equipment with this product. User assumes all responsibility for non-standard use or added components. Contact CMC if you are uncertain about the compatibility of your equipment.

INSPECTION, POINTS TO VERIFY

Inspection

User safety depends on equipment integrity. Equipment should be thoroughly inspected prior to being placed into service and before and after each use. Inspect the equipment according to your department's policy for inspecting life safety equipment. In addition, CMC recommends a detailed inspection by a competent person at least once every 12 months depending on current regulations and conditions of use. Record the date, inspector name, and inspection results in the equipment log, as well as any other relevant information to track the usage history.

Before and after each use, the user should:

- Confirm the device is functioning properly.
- Verify the presence and legibility of the product markings.
- Verify that the gate and sleeve close, lock, and function properly.
- Check for the presence of dirt or foreign objects that can affect or prevent normal operation such as grit, sand, rocks, and debris.
- Verify there is no excessive wear or indications of damage such as deformation, corrosion, sharp edges, cracks, or burrs. Minor nicks or sharp spots may be smoothed with emery cloth or similar.
- Prolonged use with carabiners or other hardware can create dangerous wear and sharp edges that will decrease the safety of the device when used with textiles.
- Check all bolts, screws, and pins to be sure they haven't loosened.
- Verify spring pins are present and in place.
- Check the action of sideplate, swivel, and sheave. Retire if they have loosened or feel rough.
- Verify that the swivel top rotates normally, and the swivel axle bolt has not loosened.
- Verify smooth rotation of the sheaves and security of the main axle bolt.
- Verify that the sideplate rotates normally and the button operates properly. The button must not be impaired by dirt, ice, corrosion, etc.
- Set Screw Inspection: Each set screw is located above the button(s). The top of the set screw must be even with or below the surface of the body of the pulley. If the set screw is covered by epoxy or sealant, the sealant must be even with or below the surface of the body of the pulley.
 - (A) Set screw location, single pulley.
 - (B) Set screw location, double pulley.
 - (C) Button location.

During each use, the user should:

- Confirm that carabiners are locked and positioned properly.
- Confirm all pieces of equipment in the system are correctly positioned with respect to each other.
- Monitor the condition of the device and its connections to other equipment in the system.
- Ensure sideplates are fully locked with fully extended buttons.
- Do not allow anything to interfere with the operation of the device or its components.
- Reduce the risk of shock load by minimizing slack in the system.
- Ensure swivel axle bolt has not loosened.
- Avoid placing the device and attached connectors against an edge or sharp corner.

Retirement

CMC does not specify an expiration date for hardware because the service life depends greatly on how and where it is used. The type of use, intensity of use, and environment of use are all factors in determining serviceability of the equipment. A single exceptional event can cause for retirement after only one use, such as exposure to sharp edges, extreme temperatures, chemicals, or harsh environments.

A device must be withdrawn from service when:

- Button fails to extend fully.
- Sheave or swivel does not rotate smoothly.
- It fails to pass inspection.
- It fails to function properly.
- It has illegible product markings.
- It shows signs of damage or excessive wear.
- It has been subjected to shock loads, falls, or abnormal use.
- It has been exposed to harsh chemical reagents or extreme environments.
- It has an unknown usage history.
- You have any doubt as to its condition or reliability.
- When it becomes obsolete due to changes in legislation, standards, technique, or incompatibility with other equipment.

Withdrawn equipment shall not be used again until confirmed in writing by a competent person that it is acceptable to do so. If the product shall be retired, remove it from service and mark it accordingly or destroy it to prevent further use.

PRODUCT USE

All pulleys are designed to specific performance criteria. Be aware of load limitations, manner of use, and proper technique. Do not overload a pulley. Pulleys can fail under improper use conditions such as loading with a side plate open or applying a bending, shear, or torsional load to the pulley. If you are not sure of proper application or technique, seek proper training in pulley use and technical rope work. See below for additional product-specific guidance.

Swivel Pulley Guidance

- Opening the sideplate: depress the button and rotate the sideplate counterclockwise (clockwise for the back side of the double sheave pulley). The sideplate is designed to stop at the button a second time to prevent accidental opening. To fully open, depress the button again and rotate.
- Closing the sideplate: rotate the sideplate to the fully closed position. The button will be naturally depressed by the sideplate when it is moved in this direction. Depressing the button manually may extend the lifespan of pulley components. Verify the button extends fully through the hole and test that the sideplate is completely locked and secure in the fully closed position.
- MANDATORY LOCKING PROCEDURE:** The sideplate must be closed and locked with the button fully extended, or strength will be greatly reduced, and the rope may fall out with catastrophic results. You must understand how the sideplate and locking button work, and must do the following every time you use it:
 - Visually confirm the sideplate is fully closed and the locking button is fully extended. When locked, the end of the button sticks out from sideplate about 0.8" (2mm).
 - Physically confirm the sideplate is locked by attempting to rotate it. Confirm that it is fully closed and does not move.
 - Do not allow anything to contact the button in use.
 - Do not use a double sheave pulley with only one sheave loaded.
 - Regularly check that the sideplate is locked and the pulley is positioned properly. If the pulley cannot be kept in sight, use a conventional pulley.
- When using a Prusik hitch in conjunction with a pulley, care must be taken to prevent the Prusik hitch from being pulled in between the side plates of the pulley.
- Keep snagging hazards away from device. Beware that rope traveling through this device can draw in hair, fingers, clothing, etc., causing injury and jamming the device.
- Do not let an object in between the sideplates and never rig your system so that the pulley is forced against something that could break or open the sideplate.
- Pulleys must be free to align with the load, any restraint is dangerous.
- Swivels are for orientation only. Not for high speed or multi-rotations.
- Do not use aluminum sheave pulleys with wire rope or steel cable.
- Moisture, ice, salt, sand, snow, chemicals, and other factors can prevent proper operation or can greatly accelerate wear.

Carabiner Guidance

- MANDATORY CARABINER LOCKING PROCEDURE:** Serious accidents have resulted from unlocked carabiners. Dirt, ice, etc. can jam a sleeve. Never assume autolock carabiners lock on closing - always confirm! You must understand how the sleeve works and know what it looks like when it is locked and unlocked. You must do the following every time you clip a locking carabiner:
 - Visually confirm the carabiner is locked.
 - Push in on the gate/sleeve to confirm by touch that it is locked.
- Do not allow ropes or objects to rub or twist the sleeve because this could unlock it. Vibration can also unlock a sleeve.
- Regularly check that the carabiner is locked and positioned properly and always do so if items contact it or anything unusual occurs.
- Sleeves must be locked to achieve full strength.
- Clipping over large objects or using wide webbing may reduce carabiner strength.
- Avoid leveraging against the gate with hardware devices, anchors, buckles, or other objects. Inward forces on the carabiner gate are very dangerous because the sleeve can be broken, causing a catastrophic disconnection.

Use in Fall Arrest Systems

- The anchor point for the system should preferably be located above the user's position and should meet the requirements of the EN 795 standard (12 kN minimum strength).
- In a fall arrest system, it is essential to check the required clearance below the user before each use, to avoid hitting the ground or an obstacle in the event of a fall.
- Make sure the anchor point is correctly positioned to limit the risk and length of a fall.
- A full body harness is the only device allowable for supporting the body in a fall arrest system.

Load Limits

- Working Load Limit (WLL) is the maximum allowed force applied to the device. The user must evaluate the system to determine the maximum force applied to the device during its application.
- CMC has marked the device with a WLL using at least a 4:1 Safety Factor per recommendation of ASME B.30. The end user must decide, using industry best practice, if this Safety Factor is appropriate for the scenario. If not, the Safety Factor shall be adjusted.
- In a single pulley, half the load is on one side of the rope and half is on the other. The total load on the pulley is thus the sum of the load on each of the two ropes. In a double pulley the total load is the sum of the loads on the 4 individual ropes. This is illustrated on the pulley.
- Be aware that the applied force is often significantly greater than the mass of the payload.

MAINTENANCE AND CARE

Carrying, Storage and Transport

During all use, carrying, storage and transport, protect the equipment from sharp edges, flame, extreme temperatures, rust, strong chemicals, and mechanical damage. Clean equipment using clean fresh water to remove any dust or debris. Do not use a pressure washer for cleaning. If the equipment gets wet, remove excess moisture with a non-abrasive cloth and allow to air dry at temperatures between 10° C and 30° C. Do not use an automatic dryer, tumble dryer, or direct heat. During storage and transport, protect the equipment from heat, direct sunlight, moisture, chemicals, oils, and external loads or impacts. Do not store where the equipment may be exposed to moist air.

Warranty and Repairs

If your CMC product has a defect due to workmanship or materials, please contact CMC Customer Support at info@cmcpro.com for warranty information and service. CMC's warranty does not cover damages caused by improper care, improper use, alterations and modifications, accidental damage or the natural breakdown of material over extended use and time.

The equipment should not be modified in any way or altered to allow attachment of additional parts without the manufacturer's written recommendation. If original components are modified or removed from the product, its safety aspects may be restricted. All repair work shall be performed by the manufacturer. All other work or modifications void the warranty and releases CMC and Rock Exotica from all liability and responsibility.

EQUIPMENT RECORDS

Record the results of your detailed periodic inspection using the sample table provided in this section. Relevant information includes: type, model, manufacturer contact info, serial number or individual number, problems, comments, inspector's name and signature, and key dates including manufacture, purchase, first use, and next periodic inspection. If equipment fails inspection, it should be withdrawn from service and marked accordingly or destroyed to prevent further use.

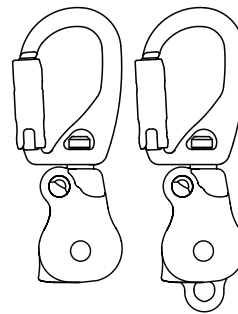
Declaration of Conformity

CMC Rescue, Inc. declares that this article is in conformity with the essential requirements and the relevant provisions of EU regulations. The Declaration of Conformity can be downloaded at the following website: cmcpro.com

CMC™

SWIVO™

USA
MADE



⚠ WARNINGS

Activities involving the use of this device are potentially dangerous. You are responsible for your own actions and decisions. Before using this device, you must:

- Read and understand these user instructions, labels, and warnings.
- Familiarize yourself with its capabilities and limitations.
- Obtain specific training in its proper use.
- Understand and accept the risks involved.

FAILURE TO HEED ANY OF THESE WARNINGS MAY RESULT IN SEVERE INJURY OR DEATH.

 Find the latest version and translations of this manual at cmcpro.com



MEETS THE PULLEY REQUIREMENTS OF NFPA 1983, INCORPORATED IN THE 2022 EDITION OF NFPA 2500.

- 300350 PULLEY, SWIVO 1.1", PMP SINGLE, CMC TECHNICAL USE (T) MBS 23 KN (5,170 lbf)
- 300352 PULLEY, SWIVO 1.1", PMP DOUBLE, CMC TECHNICAL USE (T) MBS 23 KN (5,170 lbf)

CARABINER FRAMES TESTED TO MEET THE MINIMUM REQUIREMENTS OF NFPA T RATING.

- MBS ⚡ 23 kN MAJOR AXIS
- MBS ⚡ 7 kN MINOR AXIS
- MBS ⚡ 7 kN GATE OPEN

CE 0598

EN 12278:2007
EN 12275:2013/B
EN 362:2004/B
EN 365:2004

Scan for the latest version and translations of this manual.



CMC™

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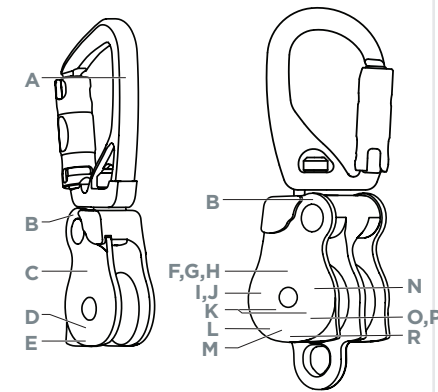
ISO 9001 Certified

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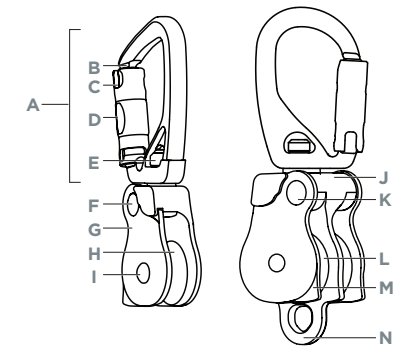
CMC Control No.: 30035XIN01_Rev00

Traceability & Markings



- A** Carabiner Strength Ratings
B Button Release
C Manufacturer of Record
D Product Name
E Sheave size
F Rope Load Diagram
G Minimum Breaking Strength (MBS)
H Working Load Limit (WLL)
I Mark and Information of NFPA certification body:
J Max Rope Diameter: Ø 13 mm MAX
K Maximum Load Per Rope
L Individual Number
M Model Identification
N Carefully Read the Instructions for Use:
O Notified Body Controlling Production of this Personal Protective Equipment to the following:
P Country of Manufacture
Q Manufacturing Site
R Becket MBS (Double Models Only)
- 2x
XX CMC
SWIVO
EN 12278:2007
EN 362:2004/B
EN 12275:2013
© Class of EN 12275
CE 0598
SGS Fimko Oy
Notified Body 0598
Takomotie 8
00380 Helsinki, Finland
Tel. +358.9.696361
UL
Standard Markings:
NFPA 2500 (1983),
2022 ED.
00000 A - 0000
Unit Serial Number
Manufacture Code
Day of Manufacture
Year of Manufacture

Nomenclature



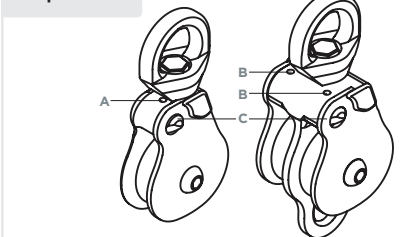
- A** Carabiner Swivel Top
B Keylock
C Lock icon
D Sleeve
E Swivel Axle Bolt
F Button
G Sideplate
H Sheave
I Main Axle Bolt
J Chassis
K Rear Button (Double Model Only)
L Rear Sheave (Double Model Only)
M Prusik Minding Flange
N Becket (Double Model Only)

PRODUCT DESCRIPTION		DIMENSION										STRENGTH			
		Max Rope Diameter		mm		in		mm		in		g		lb	
ITEM#		mm	in	mm	in	mm	in	mm	in	g	lb	kN	lbf	kN	lbf
PULLEY, SWIVO 1.1", PMP, SINGLE	300350	28	1.1	13	0.5	163	6.4	64	2.5	209	.46	23	5,170	5	1,124
PULLEY, SWIVO 1.1", PMP, DOUBLE	300352	28	1.1	13	0.5	185	7.3	66	2.6	308	.68	23	5,170	5	1,124

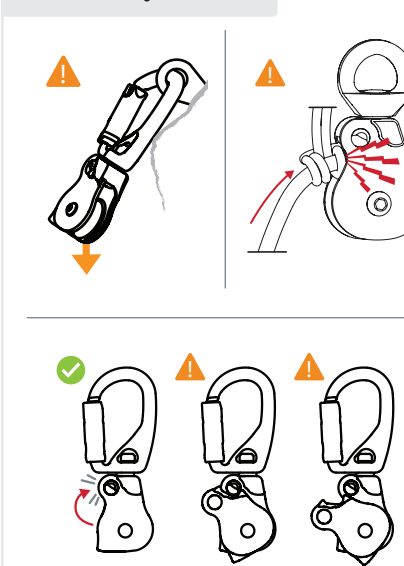
Legend

- Imminent risk of serious injury or death.
Imminent risk of accident or injury.
Appropriate function or use.
Equipment incompatibility.

Inspection



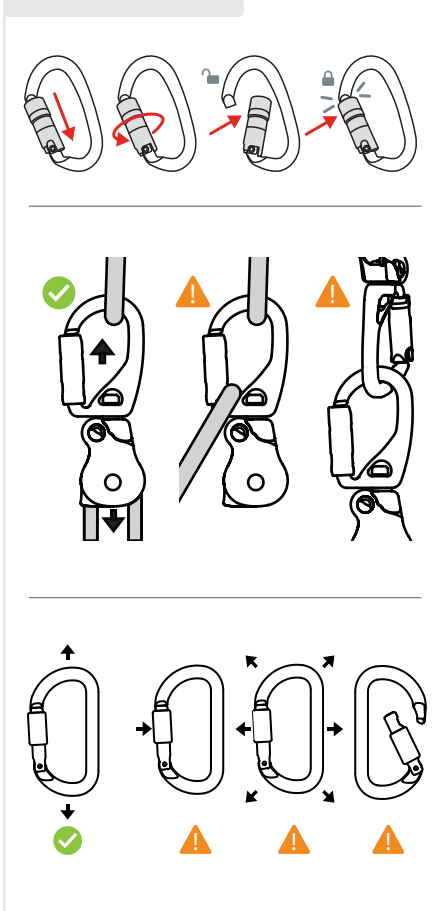
Swivel Pulley Guidance



Equipment Record Table

Product Name, Model	
Manufacturer of Record	CMC Rescue, Inc. 6740 Cortona Drive Goleta, CA 93117 USA
Manufacturer Contact Information	Tel: 800-235-5741 / 805-562-9120 Fax: 800-235-8951 / 805-562-9870 Email: info@cmcpro.com Web: cmcpro.com
User (company, name, and address)	
Product Serial #	
Year of Manufacture	
Purchase Date	
Date of First Use	
Expiration Date	

Carabiner Guidance



Periodic Inspection Checklist

Check Date	Notes/ Results	Inspector Name & Signature	Date of Next Check

Manufacturer of Record CMC Rescue, Inc. 6740 Cortona Drive Goleta, CA 93117, USA Manufacturing Site Rock Exotica LLC POB 160470 Freepoint Center, E-16 Clearfield, UT 84016, USA Notified Body conducting the EU type examination: SGS Fimko Oy - Notified Body 0598 Takomotie 8 Helsinki, 00380 Finland	Notified body controlling the manufacturing of this PPE: VVUU, a.s. - Notified Body 1019 Pikartská 1337/7 716 07 Ostrava-Radvanice Czech Republic Declaration of Conformity CMC Rescue, Inc. declares that this article is in conformity with the essential requirements and the relevant provisions of EU regulations. The Declaration of Conformity can be downloaded at the following website: cmcpro.com
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