

INSTALLATION – BRACKET SUSPENSION

BRACKET SUSPENSION OVERVIEW

SELECTION CRITERIA:

This installation method is most suitable when:

- 1) (For 6" Holsters only) The bottom of the ductwork is more than 16' AFF
- OR
- 2) When the Hose Holster (whether 4" or 6") is next to a wall/column.

BRIEF DESCRIPTION:

Ascent Systems supplies a suspension rim that is fastened to bracing by contractor. Three suspension straps

connect the Hose Holster to the suspension rim.

SUSPENSION KIT INCLUDES:

- 1) One suspension rim with hardware for connection to the bracing/brackets;
- 2) Three flexible straps with hardware to connect the Hose Holster to the suspension rim;
- 3) One hose clamp.

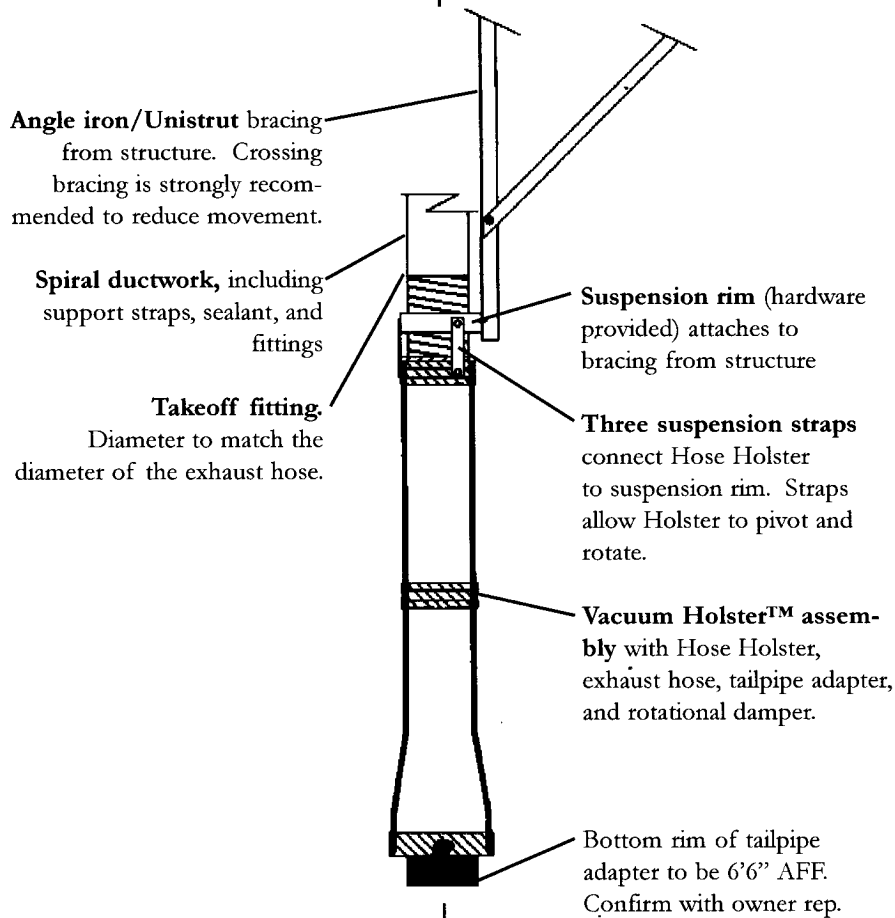
PART # FOR ENTIRE KIT (see page 11):

4" Hose Holster: Add "B" suffix to Vacuum Holster #

5"/6" Hose Holster: Add "B" suffix to Vacuum Holster #

Supplied by Installer

Supplied by Ascent Systems



INSTALLATION – BRACKET SUSPENSION

BRACKET SUSPENSION DETAIL

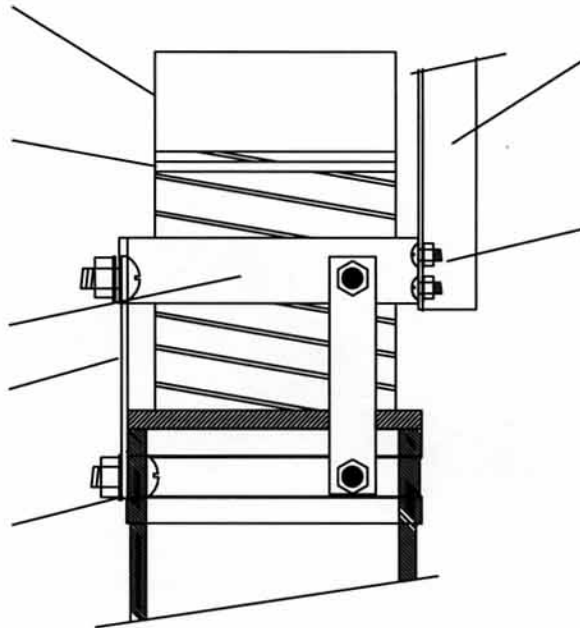
Exhaust Duct, diameter of takeoff should equal the diameter of the exhaust hose

Hose Clamp, supplied by Ascent, connects exhaust hose to ductwork

Suspension Rim

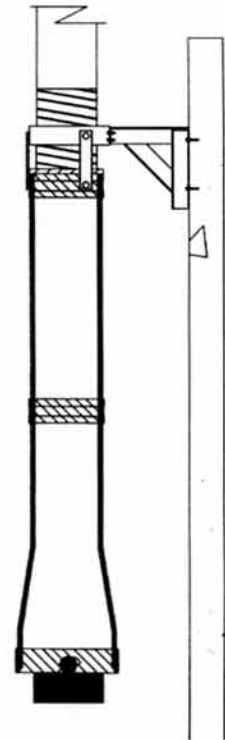
Suspension Straps, typical of 3, connect Hose Holster to Suspension Rim

Round head of the carriage bolt and flat washer are placed inside the Hose Holster and suspension rim. The flat washer, lock washer, and nut are placed on outside.



Angle Iron/Unistrut bracket by installer. Cross bracing is recommended.

See table below for proper mounting height of suspension rim



NOTE: THE BRACKET SUSPENSION KIT MAY BE SUITABLE IF THE HOSE HOLSTER IS LOCATED NEAR A WALL/COLUMN.

KEY SUSPENSION MEASUREMENT (Bottom Rim of Tailpipe Adapter Typically to be 6'6" AFF)

Model of Hose Holster	4 Compact	4 Extended	6 Compact	6 Extended
Height of Top Rim of Suspension Ring, AFF	11'0"	12'4"	11'11"	13'9"

INSTALLATION – GENERAL INFORMATION

VACUUM HOLSTER™ SUSPENSION OVERVIEW

The Vacuum Holster™ can be suspended by a variety of methods, to best suit the features of the particular application. Each method is briefly described below. A complete, illustrated explanation of each method is provided on following pages.

There are common requirements for every method of installation. For all Vacuum Holster™ models, it is typically recommended that the lower rim of the tailpipe adapter be 6'6" above finished floor (AFF). With this height, the system is easily within reach of personnel, but it is high enough not to present an encumbrance within the facility.

The tailpipe adapter of the 4" Vacuum Holster™ hangs 7" below the bottom rim of the Hose Holster; consequently, the bottom rim of the Hose Holster should be 7'1" AFF. The tailpipe adapter of the 5" or 6" Vacuum Holster™ hangs 8" below the bottom rim of the Hose Holster; consequently, the bottom rim of the Hose Holster should be 7'2" AFF.

Each of the suspension examples that follow give one key suspension measurement for the installation contractor to execute, and the mounting height of the Vacuum Holster will conform to the above guidelines.

To prevent misunderstandings concerning installation supplies, **Ascent Systems does not typically furnish the following items:**

- Exhaust duct or exhaust duct sealant;
- Exhaust duct suspension straps or sheet metal screws;
- Flex connections for the fan inlet, or square-to-rounds or for the fan outlet;
- Angle iron, Unistrut, all-thread, beam clamps, or any other material to provide bracing from the structure;
- Roof curbs, wall brackets, or any other means of mounting the exhaust fan.
- Fan accessories (for example, flanged inlets/outlets, drain plugs) are not standard offerings. However, they are available upon request. See the Exhaust Fan Catalog for more specific information.

Ascent Systems does furnish:

- The tailpipe adapter, exhaust hose, Hose Holster, hose clamps, and a rotational damper;
- The exhaust fan with a bird screen outlet piece;
- A Hose Holster suspension kit, whose contents are described in detail on the following pages.

METHOD #1:

BRACKET SUSPENSION

- **Recommended for 5-6" Hose Holsters when bottom of duct manifold is more than 16' AFF**
- Also suitable when the Hose Holster is suspended from a wall/column
- Provides rotational movement to the Hose Holster
- Ascent Systems supplies the suspension rim that attaches to bracing by contractor
- Ascent Systems supplies flexible straps to connect the Holster to suspension rim

METHOD #2:

DIRECT TO DUCT

- **Recommended for 4" Hose Holsters when bottom of duct manifold is 13' AFF or less; 6" Holsters when 16' AFF or less**
- Provides rotational movement to the Hose Holster
- Hose Holster is hung from a suspension strap that is looped over the duct manifold
- Hose Holster may be cut to a shorter length when duct is approx less than 12'6" (4" Holsters), or 14'6" or less (6" Holsters).
- Exhaust hose of Vacuum Holster is connected directly to duct
- Duct support strap to be placed near the takeoff fitting - welded takeoff fitting suggested.
- Spiral duct to be a mini-

METHOD #3:

EXTENDED DUCT

- **Recommended for 4" Hose Holsters when bottom of duct manifold is 13' AFF or more**
- Hose Holster is hung from a suspension strap that is looped over the duct manifold
- Intermediate piece of spiral duct (duct spacer) connects exhaust hose of Vacuum Holster to the exhaust duct. Duct spacer is provided by installer and its length is determined by application.
- Provides rotational movement to Hose Holster
- Spiral duct to be a minimum of 26 gauge

SELECTION OF CORRECT SUSPENSION KIT – 5-6”

SUSPENSION OF 5-6” VACUUM HOLSTERS™

Similar to 4” Hose Holsters, 5-6” Holsters can be suspended from the duct, provided the manifold is 16’ AFF or less. The extended duct suspension method, in which a piece of spiral duct is placed between the Hose Holster and the duct manifold, is not recommended for 5-6” Hose Holsters. If the bottom of the duct manifold exceeds 16’, the bracket suspension kit should be used.

The two basic installation arrangements are as follows:

1. **Direct to duct suspension**, as shown on pages 34-35, in which the exhaust hose of the Hose Holster is connected directly to the duct manifold. Typically, this method is suitable when the bottom of the duct manifold is 16’ or less AFF (Diagram 1 below).

NOTE: If the duct is very low AFF (typically 14’0” or less), the installer may cut the Hose Holster to a shorter length, provided the cut does not exceed 16” (Diagram 2).

2. **Bracket suspension**, as depicted on 32-33, is generally used when the bottom of the duct manifold is 16’ or more AFF. The installation contractor provides bracing (angle iron or unistrut) from the structure, and the Hose Holster attaches to the bracing by a suspension rim. Cutting the Hose Holster should not be necessary with bracket suspension.

The height of the duct manifold AFF is the key measurement to determine the proper suspension method. Due to variance in the types of takeoff fittings that may be installed, the above measurements of duct manifold AFF should be used as guidelines, and not as hard-and-fast-rules.

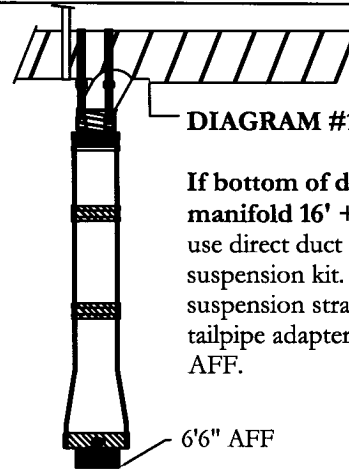


DIAGRAM #1:

If bottom of duct manifold 16’ +/-AFF, use direct duct suspension kit. Size suspension strap so that tailpipe adapter is 6’6” AFF.

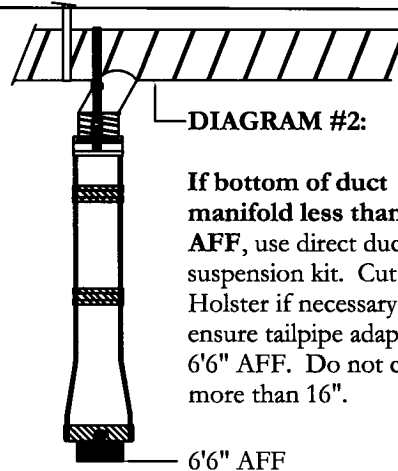


DIAGRAM #2:

If bottom of duct manifold less than 14’ AFF, use direct duct suspension kit. Cut Holster if necessary to ensure tailpipe adapter is 6’6” AFF. Do not cut more than 16”.

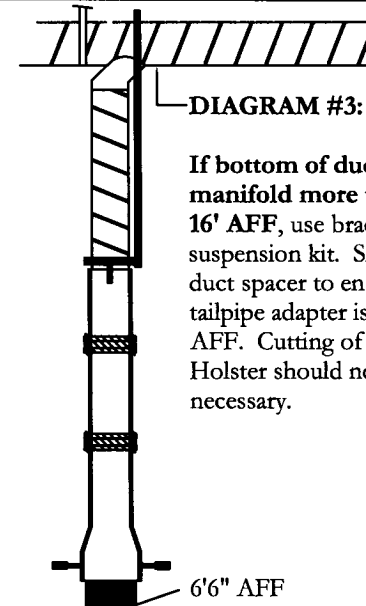


DIAGRAM #3:

If bottom of duct manifold more than 16’ AFF, use bracket suspension kit. Size duct spacer to ensure tailpipe adapter is 6’6” AFF. Cutting of Hose Holster should not be necessary.

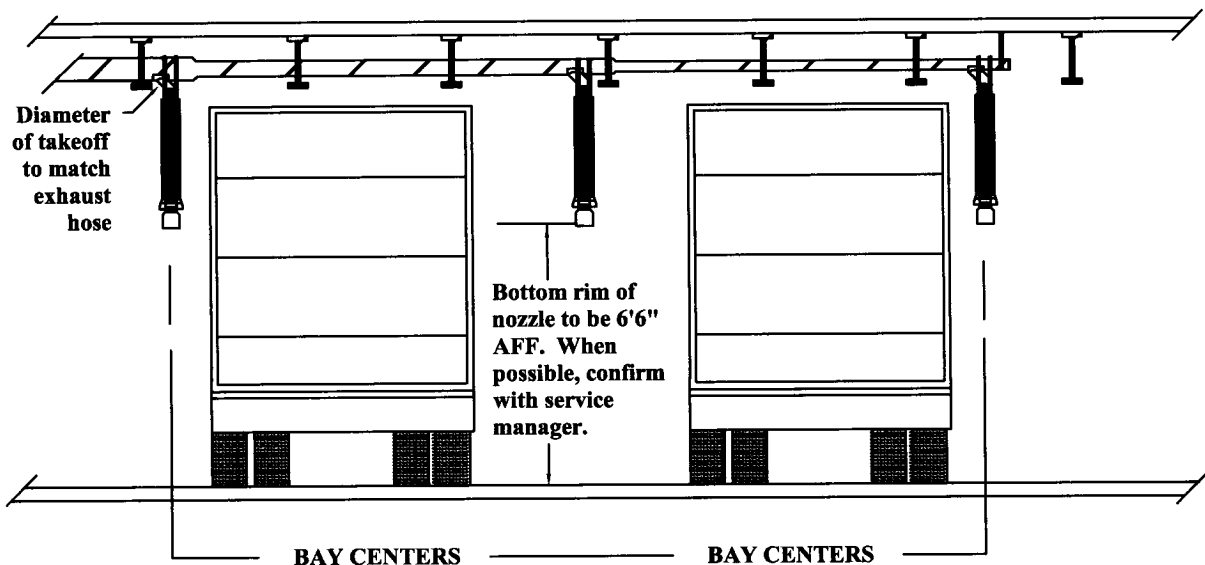
GUIDELINES FOR LOCATION OF 5-6" HOLSTERS

LOCATION OF 5-6" VACUUM HOLSTERS™

- 1: The takeoff fittings from the duct manifold should have a diameter of 6".
2. Ascent Systems recommends that the bottom of the tailpipe adapter hang at 6'6" AFF. This height provides clearance for vehicles and personnel, but also allows the tailpipe adapter to be grasped easily.

- 3: As shown on the next page, the Hose Holsters should be hung so that they are positioned at the midpoint of the bay. This region is where the vertical stack or undercarriage exhaust port is generally located.
4. If possible, confirm drop location and mounting heights with the service manager prior to beginning work.

GUIDELINES FOR LOCATION OF 5-6" HOLSTERS, END VIEW



GUIDELINES FOR LOCATION OF 5-6" HOLSTERS

GUIDELINES FOR LOCATION OF 5-6" HOLSTERS

SIDE VIEW

Roof Mount Exhaust
—Fan Strongly
Recommended

Unistrut or Angle
Iron Brace from
Structure. Cross
bracing strongly
recommended.

MOST COMMON LOCATION
Holster hangs just behind the cab,
where there is a short distance to
either undercarriage tailpipe or
vertical stacks.

Exhaust Cane is
used for vertical
stacks. The cane
is placed over the
stack, and the base
of the cane attaches
to the tailpipe
adapter

Bottom rim of nozzle to be
6'6" AFF. When possible,
confirm with service manager.

WRONG LOCATION

BAY AREA