

2014
Animal Health

MATRIX® ANESTHESIA
SERVICE PARTS GUIDE





Practice With Confidence.

When you partner with Midmark, you can rest assured that you are using the best. The Midmark family of veterinary products represents an unswerving commitment to quality and value backed by over 90 years of healthcare manufacturing and clinical use experience.

Midmark Customer Service

Midmark Customer Service personnel are available to serve your needs from 8:00 AM - 5:00 PM, Monday through Friday, EST.

1-800-MIDMARK

Fax: 1-877-725-6495

For equipment information or order placement contact Customer Service at 1-800-MIDMARK, press 8, then 8951.

Midmark Technical Service

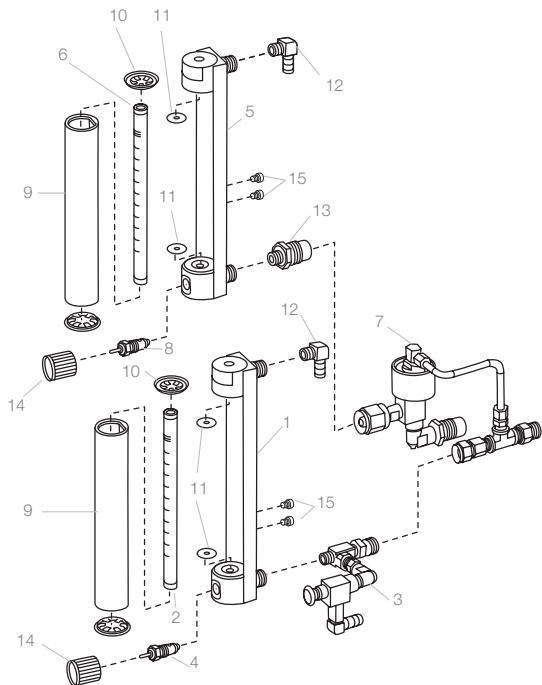
Midmark Technical Service personnel are available to serve your needs from 8:00 AM - 5:00 PM Monday through Friday, EST. 1-800-MIDMARK, press 8, then 8020.

Service and Repair

Contact Technical Service at 1-800-MIDMARK or fax your service parts or repair orders to 1-877-725-6495.

Table of Contents

| | |
|--|------|
| Absorbers, VMS [®] , VMC [®] | 8 |
| Flowmeters | 2, 3 |
| Inhalation/Exhalation Valves | 4 |
| VMC [®] | 7 |
| VME [®] | 10 |
| VME2 [®] | 9 |
| VME [®] Tabletop | 11 |
| VML [®] | 12 |
| VMS [®] | 6 |
| VMS [®] Plus | 5 |



Matrix VML® Flowmeter Assemblies

Matrix VML® O₂ Flowmeter Assembly without Flush

| | | |
|---|----------|----------------|
| 1 | 91805082 | (USA) |
| | 91805066 | (ISO/Canadian) |

Matrix VML O₂ Flowmeter Tube Only

| | | |
|---|----------|-------------|
| 2 | 91800642 | .5 - 10 lpm |
|---|----------|-------------|

Matrix VML O₂ Flush Valve Assembly

| | | |
|---|----------|--------------------|
| 3 | 92305375 | (USA/ISO/Canadian) |
|---|----------|--------------------|

Replacement O₂ Needle Valve with Positive Stop

| | | |
|---|----------|---|
| 4 | 91800655 | Knob Sold Separately, see item #14, right |
|---|----------|---|

Matrix VML N₂O Flowmeter Assembly without Fail-safe

| | | |
|---|----------|----------------|
| 5 | 91805085 | (USA) |
| | 91805072 | (ISO/Canadian) |

Matrix VML N₂O Flowmeter Tube Only

| | | |
|---|----------|--|
| 6 | 91800645 | |
|---|----------|--|

N₂O Fail-safe Assembly

| | | |
|---|-----|---------------|
| 7 | n/a | Not Available |
|---|-----|---------------|

Replacement N₂O Needle Valve Assembly with Positive Stop

| | | |
|-----|----------|---|
| 8 | 91800655 | Knob Sold Separately, see item #14, right |
| 9 | 91805600 | Replacement Lens |
| 10 | 91805400 | Replacement End Caps .5 - 10 lpm |
| 11 | 91800269 | Replacement Gaskets .5 - 10 lpm |
| 12 | 91800271 | Repl. 90° Elbow, 1/4M Hose Barb x 1/8" NPT. |
| 13 | 91800272 | Repl. N ₂ O DISS Fitting. |
| n/s | 10555200 | Screw kit for Matrix VML #10-32 x 3/8 |

Matrix VMS®/VMS® Plus/ VME®/VME2®/VMR® Flowmeter Assemblies

Matrix VMS®/VMS® Plus/VME®/VME2®/VMR® O₂

Flowmeter Assembly without Flush

| | | |
|---|----------|-----------------------------|
| 1 | 91805081 | (USA) |
| | 91805064 | (ISO/Canadian) |
| | 91805083 | (USA) (0 - 1000cc) |
| | 91805068 | (ISO/Canadian) (0 - 1000cc) |

Matrix VMS/VMS Plus/VME/VME2/VMR O₂ Flowmeter Tube Only

| | | |
|---|----------|------------|
| 2 | 91800641 | .2 - 4 lpm |
| | 91800643 | 0 - 1000cc |

Matrix VMS O₂ Flush Assembly

| | | |
|---|----------|--------------------|
| 3 | 92305375 | (USA/ISO/Canadian) |
| | 61900300 | Push Button |

Matrix VMS Plus/VME2 O₂ Flush Valve Assembly

| | | |
|---|----------|--------------------|
| 3 | 92305398 | (USA/ISO/Canadian) |
|---|----------|--------------------|

Replacement O₂ Needle Valve Assembly with Positive Stop

| | | |
|---|----------|------------------------------------|
| 4 | 91800655 | Knob Sold Separately, see item #14 |
|---|----------|------------------------------------|

Matrix VMS/VMS Plus/VME2 N₂O Flowmeter Assembly without Fail-safe

| | | |
|---|----------|-----------------------------|
| 5 | 91805084 | (USA) |
| | 91805070 | (ISO/Canadian) |
| | 91805086 | (USA) (0 - 1000cc) |
| | 91805074 | (ISO/Canadian) (0 - 1000cc) |

Matrix VMS/VMS Plus/VME2 N₂O Flowmeter Tube Only

| | | |
|---|----------|------------|
| 6 | 91800644 | .2 - 4 lpm |
| | 91800646 | 0 - 1000cc |

N₂O Fail-safe Assembly

| | | |
|---|-----|---------------|
| 7 | n/a | Not Available |
|---|-----|---------------|

Replacement N₂O Needle Valve Assembly with Positive Stop

| | | |
|----|----------|--|
| 8 | 91800655 | Knob Sold Separately, see item #14 |
| 9 | 91805600 | Replacement Lens |
| 10 | 91805300 | Replacement End Caps .2 - 4 lpm |
| | 91805500 | Replacement End Caps 0 - 1000cc |
| 11 | 91800268 | Replacement Gaskets .2 - 4 lpm |
| | 91800270 | Replacement Gaskets 0 - 1000cc |
| 12 | 91800271 | Repl. 90° Elbow, 1/4M Hose Barb x 1/8" NPT |
| 13 | 91800272 | Repl. N ₂ O DISS Fitting. |

Replacement Needle Valve Knobs

| | | |
|----|----------|--|
| 14 | 91800702 | Green |
| | 91800704 | Blue |
| | 91800703 | White |
| 15 | 10503100 | Screw kit for Matrix VMS Plus flowmeter #10-32 x 1/4 |
| | 10503200 | Screw kit for Matrix VMS, VME and VMR #10-32 x 5/16 |

Matrx VMS®/VMS® Plus/VME® Flowmeter Assemblies

Matrx VMS®/VMS® Plus/VME® O₂ Flowmeter Tube Only

| | | |
|---|----------|---------------------------------------|
| 1 | 63902902 | (USA) |
| | 91805039 | (ISO/Canadian/Swedish) |
| | 62966000 | (USA/ISO/Canadian/Swedish) (0-1000cc) |

Matrx VMS O₂ Flush Valve Assembly

| | | |
|---|----------|--------------------|
| 2 | 92305375 | (USA/ISO/Canadian) |
|---|----------|--------------------|

Matrx VMS Plus O₂ Flush Valve Assembly

| | | |
|---|----------|--------------------|
| 2 | 92305398 | (USA/ISO/Canadian) |
|---|----------|--------------------|

Replacement O₂ Needle Valve Assembly with Positive Stop

| | | |
|---|----------|------------------------|
| 3 | 63300512 | (USA) |
| | 63300701 | (ISO/Canadian/Swedish) |

Matrx VMS/VMS Plus N₂O Flowmeter Tube Only

| | | |
|---|----------|------------------------|
| 4 | 63902901 | (USA) |
| | 91805034 | (ISO/Canadian/Swedish) |

N₂O Fail-Safe Assembly

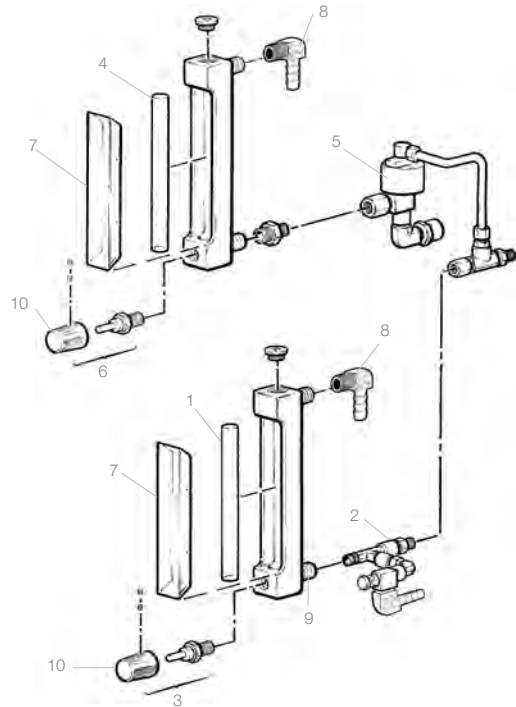
| | | |
|---|-----|---------------|
| 5 | n/a | Not Available |
|---|-----|---------------|

Replacement N₂O Needle Valve Assembly with Positive Stop

| | | |
|-----|----------|---|
| 6 | 63300513 | (USA) |
| | 63300703 | (ISO/Canadian/Swedish) |
| 7 | 92815409 | Plastic Cover |
| 8 | 62917008 | 90° Elbow, 1/4M Hose Barb x 1/8" NPT. |
| 9 | 91805042 | Inlet/Outlet Adapter NPT x 1/4. |
| n/s | 10503200 | Screw kit for Matrx VMS, VME and VMR™ #10-32 x 5/16 |

Replacement Needle Valve Knobs

| | | |
|----|----------|-------|
| 10 | 65927101 | Green |
| | 65927102 | Blue |
| | 65927103 | White |



Matrx VML® Flowmeter Assemblies

Matrx VML O₂ Flowmeter Tube Only

| | | |
|---|----------|------------------------|
| 1 | 63902802 | (USA) |
| | 91805040 | (ISO/Canadian/Swedish) |

Matrx VML O₂ Flush Valve Assembly

| | | |
|---|----------|---------------------------------|
| 2 | 92305375 | (USA/ISO/Canadian/German/Swiss) |
|---|----------|---------------------------------|

Replacement O₂ Needle Valve Assembly with Positive Stop

| | | |
|---|----------|------------------------|
| 3 | 63300512 | (USA) |
| | 63300701 | (ISO/Canadian/Swedish) |

Matrx VML N₂O Flowmeter Tube Only

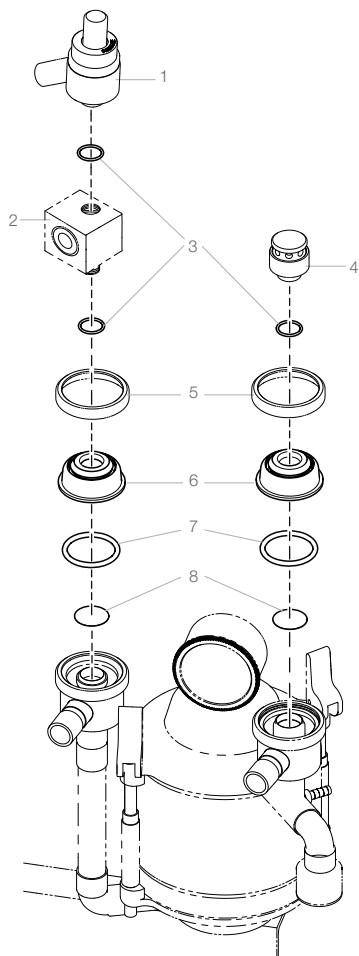
| | | |
|---|----------|------------------------|
| 4 | 63902801 | (USA) |
| | 91805035 | (ISO/Canadian/Swedish) |

N₂O Fail-safe Assembly

| | | |
|---|-----|---------------|
| 5 | n/a | Not Available |
|---|-----|---------------|

Replacement N₂O Needle Valve Assembly with Positive Stop

| | | |
|-----|----------|--------------------------------------|
| 6 | 63300513 | (USA) |
| | 63300703 | (ISO/Canadian/Swedish) |
| 7 | 92815409 | Plastic Cover |
| 8 | 62917008 | 90° Elbow, 1/4M Hose Barb x 1/8" NPT |
| 9 | 91805042 | Inlet/Outlet Adapter NPT x 1/4 |
| n/s | 10555200 | Screw kit for Matrx VML #10-32 x 3/8 |



Matrix VMS/VMS Plus/VMC Inh/Exh Valve Parts

Inhalation/Exhalation Valves

Matrix VMS®/VMS® Plus/VMC® Inhalation/Exhalation Valve Parts

| | | |
|---|-------------|---|
| 1 | 002-1702-00 | APL Valve |
| 2 | 93805114 | Occlusion Valve (VMS and VMS Plus Only) |
| 3 | 63200145 | O-Ring |
| 4 | 92805012 | Air Intake Valve |
| 5 | 10010500 | Dome Retainer Ring |
| 6 | 92805015 | Plastic Dome |
| 7 | 63200113 | O-Ring |
| 8 | 10049000 | White Nylon Valve Disc |

Matrix VML® Inhalation/Exhalation Valve Parts

| | | |
|-----|----------|---|
| 8A | 20004500 | Dome Retainer Ring |
| 9 | 20048200 | Plastic Dome Assembly |
| 10 | 61200700 | Gasket |
| 11 | 10006600 | Nylon Disc |
| 12 | 10006400 | Dome Pin |
| n/s | 63200124 | Lower O-Ring (2-153) |
| n/s | 62500121 | Pan Head Screw – 10-32 x 1/2 for mounting valve to VML |

Matrix VME2®/VME® Tabletop Inhalation/Exhalation Valve Parts

| | | |
|----|-------------|-------------------------------|
| 13 | 65927800 | Thumbscrew |
| 14 | 10391800 | Dome Clamp |
| 15 | 10010200 | Dome, Inhalation VME Tabletop |
| 16 | 92805015 | Dome, Exhalation VME Tabletop |
| 17 | 63200113 | O-Ring |
| 18 | 10049000 | White Nylon Valve Disc |
| 19 | 002-1702-00 | APL Valve |

Matrix VML Tie Rod Assembly

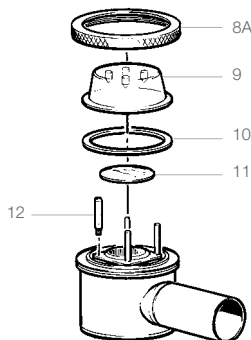
| | | |
|----|----------|--------------------|
| 1A | 61920700 | Knob |
| 2A | 61600200 | White Nylon Washer |
| 3A | 20047400 | Tie Rod |

Matrix VML APL Valve Assembly

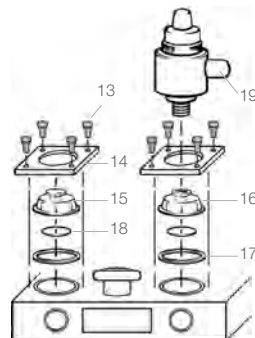
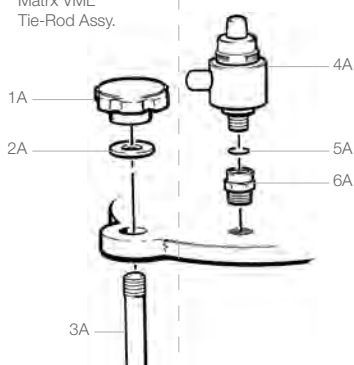
| | | |
|----|-------------|-------------------|
| 4A | 002-1702-00 | APL Valve |
| 5A | 63200145 | O-Ring |
| 6A | 20113500 | APL Valve Adapter |

NOTE:

Part number 63200145 is included with APL Valve and Air Intake Valve but can be ordered separately.



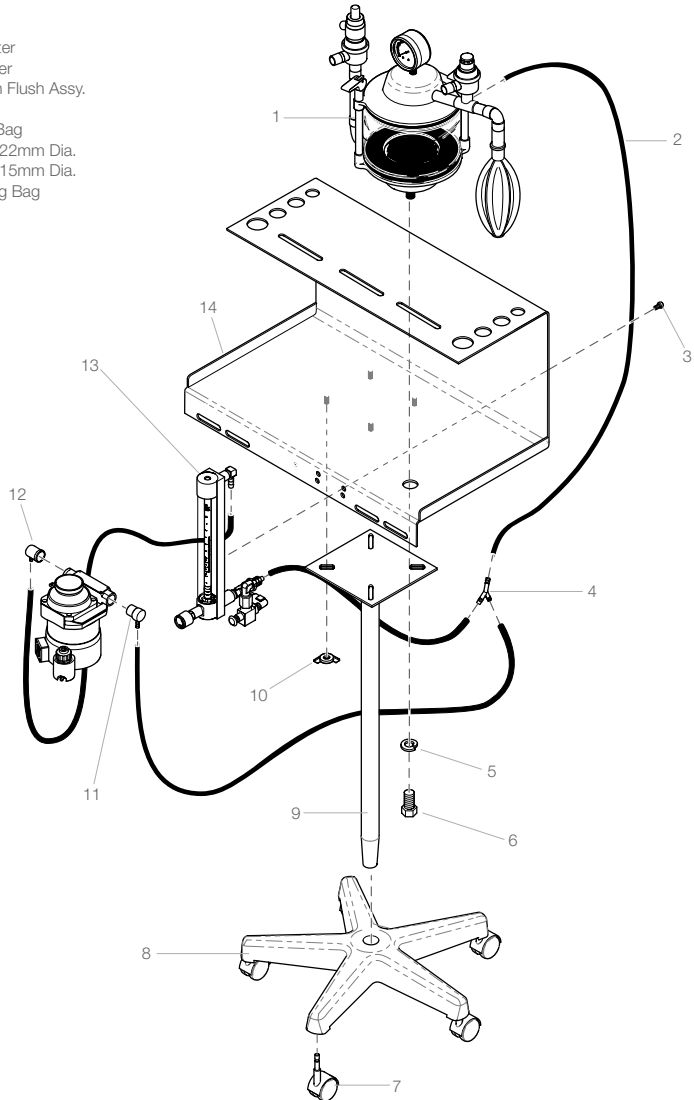
Matrix VML
Tie-Rod Assy.

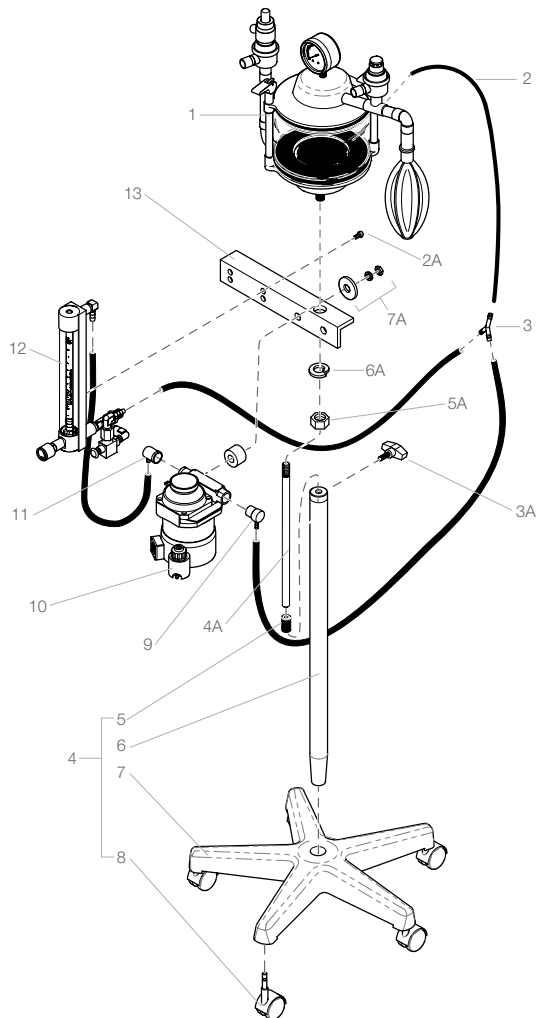


Matrix VME2®/VME® Tabletop Inhalation/
Exhalation Valve Parts

Matrix VMS® Plus

- | | | |
|-----|-----------------|---|
| n/s | 91303015 | Maintenance Kit for Matrix VMS®, VMS® Plus, VMC® |
| 1 | 91800039 | VMS Absorber Assembly |
| | 029-5151-02 | a) VMS units with a "V" serial number prefix b) VMS units without a "V" serial number prefix |
| 2 | 91315075 | Black Neoprene Rubber Tubing, 1/4" ID. (specify length in inches when ordering) |
| 3 | 10503100 | Screw Kit (10-32 x 5/6") |
| 4 | 61911000 | "Y" Connector |
| 5 | 62600204 | Lock Washer |
| 6 | 62700112 | Bolt |
| 7 | 65928400 | Caster |
| 8 | 61902403 | Spider Base, 5-Leg |
| 9 | 65929300 | Column |
| 10 | 61402002 | Wing Nut |
| 11 | 92305073 | FS-2 Outlet Adapter |
| 12 | 92305072 | FS-2A Inlet Adapter |
| 13 | 91800203 | O ₂ Flowmeter with Flush Assy. |
| 14 | 050-8688-00-216 | Shelf |
| n/s | 91316042 | 2 Liter Breathing Bag |
| n/s | 91316420 | Breathing Circuit, 22mm Dia. |
| n/s | 91316419 | Breathing Circuit, 15mm Dia. w/1 Liter Breathing Bag |





Matrix VMS®

| | | |
|-----|-----------------|---|
| n/s | 91303015 | Maintenance Kit for Matrix VMS®, VMS® Plus, VMC® |
| 1 | 91800039 | VMS Absorber Assembly |
| | 029-5151-02 | a) VMS units with a "V" serial number prefix b) VMS units without a "V" serial number prefix |
| 2 | 91315075 | Black Neoprene Rubber Tubing, 1/4" ID (specify length in inches when ordering) |
| 3 | 61911000 | Nylon "Y" Connector |
| 4 | 91806046 | VMS 40" Stand Assembly includes items 5-8, 3A-6A |
| 5 | 91305280 | Post Mount Spacer |
| 6 | 20122401 | Column |
| 7 | 61902403 | Spider Base, 5 leg |
| 8 | 65928400 | 3" Caster |
| 9 | 92305073 | FS-2 Outlet Adapter |
| 10 | | Vaporizer |
| 11 | 92305072 | FS-2A Inlet Adapter |
| 12 | 91800206 | O ₂ Flowmeter with Flush Assy |
| 13 | 050-8413-00-312 | Mounting Bracket |

Detail A (rear view)

| | | |
|-----|----------|---|
| 1A | 91525269 | Optional Drain Valve Assembly |
| 2A | 10503200 | Screw kit for Matrix VMS, VME® and VMR #10-32 x 5/16 |
| 3A | 65936800 | Tee Handle-Stand |
| 4A | 92505017 | 15" Mounting Stud |
| 5A | 62400318 | Hex Nut 5/8"-18 |
| 6A | 62600204 | 5/8" Lock Washer |
| 7A | 91305093 | Vaporizer Mounting Kit for Matrix VMS, VMC and VML® |
| n/s | 91525270 | Replacement Pipe Plug Assembly |

For Matrix VMS inhalation/exhalation valve parts, see page 4.
For Matrix VMS nitrous oxide/oxygen flowmeter assemblies and parts, see pages 2 and 3.

Absorber Quick Release Conversion Kit

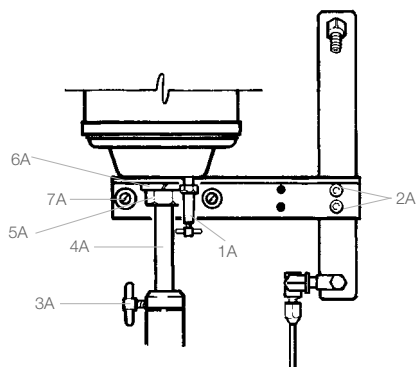
Easily convert a thumb nut version absorber to a convenient quick release absorber. Simple flip lever locking mechanism allows you to easily seal the absorber canister. Compatible with anesthesia machines manufactured by Fraser Harlake, Ohmeda and Matrix Medical.

91800138 Quick Release Conversion Kit

Matrix VMS to VMS Plus Conversion Kit

Update your existing Matrix VMS anesthesia machine to a Matrix VMS Plus anesthesia machine.

91800167



Matrix VMS – Detail A Rear View

Matrx VMC® Small Animal Anesthesia Machine

| | | |
|-----|-------------|--|
| n/s | 91303015 | Maintenance Kit for Matrx VMS®, VMS® Plus, VMC® |
| 1 | 62400314 | Nut (3/8 - 16) (Tabletop units only) |
| 2 | 77009124 | Washer (3/8") (Tabletop units only) |
| 3 | 62947401 | Leveler (Tabletop units only) |
| 4 | 65913901 | Leveler Cap (Tabletop units only) |
| 5 | 65928400 | 3" Caster |
| 6 | 61902403 | Spider Base, 5 Leg (Mobile units only) |
| 7 | 65927000 | Column Assembly (Mobile units only) |
| 8 | 63500114 | Screw (socket head 1/4 - 20 x 5/8") |
| 9 | 62600206 | Lock Washer (1/4") |
| 10 | | Vaporizer (Not Included) |
| 12 | | VMC Absorber Assembly |
| | 91800040 | VMC with a "V" serial number prefix |
| | 029-5151-03 | VMC without a "V" serial number prefix |
| 14 | 63200102 | O-Ring |
| 15 | 10019700 | Inlet Adapter, plated |
| 16 | 20028600 | Absorber Mount (right or left) |
| n/s | 62600208 | Absorber Mount Lock Washer |
| n/s | 63500145 | Absorber Mount Screw - 3/8-16 x 1" |
| 17 | 91315076 | 5/16 ID Vap. Tubing (specify length in inches when ordering) |
| n/s | 92305073 | FS-2 Outlet Adapter |
| n/s | 91315075 | Black Neoprene Rubber Tubing, 1/4" ID (specify length in inches when ordering) |
| n/s | 62900800 | 45° Hose Connector |

Matrx Quantiflex VMC® Head

| | | |
|----|----------|--------------|
| 13 | 40010201 | USA |
| | 40064101 | ISO/Canadian |

Matrx Spartan VMC® Head

| | | |
|----|----------|--------------|
| 13 | 40072901 | USA |
| | 40074901 | ISO/Canadian |

Matrx Quantiflex N₂O Positive Stop Needle

Valve Assembly (not shown)

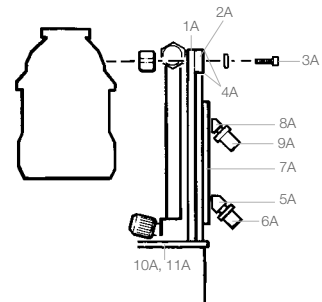
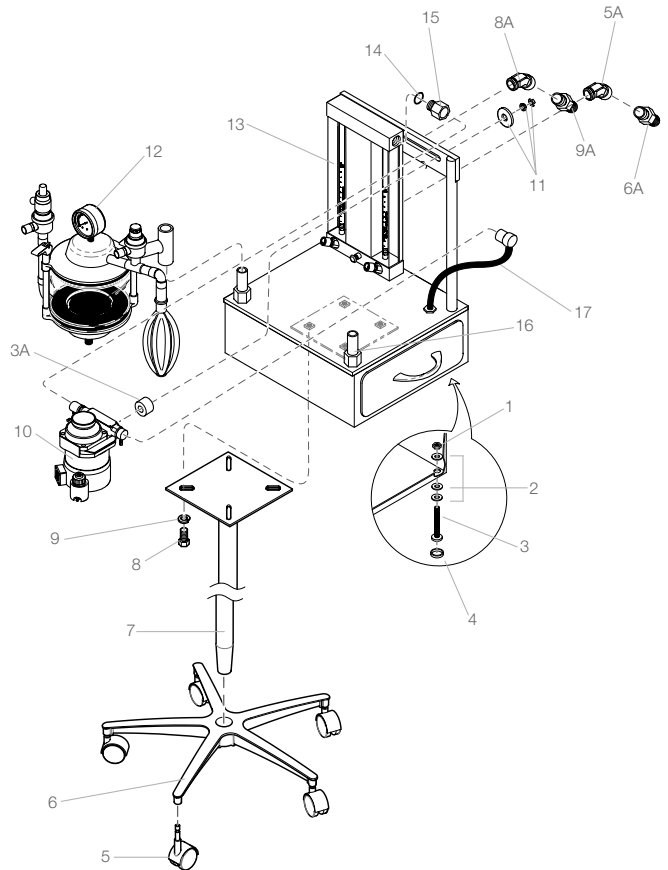
| | |
|----------|----------------------|
| 63300513 | USA |
| 63300703 | ISO/Canadian/Swedish |

O₂ Positive Stop Needle Valve Assembly (for all oxygen flowmeters - not shown)

| | |
|----------|----------------------|
| 63300512 | USA |
| 63300701 | ISO/Canadian/Swedish |

Detail A – Side View VMC

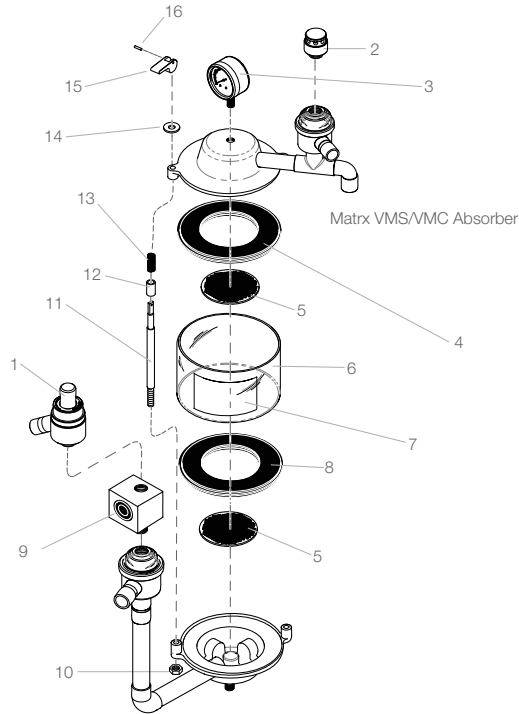
| | | |
|-----|----------|--|
| 1A | 20028400 | Upright Bar |
| 2A | 20028500 | Back Bar |
| 3A | 91305093 | FS-44 Spacer Kit for mounting |
| 4A | 63500102 | Socket Head Screw - #6-32 x 3/8" |
| 5A | 62900101 | O ₂ - 45° Street Elbow |
| 6A | 92305043 | O ₂ DISS Connect (All except Swedish). |
| | 10174300 | O ₂ DISS Connect (Swedish) |
| 7A | 30020200 | Back Cover |
| 8A | 62900102 | N ₂ O - 45° Street Elbow 1/8 NPT |
| 9A | 91305041 | N ₂ O DISS Connect (All except Swedish) |
| | 10173700 | N ₂ O DISS Connect (Swedish) |
| 10A | 62600404 | Lockwasher |
| 11A | 62500107 | Pan Head Screw |
| n/s | 20013100 | Stand Off |
| n/s | 62600105 | 1/4 Flat Washer |
| n/s | 62400104 | 1/4-20 Acorn Nut |



Matrx VMC – Detail A Side View

n/s = not able to show in illustration.

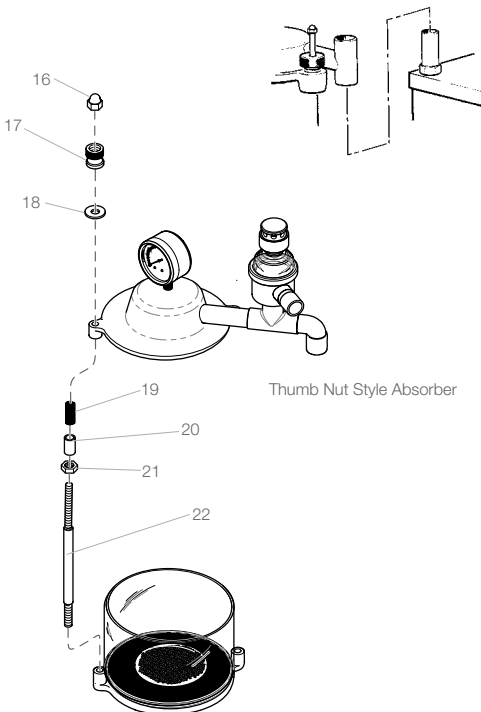
Matrx VMS®/VMS® Plus



| | | |
|-----|-----------------|--|
| | 91800039 | Matrx VMS® Absorber Assembly includes items 1-16 |
| 1 | 002-1702-00 | APL Valve |
| 2 | 92805012 | Air Intake Valve |
| 3 | 91800434 | Pressure Gauge |
| n/s | 91800435 | Pressure Gauge Replacement Cover-Wexler (Included with 91800434) |
| n/s | 91315276 | Pressure Gauge Replacement Cover-Marshall |
| 4 | 92316066 | Upper Gasket |
| 5 | 61919800 | Screen (upper or lower) |
| 6 | 92300519 | Canister Assembly, includes canister, lower gasket/screen and fill label. |
| 7 | 62905900 | Fill Label |
| 8 | 92316067 | Lower Gasket |
| 9 | 93805114 | Occlusion Valve (VMS and VMS Plus only) |
| 10 | 62400344 | Hex Nut |
| 11 | 10404200 | Tie Rod |
| 12 | 10046500 | Sleeve |
| 13 | 61100400 | Compression Spring |
| 14 | 65943500 | Nylon Washer |
| 15 | 10404000 | "Quick Release" Lever |
| 16 | 65929700 | "Quick Release" Lever Pin |
| n/s | 92805126 | Canister w/Decal & Ring, No Gaskets |
| n/s | 91525269 | Optional Drain Valve Assembly |
| n/s | 91525270 | Replacement Pipe Plug Assembly |

Matrx VMC® Absorber

Matrx VMC Absorber Mounting



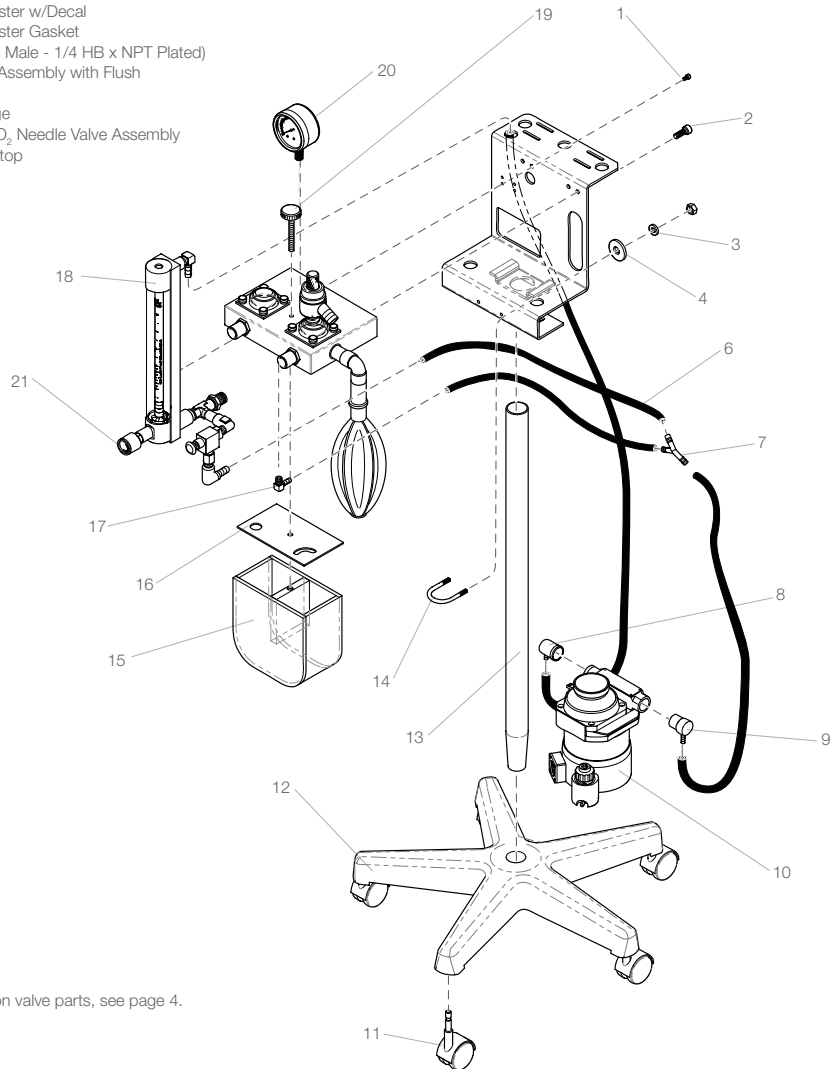
| | | |
|-----|-----------------|--|
| | 91800040 | Matrx VMC Absorber Assembly includes items 1-16 |
| 1 | 002-1702-00 | APL Valve |
| 2 | 92805012 | Air Intake Valve |
| 3 | 91800434 | Pressure Gauge |
| n/s | 91800435 | Pressure Gauge Replacement Cover-Wexler (Included with 91800434) |
| n/s | 91315276 | Pressure Gauge Replacement Cover-Marshall |
| 4 | 92316066 | Upper Gasket |
| 5 | 61919800 | Screen (upper or lower) |
| 6 | 92300519 | Canister Assembly, includes canister, lower gasket/screen and fill label. |
| 7 | 62905900 | Fill Label |
| 8 | 92316067 | Lower Gasket |
| 9 | 93805114 | Occlusion Valve (optional) |
| 10 | 62400344 | Hex Nut |
| 11 | 10404200 | Tie Rod |
| 12 | 10046500 | Sleeve |
| 13 | 61100400 | Compression Spring |
| 14 | 65943500 | Nylon Washer |
| 15 | 10404000 | "Quick Release" Lever |
| 16 | 65929700 | "Quick Release" Lever Pin |
| n/s | 92805126 | Canister w/Decal & Ring, No Gaskets |

Thumb Nut Absorber Replacement Parts

| | | |
|----|----------|--------------------|
| 16 | 62400104 | Acorn Nut 1/4 - 20 |
| 17 | 61400500 | Thumb Nut |
| 18 | 61201000 | White Nylon Washer |
| 19 | 61100400 | Compression Spring |
| 20 | 10046500 | Sleeve |
| 21 | 10046400 | Adjusting Screw |
| 22 | 10046201 | Tie Rod |

Matrx VME2® Small Animal Anesthesia Machine

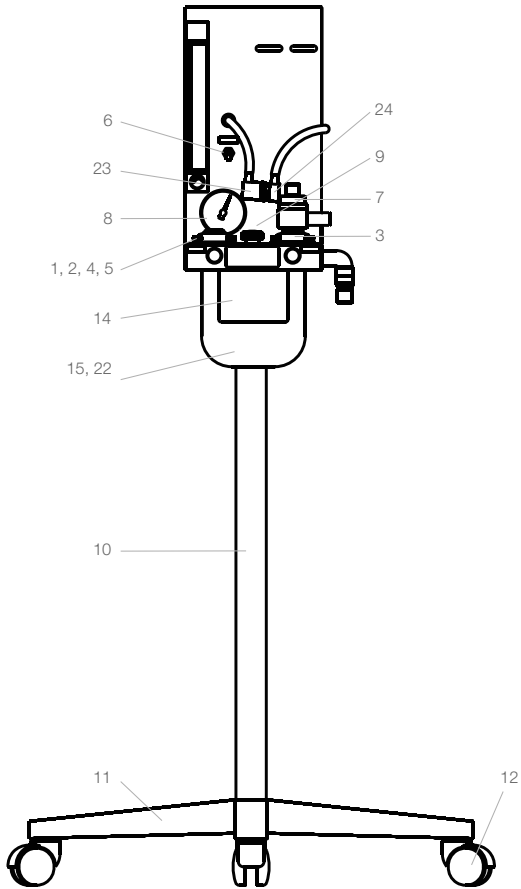
| | | |
|-----|----------|--|
| n/s | 91303017 | Maintenance Kit for Matrx VME2®/ VME®-Tabletop |
| 1 | 63500182 | Socket Head Bolt (1/4 - 20 x 5/8") |
| 2 | 63500176 | Screw (5/16 - 18 x 3/4") |
| 3 | 62600207 | Washer (lock) |
| 4 | 62600120 | Washer (flat 5/16) |
| 6 | 91315075 | Black Neoprene Rubber Tubing, 1/4" ID |
| 7 | 61911000 | "Y" Connector |
| 8 | 92305072 | FS2A Inlet Adapter |
| 9 | 92305073 | FS2 Outlet Adapter |
| 10 | | Vaporizer (Not Included) |
| 11 | 65928400 | Caster |
| 12 | 65928300 | Spider Base, 5-Leg |
| 13 | 61902507 | Column |
| 14 | 62700503 | U Clamp (includes 5/16" x 18 nuts) |
| 15 | 91316418 | Absorber Canister w/Decal |
| 16 | 62956200 | Absorber Canister Gasket |
| 17 | 62956200 | Elbow (90 Deg Male - 1/4 HB x NPT Plated) |
| 18 | 91800203 | O ₂ Flowmeter Assembly with Flush |
| 19 | 65928200 | Canister Knob |
| 20 | 91800434 | Pressure Gauge |
| 21 | 91800655 | Replacement O ₂ Needle Valve Assembly with Positive Stop |



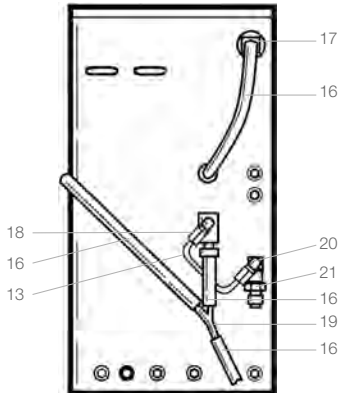
NOTE:

For Matrx VME2 inhalation/exhalation valve parts, see page 4.

Matrx VME® Small Animal Anesthesia Machine



| | | |
|-----|----------|---|
| n/s | 91303016 | Maintenance Kit for Matrx VME®- Stand Mount |
| 1 | 65927800 | Thumbscrew |
| 2 | 91370171 | Dome & Clamp, Inhalation Valve |
| 3 | 91370172 | Dome & Clamp, Exhalation Valve |
| 4 | 63200113 | O-Ring |
| 5 | 10049000 | Disc, Inhal. & Exhal. Valves |
| 6 | 65928000 | Flush Valve |
| 7 | 93335196 | APL Valve |
| 8 | 91800434 | Pressure Gauge |
| n/s | 91800435 | Pressure Gauge Replacement Cover-Wexler (Included with 91800434) |
| n/s | 91315276 | Pressure Gauge Replacement Cover-Marshall |
| 9 | 65928200 | Canister Knob |
| 10 | 61902507 | Column |
| 11 | 65928300 | Spider Base, 5 Leg |
| 12 | 65928400 | Caster |
| 13 | 10395800 | O ₂ Tube |
| 14 | 62954900 | Canister Decal |
| 15 | 62956200 | Absorber Canister Gasket |
| 16 | 91315075 | Black Neoprene Rubber Tubing, 1/4" ID (specify length in inches when ordering) |
| 17 | 62917008 | 1/4 HB x 1/8 NPT Elbow |
| 18 | 62901100 | 1/8 NPT x 3/16 Tube Elbow |
| 19 | 61911000 | "Y" Connector |
| 20 | 62900910 | 1/8M x 1/8F x 1/8F Pipe Tee |
| 21 | 91305040 | 1/8 MPT O ₂ Male DISS Connector |
| 22 | 91316418 | Absorber Canister w/Decal |
| 23 | 92305072 | FS2A Inlet Adapter |
| 24 | 92305073 | FS2 Outlet Adapter |



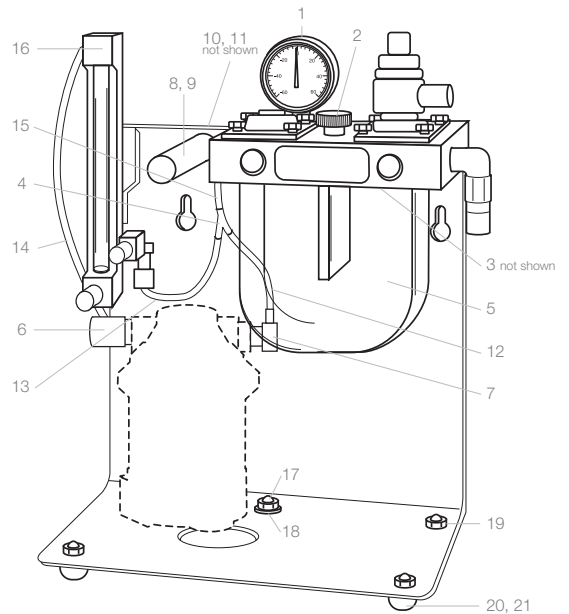
Matrx VME – Detail Rear View

Matrx VME® Tabletop Small Animal Anesthesia Machine

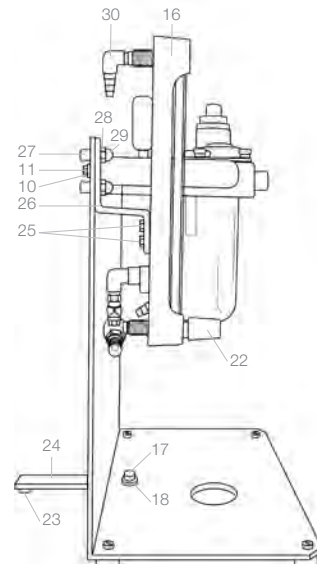
| | | |
|-----|----------|--|
| n/s | 91303017 | Maintenance Kit for Matrx VME2®/ VME®-Tabletop |
| 1 | 91800434 | Pressure Gauge |
| n/s | 91800435 | Pressure Gauge Replacement Cover-Wexler (Included with 91800434) |
| n/s | 91315276 | Pressure Gauge Replacement Cover-Marshall |
| 2 | 65928200 | Canister Knob |
| 3 | 62956200 | Absorber Canister Gasket |
| 4 | 61911000 | "Y" Connector |
| 5 | 91316418 | Absorber Canister w/Decal |
| 6 | 92305072 | FS2A Inlet Adapter |
| 7 | 92305073 | FS2 Outlet Adapter |
| 8 | 65936200 | Handle Grip |
| 9 | 10415300 | Handle |
| 10 | 63500176 | Socket Head Screw, 5/16 - 18x3/4 |
| 11 | 62600207 | HLCL Spring Lock Washer, 5/16, Plated |
| 12 | 61930903 | Tubing, 3" |
| 13 | 61930909 | Tubing, 6" |
| 14 | 61930913 | Tubing, 11" |
| 15 | 61930916 | Tubing, 5" |
| 16 | 91800199 | O ₂ Flowmeter Assembly with Flush |
| 17 | 62501705 | Socket Head Shoulder Screw, #10-32 |
| 18 | 62919404 | Curved Spring Washer - 1/4 |
| 19 | 62500124 | Pan Head Screw, #10-32 x 5/8 |
| 20 | 65936300 | Foot |
| 21 | 62400309 | Hex Nut, #10-32, Plated |
| 22 | 63300512 | O ₂ Needle Valve Assembly |
| 23 | 65936900 | Bumper |
| 24 | 10424202 | Leg, Anodized |
| 25 | 10503200 | Screw kit for VMS, VME and VMR #10-32 x 5/16 |
| 26 | 62957002 | Flowmeter Bracket, Anodized |
| 27 | 63500114 | Socket Head Screw, 1/4-20 x 5/8, Plated |
| 28 | 62600502 | Washer - 1/4 |
| 29 | 62400118 | Acorn Nut, 1/4-20 |
| 30 | 62917008 | 1/4 HB x 1/8 NPT Elbow |

NOTE:

For tabletop inhalation/exhalation valve parts, see page 4.



Matrx VME – Tabletop Front View



Matrx VME – Tabletop Side View

Matrx VML® Large Animal Anesthesia Machine

Matrx VML® Absorber Assembly

| | | |
|-----|----------|---|
| 1 | 40010401 | VML Basic Assembly |
| 2 | 20221100 | Corrugated Breathing Tube 64" |
| 3 | 93815403 | VML Inhaler "Y" with Retaining Ring |
| n/s | 10008200 | VML Inhaler "Y" Retaining Ring |
| 4 | 92805421 | (a) 22mm Endo Tube Connector |
| | 92805425 | (b) 25mm Endo Tube Connector |
| | 92805434 | (c) 30mm Endo Tube Connector |
| | 92805435 | (d) 40mm Endo Tube Connector |
| 5 | 93815400 | Breathing Bag (30L) |
| n/s | 91305093 | FS-44 Spacer Kit (not shown) |
| | 10032500 | (a) Plated Spacer (2) |
| | 62600127 | (b) Flat Washer (2) |
| | 62503501 | (c) Socket Set Screw (2) |
| | 62600901 | (d) Lock Washer (2) |
| | 62400343 | (e) Hex Nut (2) |
| 7 | 91800434 | Pressure Gauge |
| n/s | 91800435 | Pressure Gauge Replacement Cover-Wexler (Included with 91800434) |
| n/s | 91315276 | Pressure Gauge Replacement Cover-Marshall |
| 8 | 30028400 | Exh. Valve Assembly |
| 9 | 91315075 | Black Neoprene Rubber Tubing, 1/4" ID |

Matrx VML Stand Assembly Parts

| | | |
|-----|----------|--|
| 10 | 92505017 | 15" Mounting Stud |
| 11 | 62600204 | Washer 5/8 |
| 12 | 62400318 | Hex Nut 5/8 |
| 13 | 65936800 | "T" Handle |
| 14 | 20122401 | Column Assembly |
| 15 | 61902404 | Spider Base, 5 Leg |
| 16 | 65928400 | 3" Caster |
| n/s | 91305280 | Post Spacer |
| 17 | 93805419 | Canister Assembly |
| 18 | 62400104 | Acorn Nut 1/4-20 |
| 19 | 30028300 | Inh. Valve Assembly |
| n/s | 92305072 | FS2A Inlet Adapter |
| n/s | 61930907 | Black Neoprene Rubber Tubing, 1/4" ID x 36" |
| n/s | 63500115 | Socket Head Screw 1/4-20 x 3/4 |
| n/s | 62600113 | Washer |
| n/s | 61911000 | Nylon "Y" Connector |

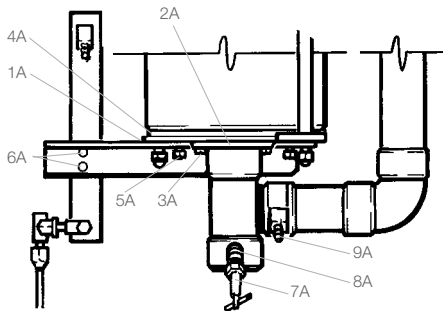
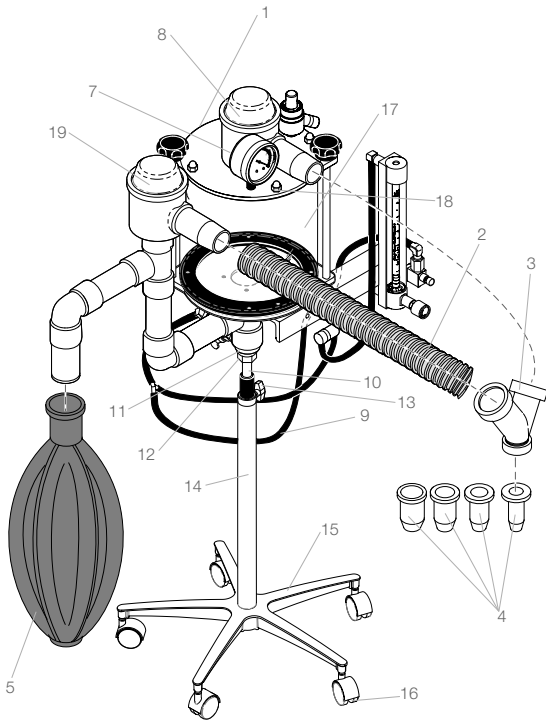
Matrx VML-Detail A – Rear View

| | | |
|-----|----------|---|
| 1A | 30028200 | Lower End Plate Assembly |
| 2A | 63200123 | O-Ring (2-143) |
| 3A | 62500124 | Pan Head Screw No. 10-32 x 5/8 |
| 4A | 30027600 | Gasket |
| 5A | 63500117 | Socket Head Screw 1/4-20 x 1 |
| 6A | 10555200 | Screw kit for Matrx VML #10-32 x 3/8 |
| 7A | 61300400 | Drain Valve Assembly |
| 8A | 62900100 | 45° Street Elbow |
| 9A | 62900800 | Hose Barb Connector |
| n/s | 91305093 | FS-44 Spacer Kit includes 2 hex head screws, 4 flat washers and 2 spacers |

n/s = not able to show in illustration.

For Matrx VML inhalation/exhalation valve parts, see page 4.

For Matrx VML nitrous oxide/oxygen flowmeter assemblies and parts, see pages 2 and 3.



Matrx VML – Detail A Rear View



Midmark Corporation

1700 South Patterson Boulevard
Suite 400
Dayton, Ohio 45409

Customer and Technical Services:
Tel: 1-800-MIDMARK (1-800-643-6275)
Fax: 1-877-725-6495
midmark.com

Versailles Facility

60 Vista Drive
Versailles, OH 45380-0286

Tel: 1-800-MIDMARK (1-800-643-6275)
Fax: 1-877-725-6496

Lincolnshire Facility

675 Heathrow Drive
Lincolnshire, IL 60069

Tel: 1-847-415-9800
Fax: 1-847-415-9801

Tampa Facility

10010 N. Dale Mabry Highway
Suite 110
Tampa, FL 33618

Tel: 1-800-MIDMARK (1-800-643-6275)
Fax: 1-813-264-6218



<http://www.midmarkanimalhealth.com>

Trade Name Notification Canis Major, Matrx, VMS, VMS Plus, VMC, VME, VME2, VMR, VML, VIP 3000, VXP, Spartan, Quantiflex, Revive-A-Pet, VetPro, Cardell, CardEX, TidalGuard, Versaflo, UltraClave, and Soniclean are trademarks or registered trademarks of Midmark Corporation or its subsidiaries. Satelec, Acteon, Kydex, Athena Champion, Little Pro and Meisinger are all trademarks or registered trademarks of their respective companies. Other products or services may be trademarks or registered trademarks of their respective companies.

CARB 93120.2 Phase 2 Compliant

Midmark is an ISO 13485 and ISO 9001 Certified Company.

For more information or a demonstration, contact your Midmark dealer or call: 1-800-MIDMARK Fax: 1-877-725-6495
Outside the U.S.A. call: 1-937-526-3662 Fax: 1-937-526-8214
or visit our website at midmarkanimalhealth.com

© 2009 Midmark Corporation
60 Vista Drive Versailles, Ohio 45380-0286
Products subject to improvement changes without notice
Litho in U.S.A. 007-0739-00 Rev. F1 (2/14)



Because we care.