

American Safe Room

Installation and Operation Manual

for the

ASR-100-HC

Emergency Hand Crank



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Description

The ASR-100-HC Emergency Hand Crank will introduce safe, breathable air into your protected space when the power grid goes down and the capacity of the battery backup has been exhausted. After that, it will take mechanical force to pull safe, breathable air through the filter bank and into your protected space. This device will provide you with the means to do this.

It must be installed onto the same wall that the Safe Cell is installed on. See pages 4 and 5 for the location.

You can mount the hand crank and leave it in place while the Safe Cell is running on electrical power.

Operation

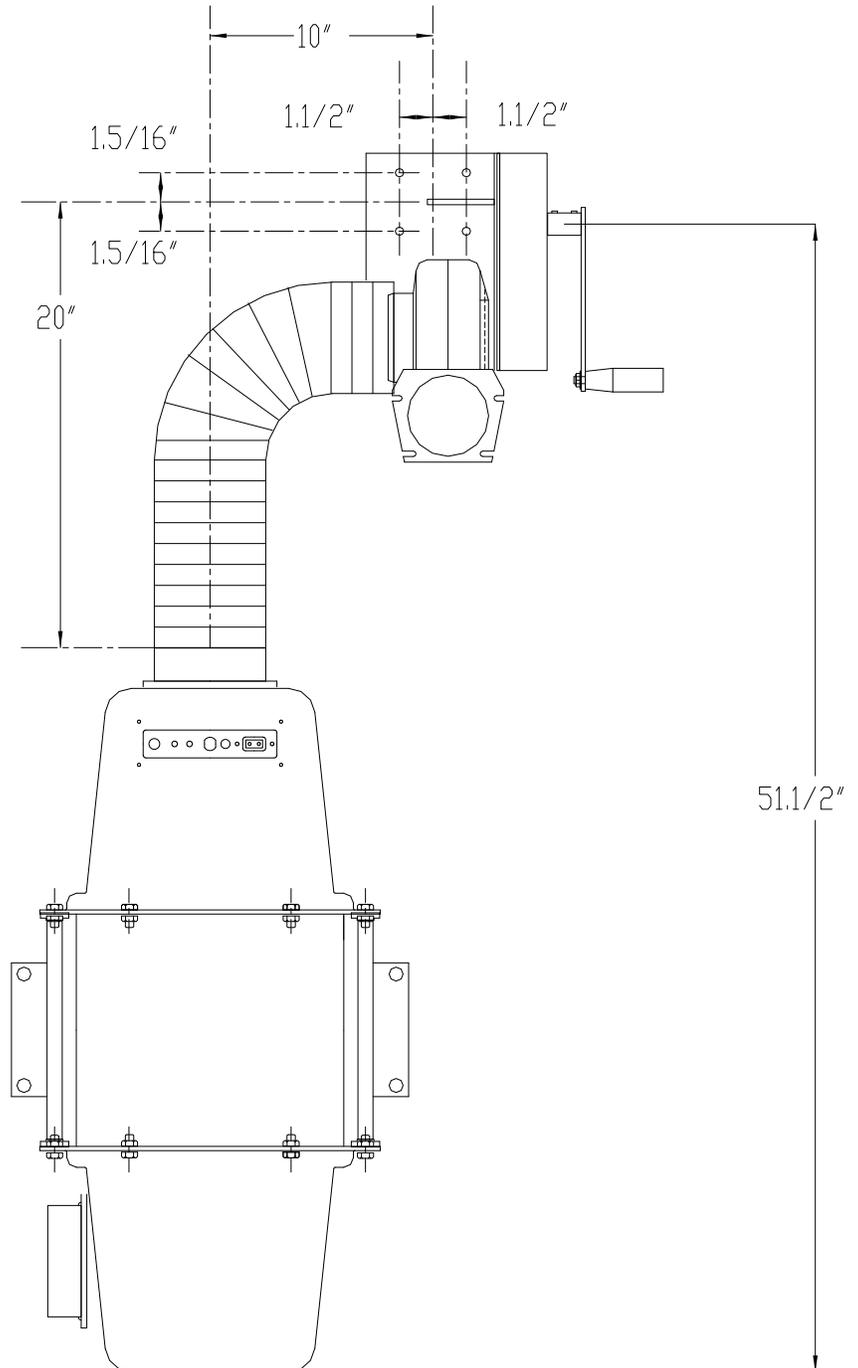
Once it is installed on the Safe Cell, the handle can be rotated clockwise to pull air into the shelter.

Rotating the handle once a second (60 RPM) will deliver 60 CFM of filtered air through the Safe Cell.

Installation - 60 CFM Safe Cell (ASR-100-AV-NBC)

The ASR-100-HC Emergency Hand Crank mounts to the same wall that the Safe Cell mounts on. It has a square four hole pattern in the mounting plate as shown below. Four 1/2 inch concrete wedge anchors are included.

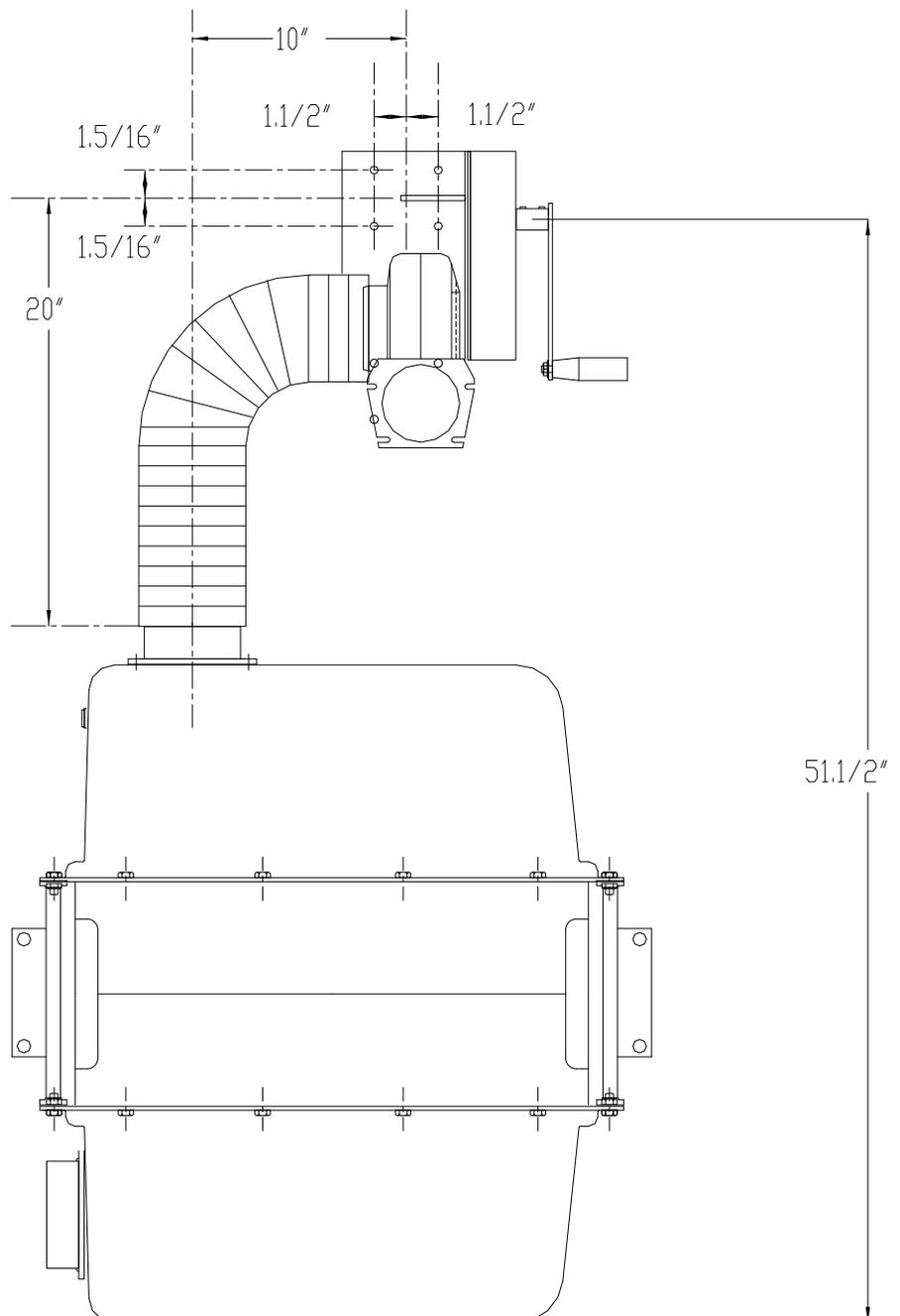
1. Install the Safe Cell as per the Safe Cell manual.
2. The positions of the four mounting holes on the wall are located in relation to the top center of the outflow port on the Safe Cell. The 10 inch and 20 inch dimensions below are the critical dimensions to hold.
3. Place the hand crank on the wall and mark the four hole locations.
4. Remove the hand crank from the wall and install the four wedge anchors using the manufacturer's data on page 8.
5. Replace the hand crank on the wall and install the washers and nuts on the wedge anchors.
6. Slip the hose onto the outflow port of the Safe Cell and the intake port of the hand crank. The hose may be left in place when the Safe Cell is operating under electric power - but the Safe Cell should be kept sealed with the shipping caps when not in use. See the Safe Cell manual for more information.



Installation - 120 CFM Safe Cell (ASR-200-AV-NBC)

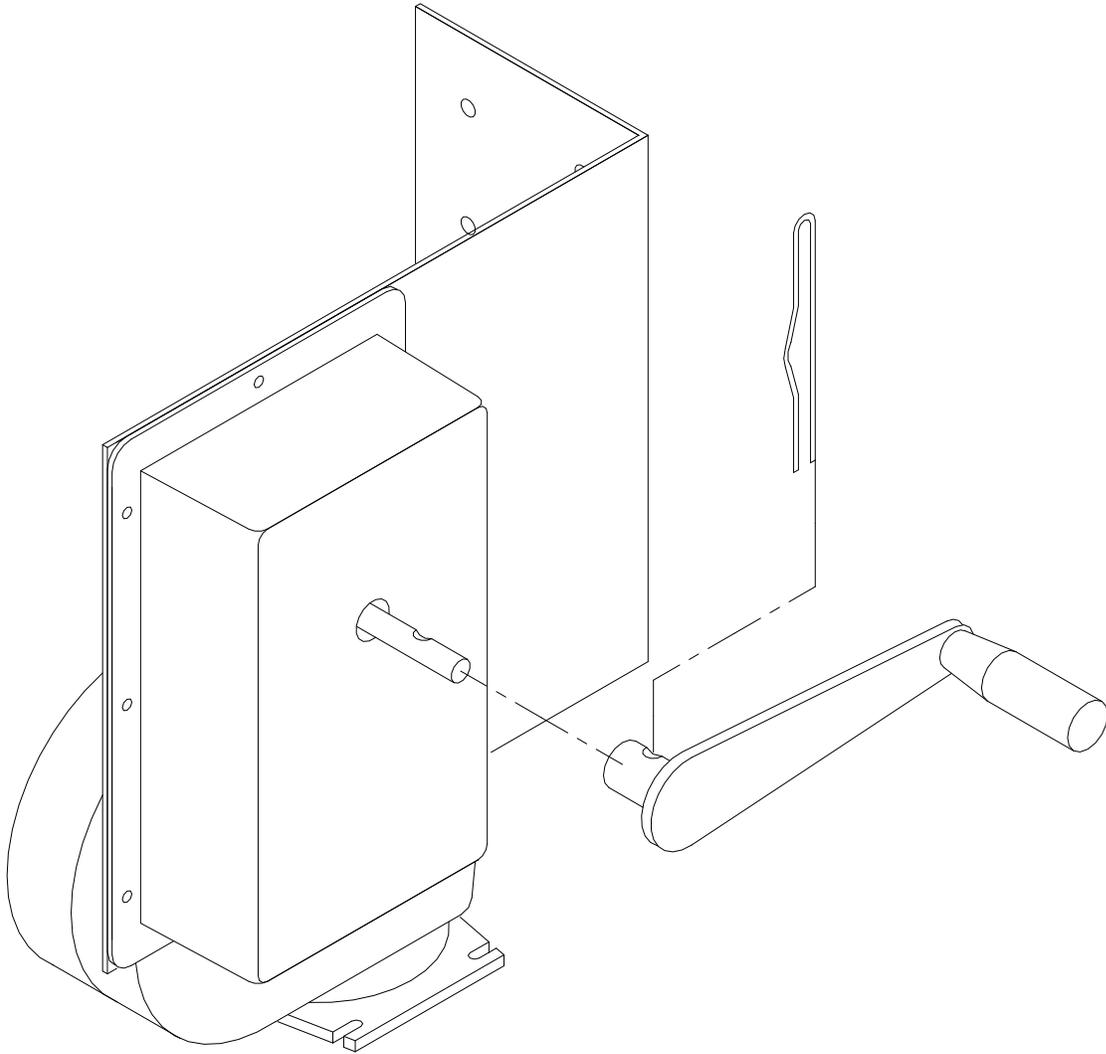
The ASR-100-HC Emergency Hand Crank mounts to the same wall that the Safe Cell mounts on. It has a square four hole pattern in the mounting plate as shown below. Four 1/2 inch concrete wedge anchors are included.

1. Install the Safe Cell as per the Safe Cell manual.
2. The positions of the four mounting holes on the wall are located in relation to the top center of the outflow port on the Safe Cell. The 10 inch and 20 inch dimensions below are the critical dimensions to hold.
3. Place the hand crank on the wall and mark the four hole locations.
4. Remove the hand crank from the wall and install the four wedge anchors using the manufacturer's data on page 8.
5. Replace the hand crank on the wall and install the washers and nuts on the wedge anchors.
6. Slip the hose onto the outflow port of the Safe Cell and the intake port of the hand crank. The hose may be left in place when the Safe Cell is operating under electric power - but the Safe Cell should be kept sealed with the shipping caps when not in use. See the Safe Cell manual for more information.



Installation - Installing the handle

The handle is slipped onto the main shaft and the retaining pin is inserted into the hole.



Specifications

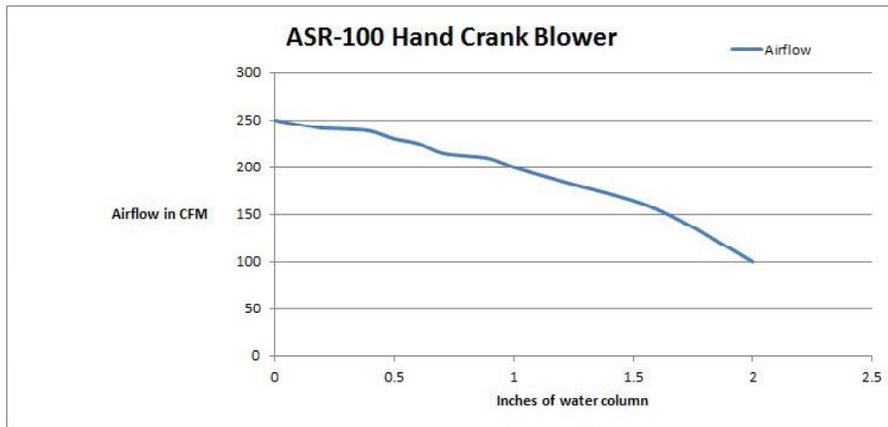
Envelope size: 13.375 inches x 14.375 inches (340 mm x 365 mm)

Rotation diameter: 15 inches (381 mm)

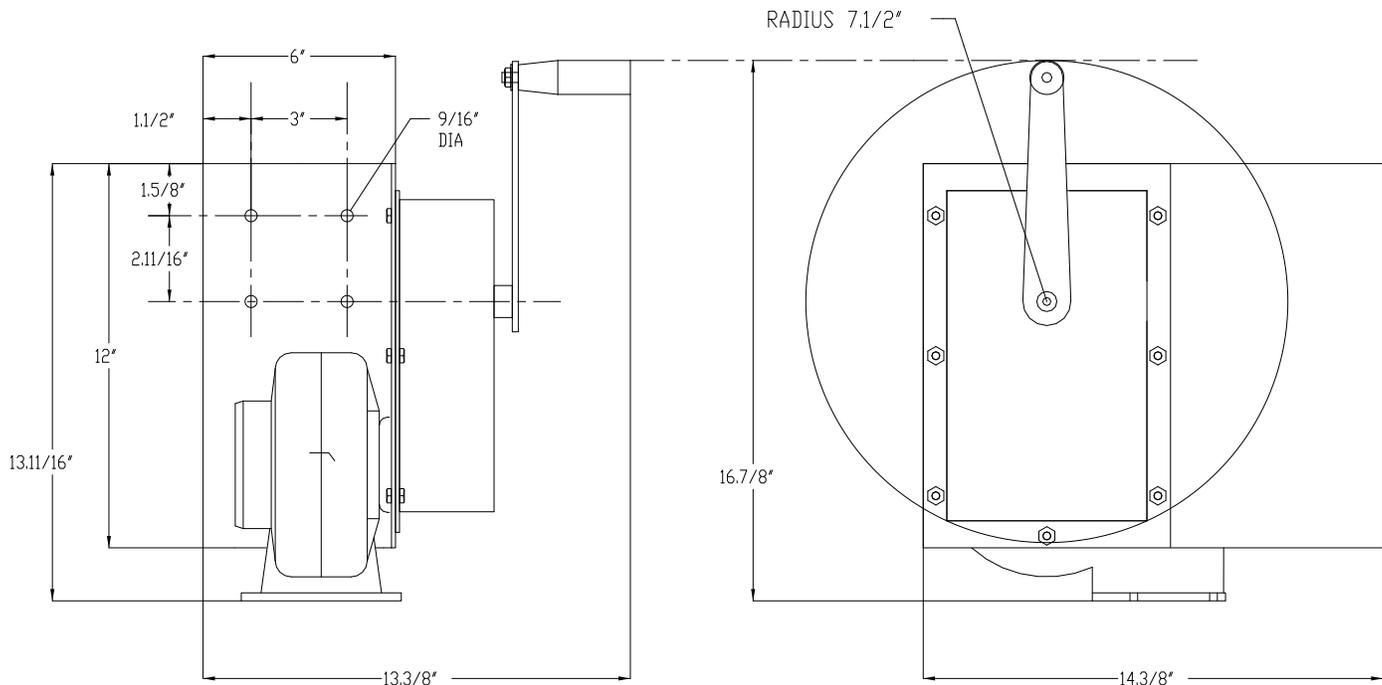
Weight: 19.8 pounds (8.9 kilograms)

Airflow: 60 CFM at 60 RPM (100 cubic meters per hour)
(system airflow: Safe Cell + hand crank blower)

Airflow: (blower airflow at different pressures)



Envelope dimensions:



Concrete Wedge Anchor -Technical Information

The ThunderStud® wedge anchor consists of two pieces, permanently pre-assembled into a single unit. The carbon steel rod is threaded for a portion of its length. The extreme end of the threaded portion is rounded to protect the threads from damage while the anchor is being driven into the hole drilled in the concrete. The other end of the rod has a necked down diameter, which runs for a short distance, at the end of which it tapers outwardly to the full diameter of the rod. A precision formed universal clip made of carbon steel is permanently assembled around the necked down diameter to complete the anchor. Each package contains the correct number of nuts and washers.

Concrete Wedge Anchor - Approvals:

Listed by Underwriters Laboratories (UL), International Conference of Building Officials (ICBO) carbon steel only, Board of Standards and Appeals (BSA), City of L.A. Meets or exceeds U.S. Government G.S.A. Specifications FF-S-325 Group 11, Type 4, Class

Concrete Wedge Anchor - Applications:

Medium to heavy duty into concrete.

Concrete Wedge Anchor - Installation:

(1) Drill hole into concrete with a carbide tipped masonry drill bit conforming to ANSI B94, 12-77, the same size as the ThunderStud® wedge anchor. If the fixture being fastened is in place and being used as a template to locate the ThunderStud® anchor, the mounting hole in the fixture should afford clearance for the universal wedge clip on the stud. (2) Clean hole, place the ThunderStud® wedge anchor through the hole in the fixture or directly into the concrete and hammer it in to the drilled hole until the threads are below the surface of the fixture/concrete. (3) Turn the nut by hand until the unit is snugged up. Tighten the nut with a wrench, approximately three or four full turns, to complete the fastening.

Concrete Wedge Anchor - Anchor Length:

Minimum embedment, plus fixture, plus nut and washer. The ThunderStud® wedge anchor requires no maximum hole depth. The depth of the hole in the concrete should be the length of the wedge anchor minus the thickness of the material being fastened. This will result in some extra depth to accommodate a minor amount of concrete cutting which may not be able to be cleaned out of hole.