



OWNER'S MANUAL

Installation, Operating, Inspection and Maintenance Instructions Gemtor Anchor D-Rings

Applicable Models:

AD-1

AD-1C

AD-2



! Warning

You must read and fully understand all instructions, or have all instructions explained to you, before attempting to use this device. Equipment must not be installed, operated or inspected by anyone who does not understand these instructions. Failure to observe these instructions could result in serious injury or death. Careless or improper use of this equipment can result in serious injury or death. Training and instruction review should be repeated at regular intervals. If you have any questions regarding these instructions or need additional copies, call Gemtor, Inc. toll free at 800-405-9048

This user instruction manual is not a substitute
for a Comprehensive training program

! IMPORTANT

THESE INSTRUCTIONS SHOULD BE KEPT WITH THE DEVICE AT ALL TIMES.

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GENERAL DESCRIPTION

Gemtor D-Ring Anchors are designed for use where a temporary or permanent, stationary anchorage connector is required. The Model AD-1 or AD-2 attaches quickly and easily to structures capable of supporting at least 5000 lbs. such as the bottom or side of horizontal and vertical beams and columns to form a rigid anchorage connector to connect a safety lanyard, retractable lifeline, vertical and horizontal lifelines or perimeter lines for personal fall protection and fall restraint.

AVAILABLE MODELS

All models are constructed of zinc plated drop-forged alloy steel.

- AD-1** – Supplied with 1/2" grade 8 bolt and nut and washer.
- AD-1C** – Supplied with 1/2" X 4 3/4" concrete expansion bolt.
- AD-2** – Anchor without mounting hardware, provided with 1/2" mounting hole.
- DAS-5KCKIT** – Mounting kit for concrete. Compatible with AD-2 and DAS-5K

WARNINGS AND LIMITATIONS

- Always follow all requirements of the Occupational Safety and Health Act (OSHA) and all state and local regulations.
- If using a snaphook for connection to the Connection Point on the D-ring anchor, always make sure that the snaphook gate cannot contact the beam in a way that could put pressure on the gate and cause it to open.
- Always calculate the fall distance and ensure that a clear, unobstructed distance is provided under the beam to which the worker is attached (Remember to allow for system elongation and a safety margin).
- Develop a rescue plan establishing what to do if a fall occurs.
- Equipment must be used by properly trained personnel only.
- The employer shall provide a training program for each employee who might be exposed to fall hazards. The program shall enable each employee to recognize the hazards of falling and shall train each employee in the procedures to be followed in order to minimize these hazards.[OSHA 1926.503(a)(1)]. In addition, training shall include; fall protection basics, proper use of all applicable fall protection equipment and proper handling, maintenance and storage of the equipment.
- Never use the D-ring anchor for anything other than its intended use.
- The suitability of this device for the intended use must be determined prior to use and is the sole responsibility of the employer.
- Before each use, visually inspect for physical damages, wear and corrosion. Check the beam anchor for damage, cracks, wear, corrosion, or malfunctioning parts. Inspect each system component in accordance with its associated operation and instructions manual. If the inspection reveals a problem or an ineffective condition, remove the unit from the service.
- A qualified person shall inspect the beam anchor at regular intervals. Units that do not pass inspection shall be returned to Gemtor immediately for repair, satisfactory inspections should be marked on the provided inspection log.
- Units subjected to fall arrest forces shall be immediately removed from service and not used again until the anchor is inspected by a qualified person.
- Make sure that all system components are compatible and that potential impact forces, freefall distances, and deceleration distances are within the allowances of applicable regulations.
- A full-body harness with attachment in the center of the wearer's back at or above shoulder level must be used for fall arrest.
- Use only Grade 8 or other Gemtor approved hardware.
- Ensure that the structural member and installed anchor to which the worker is attached is capable of sustaining the fall arrest forces (5000 lbs. or twice the potential impact when designed, installed, and used under the supervision of a qualified person).
- One worker only! Never attach more than one worker to beam anchor.
- Free fall distance shall not exceed 6 ft.
- Do not try to adjust, repair or modify any Gemtor product. For prompt service, please contact: Gemtor, Inc., One Johnson Ave., Matawan, NJ 07747, 800-405-9048.
- Attach this device at or above the connection point on your harness whenever possible. If this device is connected below the attachment point, you must ensure that the system is designed for this type of attachment, can withstand the potential impact forces and can absorb a sufficient amount of fall arrest force.
- D-ring anchor must be installed flush on surface. This may require the use of a wedge washer on S-type (Structural I-beams) or similar structures.

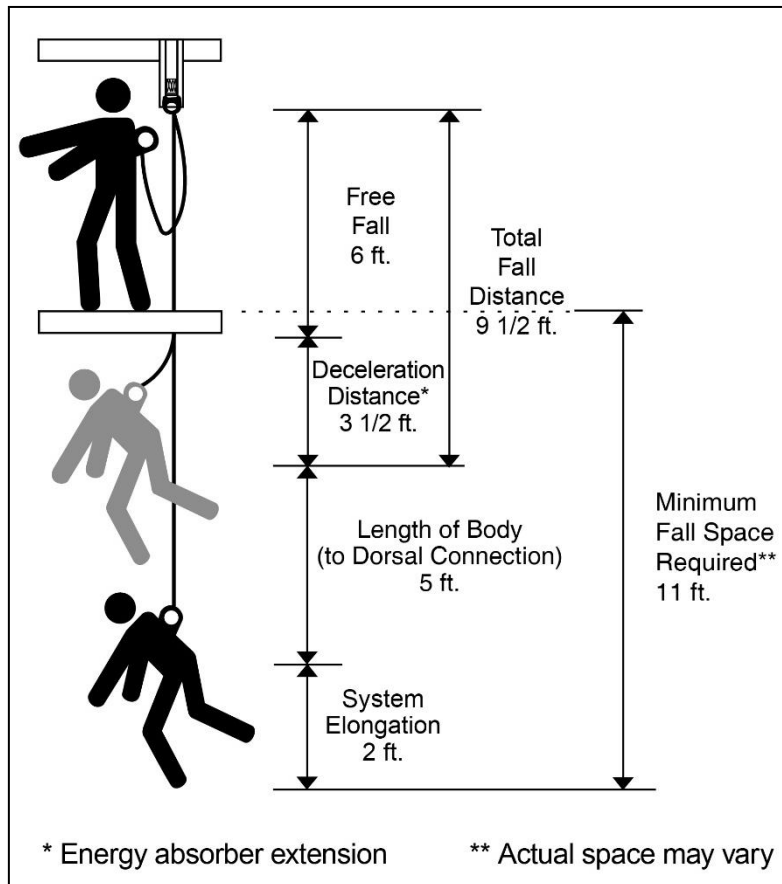
TRAINING

The employer shall provide a training program for each employee who might be exposed to fall hazards. The program shall enable each employee to recognize the hazards of falling and shall train each employee in the procedures to be followed in order to minimize these hazards. [OSHA 1926.503(a)(1)]

The employer shall assure that each employee has been trained, as necessary, by a competent person qualified in the following areas:

- (i) The nature of fall hazards in the work area;
- (ii) The correct procedures for erecting, maintaining, disassembling, and inspecting the fall protection systems to be used;
- (iii) The use and operation of guardrail systems, personal fall arrest systems, safety net systems, warning line systems, safety monitoring systems, controlled access zones, and other protection to be used;
- (iv) The role of each employee in the safety monitoring system when this system is used;
- (v) The limitations on the use of mechanical equipment during the performance of roofing work on low-sloped roofs;
- (vi) The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection; and
- (vii) The role of employees in fall protection plans;
- (viii) The standards contained in this subpart. [OSHA 1926.503(a)(2)]

The employer shall verify compliance with paragraph (a) of this section by preparing a written certification record. The written certification record shall contain the name or other identity of the employee trained, the date(s) of the training, and the signature of the person who conducted the training or the signature of the employer. If the employer relies on training conducted by another employer or completed prior to the effective date of this section, the certification record shall indicate the date the employer determined the prior training was adequate rather than the date of actual training. [OSHA 1926.503(b)(1)]



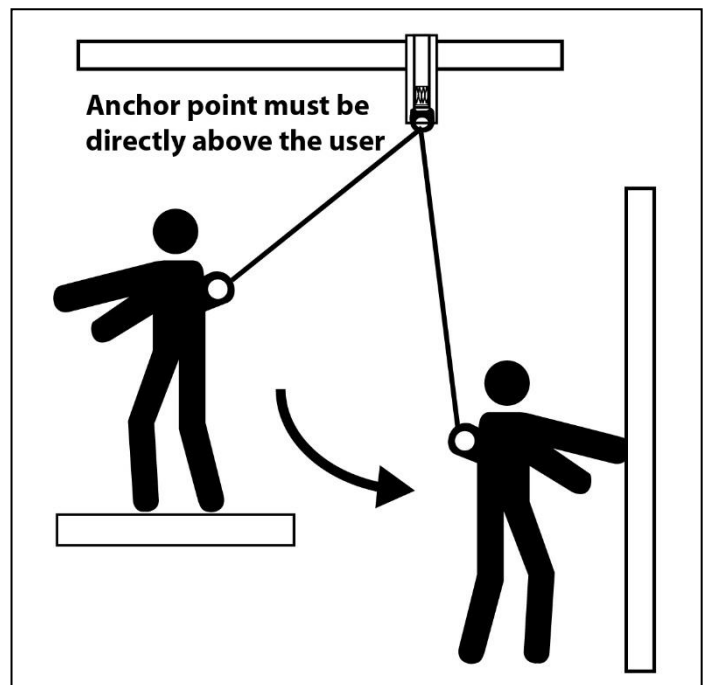
Swing Fall Hazard - Work directly under your anchorage whenever possible. If a swing fall can occur, ensure that there are no hazards in the swing fall path. Total fall distance is greater in a swing fall than in a vertical fall. Ensure that you account for the added distance when calculating Minimum Required Fall Space.

Free fall considerations

Free fall distance should be kept to a minimum, and as required by OSHA, in no case shall exceed 6 feet. The tie-off attachment point to the lifeline or anchor should be located at or above the connection point of the fall arrest equipment on harness.

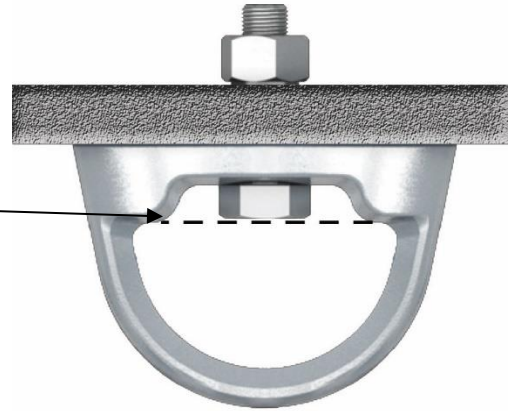
Use the diagram to calculate required clearance. The numbers are examples, substitute the actual distances associated with your jobsite and the equipment being used. In the example, Minimum Required Fall Space is 11 ft.

Minimum Required Fall Space = Free Fall + Deceleration Distance + Length of Body + Elongation

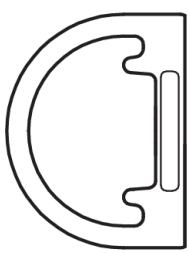


INSTALLATION ON I-BEAM OR OTHER STRUCTURAL STEEL.

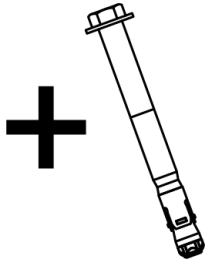
1. Locate and identify an approved compatible anchorage/structure. Be sure that the mounting location is clean and free of debris.
2. Locate or drill a 1/2" diameter hole. Consideration should be given to allow sufficient clearance to place the lock washer and tighten the nut.
3. Mount the D-Ring Anchor by passing the supplied or an approved 1/2" grade 8 bolt through the hole in the connector and through the hole in the structure. Attach the lock washer and nut.
4. Completely tighten to 65-75 ft.-lbs. Ensure the entire nut is engaged on the threads, the device is securely fastened to the structure and the head of the bolt does not extend above shoulders of the anchor.
5. Follow all instructions pertaining to your lanyard or lifelines correct use, especially maximum allowable freefall, capacity, maximum deceleration distance and maximum arresting force.



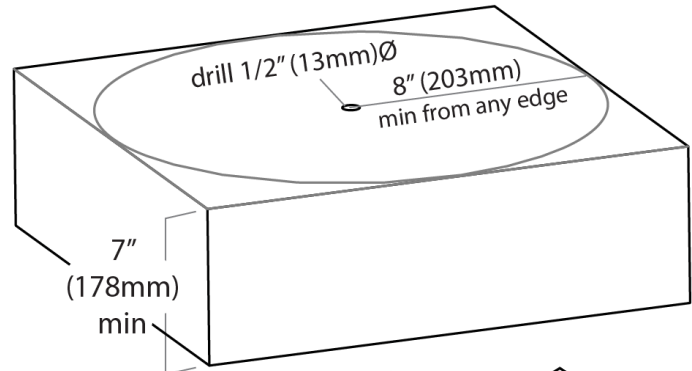
INSTALLATION IN CONCRETE



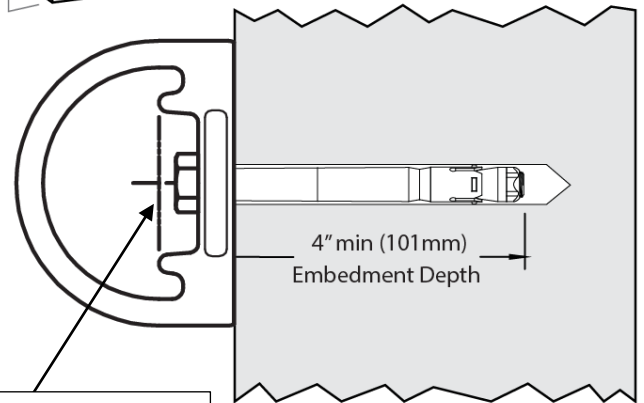
AD-2



DAS-5KCKIT



1. Use a proper drill & bit for concrete. (SDS drill/bit)
2. Drill a 1/2" (13mm) hole no less than 4.5" (114mm) deep and 8" (203mm) away from any edge.
3. Hole must be straight & perpendicular to surface.
4. Hole must be free of debris (use compressed air)
5. Concrete strength must be at least 3000psi (20.7MPa) and no less than 7" (178mm) thick.
6. Use the supplied or an approved 1/2" concrete anchor only. Insert anchor in hole and tighten to recommended torque (40ft-lbs/54Nm).



No part of fastener shall extend beyond this point

Torque:
40ft-lbs
(54Nm)

INSPECTION LOG

Model #		Date of Manufacture	
Date of first use			
Inspection	Condition & Comments	Action	Inspector's