WARNING: The equipment described herein must only be operated or serviced by properly trained individuals, thoroughly familiar with the operating instructions and limitations of the equipment.

Notice: All statements, information and data given herein are believed to be accurate and reliable but are presented without guarantee, warranty or responsibility of any kind expressed or implied. Statements or suggestions concerning possible use of IPM equipment are made without representation or warranty that any such use is free of patent infringement, and are not recommendations to infringe any patent. The user should not assume that all safety measures are indicated or that other measures may not be required.
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1.0  SAFETY WARNINGS

Please read and observe all warnings contained in this operations manual before any attempt to operate the equipment.

Misuse of Equipment
Misuse of the Equipment can cause serious injury. Use the equipment only for its intended purpose. Care should be taken to prevent over pressurization of the pump or accessories connected to it. Use only proper parts in good condition. Use the pump only with compatible fluids. Improper use or misuse of this equipment could result in fluid being splashed on the skin or in the eyes, serious bodily injury, property damage, fire or explosion.

Make daily check on the equipment and repair damaged or worn parts immediately. Do not alter this equipment, doing so could cause it to function incorrectly and could cause serious injury.

Material & Fluid compatibility
Always ensure the chemical compatibility of the fluids and solvents with the wetted parts in the pump and any components. Check the fluid manufacturer’s data sheets and specifications before using the fluids or solvents in this pump.

Pressurized Hoses
Because the hoses are pressurized, they present a danger should the fluid escape at high pressure. This escaping fluid pressure can spray out and cause serious bodily injury or property damage. Ensure that the hoses do not leak or rupture due to wear, misuse or damage.

The hoses should be handled properly - do not pull on the hoses to move the equipment around. Use the hoses only for fluids in which they are compatible both for the inner liner of the hose and the outer covering. Use care not to exceed the temperature rating of the hose.

Before each use, ensure that the fluid couplings are tight and that the entire length of hose is not worn or damaged. Check the entire hose for leaks, bulging cover, damage, abrasion or cuts. These conditions may cause the hose to fail that could result in splashing of pressurized fluid on the skin, or in the eyes and cause serious bodily injury or property damage.

Pressure Specification
The maximum working fluid pressure of this equipment is 180 psi (12.5bar) at the maximum incoming air pressure of 180 psi (12.5bar). Ensure all equipment and accessories used with this pump are rated to withstand the maximum working pressure of this mixer. Never exceed the maximum working pressure of the mixer or any device attached to air.
2.0 INSTALLATION TIPS AND OPERATIONS

THROUGH BUNG AIR DRUM MIXER OPERATING TIPS:

We have installed an 8” blade on the mixer to get maximum pull of heavy materials from the bottom of the drum. Upper blades are 6” to help clear the side of the drum as the mixer comes through the bung.

**NOTE:** If you do Not have a Center bung in your drum: To prevent blades from hitting the sides, we recommend taking an 18” piece of 2” pipe threaded on one end and screw into your bung, gently!! pull the top of the pipe away from the center of the drum tilting the bung for better mixer clearance. Reverse of this is bung bend procedure is easy after mixing if desired. It does not take much to get this clearance.

Depending on the viscosity of the material and speed determines the amount of air that you will need. Usually one mixes at a slower speed and can get by on a 10-15 CFM air compressor.

Try to give your product a good 15-20 min. mix. Remember, slower speeds do not entrain as much air into the material, but you need to pull some vortex to get good mix.

Looking from the top down over the air motor, the rotation should be clockwise for proper swing-out of the blades.

Some products are the type that set up or seize the folding blades if they set out in the open air. We have found a relative easy way to clean the blade. Make sure that you are in a SAFE BREATHING AND NON FIRE HAZARD AREA. Since the blades are stainless steel a welding cutting torch works well to actually burn off the hardened material, and then lubricate the hinge parts with WD-40 or any equivalent. Working them together will bring them back to a loose swing out state again. You do NOT need to get the metal red hot!

You can use the 3/8” needle valve as a metering or speed control. A small amount of air tool oil in the air inlet helps to lubricate the air motor. If you have moisture in your air, in long-mixing, the muffler can cause freezing. Simply take the muffler apart and wash in warm water and dry out.

Try NOT to drop the air motor on the hex top cap, it is plastic! Parts are available.

THIS MIXER WILL WORK FOR MANY YEARS WITH PROPER MAINTENANCE.

The DM -101 Drum Mixer is a very effective tool in mixing in 55 gallon drums. Complete mixing can be achieved in short periods of time, usually within 30 minutes. The unique design of the blade allows the mixing blade to pass through the 2” NPT opening in the drum. With two -6” and one 8” blade, optimum mixing is achieved throughout the drum.
Tips: on Vortex
Don’t pull too deep of vortex.
This will entrain air.
A vortex is always vertical.
Tilting the barrel will help keep from entraining air into your product.

Technical Specifications

◆ For proper mixing the blades should be 1/3 the diameter of the drum, 24” drum needs a 8” blade.
◆ Auger type mixers don’t work.
◆ Mix time: ½ hour
◆ IPM sells these 6” & 8” mixer blades
◆ Collapsible Mixer Blades
◆ No, you do not need to use a drum mixer in the Spray Polyurethane Foam industry but, if you are using the fast set coatings like the Polyurea’s, then the “B” Component does need to be mixed.

THROUGH BUNG AIR DRUM MIXER

THE MOST EFFICIENT AND ECONOMICAL AIR MIXER ON THE MARKET
KEEPS DRUM SEALED WHILE MIXING AT ANY SPEED
BLADES CANNOT SPIN ON HEXAGON SHAFT

AIR MOTOR
Maximum power................................................................. 1.7 HP
Maximum air flow............................................................ 65 CFM
Maximum inlet air pressure.............................................. 100 PSIG
Maximum torque ............................................................... 57 In. lbs.

BLADES
TWO upper 6” dia. each with 5 SS blades
ONE bottom 8” dia. with 5 SS blades

WEIGHT
Total weight of complete unit ........................................... 12 lbs.
4.0 TECHNICAL SPECIFICATIONS

Product Specifications:

<table>
<thead>
<tr>
<th>Model Number</th>
<th>MAX PRESS.</th>
<th>MAX SPEED</th>
<th>HP</th>
<th>Net Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4AM-NRV-130A</td>
<td>7.0 bar</td>
<td>3,000 RPM</td>
<td>1.7</td>
<td>1.25</td>
</tr>
</tbody>
</table>

SOUND LEVEL: 87 dB(A) MAX.
NORMAL AMBIENT: +10°C - +120°C.
RELATIVE HUMIDITY: 0% - 100%
ENVIRONMENT: HAZARDOUS AMBIENT, COMBUSTIBLE, GAS AND DUST, -40°C TO +40°C.

CONFORMS TO EUROPEAN STANDARD EN50033-1 NON-ELECTRICAL EQUIPMENT FOR EXPLOSIVE ATOMSPHERES GROUP II CAT 2.
GAS & DUST PROTECTED BY CONSTRUCTION SURFACE TEMP RATED ISIC.
TECHNICAL DATA SUBJECT TO CHANGE WITHOUT NOTICE. DIMENSIONS ARE FOR REFERENCE ONLY UNLESS OTHERWISE TOLERANCED.
5.0 PARTS IDENTIFICATION
## PART NUMBERS:

<table>
<thead>
<tr>
<th>New Part Number</th>
<th>Old Part Number</th>
<th>Qty/Assy.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>604001</td>
<td>DM-101</td>
<td>1</td>
<td>Drum Mixer</td>
</tr>
<tr>
<td>500504</td>
<td>DM-102</td>
<td>1</td>
<td>Drum Adapter</td>
</tr>
<tr>
<td>700036</td>
<td>DM-103</td>
<td>2</td>
<td>#6 Mixing Vane Assy.</td>
</tr>
<tr>
<td>700037</td>
<td>DM-104</td>
<td>1</td>
<td>#8 Mixing Vane Assy.</td>
</tr>
<tr>
<td>700052</td>
<td>DM-105</td>
<td>-</td>
<td>Mixing Shaft Assy. (w/out Coupling)</td>
</tr>
<tr>
<td>612001</td>
<td>DM-106</td>
<td>1</td>
<td>Air Motor</td>
</tr>
<tr>
<td>610014</td>
<td>DM-107</td>
<td>1</td>
<td>Coupling</td>
</tr>
<tr>
<td>500513</td>
<td>DM-108</td>
<td>1</td>
<td>Mixing Shaft</td>
</tr>
<tr>
<td>610015</td>
<td>DM-109</td>
<td>1</td>
<td>3/8&quot; x 1/4&quot; Bushing</td>
</tr>
<tr>
<td>610016</td>
<td>DM-110</td>
<td>4</td>
<td>Set Screw</td>
</tr>
<tr>
<td>610017</td>
<td>DM-111</td>
<td>3</td>
<td>Mounting Bolt</td>
</tr>
<tr>
<td>500028</td>
<td>6745-2</td>
<td>1</td>
<td>Male Coupling</td>
</tr>
<tr>
<td>500029</td>
<td>DM-112</td>
<td>1</td>
<td>Needle Valve</td>
</tr>
<tr>
<td>602001</td>
<td>DM-113</td>
<td>1</td>
<td>Muffler</td>
</tr>
</tbody>
</table>
6.0 WARRANTY AND DISCLAIMER

International Pump Manufacturing, Inc. (IPM) warrants the equipment it manufactures to be free of defects in material and workmanship for a period of one year from the day of sale by an authorized IPM distributor to the original purchaser. IPM will at its discretion repair or replace any part of the equipment proven to be defective. This warranty applies only when the equipment is used for the intended purpose and has been installed, operated and maintained in accordance with the written recommendations.

A condition of the warranty is the prepaid return of the equipment to an authorized distributor of IPM who shall provide verification of the warranty claim. IPM will repair or replace, free of charge any parts found and verified to be defective. Transportation will be prepaid for the repaired or replaced parts under warranty. Should the inspection of the equipment not reveal any defect in material or workmanship, repairs will be made at standard charges, which include parts, labor and transportation.

The warranty does not apply or nor will IPM be liable for damage, wear, or malfunction of equipment caused by improper installation, misuse, abrasion, corrosion, negligence, accident, tampering, lack of improper maintenance, or by substitution of non-IPM parts. Additionally IPM shall not be liable for and the warranty does not apply to wear, damage, or malfunction caused by incompatibility of accessories, components, structures, equipment or materials not supplied by IPM. The warranty does not apply to nor will IPM be responsible for the improper operation, maintenance, design, manufacture, installation of components, accessories, equipment or structures not supplied by IPM.

The warranty is void unless the Warranty Registration Card is properly completed and returned to International Pump, Inc. within ONE month of the date of the sale.

LIMITATIONS AND DISCLAIMERS

This warranty is the sole and exclusive remedy for the purchaser. No other warranties (expressed or implied), including warranties for fitness of purpose or merchantability, or non-contractual liabilities are made, including product liability, whether on negligence or strict liability basis. Liability for directly special or non-contractual damages or loss is expressly excluded and denied. IPM’s liability shall in no case exceed the amount of the purchase price.

IPM does not warrant and disclaims implied warranties of merchantability and fitness for a particular purpose, components, accessories, equipment, materials sold but not manufactured by IPM. These items (switches, hoses, etc.) are subject to the provisions of the warranty of the manufacturer of these items. IPM will provide reasonable assistance with warranty claims on these items.
7.0 DC ELECTRIC MIXER

DC electric, gear reduced drum mixer

◆ Types: Air, Hydraulic, DC Electric motors
◆ Electric model, no air needed, Quiet!
◆ Variable up to 700 rpm
◆ 2.25 ft. lbs for ¾ hp motor, torque x’s 3.2 gear ratio equals 7.2 ft lbs. torque output.
◆ 36 in./lbs torque for a ¾ hp motor, torque x’s 3.2 gear ratio, equals 115 in/lbs torque.
◆ .75 hp x’s 3.2 equals 2.4 hp of torque
◆ This is a unique and powerful mixer!