



Fluid Management®

A Unit of IDEX Corporation

For Round and Square Containers

V1 / VR1 Mixer End User Guide



User Guide • Getting Started • Safety
Replacement Parts • Accessories • Contact Us



Your

customers have a vision,
you have a challenge

and Fluid Management has the answer.

Fluid Management is a global leading manufacturer of mixing and tinting equipment, plus specialized equipment for a variety of industries that include home improvement, food, chemical, and cosmetics. Located in Wheeling Illinois, Fluid Management is a United States owned and operated company with historical roots dating back to 1927. In 1996, Fluid joined the IDEX Corporation as it prepared to address the changing business environments of the 21st century.

As industry leaders, Fluid Management provides trend setting creative initial design through comprehensive equipment selections. FM Direct, Fluid Management's after-sales service is one of a kind. FM Direct technicians are Fluid Management employees, trained to understand our products like no one else. Fluid Management strives for close teamwork with our customers.

The combination of leading edge technology, world class service and support, and a company prepared for the future technological trends of an ever changing business environment makes Fluid Management the ideal partner. Thank you for putting your trust in Fluid Management products. We will help you with services that will help you serve your valued customers.



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Introduction

Once you've installed your V1 / VR1 one-gallon mixer, what's next? In this booklet, you'll find more information to help you get the most from your new Fluid Management V1 / VR1 one-gallon mixer.



V1 ONE-GALLON MIXER

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What's next?

How to use this manual

This *End User Guide* is organized into seven sections. Each section provides detailed information on V1/VR1 one-gallon mixer topics and provides you with a basic reference that can help you, the operator, learn how to use the machine and keep it operational for years to come.

This *End User Guide* provides the information for installing your V1/VR1 one-gallon mixer when it arrives. This publication also includes basic troubleshooting suggestions, replacement parts, Customer Service information, daily and preventative maintenance procedures and warranty information.

After you have read this manual, you should be able to install your mixer and operate it successfully.

If you have internet access, the most current information for your V1/VR1 one-gallon mixer is available from the worldwide web at

<http://www.fluidman.com>.

For your safety

Customer safety is important. Our products are designed to be safe and effective. However, mixers are electrical equipment. The mixer line is safe, fast, and reliable - designed to bring many years of operation. There are precautions you can take to avoid damage to the equipment or bodily injury before using. By carefully following the instructions in this manual and the warning and caution labels on the machine, you can help protect yourself from potential hazards and create a safer work environment.

Equipment can become damaged due to misuse or neglect. Some product damage is serious enough that the product should not be used again until it has been inspected and, if necessary, repaired by an authorized service technician. As with any electronic device, pay close attention to the mixer when it is turned on. On very rare occasions, you might notice

an odor or see a puff of smoke or sparks vent from your machine. Or, you might hear sounds like popping, cracking or hissing. These conditions might mean that an internal electronic component has failed in a safe and controlled manner. Or, they might indicate a potential safety issue. Do not take risks or attempt to diagnose the situation yourself.

Safety Precautions

- ❶ *Read this manual before using the machine.*
- ❷ *Keep the manual in a safe place.*
- ❸ *Read and adhere to all Warning and Caution labels on the machine.*
- ❹ *Prepare, level, and clear the area where the machine will be installed.*
- ❺ *To avoid risk of fire or injury, unplug the power before servicing electrical components.*
- ❻ *Do not use mixer on or near flammable or combustible materials. Do not mix flammable materials.*
- ❼ *Do not operate the mixer unless a container is in the can holder.*
- ❽ *Plug into an approved grounded outlet only. Make sure the outlet meets all national and local codes.*
- ❾ *To reduce the risk of electric shock or injury, use indoors only.*
- ❿ *This mixer contains moving parts. Tightly seal the container before operating. Allow motor to come to a complete stop before opening door.*





**WARNING:
UNPLUG BEFORE
SERVICING**



**USE A DEDICATED
15 AMP CIRCUIT
(US only)**



**WARNING:
DO NOT USE WITH OR
NEAR FLAMMABLES**

Information and Instruction Labels

Your V1/VR1 one-gallon mixer includes detailed informational labels. Make sure to follow these instructions for the best performance of your machine and for your safety.

You should become familiar with the information labels affixed to the machine, as well as the warnings, cautions, and notes which appear throughout this manual.

Read all the warning labels on the exterior and interior of the mixer. If the labels become damaged or unreadable, you may purchase replacements from Fluid Management Customer Service. See the replacement parts section for ordering information.

Safety Notice Information

The four main signal words used in this *End User Guide* and on the V1/VR1 one-gallon mixer are **Warning, Caution, Notice, and NOTE**. These words are selected based on the level of seriousness and degree of hazard. They are used to call your attention to important safety messages. Safety symbols are also included on the machine labels and in this *End User Guide* to help alert you to a potential personal injury hazard.

WARNING: HAZARD

A **Warning** signal tells you about a hazard that could cause serious injury to you or extensive damage to the equipment. This information is featured in the beginning of the manual to emphasize safety.

When you see a **Warning** notice in this documentation, read it carefully before continuing with the operation of the machine. Take all necessary precautions to avoid potential injury.

CAUTION: POTENTIAL SAFETY HAZARD

A **Caution** signal tells you about a danger that could cause injury to you or minor damage to the mixer. When you see a **Caution** notice, read it carefully and be sure you understand it before continuing.

NOTICE

A **Notice** signal directs you to new or unusual information that will help you operate the machine better. Notices are also used to make you aware of the safety related nature and importance of the entire document.

NOTE!

NOTE! provides you with helpful tips and precautions to make sure you understand the instructions or remind you of issues to pay attention to.

General safety information

Do not attempt to service a product yourself unless instructed to do so by Fluid Management Customer Service. Use only a Fluid Management authorized Service Technician to repair your equipment. Please note that some parts can be upgraded or replaced by the customer. Fluid Management identifies those parts as such and provides documentation with instructions when it is appropriate for customers to replace those parts. You must closely follow all instructions when performing such replacements. Always make sure that the power is turned off and that the machine is unplugged before you attempt the replacement. If you have any questions or concerns, contact Fluid Management Customer Service.



Important safety information

WARNINGS



This machine draws 6.4 Amps at $120 \pm 10\%$ VAC .

Do not modify the provided plug.

Improper use of grounding plug can result in risk of electric shock.

Check with a qualified electrician or service person if grounding instructions are not completely understood or if in doubt as to whether product is properly grounded.

Do not use an adapter or extension cord with this product.

Grounding

This product must be grounded. In the event of an electrical short circuit, grounding reduces the risk of electrical shock by providing an escape for the electric current. This product is equipped with a cord that has a grounding wire and an appropriate grounding plug. The plug must be inserted into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

DANGER

Improper installation of the grounding plug can result in a risk of electric shock. If repair or replacement of the cord or plug is necessary, do not connect the grounding wire to either flat blade terminal. The insulation wire with green or green and yellow stripes on the outer surface is the grounding wire.

Check with a qualified electrician if the grounding instructions are not completely understood, or if in doubt about whether the product is properly grounded. *Do not modify the plug provided.* If it will not fit into the outlet, have the proper outlet installed by a qualified electrician.

Cautions

Check with a qualified electrician or service person if grounding instructions are not completely understood or if in doubt as to whether product is properly grounded.

This unit must be plugged into a dedicated electrical line.

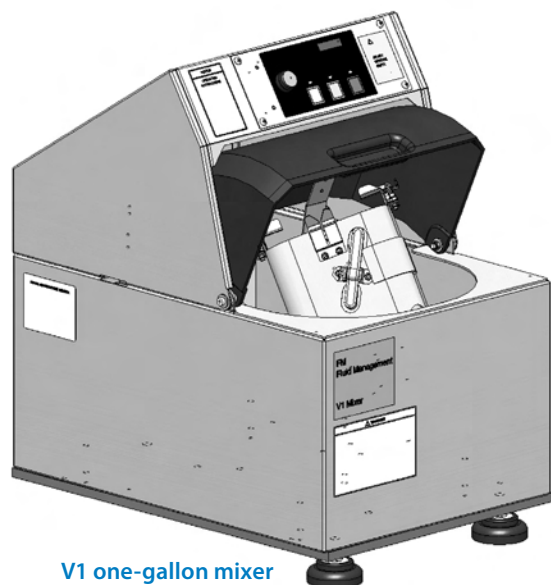
To reduce the risk of electric shock or injury, use indoors only.

Use a grounded outlet that looks like this:

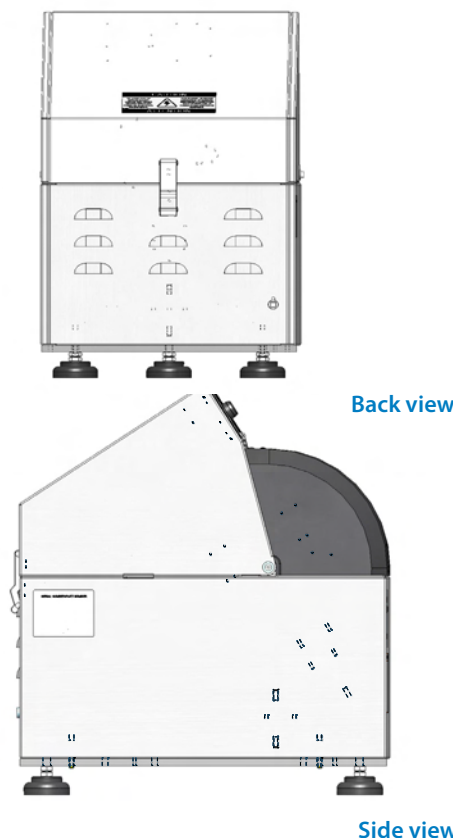


NOTE!

This product is for use on a dedicated nominal 115 Volt (US only) circuit and has a grounding plug.



V1 one-gallon mixer



Back view

Side view

TECHNICAL SPECIFICATIONS

Height: 26" (66 cm)
Width: 17" (43 cm)
Depth: 24" (61 cm)
Weight: 165 pounds (75 kg)
Maximum power: 120
 Volts, 6.4 Amps
 +/- 10%, 60 Hz Frequency

For 220 Volts consult
factory.

Introduction

The V1 vortex mixer mixes both round and square containers of paint with fast and thorough action. The rugged machine includes a fully rotational motion on a dual axis. Each machine is operated by a high efficiency motor and gear drive. The digital switch LED panel allows you to see the remaining mix time, count mix cycles, and select the needed mixing time. The V1 can holder accommodates both square and round one-gallon containers and has a patented adapter - capable of holding quarts and pints. The can adapter fits snugly inside the can holder due to the lid retainers that snap over the top of the can, minimizing spills. The V1 one-gallon mixer is fast, reliable, and easy to use.

The gear drive requires no lubrication and the belts should last for many years. The V1 one-gallon mixer series is virtually maintenance free and should deliver many years of reliable service. The cabinet is constructed from heavy gauge stain resistant steel and has a durable powder coated finish that can be cleaned easily.

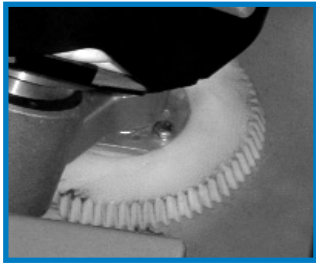
Product Highlights:

- Fast and rugged
- Fully rotational dual axis mix motion
- Handles both square and round containers
- Thoroughly mixes in one to three minutes
- Automatic shut off
- Fits on a sturdy table top or counter
- Adapter holds pints and quarts
- Includes LED counter
- Programmable mixing times

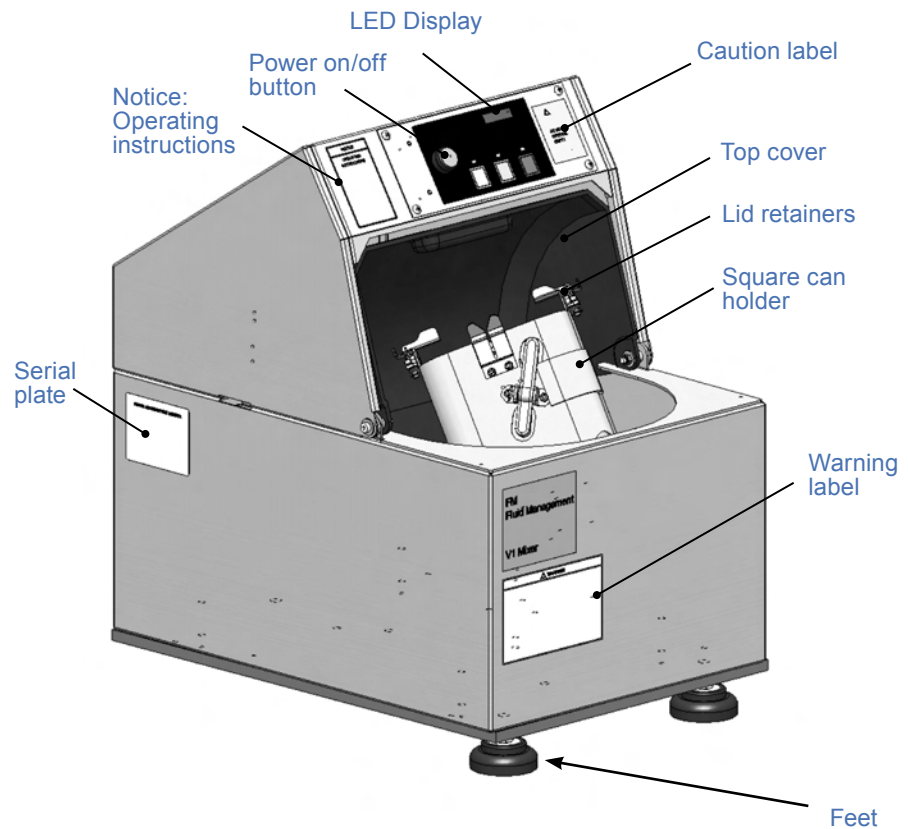
V1 ONE-GALLON MIXER SIDE VIEW



**MIXES SQUARE
AND ROUND CANS**



GEARS



YOUR V1 ONE-GALLON MIXER HAS THESE BUILT IN FEATURES:

- Handles both round and square containers.
- Screw down latch on back of mixer provides easy maintenance access.
- Has three rubberized feet for increased stability when mixing.
- Includes easy to use adapter for quarts and pints.
- LED counter displays remaining mix time, plus life hours.
- Includes digital switch panel with **Power On/Off** button.
- Fast and thorough paint mixing.
- Can be customized to handle three mixing cycles - **Light, Medium, and Dark**.
- Easy to clean steel and painted exterior surfaces.
- Partially enclosed motor.
- Mixer can be used under a counter top or shelf.



Tips to Help You get Started

These tips will help you get the most out of your V1 and VR1 one-gallon mixer:

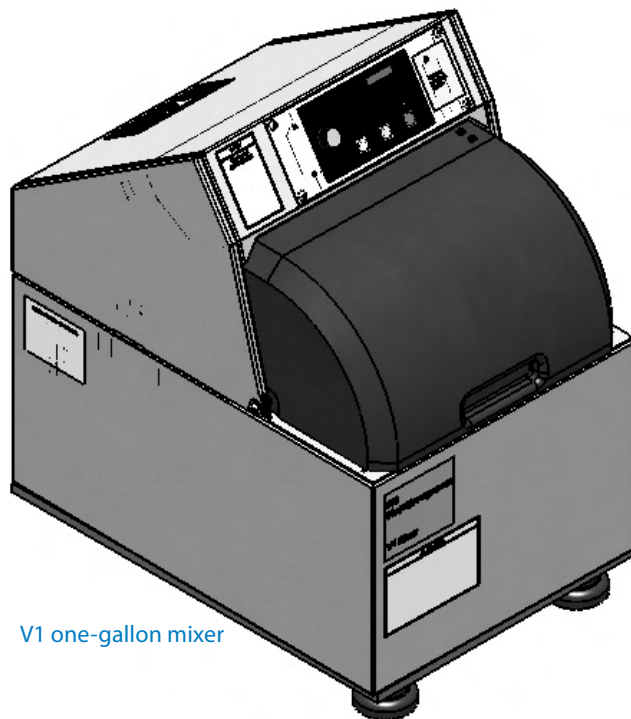
- Press the **Power On/Off** button to see how many cycles the mixer has run.
- The door will stop the mixer during operation if it is opened.
- Use the provided adapter to mix both quarts and pints.
- Do not mix flammable materials.
- Make sure the paint container is tightly sealed before mixing to prevent spills.
- Follow the preventative maintenance procedures in this *End User Guide*.
- Do not use solvent based colorants in your mixer.
- Call Fluid Management Customer Service for assistance at **1.800.462.2466**.

Getting Started

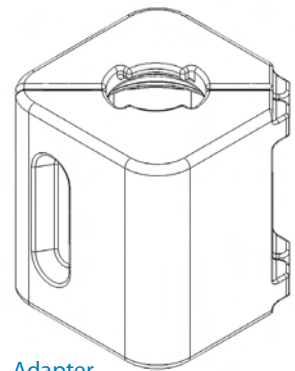
Installation

Your V1/VR1 one-gallon mixer has been designed so that you can set it up quickly and begin using it right away. If you have never used a mixer, read this section for instructions on getting started and installing your machine.

If you are an experienced machine operator, you may already know enough to get started. Be sure to look over the information to find out more about the V1/VR1 features.



V1 one-gallon mixer



Adapter



Getting Started

Installation

WARNINGS



Always shut off the power and unplug your machine from the AC power outlet before servicing.

The unit must be plugged into a dedicated 15 Amp electrical line (US only).

The surface the mixer sits on must be strong enough to support its weight.

Verify that your mixer is firmly positioned on the surface it will sit on.

This machine is not explosion proof and must not be used in a flammable atmosphere or with flammable or combustible materials.

Stay clear of all belts and pulleys until after the machine has been shut off.

Unpacking and Set up

Follow the steps on the next six pages to install and operate your V1/VR1 one-gallon mixer.

1 Make sure these items are available before installing:

V1 or VR1 one-gallon mixer
Quart adapter
Surge protector (not included)

2 Tools needed for installation:

9/16" Socket wrench
Scissors or diagonal cutters
Straight screw driver

3 Unpack the machine while still on the shipping skid.

- Remove the interior contents of the packaging.
- While unpacking the machine, inspect the machine for any damage that may have occurred during shipping.

If any damage is found, notify the carrier immediately. Arrange for inspection in order to claim recovery. Claims for damage must be made by the consignee (YOU). The carrier assumes full responsibility upon acceptance of the shipment and will not entertain any claims by the consignor.

Verify the contents against the packing slip. Note if any items are missing or damaged. Call Fluid Management Customer Service at 1-800-462-2466 if any items are missing.

4 Remove the mixer from the shipping skid.

- Unscrew and discard the two screws and washers from the inside of the mixer with the socket wrench.
- Remove the mixer from the skid.

Cautions

To reduce the risk of electric shock or injury, use indoors only.

The shipping skid should remain affixed to the unit before fully unpacking for easier handling and to prevent damage to the mixer.

Use caution when moving with forklift. Damage may result if forks come in direct contact with machine

Follow preventative maintenance recommendations for effective machine operation.

Make sure cans are tightly sealed before mixing. Do not open door until mixer has come to a complete stop.

Clamp down containers and cans when they are inside the can holder.

Do not mix without a container inside the can holder.

Do not operate the mixer until it is in its permanent location.

Be careful when touching the exterior of an operating motor! Motor may be hot enough to be painful or cause injury.



Getting Started Installation

WARNINGS



Always shut off the power and unplug your machine from the AC power outlet before servicing.

The unit must be plugged into a dedicated 15 Amp electrical line (US only).

The surface the mixer sits on must be strong enough to support its weight.

Verify that your mixer is firmly positioned on the surface it will sit on.

This machine is not explosion proof and must not be used in a flammable atmosphere or with flammable materials.

Be careful when touching the exterior of an operating motor! Motor may be hot enough to be painful or cause injury.

Stay clear of all belts and pulleys until after the machine has been shut off.

5

Remove the packing block from inside the mixer.

- Unscrew the latch on the back of the mixer, *Figure 1*.



- Carefully lift up the top cover until it rests on the front of the mixer.
- Unscrew the wooden block on the interior of the mixer between the gears and the motor.
- Remove the wooden block, *Figure 2*.



- Close the top cover and re-attach the latch.

6

Position the mixer in permanent location.

- Choose a location for your mixer that can support the weight (V1: 165 pounds, 75 kilograms; VR1: 117 pounds, 53 kilograms). Make sure there is enough room for service personnel to have access to the rear of the machine.
- Adjust the feet if necessary by screwing them up or down.

7

Plug in the power cord. Follow “V1 Mixer Basic Operation” instructions on page 14.

Cautions

To reduce the risk of electric shock or injury, use indoors only.

The shipping skid should remain affixed to the unit before fully unpacking for easier handling and to prevent damage to the mixer.

Use caution when moving with forklift. Damage may result if forks come in direct contact with machine.

Follow preventative maintenance recommendations for effective machine operation.

Make sure cans are tightly sealed before mixing.

Clamp down containers and cans when they are inside the can holder.

Do not mix without a container inside the can holder.

Do not operate the mixer until it is in its permanent location.

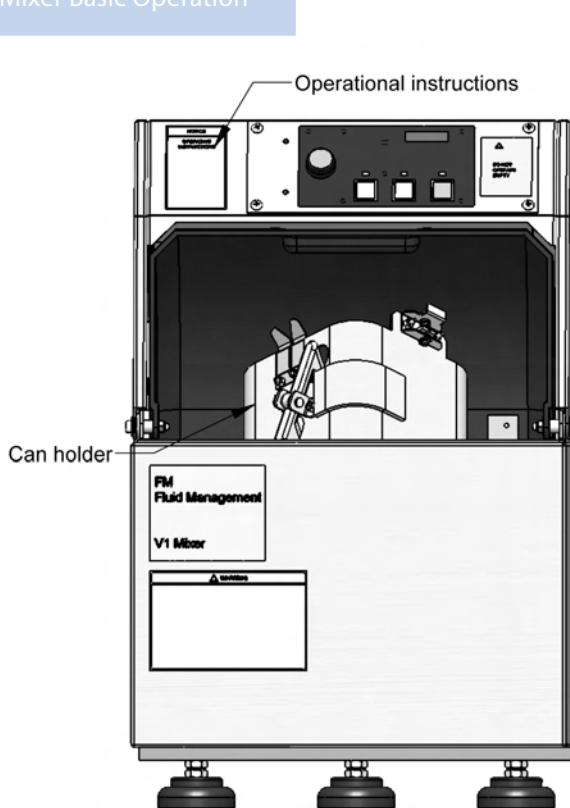


Fig. 3

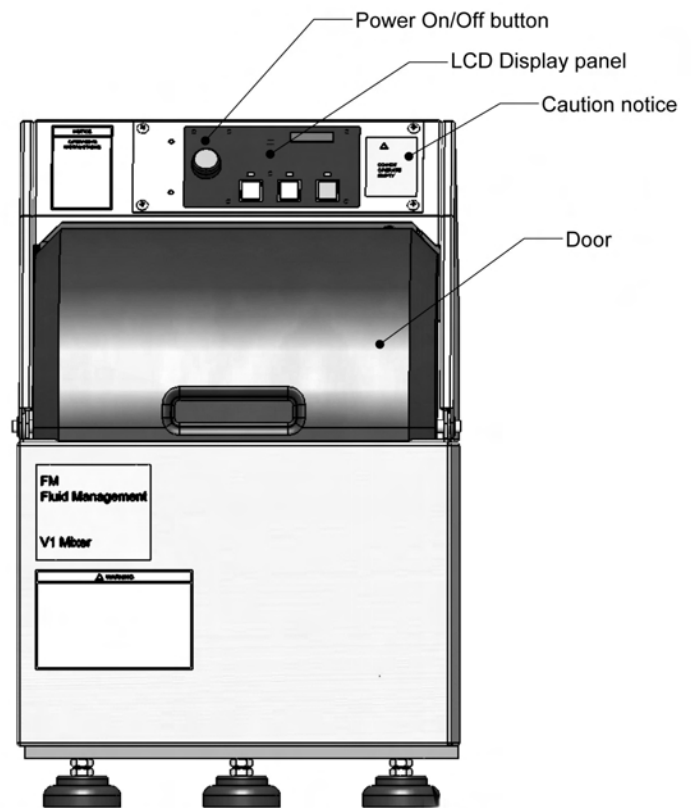


Fig. 4



Fig. 5

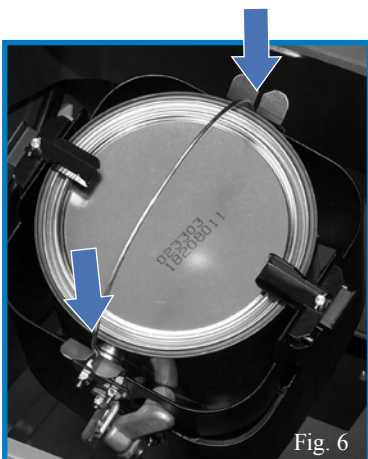


Fig. 6

V1 One-Gallon Mixer Basic Operation

- 1 - Before operating the mixer, read the safety labels and instructions *Figures 3, 4*.
 - 2 - Make sure the paint container you are mixing is tightly sealed to prevent any spills.
 - 3 - Open the door. Turn the can holder towards you and place the container inside, *Figures 3-6*. For plastic square containers, align the container handle with the metal lever on the side of the can holder, *Figure 5*.
- NOTE!** - If you are mixing a metal can, make sure the handles fit firmly in the slots on the side of the can holder, *Figure 6*.
- 4 - Turn both levers on the can holder until they snap into place *Figure 6*. The can should be firmly positioned in the can holder.
 - 5 - Close the mixer door *Figure 4*.
 - 6 - Press the **Power On/Off** button to turn on power for the mixer *Figure 4*.
 - 7 - Select the **Light, Medium, or Dark** button on the LED display panel to start the mixing cycle.
 - 8 - At the end of the mixing cycle, remove the paint container when the mixer comes to a complete stop.

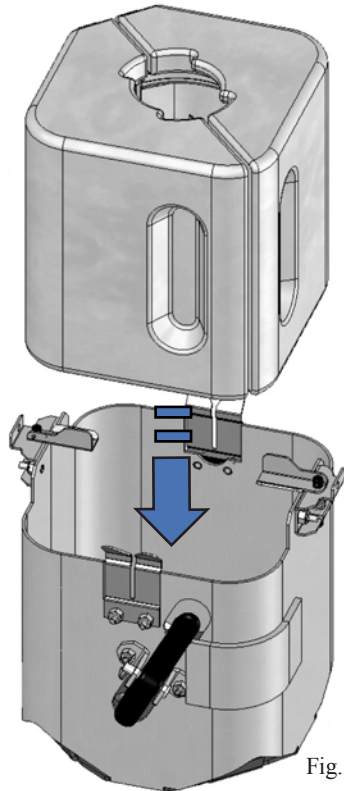


Fig. 7

Quart adapter accommodates:

- Pint cans
- Quart cans

How to use the Adapter

The quart adapter can be used to mix quarts and pints. Each can shape is molded into the plastic adapter. After putting the can inside the adapter, you simply place the adapter and the can into the mixer can holder, *Figure 10* and select the mix cycle of your choice.

NOTE! The mixer will stop when the door is opened.

- 1 - a. Open the adapter.
b. Select the adapter shape that holds the container you are mixing.
- 2 - a. Place the quart or the pint in the adapter, *Figure 8, 9.*
b. Close the adapter and place inside the can holder, *Figure 10.*
- 3 - Make sure the adapter handles fit against the reinforced side of the can holder, *Figure 5, 7.*
- 4 - Clamp both lid retainers over the adapter, *Figure 11.*
- 5 - Follow “**V1 Basic Operation**” instructions on page 14.



Fig.8

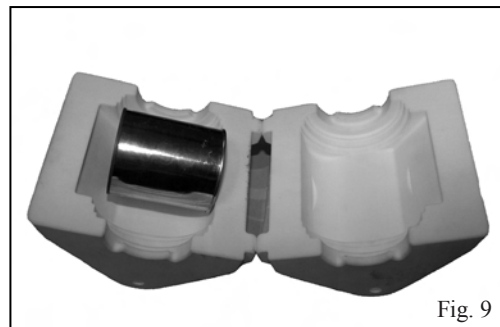


Fig. 9

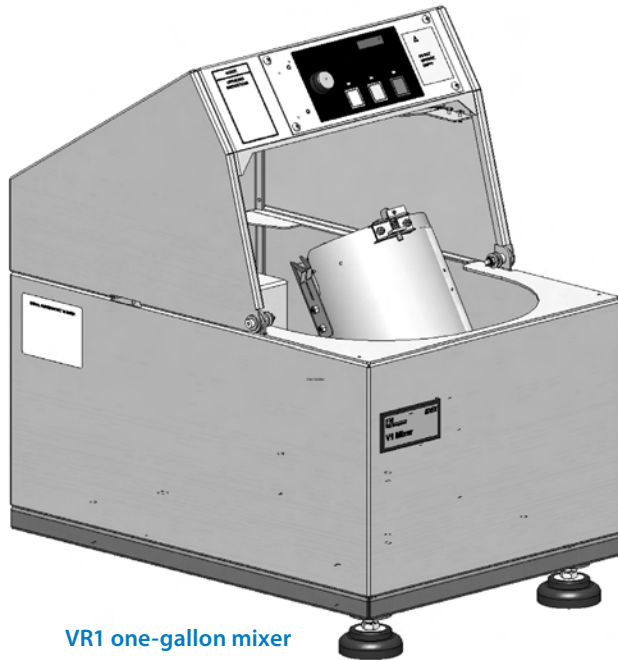


Fig. 10

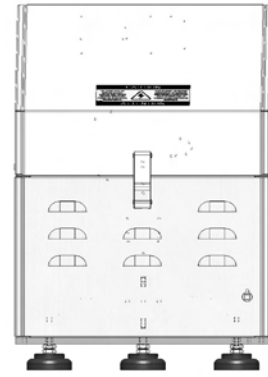


Fig. 11

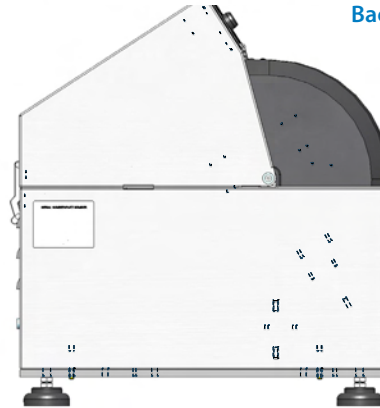




VR1 one-gallon mixer



Back view



Side view

TECHNICAL SPECIFICATIONS

Height: 27.9" (71 cm)
Width: 17" (43 cm)
Depth: 24" (61 cm)
Weight: 117 pounds (53 kg)
Maximum power: 120 Volts, 6.4 Amps
+/- 10%, 60 Hz Frequency

For 220 Volts consult factory.

Introduction

The VR1 one-gallon mixer mixes round cans with fast and thorough vortex action. The rugged machine includes a fully rotational motion on a dual axis. Each machine is operated by a high efficiency motor and gear drive. The digital switch LED panel allows you to see the remaining mix time, count mix cycles, and select the needed mixing time, while the mechanical timer is easy to use and still provides multiple mix times. The VR1 one-gallon mixer can holder accommodates round one-gallon cans and has a patented adapter - capable of holding quarts and pints. The can adapter fits snugly inside the can holder due to the lid retainers that snap over the top of the can, minimizing spills. The VR1 one-gallon mixer is fast, reliable, and easy to use.

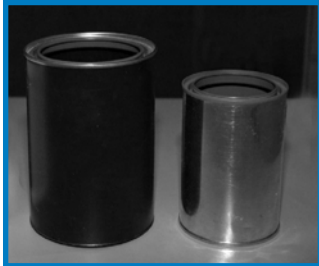
The gear drive requires no lubrication and the belt should last for many years. The VR1 one-gallon mixer is virtually maintenance free and should deliver many years of reliable service. It is constructed from heavy gauge stain resistant steel and has a durable powder coated finish that can be cleaned easily.

Product Highlights:

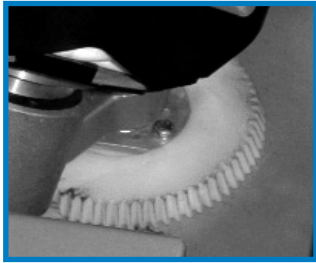
- Fast and rugged
- Fully rotational dual axis mix motion
- Handles round containers
- Thoroughly mixes in one to four minutes
- Automatic shut off
- Fits on a sturdy table top or counter
- Adapter holds pints and quarts
- Includes choice of LED display or mechanical switch
- Programmable mixing times



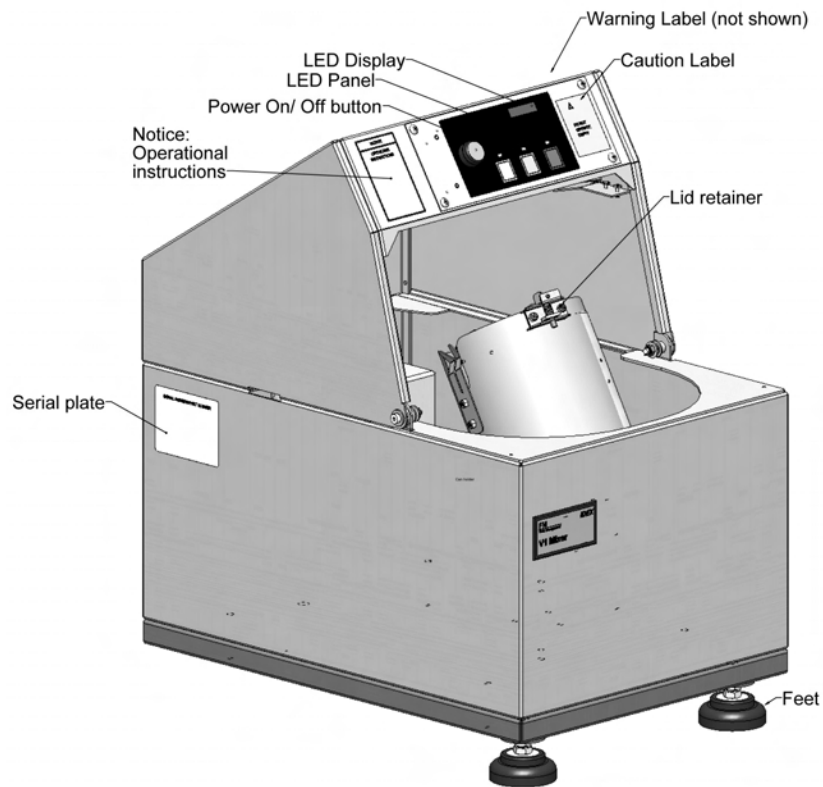
VR1 ONE-GALLON MIXER FRONT AND SIDE VIEWS



**MIXES ROUND
CANS**



GEARS



YOUR VR1 ONE-GALLON MIXER HAS THESE BUILT IN FEATURES:

- Mixes round cans.
- Screw down latch on back of mixer provides easy maintenance access.
- Has three rubberized feet for increased stability when mixing.
- Includes easy to use adapter for quarts and pints.
- Optional LED counter displays remaining mix time, plus life hours.
- Includes digital switch panel with **Power On/Off** button.
- Fast and thorough paint mixing.
- Can handle three mixing cycles - **Light, Medium, and Dark**.
- Easy to clean steel and painted exterior surfaces.
- Partially enclosed motor.
- Mixer can be used under a counter top or shelf.



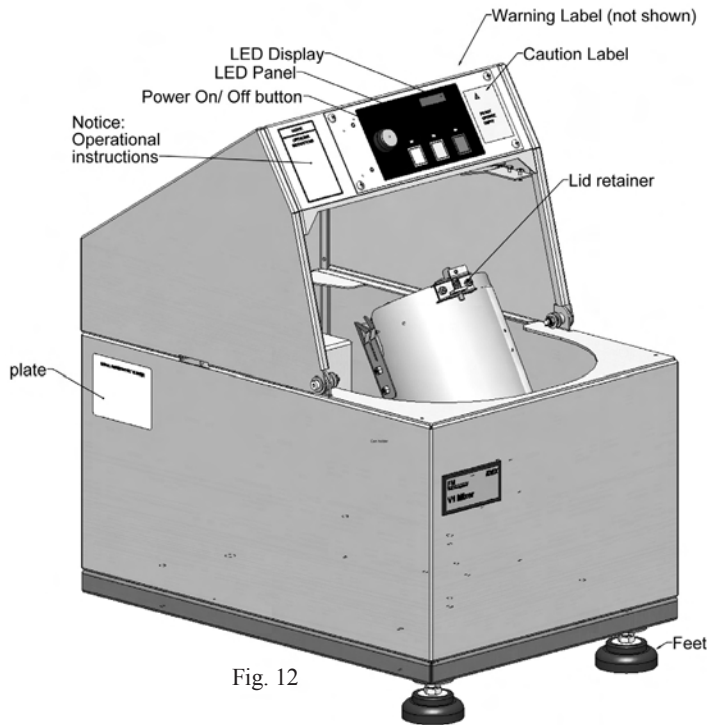


Fig. 12



Fig. 14

MECHANICAL TIMER

Time amount options available from 1-4 minutes.



Fig. 15

LED DISPLAY

Light, Medium, and Dark mixing cycles available.

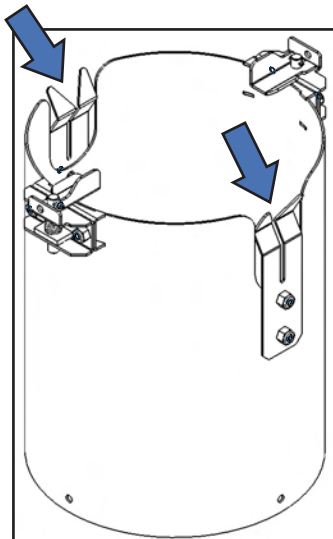


Fig. 13

VR1 One-Gallon Mixer Basic Operation

- 1 - Before operating the mixer, read the safety labels and instructions on the machine, *Figure 12*.
- 2 - Make sure the paint container you are mixing is tightly sealed to prevent any spills.
- 3 - Open the door. Turn the can holder towards you and place the container inside, *Figure 12*.
NOTE! - Make sure the handles fit firmly in the slots on the side of the can holder, *Figure 13*.
- 4 - Turn both levers on the can holder until they snap into place. The can should be firmly positioned in the can holder.
- 5 - Close the mixer door.
- 6 - For the LED display model, press the **Power On/Off** button to turn on power for the mixer *Figure 12, 15*.
a. Next, select the **Light, Medium, or Dark**, *Figure 15* button on the display panel to start the mixing cycle.
- 7 - For the mechanical timer model, turn the knob to the right to the select the amount of time required for mixing *Figure 14*.
- 8 - At the end of the mixing cycle, remove the paint can when the mixer comes to a complete stop.



Maintenance and Service



To ensure safe, dependable operation of your V1 one-gallon mixer follow the maintenance schedule detailed below:



Unplug from outlet before servicing and cleaning.

CLEAN EVERY DAY:
• Clean all accessible inside surfaces with a mild cleaning solution.
• Clean control panel surfaces with a mild cleaning solution.
• Clean all outside cabinet surfaces with a mild cleaning solution.
EVERY SIX MONTHS:
• Level and adjust feet as necessary. Start with front right foot first.
• Adjust belt tension as needed.
• Check for dirt accumulations on motor. Remove dirt by vacuuming.
EVERY YEAR
• Lubricate the sleeve bearings on the motor with 30-35 drops of SAE 20 oil.
• Change the drive belt.



Maintenance and Service

Use the chart below to record the scheduled maintenance of your V1 one-gallon mixer:

SCHEDULED MAINTENANCE PROCEDURES				
DATE	CYCLES	COMPONENT	STATUS	RECORDED BY:



What if I have a problem?

Frequently Asked Questions

Troubleshooting chart

Using the chart below, locate the problem in the first column, then check the probable cause from the second column. Take the action recommended in the last column.

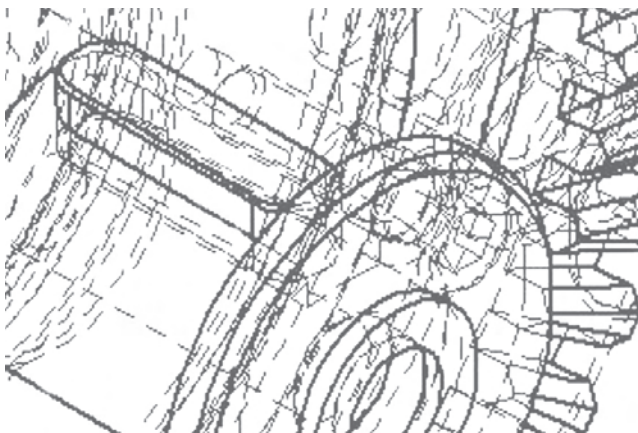
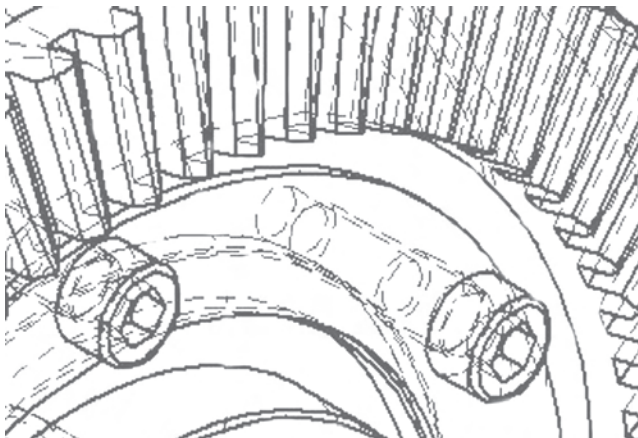
When appropriate, refer to the Maintenance and Service section of this *End User Guide* to correct the problem. Contact Fluid Management Customer Service if you are unable to determine the problem.

PROBLEM	FIRST CHECK:	ACTION
The mixer does not start.	<ul style="list-style-type: none"> ...Is mixer plugged in? ...Does "0" appear on LED? ...Is voltage present? ...Is front door closed? ...Is motor overheated? 	<ul style="list-style-type: none"> •Connect mixer to power source. •Contact an electrician. •Close front door. •Allow motor to cool for at least five minutes. Check for an excessive accumulation of dirt. Vacuum if necessary. •Call Customer Service.
The mixer will not shut off.	<ul style="list-style-type: none"> ...Is time shown on LED display showing and counting down? 	<ul style="list-style-type: none"> •Let mixer finish mixing cycle. •Unplug mixer. •Call Customer Service.
The motor has voltage and hums, but it will not run.	<ul style="list-style-type: none"> ...Is the line voltage low? ...Is the belt too loose or too tight? 	<ul style="list-style-type: none"> •Make sure the mixer is on a dedicated line. •Check the tension of the belt. •Call Customer Service.
An excessive amount of vibration occurs.	<ul style="list-style-type: none"> ...Is can holder empty? ...Is mixer level? ...Is one of adjustable legs broken, low or damaged? ...Is paint can positioned in the seat correctly? 	<ul style="list-style-type: none"> •Place container in can holder. •Adjust legs until balanced. •Replace or adjust damaged leg. •Position container in the can holder.
The motor starts slowly.	<ul style="list-style-type: none"> ...Is the belt tension too tight? 	<ul style="list-style-type: none"> •Adjust the tension of the belt.

Replacement Parts

This section is designed to assist you in:

- **IDENTIFYING SERVICE FUNCTIONS**
and
- **IDENTIFYING REPLACEMENT PARTS**



Occasionally, a customer may experience a complication with one of our products. If this should happen, please call our toll-free number and we can help you solve the problem or send you replacement parts.

TERMS: Unless prior arrangements have been made, parts will be shipped **UPS** - C.O.D. All prices are FOB, Wheeling, Illinois and are subject to change without notice.

In all correspondence or phone orders, please state the model number and the serial number of the machine.

Orders less than \$30.00 will be assessed an \$8.00 handling charge.

There is a restocking fee of 25% on all returned goods.

RETURNS: No parts are to be returned without prior authorization. A Returned Goods Authorization (**RGA**) or Returned Materials Authorization (**RMA**) number is required.

All warranty repairs must be performed by FM Direct® or FM authorized service personnel. Any service work performed by non-authorized service personnel will void the FM Original Equipment Manufacturer warranty.



Calling for service

If you have tried to correct the problem yourself and still need help during the warranty period and after, you can get support and information by telephone through the Fluid Management Customer Service Center. The following services are available:

PROBLEM DETERMINATION - Trained personnel are available to assist you with determining what kind of action is necessary to fix the problem and help you order parts.

ENGINEERING CHANGE - Occasionally, there might be changes or parts that are required for your machine, after a product has been sold. Fluid Management will make selected parts available for your equipment.

HAVE THE FOLLOWING INFORMATION AVAILABLE WHEN CALLING FLUID MANAGEMENT CUSTOMER SERVICE:

- A description of the problem (for example, the dispenser is producing mis-tints, the computer is frozen).
- What you have tried to do already.
- The type of machine, computer and software.
- The serial number of the machine.
- The version of software, third party software, external devices, and so on (especially if the issue involves software you have added to the computer).

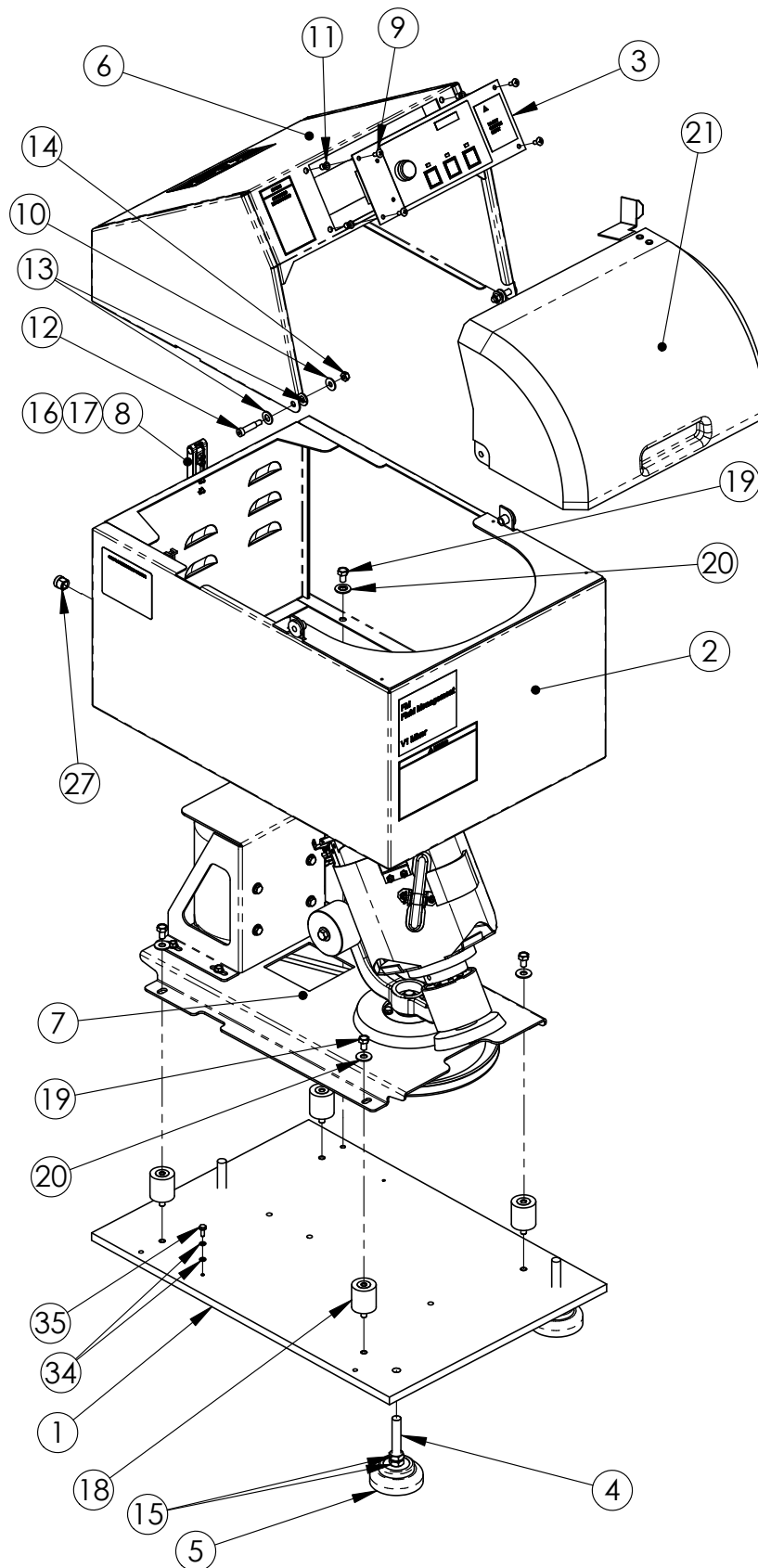
PLEASE BE IN FRONT OF THE MACHINE WHEN YOU CALL.

Purchasing additional accessories

During and after the warranty period, you can purchase additional services such as support and installation for Fluid Management equipment and accessories like can adapters, bar code scanners, label printers, computers, and monitors.



V1 Mixer Assembly, 120 V/60HZ PN 30130



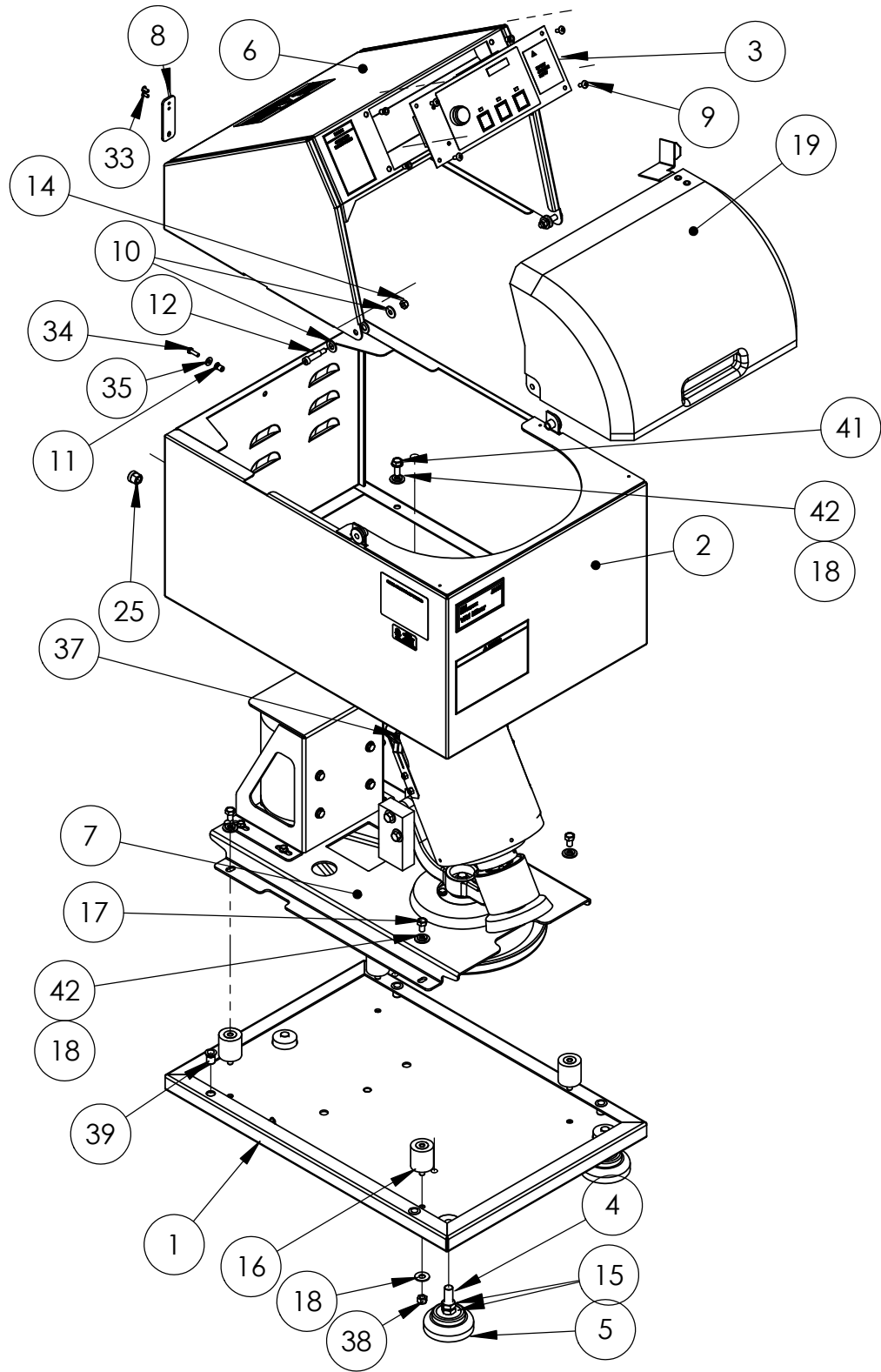
V1 Mixer Assembly 120 V/60HZ PN 30130

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	30212	Base	1
2	30202	Lower cabinet weldment	1
3	27970	Timer control panel assembly	1
4	30741	Stud, foot	3
5	20453	Base pad, 3" Diameter, 1/2-20 thread	3
6	30206	Upper cabinet weldment	1
7	30799	Motor drive assembly	1
8	30783	Plate, rear lock	1
9	NSS*	Screw, THCS, 10-24 x 1/2, PHIL, C/Z	4
10	NSS*	Washer, plain, 1/4	2
11	NSS*	Nut, rivet, 10-24, .020 - .13 Grip	5
12	NSS*	Screw, shoulder, 5/16 x 1, 1/4-20 x 7/16	2
13	NSS*	Nylon, .34 x .74 - .87 OD x .062 THK	4
14	NSS*	Nut, hex, 1/4 - 20, Nyloc	2
15	NSS*	Nut, hex, 1/2 - 20, Jam, C/Z	6
16	30484	Shock mount, 5/16-18 Male/Female	4
17	NSS*	Screw, 5/16-18 x 1/2, Nyloc	8
18	NSS*	Washer, plain, 5/16	8
19	30562	Plastic door assembly	1
20	30559	Harness, cabinet (not shown)	1
21	25968	Harness, splice, mov, 120 Volt (not shown)	1
22	N/A		1
23	30560	Power cord (not shown)	1
24	30561	Harness, motor (not shown)	1
25	400378	Grommet, strain relief, #1207, black	1
26	28978	Label, Caution, Power	1
27	30586	Label, Operating instructions	1
28	30977	Label, Warning notice	1
29	30587	Label, Warning notice	1
30	30588	Label, Fluid Management name plate	1
31	20076	Label, Serial plate	1
32	NSS*	Washer, #10, split lock	2
33	NSS*	Screw, HHCS, 10-32 x 1/2 with washer	1
34	NSS*	Hex nut, #6-32, Nyloc	1
35	30598	Quart adapter assembly	1
36	NSS*	Rivet, 5/32 D, 1/8 -3/16, SS	2
37	NSS*	Screw, HHCS, 10-24 x 5/8	1
38	NSS*	Washer, Plain, #10	1
39	NSS*	Washer, Lock, 5/16, Split, C/Z	8
40	23968	Label, ETL listed, United States and Canada	1

*Not Sold Separately



VR1 Mixer Assembly, 120 V/60HZ PN 30800



VR1 Mixer Assembly, 120 V/60HZ PN 30800

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	30212	Base, weldment	1
2	30202	Lower cabinet weldment	1
3	27970	Timer control panel assembly	1
4	30741	Stud, foot 2_25 Long	3
5	20453	Base pad, 3" Diameter, 1/2-20 thread	3
6	30206	Upper cabinet weldment	1
7	30415	Motor drive assembly	1
8	30783	Plate, rear lock	1
9	NSS*	Screw, THCS, 10-24 x 1/2, PHIL, C/Z	4
10	NSS*	Washer, plain, 1/4	2
11	NSS*	Nut, rivet, 10-24, .020 - .13 Grip	5
12	NSS*	Screw, shoulder, 5/16 x 1, 1/4-20 x 7/16	2
13	NSS*	Nylon washer, .34 x .74 - .87 OD x .062 THK	4
14	NSS*	Nut, hex, 1/4 - 20, Nyloc	2
15	NSS*	Nut, hex, 1/2 - 20, Jam, C/Z	6
16	30484	Shock mount, 5/16-18 Male/Female	4
17	NSS*	Screw, 5/16-18 x 1/2, Nyloc	8
18	NSS*	Washer, plain, 5/16	8
19	30562	Plastic door assembly	1
20	30559	Harness, cabinet (not shown)	1
21	25968	Harness, splice, mov, 120 Volt	1
22	N/A		
23	30560	Power cord (not shown)	1
24	30561	Harness, motor	1
25	400378	Grommet, strain relief, #1207, black	1
26	28978	Label, Caution, Power	1
27	30586	Label, Operating instructions	1
28	30977	Label, Warning notice	1
29	30587	Label, Caution notice	1
30	30588	Label, Fluid Management logo name plate	1
31	20076	Label, Serial name plate	1
32	NSS*	Nut, hex #6-32, Nyloc	2
33	NSS*	Rivet, 5/32" Diameter, 1/8 - 3/16" Grip	1
34	NSS*	Screw, HHCS, 10-24 x 5/8	1
35	NSS*	Plain washer, #10	1
36	NSS*	Lock, washer, 1/8, Ext. Tooth	2
37	3006106	Quart adapter	1

*Not Sold Separately



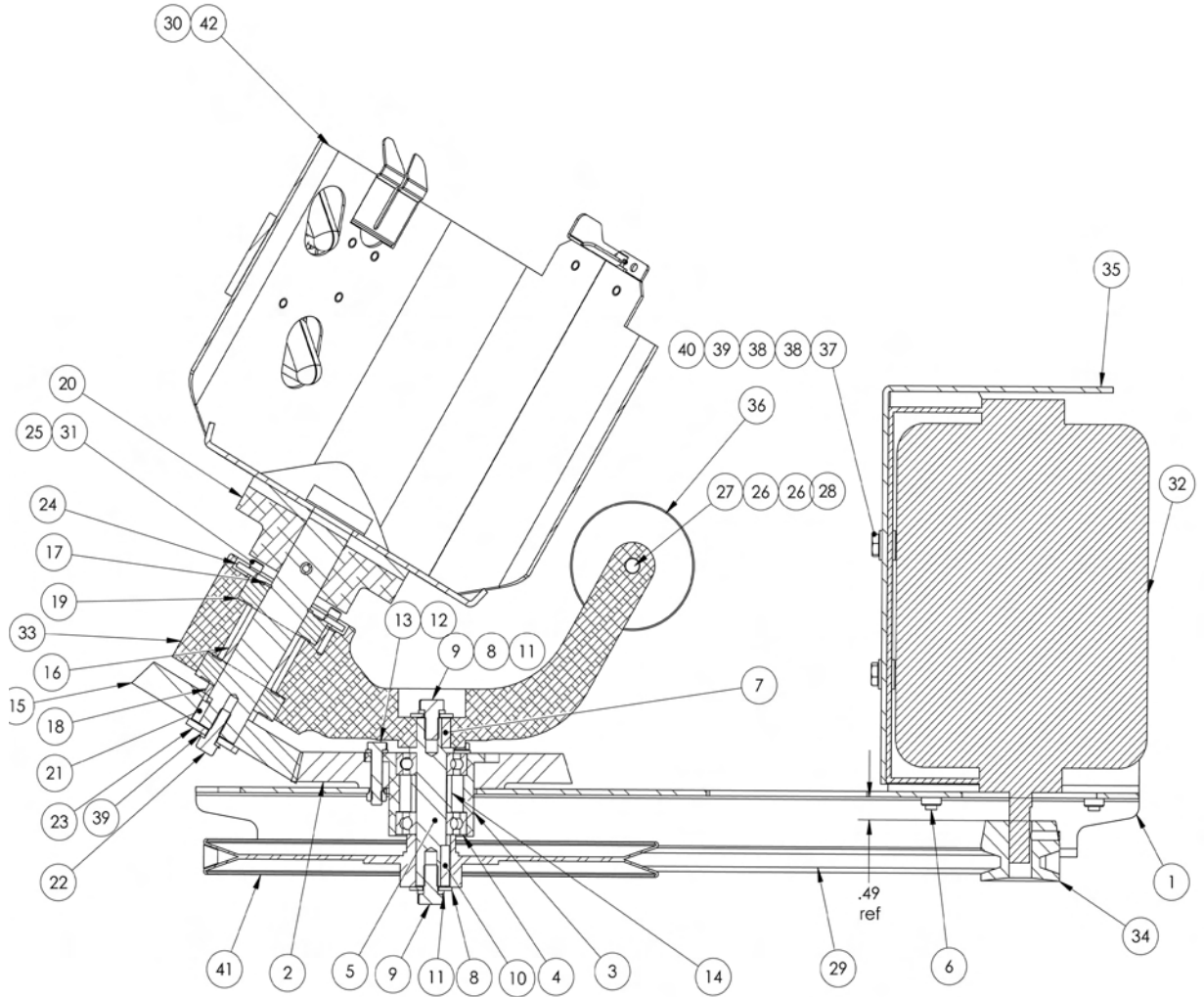
VR1 Mixer Assembly, 120 V/60HZ PN 30800

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
38	NSS*	Hex nut, 5/16 -18 Nyloc	4
39	NSS*	Rivet, Nut 5/16-18	8
40	NSS*	Nut, hex, #8-32, C/Z	1
41	NSS*	Screw, 5/16 -18 x 3/4 with washer, nyloc	4
42	NSS*	Washer, Lock, 5/16, Split, C/Z	8
43	23968	Label, ETL Certification, United States and Canada	1

*Not Sold Separately



V1 Mixer Motor Drive Assembly PN 30415



ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	30134	Frame, .1196 (11 Gauge), CRS	1
2	30135	Gear, 6" Bevel	1
3	27588	Support, two bearings (#C3001306)	1
4	27568	Bearings, ball RS17-40-12	2
5	27584	Lower plate shaft	1
6	NSS*	Screw, Hex 1/4-20 x 1/2, Flange, serrated	4
7	27667	Parallel key, 5 x 5 x 16	1
8	NSS*	Washer, 9 x 24	2
9	NSS*	Screw, Hex M8 x 16	2
10	27664	Parallel key, 5 x 5 x 22	1
11	NSS*	Washer, lock, 5/16, split, C/Z	2
12	NSS*	Washer, 6.4 x 12.5	3
13	NSS*	Screw, HHCS, M6 x 30	1

*Not Sold Separately



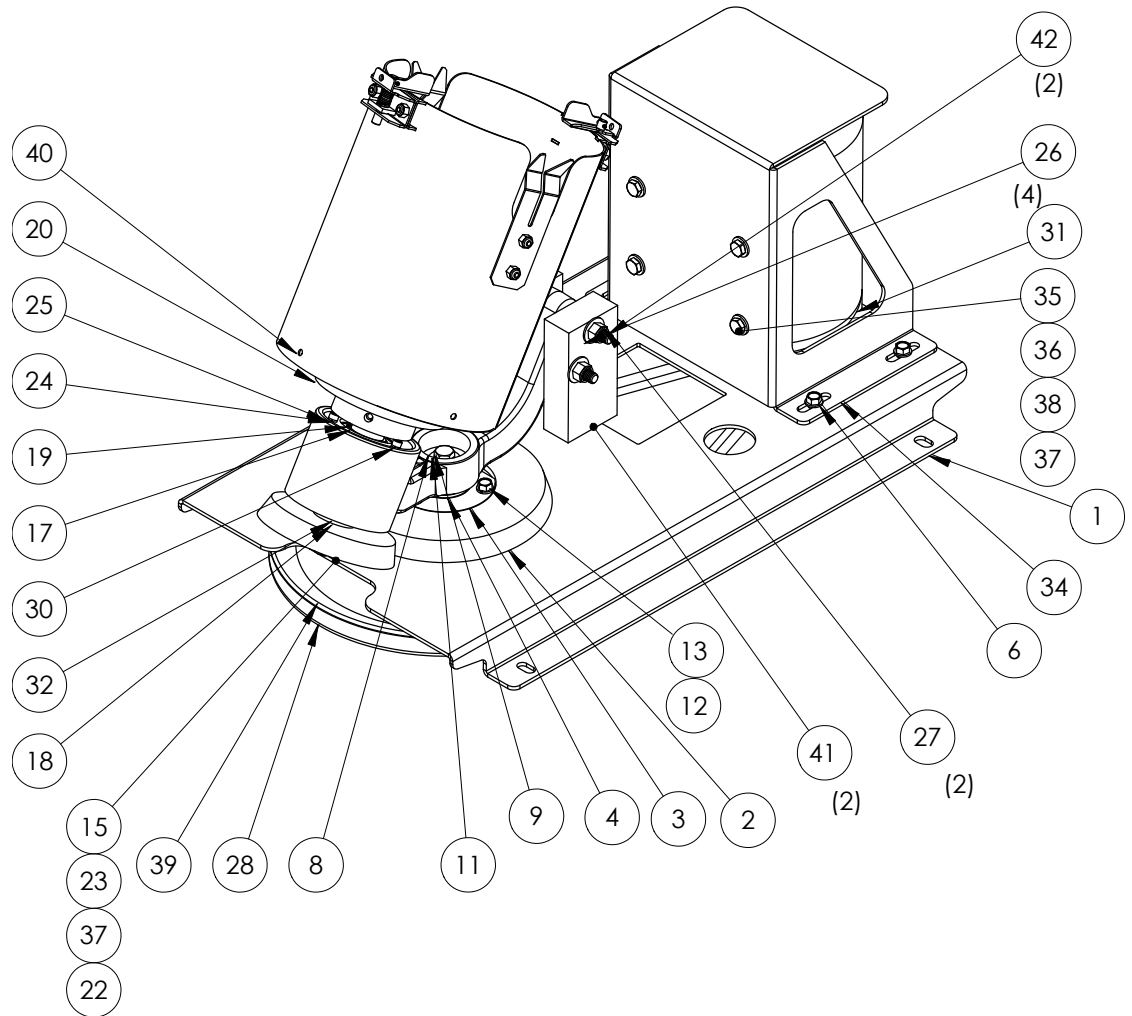
V1 Mixer Motor Drive Assembly PN 30415, cont.

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
14	27589	Spacer	1
15	30136	Gear, 4" bevel	1
16	30226	Spacer, bearing shaft	1
17	4000083	Retaining ring 5100-100	1
18	30228	Spacer, pinion shaft	1
19	3005002	Bearing, 2.00 O.D. x 1.00 I.D.	2
20	30408	Hub assembly, pinion shaft	1
21	3005011	Key, Square, 3/16 x 7/16, friction	1
22	NSS*	Hex screw, flange with patch, 1/4-20 x 3/4	1
23	NSS*	Washer, 1.28 O.D. x .28 I.D.	1
24	30229	Clamp ring	1
25	NSS*	Washer, #10, split lock, hi-collar	3
26	NSS*	Washer, plain 3/8" I.D., 7/8" x 3/32"	2
27	NSS*	Screw, hex head	1
28	NSS*	Nut, hex, 5/16-18, Nyloc	1
29	30282	V-Belt, 4L, 46"	1
30	NSS*	Screw, 10-32 x .625, FHCS, black oxide	4
31	NSS*	Screw, 8-32 x 1/2 with patch	3
32	16249	Motor, 1/3 HP, 48 Frame, Emerson, Foot mount	1
33	30483	TransArm	1
34	30481	Sheave, 1.75 diameter	1
35	30485	Motor mount 48 frame	1
36	30491	Weight	2
37	NSS*	Screw, 1/4-20 x 3/4 HHCS	4
38	NSS*	Washer, 1/4 Flat, plated	8
39	NSS*	Washer, lock, 1/4, split, C/Z	4
40	NSS*	Nut, hex, 1/4-20, C/Z	4
41	30480	Pulley, 10-1/8 diameter	1
42	30409	Can holder assembly	1

*Not Sold Separately



VR1 Mixer Motor Drive Assembly PN 30799



ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	30134	Frame	1
2	30135	Gear, 6" Bevel	1
3	27588	Support, two bearings (#C3001306)	1
4	27568	Bearings, ball RS17-40-12	2
5	27584	Lower plate shaft	1
6	NSS*	Screw, CHex 1/4-20 x 1/2, Flange, serrated	4
7	27667	Parallel key, 5 x 5 x 16	1
8	NSS*	Washer, 9 x 24	2
9	NSS*	Screw, Hex M8 x 16	2
10	27664	Parallel key, 5 x 5 x 22	1
11	NSS*	Washer, lock, 5/16, split, C/Z	2
12	NSS*	Washer, lock, split, SST	3
13	NSS*	Screw, HHCS, 1/4-28 x 1.25 LG., GR8, C/Z	3
14	27589	Spacer	1



VR1 Mixer Motor Drive Assembly PN 30799

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
15	30136	Gear, 4" bevel	1
16	30226	Spacer, bearing shaft	1
17	NSS*	Retaining ring 5100-100	1
18	30228	Spacer, pinion shaft	1
19	3005002	Bearing, 2.00 O.D. x 1.00 I.D.	2
20	30408	Hub assembly, pinion shaft	1
21	3005011	Key, Square, 3/16 x 7/16, friction	1
22	NSS*	Hex, with flange, patch, 1/4-20 x 3/4	1
23	NSS*	Washer, 1.28 O.D. x .28 I.D.	1
24	30229	Clamp ring	1
25	NSS*	Washer, #10, split lock, hi-collar	3
26	NSS*	Washer, plain 3/8" I.D., 7/8" x 3/32"	2
27	NSS*	Nut, hex, 5/16-18, Nyloc	1
28	30282	V-Belt, 4L, 46"	1
29	NSS*	Screw, 10-32 x .625, FHCS, black oxide	4
30	NSS*	Screw, 8-32 x 1/2 with patch	3
31	16249	Motor, 1/3 HP, 48 Frame, Emerson, Foot mount	1
32	30483	TransArm	1
33	30481	Sheave, 1.75 diameter	1
34	30485	Motor mount 48 frame	1
35	NSS*	Screw, 1/4-20 x 3/4 HHCS	4
36	NSS*	Washer, 1/4 Flat, plated	8
37	NSS*	Washer, lock, 1/4, split, C/Z	5
38	NSS*	Hex nut, 1/4-20, C/Z	4
39	30480	Pulley 10-1/8 diameter	1
40	30785	VR1 Can holder assembly	1
41	30961	VR1 Weight, rectangular	2
42	30966	Hex head screw	2

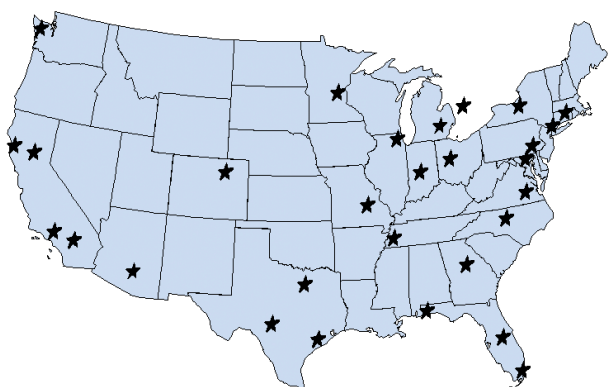
*Not Sold Separately



What's next?

Service:

- FM Direct® Factory Direct Service Technicians located throughout the United States, Canada and the Bahamas.
- On site setup and training for store personnel.



2006 FM Direct® Service Technician Locations:

Seattle, WA.	Atlanta, GA.
Sacramento, CA.	San Diego, CA.
San Jose, CA.	Winston-Salem, N.C.
Los Angeles, CA.	Baltimore, MD.
Denver, CO.	Yonkers, N.Y.
Phoenix, AZ.	Syracuse, N.Y.
St. Louis, MO.	Hartford, CT.
Dallas, TX.	Philadelphia, PA.
San Antonio, TX.	Columbus, OH.
Houston, TX.	Detroit, MI.
Memphis, TN.	Chicago, IL.
Miami, FL.	Twin Cities, MN.
Orlando, FL.	Richmond, VA.
Pensacola, FL.	Toronto, CANADA

Always observe the following precautions in order to reduce the risk of accident:

Do not attempt to service a product yourself unless instructed to do so by the Customer Support Center. Use only a service provider who is approved to repair your particular product.

NOTE! Some parts can be upgraded or replaced by the customer. These parts are referred to as Replacement parts. Fluid Management expressly identifies parts as such, and provides documentation with instructions when it is appropriate for customers to replace those parts. You must closely follow all instructions when performing such replacements. Always make sure that the power is turned off and that the product is unplugged from any power source before you attempt the replacement.



**Fluid Management Customer Service:
1.800.462.2466**

Save time and money. If something should go wrong, we suggest consulting the maintenance and service section of this book. It is designed to solve basic problems before consulting a service technician. It also provides replacement part information for you.

However, should you need assistance, please have your model and serial number ready. Be located near your machine when you call and have a Purchase Order number if ordering parts.

On the right side of the machine is a black and silver sticker. It includes the serial number and model number of your machine. Please make a note of these numbers below:

Date of purchase: _____

Model Number: _____

Serial Number: _____

Your Service Technician's Name: _____



Appendix A

Fluid Management Statement of Limited Warranty

FLUID MANAGEMENT LIMITED WARRANTY

WARRANTY COVERAGE

If within two years (twenty four months) from the date of shipment any equipment and parts covered by this warranty proves to be defective in material or workmanship upon examination by Fluid Management, Inc. (“SELLER”), SELLER will supply identical or substantially similar replacement equipment or parts, or at SELLER’S option will repair or allow credit for such equipment. This warranty does not cover labor costs incurred by PURCHASER for repair of equipment except that the cost of labor authorized by the SELLER shall be included for repairs to the following major components for claims made during the first year (twelve months) following shipment or proven installation date: crankshafts, frames, motors, speed reducers, power supplies, transformers, and circuit boards, relays, relay panels, drive gears, gear pumps, solenoid valves, and bearings. Labor is not covered for minor items such as fuses, indicator lights, can adapters, or leveling feet. For items not listed, SELLER will determine if it is a major or minor component. The only exception to the above labor warranty is that on all equipment, labor will be authorized by the SELLER for a period of one year from shipment or proven installation on major components. All labor must be approved in advance by SELLER and performed by Fluid Management employees or an Authorized Service Center.

OBTAINING WARRANTY SERVICE

While your equipment is under warranty, do not attempt on-site repairs or parts replacement without first contacting Fluid Management at 1-800-462-2466. After the warranty expires, on site servicing and parts replacement are available from an authorized service technician from Fluid Management. Contact Fluid Management’s After Sales Support for arrangements. To expedite this process, prior to calling have your model number and serial number available.

EXCLUSIONS AND LIMITATIONS

Any maintenance, repairs, and replacements attributable to “Abuse” will be billed separately on a time and materials basis, which are not covered under the agreement. “Abuse” includes but is not limited to: physical damage to the equipment, excluding normal wear and tear; an Act of God; colorant in the wrong canister; colorant related issues (beads in colorant, etc.); mis-tints or fills; over-filling of canisters; operator error; lack of daily maintenance and/or abuse.

Due to computer technology advancements, Fluid Management cannot offer an extended warranty for computer and/or computer related equipment, such as monitors, printers, or other peripheral equipment. The computer warranty is that of the standard manufacturer’s warranty coverage and not extends above or beyond Fluid Management’s Limited Warranty agreement.

PURCHASER MUST NOTIFY SELLER OF A WARRANTY CLAIM WITHIN THIS PERIOD. NO RETURNS ARE AUTHORIZED WITHOUT A COMPLETED AUTHORIZATION FORM AND NUMBER. Any repair or replacement provided hereunder shall be warranted against defects in material or workmanship for the unexpired portion of the limited warranty. This warranty does not cover software, which is covered by a separate warranty.

DISCLAIMER

THIS WARRANTY SHALL BE APPLICABLE ONLY IF THE EQUIPMENT SHALL BE THE PROPERTY OF THE ORIGINAL PURCHASER OR USER, AND SHALL HAVE BEEN PROPERLY USED, OPERATED AND MAINTAINED IN ACCORDANCE WITH THE MANUAL OR INSTRUCTIONS PROVIDED WITH THE EQUIPMENT AND FOR THE PURPOSE FOR WHICH SOLD. NORMAL WEAR AND TEAR IS NOT COVERED BY THIS WARRANTY. THIS WARRANTY SHALL NOT BE APPLICABLE IF THE EQUIPMENT OR ANY PART THEREOF HAS BEEN REPAIRED OR REPLACED BY THE BUYER WITHOUT THE SELLER’S PRIOR PERMISSION OR HAS BEEN SUBJECT TO ANY ACCIDENT, CASUALTY, MISAPPLICATION, ALTERATION,



Appendix A

Fluid Management Statement of Limited Warranty 3 / 2006

ABUSE OR MISUSE. NO OTHER WARRANTY, EITHER EXPRESS OR IMPLIED, INCLUDING A WARRANTY OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, HAS BEEN OR WILL BE MADE BY OR ON BEHALF OF SELLER OR BY OPERATION OF LAW WITH RESPECT TO THE EQUIPMENT AND ACCESSORIES OR THEIR INSTALLATION, USE, OPERATION, REPLACEMENT, OR REPAIR. SELLER SHALL NOT BE LIABLE BY VIRTUE OF THIS WARRANTY, OR OTHERWISE, FOR ANY INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR OPERATION OF THE EQUIPMENT, WHETHER OR NOT SELLER WAS APPRISED OF THE POSSIBILITY OF SUCH DAMAGES. IRRESPECTIVE OF ANY STATUTE, THE BUYER RECOGNIZES THAT THE EXPRESS WARRANTY SET FORTH ABOVE IS THE EXCLUSIVE REMEDY TO WHICH IT IS ENTITLED AND WAIVES ALL OTHER REMEDIES, STATUTORY OR OTHERWISE. REPAIR OR REPLACEMENT SHALL BE BUYER'S SOLE REMEDY UNDER THIS WARRANTY.



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V1/VR1 Mixer



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