Matrx™ Central Scavenger
Waste Anesthetic Gas Disposal System Installation

Applies to Models:
40162800

WARNING
Equipment is not suitable for use in the presence of a flammable anesthetic mixture. Make certain that the installation does not interfere with wiring, gas or water pipes inside the walls when mounting the scavenger unit. A qualified contractor may be required to perform these procedures.

Equipment Alert
Trunk line Inlet holes are shown with plastic caps. There are two more on back and one on bottom. All unused trunk line Inlet holes must be capped. Vacuum Inlet Assembly with Safety Valve must be installed facing downward.
**Important Information**

**Intended Use**
Operation of all Midmark Waste Anesthetic Gas Disposal equipment is restricted to use in veterinary procedures.

**Disposal of Equipment**
At the end of product life, the unit(s), accessories, and other consumable goods may become contaminated from normal use. Consult local codes and ordinances for proper disposal of equipment, and other consumable goods.

**Transportation / Storage Conditions**
Ambient Temperature Range: 32°F to 104°F (0°C to 40°C)
Relative Humidity: 10% to 90% (non condensing)
Atmospheric Pressure: 500hPa to 1060hPa (0.49atm to 1.05atm)

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**Safety Symbols**

- **DANGER**
  Indicates an imminently hazardous situation which will result in serious or fatal injury if not avoided. This symbol is used only the most extreme conditions.

- **WARNING**
  Indicates a potentially hazardous situation which could result in serious injury if not avoided.

- **Caution**
  Indicates a potentially hazardous situation which may result in minor or moderate injury if not avoided. It may also be used to alert against unsafe practices.

- **Equipment Alert**
  Indicates a potentially hazardous situation which could result in equipment damage if not avoided.

- **Note**
  Amplifies a procedure, practice, or condition.

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**Proper Shipping Orientation**
Maximum stacking height
(Do not stack)
Fragile
Keep Dry

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**Consult User Guide**
**Do Not Tumble**
**Handle With Care**
## Central Scavenger Site Requirements

### Plumbing

<table>
<thead>
<tr>
<th>Type</th>
<th>PVC Sch 40 Pipe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>1-1/2” (Installer Supplied)</td>
</tr>
<tr>
<td>Termination</td>
<td>Vacuum Inlet Assembly with Room Air Safety Valve Facing Downwards (included)</td>
</tr>
<tr>
<td>Scavenger Connection</td>
<td>Secure PVC Pipe to Inlet Hole with O-ring and Lock Nut (included)</td>
</tr>
<tr>
<td>Maximum Length</td>
<td>100’ Pipe, 8 Elbows</td>
</tr>
<tr>
<td>Max Trunk Lines</td>
<td>3 Trunk Lines for Each Central Scavenger Unit with up to 4 Scavenging Hose Connections <em>(Note: Only 3 Scavenging Hose Connections in Canada)</em> <em>(40’ Scavenging Hose included)</em></td>
</tr>
<tr>
<td>Mounting Options</td>
<td>PVC can be mounted to Wall or Ceiling <em>(can be concealed inside wall or above ceiling)</em></td>
</tr>
</tbody>
</table>

### Vent

<table>
<thead>
<tr>
<th>Type</th>
<th>Direct or Ducted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>Maximum length for 3-1/4 x 10in. ducting is 40 feet with no more than one 90° bend. Maximum length for 5 in. diameter round ducting is 30 feet with no more than one 90° bend.</td>
</tr>
<tr>
<td>Template</td>
<td>Paper Template Provided</td>
</tr>
</tbody>
</table>

### Electrical

<table>
<thead>
<tr>
<th>Supply</th>
<th>115 VAC Outlet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Cord Length</td>
<td>6’</td>
</tr>
</tbody>
</table>

### Environmental

| Equipment Room Ambient Temperature | 32° to 104° F 0° to 40° C |
Installation Preparation...
Choose a location to install the Scavenger Unit within 6 feet of a 115 VAC outlet.

Note: Use the Cutout Template provided in the Installation Kit to mark the appropriate cutouts for the required installation configuration (Direct Wall or Ducted Vent) and optional rear Trunk Inlet Line holes.

Installation Kit Components

- Auto-close 19 mm Hose Fitting (4)
- Male Adapter 1-1/2 in. PVC (1)
- Lock Nut Conduit 1-1/2 in. (1)
- O-Ring (1)
- Flanged Lock Nut (2)
- Vacuum Inlet Assembly (1)
- Includes Room Air Safety Valve
- 1-1/2” x 1 1/2” x 3/4” NPT RDC Tee (4)
- Street Elbow PVC 1-1/2 in. (4)
- Outside Vent with screen (1)
- 40 Ft. of 19mm Magenta Scavenging Hose
- Manometer with Tubing and 1/4” Adapter (1)
- 19mm Adapter (4)
- 19mm Female Fitting x 3/4” NPT (4)
- 6 Foot Electrical Power Cord (1)
- 19mm Adapter (4)
- 19mm Female Fitting x 3/4” NPT (4)
**Central Scavenger Unit**

Remove Cover...
A) Loosen hex head screws on the side of the enclosure.
B) Pull right side of cover out from the screws via the slotted holes.
C) Pull the loose side of the cover free of the enclosure by pulling it from under the fixed left panel.
**Vent Installation**

**Direct Wall Vent Installation**

*Mount the scavenger unit to the wall.*

- **Anchors** (installer supplied)
- **Holes**
- **Outside Vent**
- **Scavenger Unit**
- **Wall Stud**
- **Wall**
- **#8 Screws & Washers** (installer supplied)

*Mount the vent to an outside wall and weatherproof as necessary.*
Trim vent duct length to keep vent flush with outside wall.

**Ducted Vent Installation**

*Use 3-1/4 x 10 in. rectangular duct installed thru an interior wall to vent scavenger unit to the roof or an outside wall.*

A) Secure scavenger unit to wall anchors.
B) Press scavenger unit thru wall and into duct.
C) Use four #8 screws and flat washers to draw together.

*Note: Round, 5 in. diameter ducting could also be used to vent the scavenging unit thru the wall.*

**WARNING**
Do not attach to HVAC ducting.

- **Holes Thru Wall and Ducting for Anchors**
- **Anchors** (installer supplied)
- **Wall Stud**
- **Wall**
- **Scavenger Unit**
- **#8 Screws & Washers** (installer supplied)
- **Round Gasket**
- **Cap unused end of Duct**

*Mount the vent to an outside wall and weatherproof as necessary.*
Trim vent duct length to keep vent flush with outside wall.
Use a vent designed for roof applications if the vent terminates on a roof.
Install trunk line in ceiling or wall (wall shown on next page).

**Trunk Line In Room (Ceiling Drop Shown)**

- Install Vacuum Inlet Assembly with Room Air Safety Valve Facing Down
- Clamp (installer supplied)
- Ceiling Plate (installer supplied)
- Trunk Line 1-1/2 in. PVC Pipe
- 19mm Scavenging Hose
- 19mm Adapter
- 19mm Hose
- Auto Close Fitting
- O-Ring
- Lock Nut
- Trunk Line Inlet Holes

**Note**
Example shows equipment room and one operatory set-up. Scavenger is shipped with components for four scavenging hose connections.
Trunk Line In Walls (Wall Port Shown)

- Clamp (installer supplied)
- Wall Plate (installer supplied)
- Trunk Line (installer supplied)
- Install Vacuum Inlet Assembly with Room Air Safety Valve Facing Down

1 1/2" PVC Pipe

Use 1-1/2 in. Street Elbow connection to Trunk Line

Trunk Line Inlet hole

Clamp

Lock Nut

O-Ring

Use 1-1/2 in. Street Elbow connection to Trunk Line

19mm Female Fitting x 3/4" NPT

Auto Close Fitting

19mm Adapter

19mm Scavenging Hose

3/4" PVC Drop (installer supplied)

Install Vacuum Inlet Assembly with Room Air Safety Valve Facing Down

Note

Example shows equipment room and one operatory set-up. Scavenger is shipped with components for four scavenging hose connections.
**Testing the Vacuum Level**

The maximum allowable negative pressure in the central scavenger system, immediately downstream of the gas collecting assembly during normal administration of anesthesia, shall be tested at an excess gas flow rate of zero and shall be 50 Pa (0.5 cm-H₂O) or less.

Follow the instructions printed on the front of the manometer to test the vacuum level at every scavenging hose throughout the entire central scavenger system. Repeat test with all scavenging hose connections open.

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Pass = Between Lines = Proper Vacuum

(1 Atm To -0.5 cm HO)

Directions for use:
1. Mix 1 drop of liquid dish soap with one cup of water.
2. Pour mixture to Fill Line in manometer.
3. Attach scavenger to scavenger hose.
4. Activate scavenger unit. Water level should remain in the PASS zone between the lines during the test.

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Use 1/4 in. Tubing with Adapter to Connect Manometer to 19mm Scavenger Hose

19 mm Adapter

Auto Close Fitting

19mm Scavenging Hose