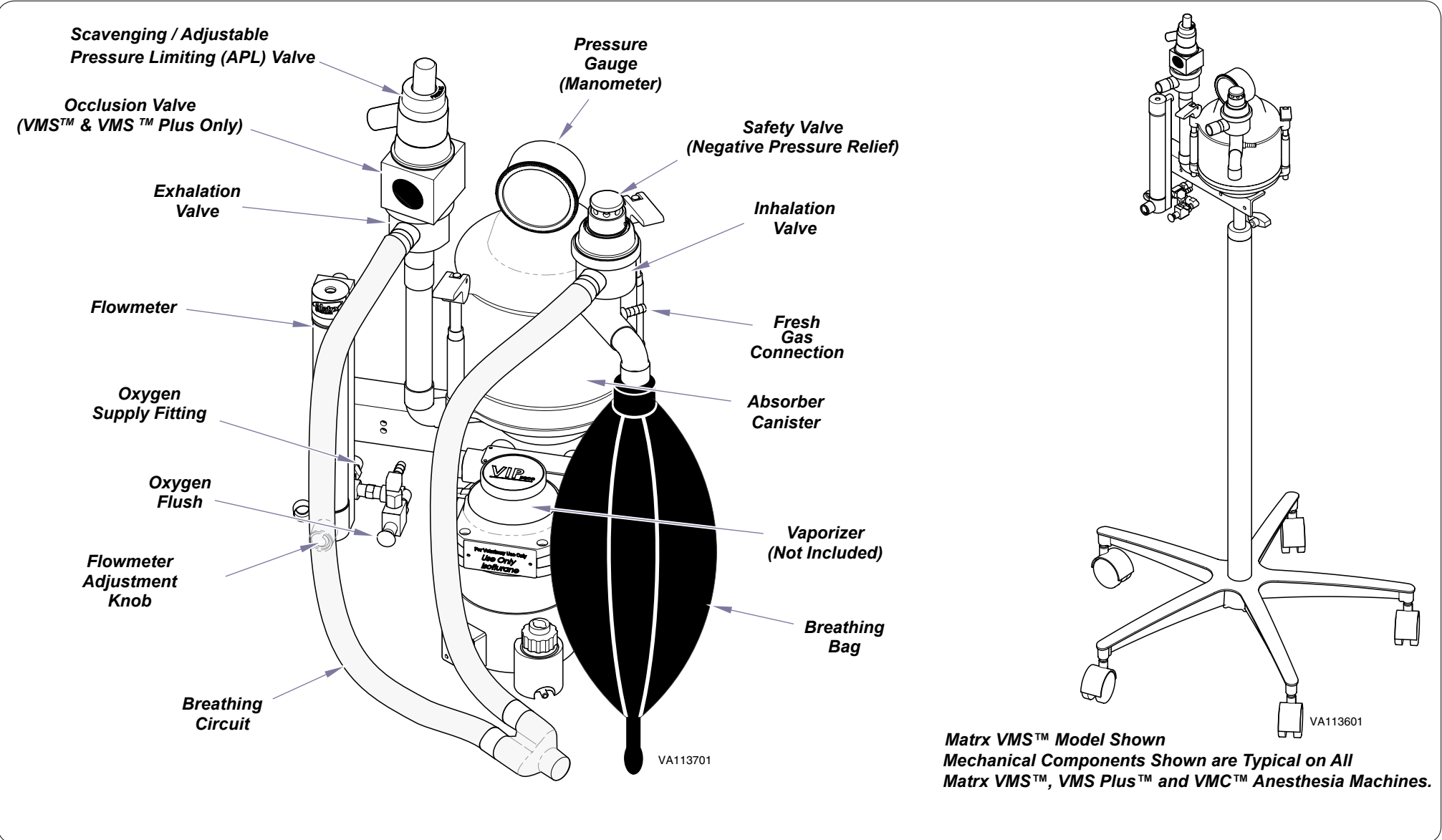




Anesthesia Machine Installation

Applies to Models:
Matrix VMS™
Matrix VMS Plus™
Matrix VMC™



Matrix VMS™ Model Shown
Mechanical Components Shown are Typical on All
Matrix VMS™, VMS Plus™ and VMC™ Anesthesia Machines.

Important Information

Intended Use

The operation of Matrix™ anesthesia machines is restricted to use by veterinary professionals trained in anesthesia practice.



Caution

Federal law restricts this device to sale by or on the order of a licensed veterinarian.

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 Pressure500hPa to 1060hPa (0.49atm to 1.05atm)



Proper Shipping Orientation



Maximum stacking height
(Do not stack)



Fragile



Keep Dry



Consult User Guide



Do Not Tumble



Handle With Care

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

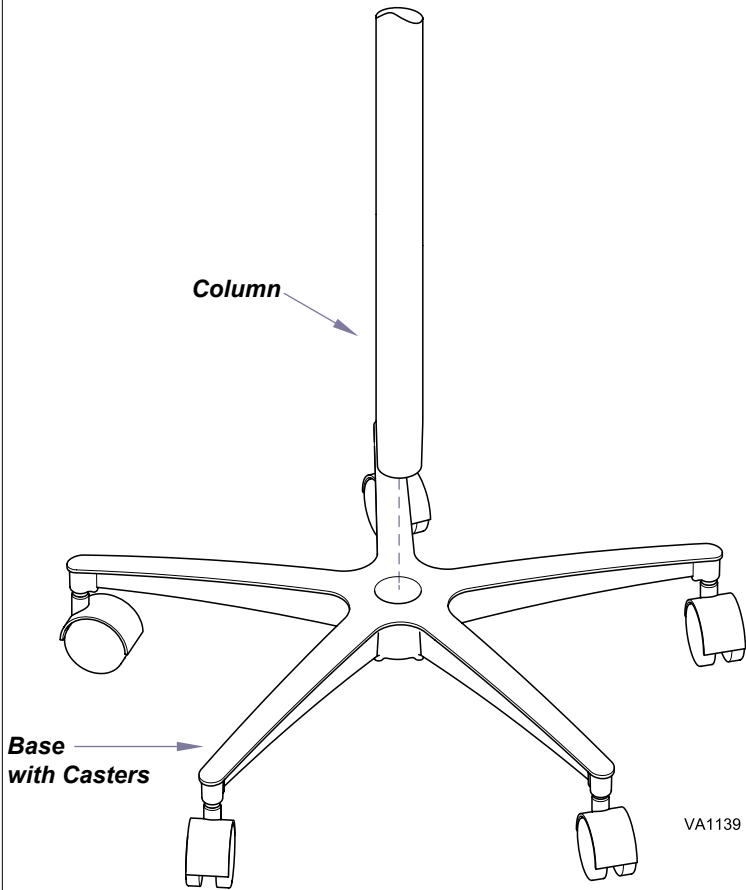
Indicates a potentially hazardous situation which could result in equipment damage if not avoided.

Note

Amplifies a procedure, practice, or condition.

Stand Mounted Units Only

Step 1: Remove contents from cartons. Place base with casters on floor.



Step 2: Install tapered end of mounting column into base.

VMS™ Wall Mounted Units Only

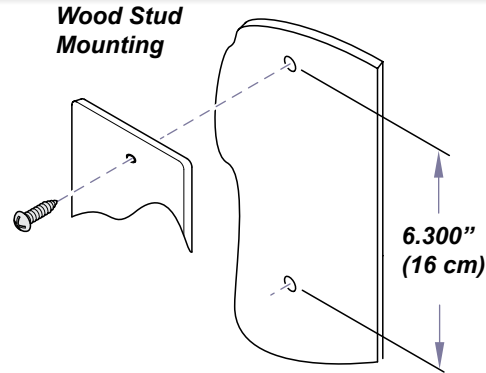
Note

Mounting hardware not included for wall installation.

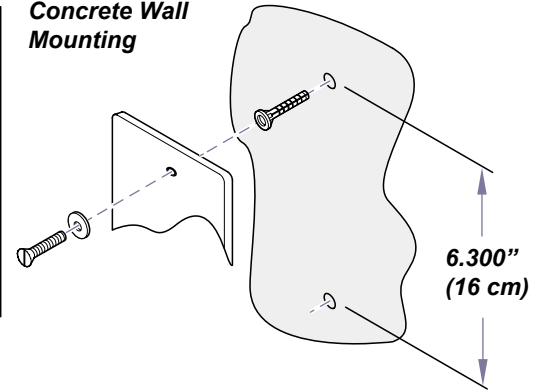
Wood Stud Mounting...

Use #12 x 2 1/2" wood screw and #12 x 5/8" flat washer to mount wall bracket to wood stud thru 1/2" min dry wall.

Note: Two screws are required for each mounting.



Concrete Wall Mounting



VA114401

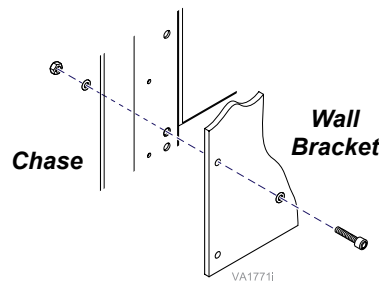
Concrete Wall Mounting...

- Drill hole in wall for #12 lead anchor as instructed by anchor manufacturer.
- Drive anchor in wall.
- Use #12 x 2" screw and #12 x 5/8" flat washer to screw wall bracket into anchor.

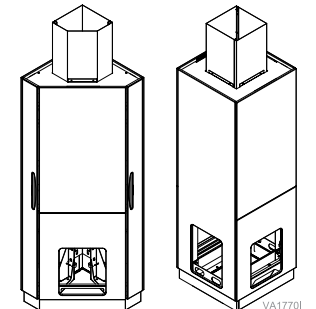
Note: Repeat for each mounting hole.

Note

Refer to chase installation manual for mounting hole locations. To install VMS, use hardware included with chase cabinet. (5/16" bolts, washers and nuts)

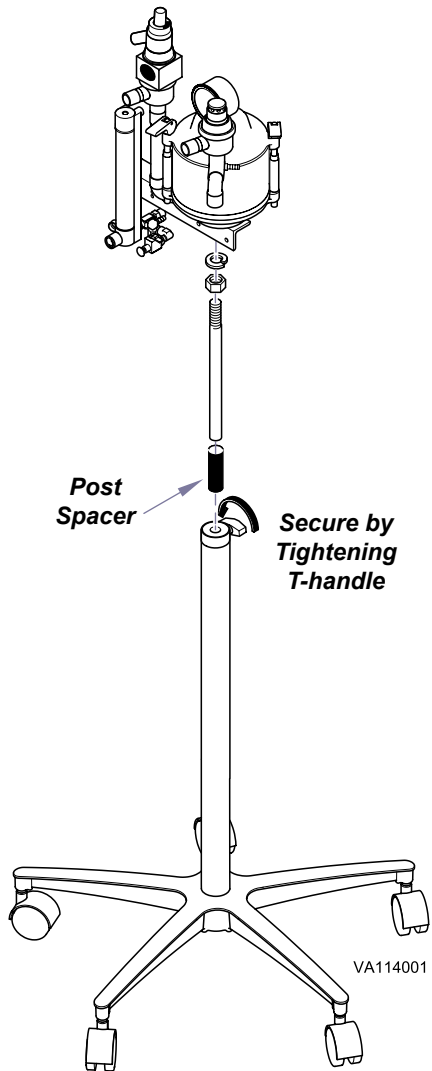


Chase Cabinets

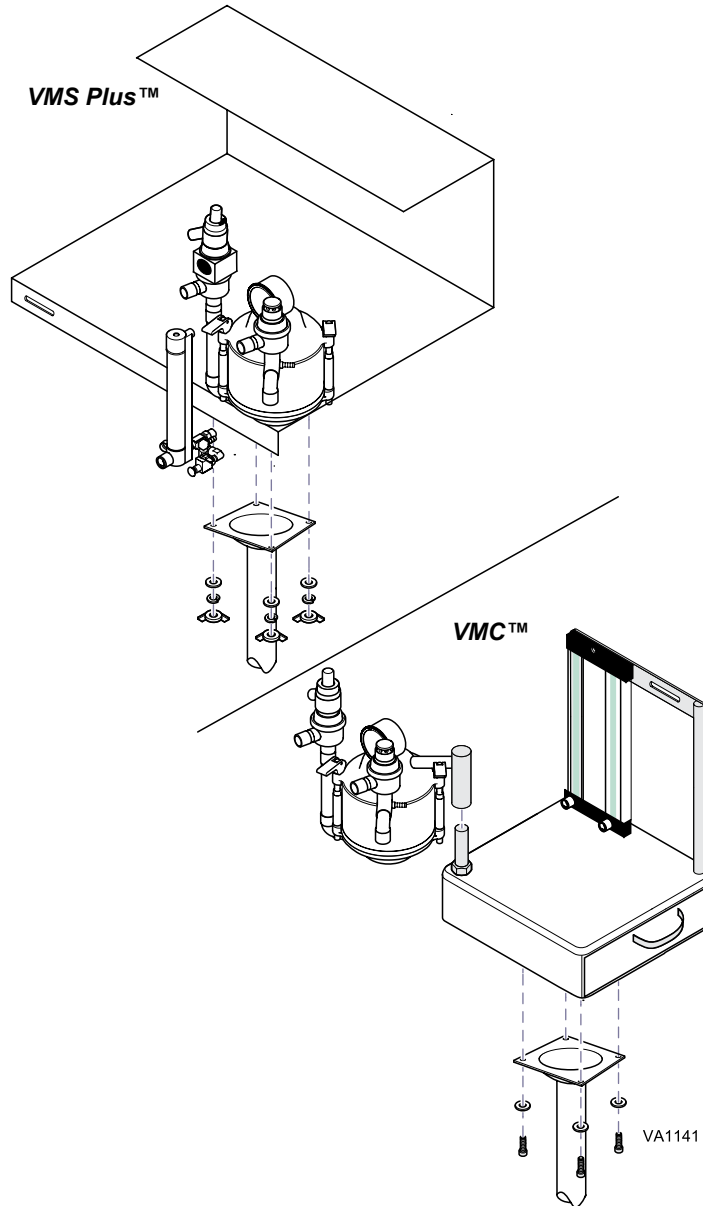


Step 3: Install absorber/drawer/shelf assembly into column/stud.

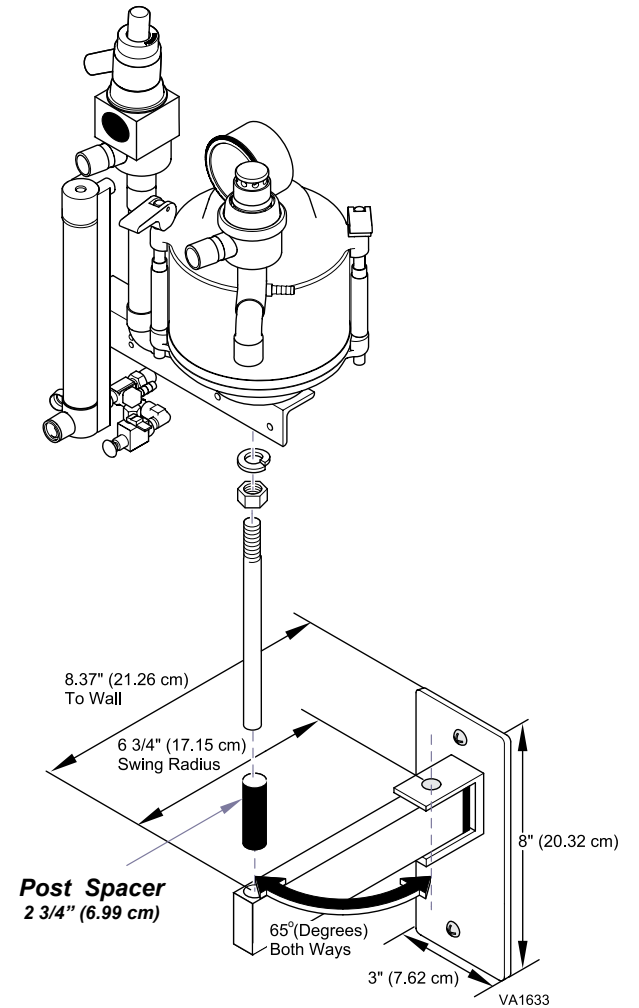
VMS™ Stand Mounted



VMS™ Plus & VMC™



VMS™ Wall Mounted

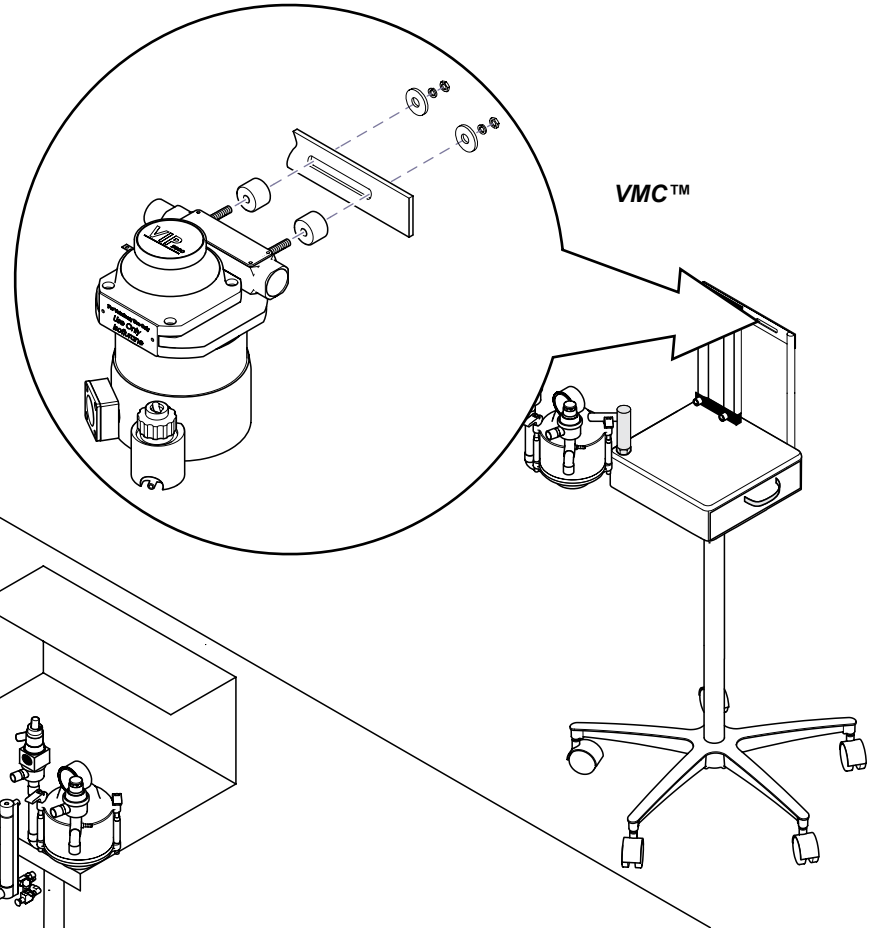
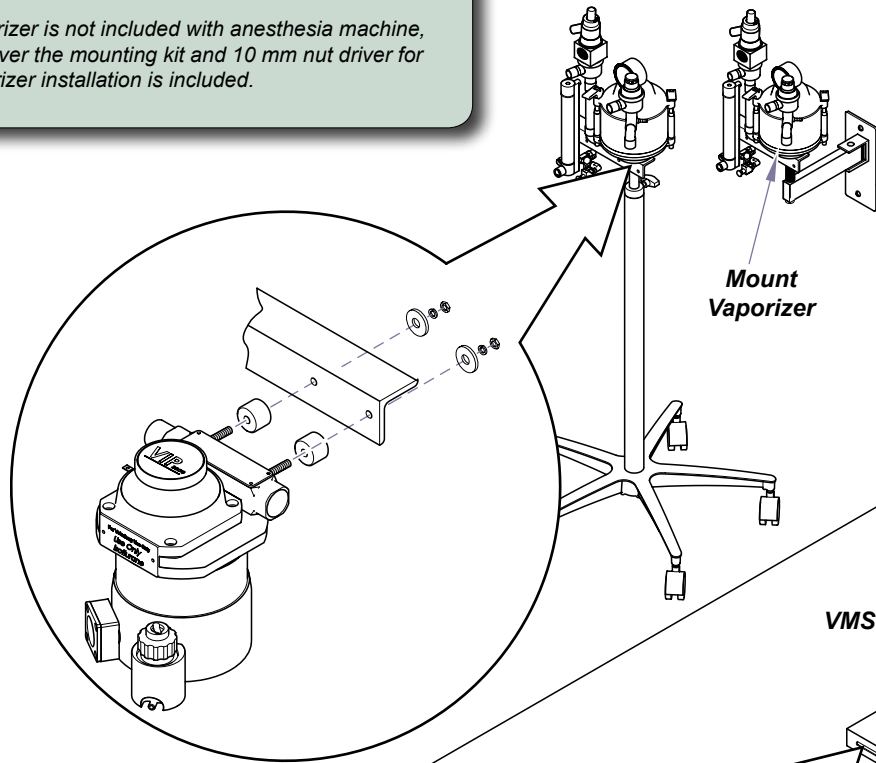


Use 3/4" (1.9 cm) Post Spacer with VMS and Monitor Wall Mount Combination instead of 2 3/4" (6.99 cm) used with the VMS wall mount.

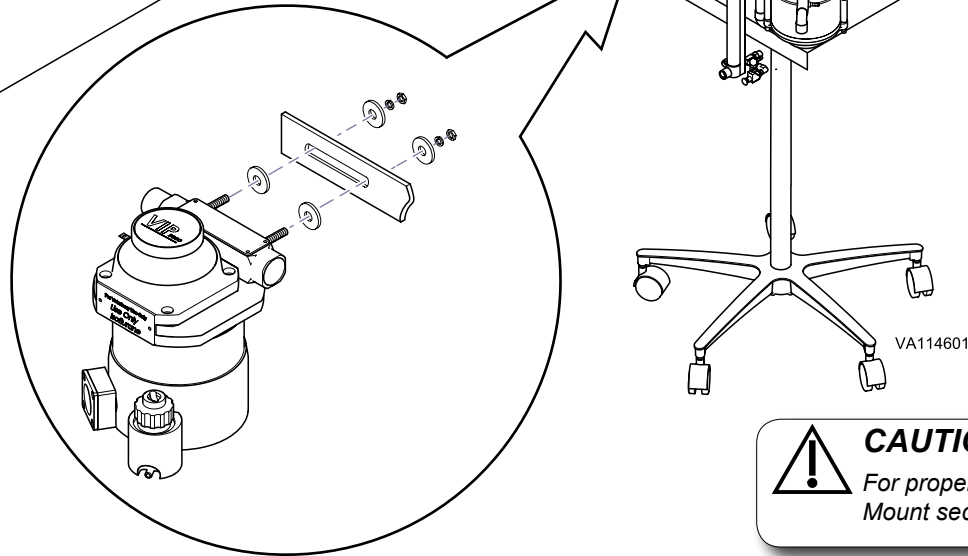
Step 4: Install vaporizer.

Note: Vaporizer is not included with anesthesia machine, however the mounting kit and 10 mm nut driver for vaporizer installation is included.

VMS™ Stand and Wall Mounted Units



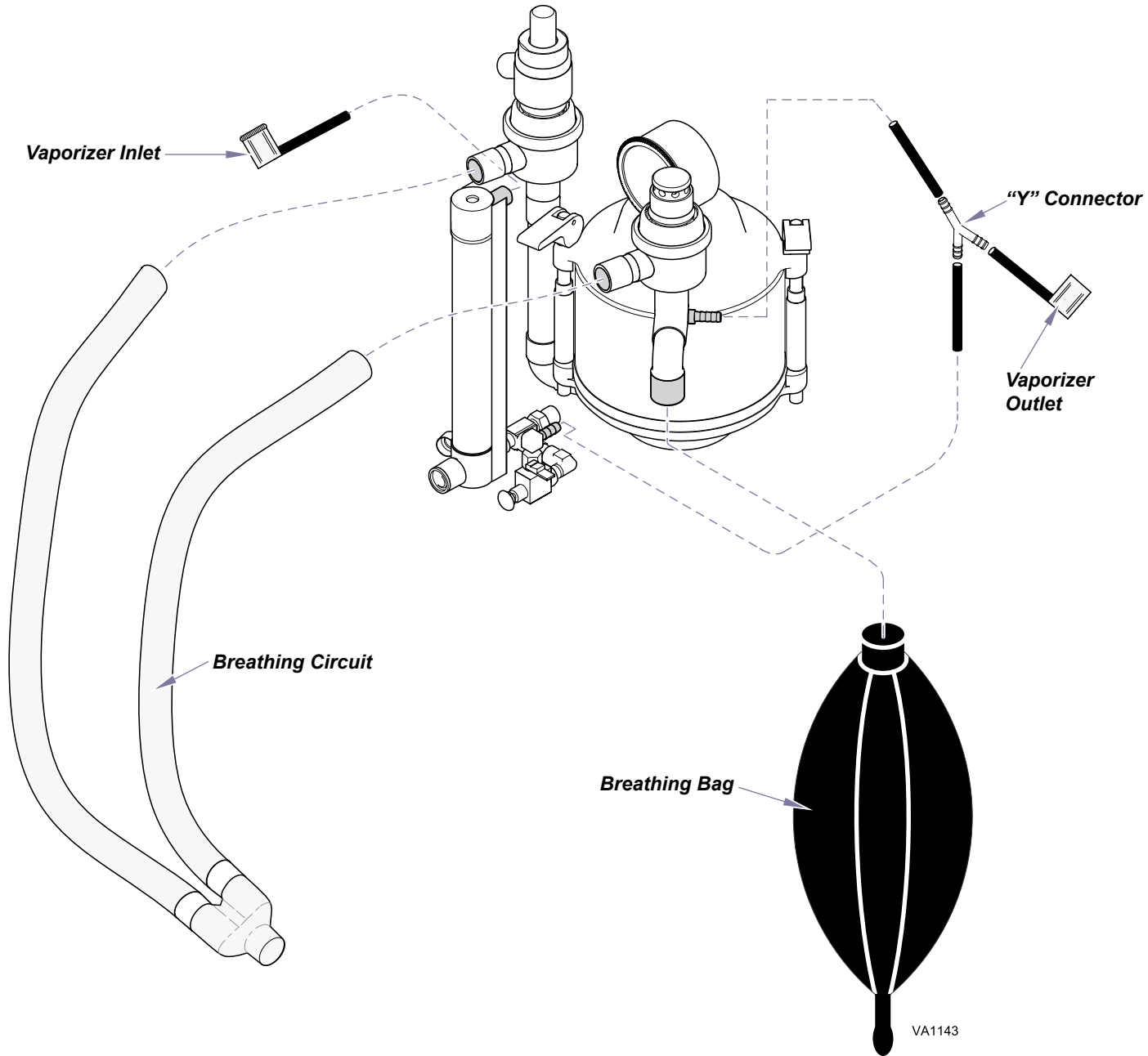
VMS Plus™



CAUTION - VMS Plus™ Model ONLY

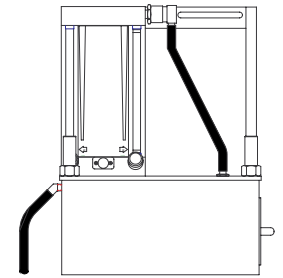
For proper machine balance, mount single vaporizer as shown. Mount second vaporizer at other end.

Step 5: Install tubing, breathing bag and breathing circuit.



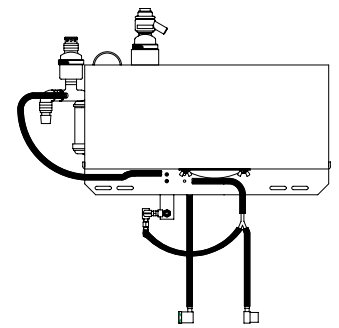
REFERENCES

VMC™

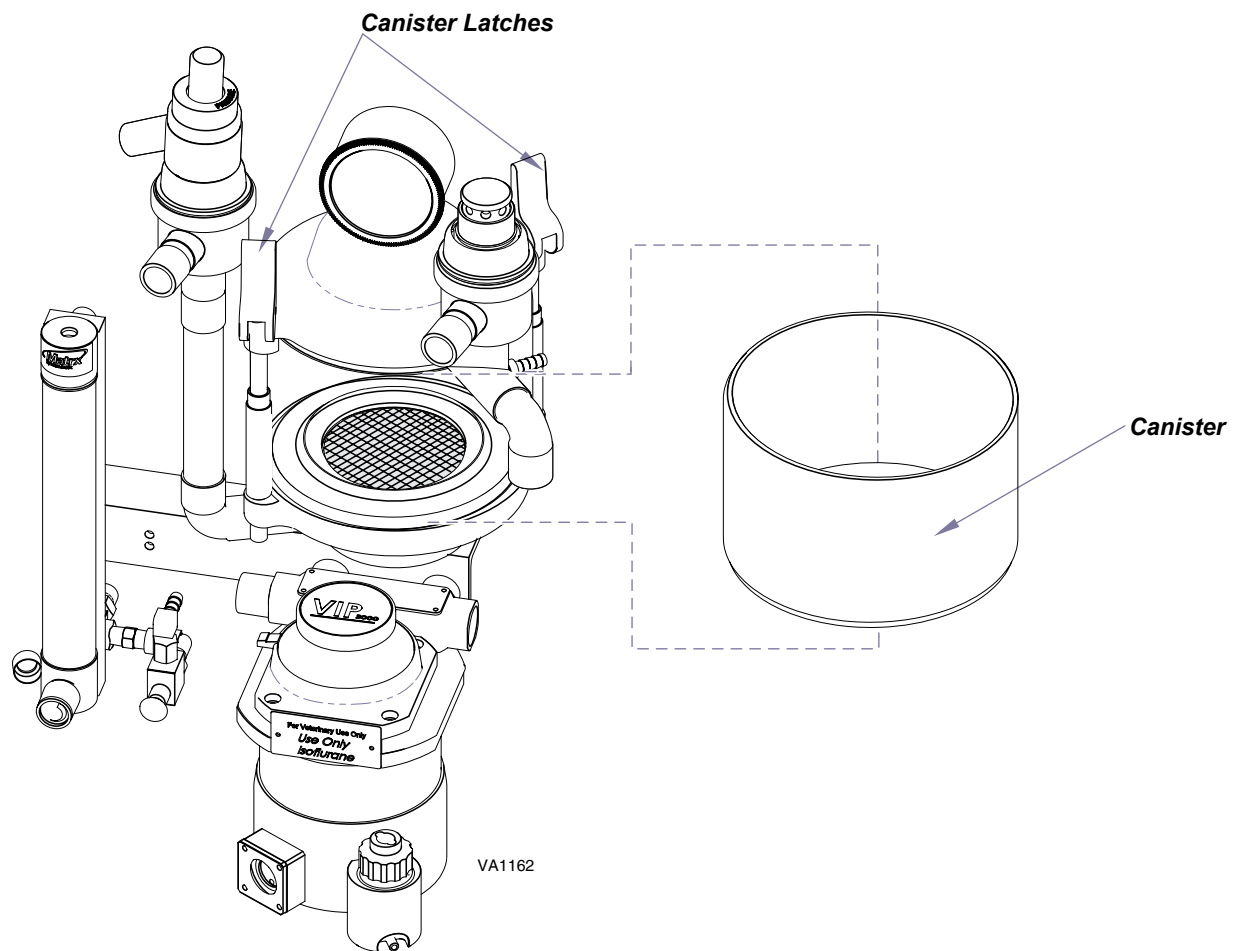


To Fresh Gas Connection

VMS Plus™



Step 6: Unlock canister latches.
Remove canister from side of assembly.
Fill with absorbent according to specifications on canister label.
Reinstall canister and secure latches.



Step 7: Connect oxygen tank and perform leak test.

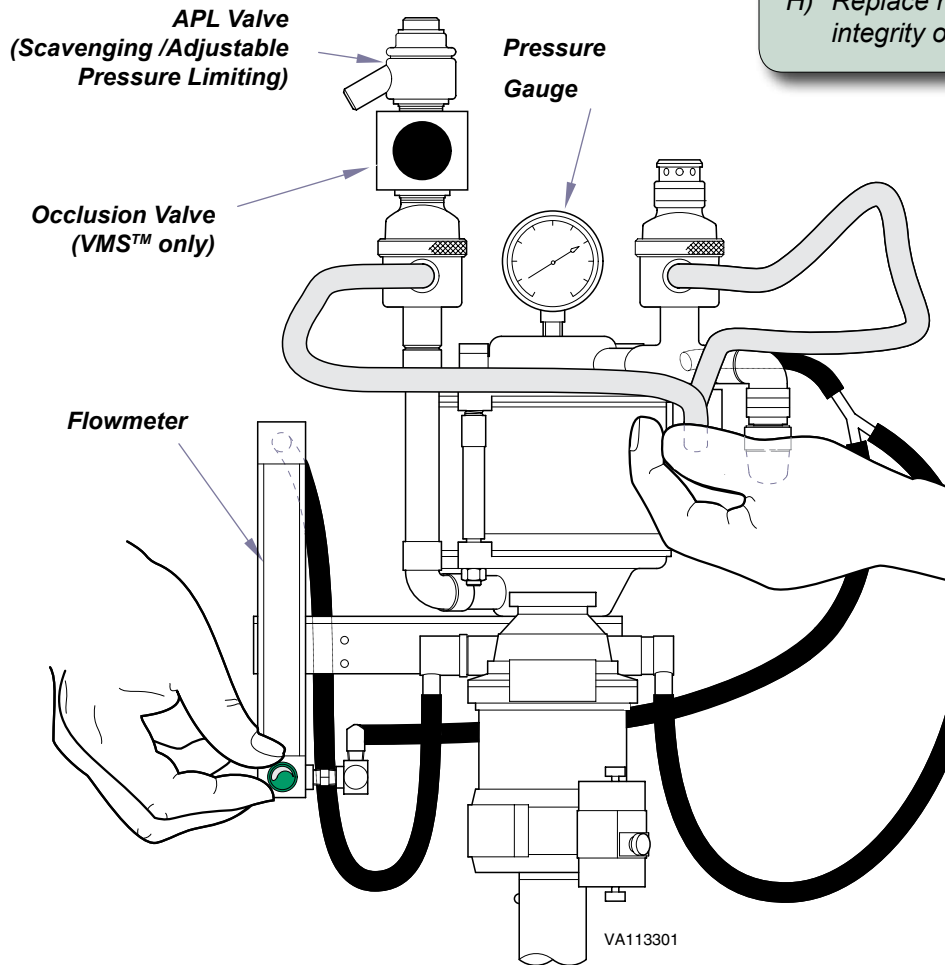


Equipment Alert

Do not activate the oxygen flush during any part of this leak test.

To perform leak test...

- A) Close APL (Scavenging /Adjustable Pressure Limiting) valve by turning knob clockwise.
- B) Place thumb over patient connection of breathing circuit Y.
- C) Remove breathing bag and cover bag port opening. (Use palm of hand that is covering Y.)
- D) With oxygen (50-55 PSI [3.4-3.8 Bar]) supplied to anesthesia machine, slowly open flowmeter to register 30cm H₂O on anesthesia machine pressure gauge.
- E) Turn off flowmeter when pressure reaches 30cm H₂O. (If pressure holds steady the system is leak free but if pressure drops, proceed to step (F).)
- F) Slowly open flowmeter until pressure stabilizes at 30cm. H₂O setting. (This determines the magnitude of the leak. If leak rate is greater than 300ml/min; proceed to step (G).)
- G) Refer to "What if machine leaks?"
- H) Replace reservoir bag. Repeat step (B) and steps (D) through (F). This will determine the integrity of breathing bag.



What if Machine Leaks?

- 1) **Breathing Bag** - If leak occurs, replace.
- 2) **Breathing Circuit** - Install new breathing circuit or obstruct inhalation / exhalation openings to determine if leak originates from breathing circuit.
- 3) **Vaporizer Fittings** - Verify fittings and tubing are securely attached.
- 4) **Canister Gaskets** - Check for loose absorbent grains between canister housing gaskets.
- 5) **Verify Canister** is seated properly.
- 6) **Safety Valves** - Remove valve and obstruct opening to determine if leak originates from negative pressure relief valve. Check the o-ring under valve for damage.
- 7) **APL Valve** - Remove valve and obstruct opening to determine if leak originates from APL valve. Check the o-ring under valve for damage.
- 8) **Occlusion Valve** - Remove valve and obstruct opening to determine if leak originates from Occlusion valve. Check the o-ring, diaphragm and back up ring on valve for damage.
- 9) **O-Rings** under chrome retaining rings. Check the o-rings for damage.

Dimensions	VMS Stand	VMS Wall Mounted	VMS Plus	VMC
Floor to Top of Anesthesia Machine:	54" (137.15 cm)	N/A	57" (127 cm)	53 1/2" (135.89 cm)
Total Width of Unit:	12" (30.48 cm)	12" (30.48 cm)	12" (30.48 cm)	21" (53.34 cm)
Width of Shelf:	N/A	N/A	22" (55.88 cm)	12" (30.48 cm)
Length of Shelf:	N/A	N/A	13 1/4" (33.65 cm)	12" (30.48 cm)
Swing Radius:	N/A	6 3/4" (17.14 cm)	N/A	N/A
Distance from Wall:	N/A	8 3/4" (22.23)	N/A	N/A
Floor Footprint:	27" (68.58 cm)	N/A	27" (68.58 cm)	27" (68.58 cm)
Wall Footprint:	N/A	22" x 12" (55.88 x 30.48 cm)	N/A	N/A
Shipping Weight:	42 lbs	26 lbs	75 lbs	75 lbs

Dimensions	VME Stand	VME Wall Mounted	VME Tabletop
Floor to Top of Anesthesia Machine:	51" (129.54 cm)	N/A	N/A
Total Width of Unit:	15" (38.1 cm)	15" (38.1 cm)	15" (38.1 cm)
Width of Shelf:	10 1/2" (26.67 cm)	13 1/2" (34.29 cm)	13 1/2" (34.29 cm)
Length of Shelf:	10" (15.24 cm)	8 1/2" (21.59 cm)	8 1/2" (21.59 cm)
Distance from Wall:	N/A	8 3/4"	N/A
Floor Footprint:	27" (68.58 cm)	N/A	N/A
Wall Footprint:	N/A	19" x 14" (48.26 x 35.56 cm)	19" x 14" (48.26 x 35.56 cm)
Shipping Weight:	44 lbs	27 lbs	24 lbs