

Rollgliss[®] 200 Ft Emergency Sloped Descent Device High Speed with Auto-Retract User Instruction Manual

Fall Protection

This manual is intended to be used as part of an employee training program as required by OSHA. When used and maintained in accordance with the manufacturer's instructions, this product helps provide the method of emergency escape when working at height, as referenced by OSHA and industry guidelines including API RP 54 6.12.

DESCRIPTION:

The Rollgliss[™] High Speed 200 foot Emergency Descent Devices with Auto-Retract are comprised of a Wire Rope Lifeline housed in a cast aluminum enclosure. An internal brake controls sloped descent speed of a single user attached to a manual brake trolley at the end of the lifeline.



EN SAFETY INFORMATION

Please read, understand, and follow all safety information contained in these instructions, prior to the use of this product. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH.

These instructions must be provided to the user of the equipment. Retain these instructions for future reference.

Intended Use:

This product is used as part of a complete Fall Protection system.

Use in any other application including, but not limited to, material handling, recreational or sports-related activities, or other activities not described in these instructions, is not approved by 3M and could result in serious injury or death.

This product is only to be used by trained users in workplace applications.

⚠ WARNING

This product is used as part of a complete Fall Protection system. All users must be fully trained in the safe installation and operation of their complete Fall Protection system. **Misuse of this product could result in serious injury or death.** For proper selection, operation, installation, maintenance, and service, refer to all instruction manuals and manufacturer recommendations. For more information, see your supervisor or contact 3M Technical Services.

- To reduce the risks associated with working with a Rescue Device which, if not avoided, could result in serious injury or death:
 - Inspect the product before each use and after any fall event, in accordance with the procedures specified in these instructions.
 - If inspection reveals an unsafe or defective condition, remove the product from service immediately and clearly tag it "DO NOT USE". Destroy or repair the product as required by these instructions.
 - Any product that has been subject to fall arrest or impact force must be immediately removed from service. Destroy or repair the product as required by these instructions.
 - Ensure that Fall Protection systems assembled from components made by different manufacturers are compatible and meet all applicable Fall Protection regulations, standards, or requirements. Always consult a Competent or Qualified Person before using these systems.
 - Ensure the lifeline is kept free from all hazards, including, but not limited to: entanglement with users, other workers, moving machinery, other surrounding objects, or impact from overhead objects that could fall onto the lifeline or users.
 - Use appropriate edge protection when the lifeline may contact sharp edges or abrasive surfaces.
 - Do not twist, tie, knot, or allow slack in the lifeline.
 - Do not touch parts of the system exposed to friction during or after a descent; these parts become hot and may cause burns.
 - Follow all manufacturer recommendations when connecting a lifeline.
 - Always follow your workplace rescue plan when performing rescue operations.
 - Do not use this product unless you have received technical rescue training.
 - Ensure the product is configured and installed properly for safe operation as described in these instructions.
 - Do not exceed the number of allowable users specified in these instructions.
 - Ensure a clear descent path, and that the landing area is clear of any obstructions or hazards that you may contact.
 - Use caution when installing, using, or moving the product as moving parts may create pinch points.
 - Always record descents as specified by these instructions and remove product from service as necessary in accordance with listed usage limits.

To reduce the risks associated with working at height which, if not avoided, could result in serious injury or death:

- Your health and physical condition must allow you to safely work at height and to withstand all forces associated with a fall arrest event. Consult your doctor if you have questions regarding your ability to use this equipment.
- Never exceed allowable capacity of your Fall Protection equipment.
- Never exceed the maximum free fall distance specified for your Fall Protection equipment.
- Do not use any Fall Protection equipment that fails inspection, or if you have concerns about the use or suitability of the equipment. Contact 3M Technical Services with any questions.
- Some subsystem and component combinations may interfere with the operation of this equipment. Only use compatible connections. Contact 3M Technical Services before using this equipment in combination with components or subsystems other than those described in these instructions.
- Use extra precautions when working around moving machinery, electrical hazards, extreme temperatures, chemical hazards, explosive or toxic gases, sharp edges, abrasive surfaces, or below overhead materials that could fall onto you or your Fall Protection equipment.
- Ensure use of your product is rated for the hazards present in your work environment.
- Ensure there is sufficient fall clearance when working at height.
- Never modify or alter your Fall Protection equipment. Only 3M, or persons authorized in writing by 3M, may make repairs to 3M equipment.
- Before using Fall Protection equipment, ensure a written rescue plan is in place to provide prompt rescue if a fall incident occurs.
- If a fall incident occurs, immediately seek medical attention for the fallen worker.
- Only use a full body harness for Fall Arrest applications. Do not use a body belt.
- Minimize swing falls by working as directly below the anchorage point as possible.
- A secondary Fall Protection system must be used when training with this product. Trainees must not be exposed to an unintended fall hazard.
- Always wear appropriate Personal Protective Equipment when installing, using, or inspecting the product.
- Never work below a suspended load or worker.
- Always maintain 100% tie-off.

1.0 APPLICATION

1.1 **PURPOSE:** The Rollgliss[™] Emergency Descent Device is intended for emergency sloped descent only. It controls the descent speed of one user, wearing a full Body harness, attached to the manual brake trolley on the end of the Emergency Descent Device's Lifeline.

WARNING: The Emergency Descent Device must not be used as a fall arrest device.

- **1.2 LIMITATIONS:** The following application limitations must be recognized and considered before using this product:
 - **A. CAPACITY:** This equipment is designed for use by persons with a combined weight (including tools, clothing, body support, etc.) of 75 lbs (34 kg) to 310 lbs (141 kg).
 - B. DESCENT SPEED: The speed at which the user will be lowered when using the Emergency Descent Device increases with the combined weight of the user. The below values are approximate and can be affected by sag of Guide Cable, user weight, length of system, location of user on the span and environmental conditions. One can expect a range of +/- 2 ft/s for each listed speed.

NOTE: These descent speeds assume no additional braking is applied by use of the manual Brake Trolley.

Angle (from Vertical)	Weight Ibs (kg)	Descent Speed ft/s (m/s)
75	120 lbs. (55 kg)	3.7 ft/s (1.1 m/s)
75	220 lbs. (100 kg)	6.8 ft/s (2.1 m/s)
75	300 lbs. (136 kg)	9.3 ft/s (2.8 m/s)
70	120 lbs. (55 kg)	4.9 ft/s (1.5 m/s)
70	220 lbs. (100 kg)	9.0 ft/s (2.7 m/s)
70	300 lbs. (136 kg)	12.3 ft/s (3.7 m/s)
65	120 lbs. (55 kg)	6.1 ft/s (1.8 m/s)
65	220 lbs. (100 kg)	11.1 ft/s (3.4 m/s)
65	300 lbs. (136 kg)	11.5 ft/s (3.5 m/s)
60	120 lbs. (55 kg)	7.2 ft/s (2.2 m/s)
60	220 lbs. (100 kg)	10.9 ft/s (3.3 m/s)
60	300 lbs. (136 kg)	12.2 ft/s (3.7 m/s)

Angle (from Vertical)	Weight Ibs (kg)	Descent Speed ft/s (m/s)
55	120 lbs. (55 kg)	8.2 ft/s (2.5 m/s)
55	220 lbs. (100 kg)	11.5 ft/s (3.5 m/s)
55	300 lbs. (136 kg)	12.9 ft/s (3.9 m/s)
50	120 lbs. (55 kg)	9.2 ft/s (2.9 m/s)
50	220 lbs. (100 kg)	12.0 ft/s (3.6 m/s)
50	300 lbs. (136 kg)	13.6 ft/s (4.1 m/s)
45	120 lbs. (55 kg)	10.1 ft/s (3.1 m/s)
45	220 lbs. (100 kg)	12.4 ft/s (3.8 m/s)
45	300 lbs. (136 kg)	13.1 ft/s (4.0 m/s)

- **C. HAZARDOUS AREAS:** Use of the Emergency Descent Device in hazardous areas may require additional precautions to reduce the possibility of injury to the user or damage to the equipment. Hazards may include, but are not limited to high heat, caustic chemicals, corrosive environments, high voltage power lines, explosive or toxic gases, moving machinery, and sharp edges.
- **D. TRAINING:** The Emergency Descent Device is intended to be installed and used by persons trained in its correct application and use.
- **1.3 APPLICABLE STANDARDS:** Refer to local, state, and federal (OSHA) standards for requirements governing the use of the Emergency Descent Device.

2.0 SYSTEM REQUIREMENTS

- 2.1 COMPATIBILITY OF COMPONENTS: 3M Fall Protection equipment is designed for use with 3M Fall Protection approved components and subsystems only. Substitutions or replacements made with non-approved components or subsystems may jeopardize compatibility of equipment and may effect the safety and reliability of the complete system.
- 2.2 COMPATIBILITY OF CONNECTORS: Connectors (hooks, carabiners, D-rings) used to suspend the Emergency Descent Device must be capable of supporting at least 3,000 lbs (1,361 kg). Connectors must be compatible in size, shape, and strength. Non compatible connectors may unintentionally disengage (roll-out). Roll-out occurs when interference between the connector and anchorage connector causes the hook or carabiner gate to unintentionally open and release. Self locking snap hooks and carabiners must be used with this system to reduce the possibility of roll-out. Do not use connectors that will not completely close over the attachment element.
- 2.3 ANCHORAGE STRENGTH 200 FT EMERGENCY SLOPED DESCENT DEVICES: Anchorages used to suspend the Emergency Descent Device must sustain static loads, applied along the axis of the device, of at least 3,000 lbs (1,361 kg). When more than one Emergency Descent Device is attached to an anchorage the strengths stated above must be multiplied by the number of descent devices attached to the anchorage.
- **2.4 GUIDE CABLE:** Applications with a sloped descent require a guide cable (see Figure 2, Item C). Systems requiring a guide cable must be designed by a qualified person. Descent speed is affected by the angle at which the guide cable is secured and the amount of sag in the guide cable. The guide cable must be installed with sufficient slope and limited sag to ensure the user will reach the landing area in the event of an emergency descent. The guide cable and the anchorage point must support the weight of the user in a descent. The Guide Cable must be 3/8 inch (.9525 cm) to 5/8 inch (1.5875 cm) wire rope. The operation of the emergency descent system should be verified by performing a test descent in accordance with Section 3.2C.

ANCHORAGE STRENGTH - GUIDE CABLE: The table in Figure 2 provides approximate recommended anchorage strengths for various system configurations using 200 ft. (61 m) long, 5/8 inch (1.5875 m), 7x19 steel aircraft cable.



Angle of Guide Cable from Vertical	Length of System	Initial Guide Cable Sag	Recommended Anchorage Strength (Including 2:1 Safety Factor)
45 Degrees	115 ft (35m)	8.3 ft (2.5 m)	2800 lbs (12.46 kN)
45 Degrees	200 ft (61m)	14.4 ft (4.4 m)	3050 lbs (13.57 kN)
60 Degrees	115 ft (35m)	5.5 ft (1.7 m)	3750 lbs (16.68 kN)
60 Degrees	200 ft (61m)	10.0 ft (3.1 m)	4100 lbs (18.24 kN)
75 Degrees	115 ft (35m)	2.9 ft (0.9 m)	6900 lbs (30.69 kN)
75 Degrees	200 ft (61m)	5.1 ft (1.6 m)	7500 lbs (33.36 kN)

3.0 INSTALLATION AND USE

- **3.1 BEFORE EACH USE:** Carefully inspect the Emergency Descent Device in accordance with Section 5 of this instruction.
- **3.2 PLANNING:** Plan your emergency escape system and how it will be used before starting your work. Consider all factors that will affect your safety before, during, and after an escape. Consider the following when planning your system:
 - **A. ANCHORAGE:** Select a rigid anchorage point that is capable of supporting the load as specified by Section 2.3 in this instruction.
 - **B. DESCENT PATH AND LANDING AREA CLEARANCE:** The planned descent path must be unobstructed. The landing area must be clear of obstructions to permit safe landing of the user. Failure to provide an unobstructed descent path and landing area may result in serious injury.
 - **C. TEST THE SYSTEM:** 3M Fall Protection recommends performing a test descent using a 120 lb (55 kg) test weight. The descent speed should be uniform and allow the user to reach the landing area safely. The descent speed should be approximately as stated in Section 1.2B.

NOTE: The Emergency Descent Device does not need to be returned to a service center after a test descent.

D. SHARP EDGES: Avoid using this equipment where system components will be in contact with, or abrade against, unprotected sharp edges. If working with this equipment near sharp edges is unavoidable, cover the sharp edge with a heavy pad.

E. AFTER A DESCENT: After use of the Emergency Descent Device, the auto retract function retracts the lifeline back in the device under control. Depending on the slope of the application, it may be necessary to assist the Brake Trolley back to the Descent Device. The Emergency Descent Device must be serviced by an authorized service center after a descent as the result of an emergency.

3.3 INSTALL GUIDE CABLE SUSPENSION BARS: See Figure 3.

- **Step 1.** Remove four 1/4-20 x 1-1/4 bolts.
- **Step 2.** Position suspension bars.
- **Step 3.** Install four 1/4-20 x 1-1/2 Bolts included in kit. Torque to 60 in lbs.



3.4 CONNECT THE EMERGENCY DESCENT DEVICE TO AN ANCHORAGE: Figure 4 illustrates connection of the Emergency Descent Device to an anchorage. See Section 2 for compatibility and anchorage strength requirements.

DROPPED OBJECT PROTECTION: The handle of the Emergency Descent Device can be connected to secondary anchorage with a Tie-Off Adaptor to prevent dropping the device during installation on primary anchorage.-



3.5 CONNECT THE EMERGENCY DESCENT DEVICE TO A GUIDE CABLE: Sloped angle descent applications require attaching the Emergency Descent Device to the Guide Cable. Use the suspension bar kit to attach the Emergency Descent Device to the Guide Cable as shown in Figure 5.

- **Step 1.** Capture Guide Cable in Suspension Bars with 3/8-16 x 1-3/4 Bolts and 3/8-16 Nylok nuts. Torque to 60 in lbs.
- Step 2. Capture Descender Swivel and Guide Cable in Brake Trolley. See detail in Section 3.6 and Figure 7.



3.6 INSTALL DESCENDER SWIVEL AND GUIDE CABLE IN BRAKE TROLLEY: See Figure 6.

- Step 1. Remove two Brake Trolley lower bolts, nuts and Snap Hook.
- Step 2. Remove the Brake Handle and enclose the Guide Cable inside the Brake Trolley
- **Step 3.** Install Descender swivel and Snap Hook with the same bolt and nut that was originally used to secure the Snap Hook.
- Step 4. Install Brake Handle back onto the Brake Trolley.
- Step 5. Tighten Brake Trolley fasteners to 60 in-lbs.
- **Step 6.** The Safety Clamp and Chain assembly prevents the Brake Trolley from unintentionally moving down the Guide Cable due to vibration, wind or other causes. Install the Safety Clamp on the Guide Cable at a location that will ensure that the Descender Brake Trolley is correctly positioned for emergency descent.

Figure 6 - Brake Trolley Installation



3.7 CONNECT TO YOUR BODY SUPPORT: A full body harness or other means of supporting the user must be used with the Emergency Descent Device device. Do not use a body belt with the Emergency Descent Device. Attachment of the Snap Hook to the frontal or sternal D-rings on a full body harness is recommended (Figure 7). Ensure the D-ring is positioned to hold yourself upright. See the full body harness manufacturer's instructions for more information.

WARNING: Do not use a body belt with the Emergency Descent Device. Body belts do not support your entire body, which may result in serious injury.

- **3.8 USE:** Check your descent path and landing area for obstructions before stepping off the structure. The device will allow you to descend at a rapid rate. See Figure 8.
 - 1. Connect Snap Hook to front D-ring.
 - 2. Grip Brake Trolley handle. (Figure 8A)
 - 3. Step off structure. Pull down on Brake Trolley handle to reduce descent speed.
 - 4. As you approach the landing, bend your knees and lean back slightly.
 - After landing, disconnect from your body support. The lifeline will retract back to the Emergency Descent Device. Depending on the slope of the application, it may be necessary to assist the Brake Trolley back to the Descent Device.

WARNING: The users of this equipment must be in good physical condition. The user must have the ability to absorb the landing.



4.0 TRAINING

It is the responsibility of the user and purchaser of the Emergency Descent Device to be trained in the correct care and use of this equipment. The user and purchaser must be aware of the operating characteristics, application limits, and consequences of improper use of this equipment.

WARNING: Training must be conducted without exposing the trainee to a fall hazard. Training should be repeated on a periodic basis.

5.0 INSPECTION

- **5.1 INSPECTION FREQUENCY:** The product shall be inspected before each use by a user and, additionally, by a Competent Person other than the user at intervals of no longer than one year. A higher frequency of equipment use and harsher conditions may require increasing the frequency of Competent Person inspections. The frequency of these inspections should be determined by the Competent Person per the specific conditions of the worksite.
- **5.2 SERVICE:** The Emergency Descent Device must be sent to an authorized service center every two years for inspection and service. See Section 6.1.
- **5.3 RFID TAG:** 200 Ft Emergency Sloped Descent Devices are equipped with a Radio Frequency Identification (RFID) tag (Section 8, Item D). The RFID tag on the Emergency Descent Device can be used in conjunction with the handheld RFID reading device and the web based RFID portal to simplify inspection and inventory control and provide records for fall protection equipment. If you are a first-time user, contact a Customer Service representative in the US at 800-328-1667. If you have already registered, go to: www.3M.com. Follow the instructions provided with the handheld RFID reader or on the web RFID portal to transfer your data to the web log.
- **5.4 INSPECTION STEPS:** Per the intervals defined in Section 5.1, inspect the Emergency Descent Device as follows:
 - **Step 1.** Inspect the Emergency Descent Device for loose fasteners and bent or damaged parts.
 - **Step 2.** Inspect the Emergency Descent Device housing for distortion, cracks, or other damage. Ensure the descent brake assembly is not damaged or distorted.
 - **Step 3.** The Emergency Descent Device lifeline must pull out and retract fully. Depending on the slope of the application, it may be necessary to assist the Brake Trolley back to the Descent Device. Inspect entire wire rope for cuts, kinks, broken wires, corrosion, or severely abraded areas. Slide the cable bumper up and inspect the wire rope and ferrules for cracks, corrosion, broken wires, etc.

Figure 7 - Connect to a Full Body Harness

- **Step 4.** Device labels must be present and fully legible (see Section 8).
- **Step 5.** Inspect for corrosion on the device.
- Step 6. Inspect connecting hooks or carabiners for damage, corrosion, and working condition.
- Step 7. Inspect all system components and subsystems according to manufacturer's instructions.
- **Step 8.** Record inspection results in the Inspection and Maintenance Log (Section 9) or on the RFID web portal (Section 5.2).
- **5.5 UNSAFE OR DEFECTIVE CONDITIONS:** If inspection reveals an unsafe or defective condition, remove the device from service and contact an authorized service center for repair.

6.0 MAINTENANCE, SERVICE, STORAGE

6.1 MAINTENANCE AND SERVICE: Periodically clean the exterior of the Emergency Descent Device with water and mild detergent. Position the device so excess water can drain out. Clean labels as required. Clean device lifeline with water and mild detergent. Rinse and thoroughly air dry. Do not force dry with heat. An excess buildup of dirt, paint, etc., may prevent the lifeline from retracting back into the device.

Additional maintenance and servicing must be completed by an authorized service center. Do not attempt to disassemble the device.

NOTE: Only 3M Fall Protection or parties authorized in writing may make repairs to this equipment.

6.2 STORAGE AND TRANSPORT: Store and transport the Emergency Descent Device in a cool, dry, clean environment, out of direct sunlight. Avoid areas where chemical or organic vapors are present. Thoroughly inspect the Emergency Descent Device after extended storage.

7.0 SPECIFICATIONS

7.1 MATERIALS

Housing:	Cast Aluminum
Anchorage Handle:	Stainless Steel
Fasteners:	Stainless Steel
Main Shaft:	Stainless Steel
Connecting Hook:	Stainless Steel
Cable Bumper:	Urethane
Lifeline (Stainless Steel):	3/16'' (4.8 mm) dia. 7x19 Aircraft Wire Rope, 3,600 lbs (16 kN) minimum tensile strength
Finish Paint:	Polyester Baked Finish

7.2 PERFORMANCE SPECIFICATIONS

Capacity:	1 user - 75-310 lbs (34-141 kg)
Nominal Descent Speed:	6 ft/sec (1.8 m/s)

8.0 LABELING

The following labels should be securely attached to the Emergency Descent Device and should be fully legible:



9.0 INSPECTION AND MAINTENANCE LOG

SERIAL NUMBER:				
MODEL NUMBER:				
DATE PURCHASED:		DATE OF FIRST USE:	DATE OF FIRST USE:	
INSPECTION DATE	INSPECTION ITEMS NOTED	CORRECTIVE ACTION	MAINTENANCE PERFORMED	
Approved By:				

INSPECTION DATE	INSPECTION ITEMS NOTED	CORRECTIVE ACTION	MAINTENANCE PERFORMED
Approved By:			
		-	
Approved By:			
Approved By:		-	
Approved By:			
Approved By:	1		
		-	
Approved By:			
Assessed Day		-	
Approved By:			
Approved By:			
Approved By:			
Approved By:	1		
		-	
Approved By:			
Annual Dur		-	
Арргоvеа ву:			
Approved By:			
Approved By:	1		

GLOBAL PRODUCT WARRANTY, LIMITED REMEDY AND LIMITATION OF LIABILITY

WARRANTY: THE FOLLOWING IS MADE IN LIEU OF ALL WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Unless otherwise provided by local laws, 3M fall protection products are warranted against factory defects in workmanship and materials for a period of one year from the date of installation or first use by the original owner.

LIMITED REMEDY: Upon written notice to 3M, 3M will repair or replace any product determined by 3M to have a factory defect in workmanship or materials. 3M reserves the right to require product be returned to its facility for evaluation of warranty claims. This warranty does not cover product damage due to wear, abuse, misuse, damage in transit, failure to maintain the product or other damage beyond 3M's control. 3M will be the sole judge of product condition and warranty options.

This warranty applies only to the original purchaser and is the only warranty applicable to 3M's fall protection products. Please contact 3M's customer service department in your region for assistance.

LIMITATION OF LIABILITY: TO THE EXTENT PERMITTED BY LOCAL LAWS, 3M IS NOT LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO LOSS OF PROFITS, IN ANY WAY RELATED TO THE PRODUCTS REGARDLESS OF THE LEGAL THEORY ASSERTED.



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