

FILLON PICHON U.S.A. INC.

MIX UNIT EEM 175

Service manual

Dear User :

Thank you for choosing a FILLON PICHON product.. It has been carefully designed to enable you to prepare and blend your paints with speed and ease..

Your mix unit has been shipped so as to insure easy assembly and installation.. It should reach you in perfect condition.. If not, we would like to know..

This manual will enable you to obtain maximum performance from your new mix unit.. To prevent accidents, we strongly recommend that it be read fully by all operators, and kept in a safe place for future reference.

Yours truly,

Roger FILLON, President
FILLON-PICHON USA Inc.

A handwritten signature in cursive script, appearing to read 'R. Fillon', written over a horizontal line.

CONTENTS

| | PAGE |
|------------------------------------|------|
| - The Equipment | 2 |
| - Assembly & Installation | 4 |
| - Commissioning & Operation | 7 |
| - Routine & Electrical Maintenance | 8 |
| - Parts replacement | 9 |
| - Parts lists | 11 |
| -- Summary of CAUTIONS | 18 |
| - Warranty (INSIDE BACK COVER) | |

MIX UNIT EFM 175

| | |
|-------------------------|-------------------|
| - BASE UNIT | - Ref Y75.EFM3.02 |
| - MIX SHELF 9 CANS | - Ref Y75.A093.01 |
| -- MIX SHELF 12 CANS | - Ref Y75.A123.01 |

THE EQUIPMENT

MIX UNIT - EFM 175

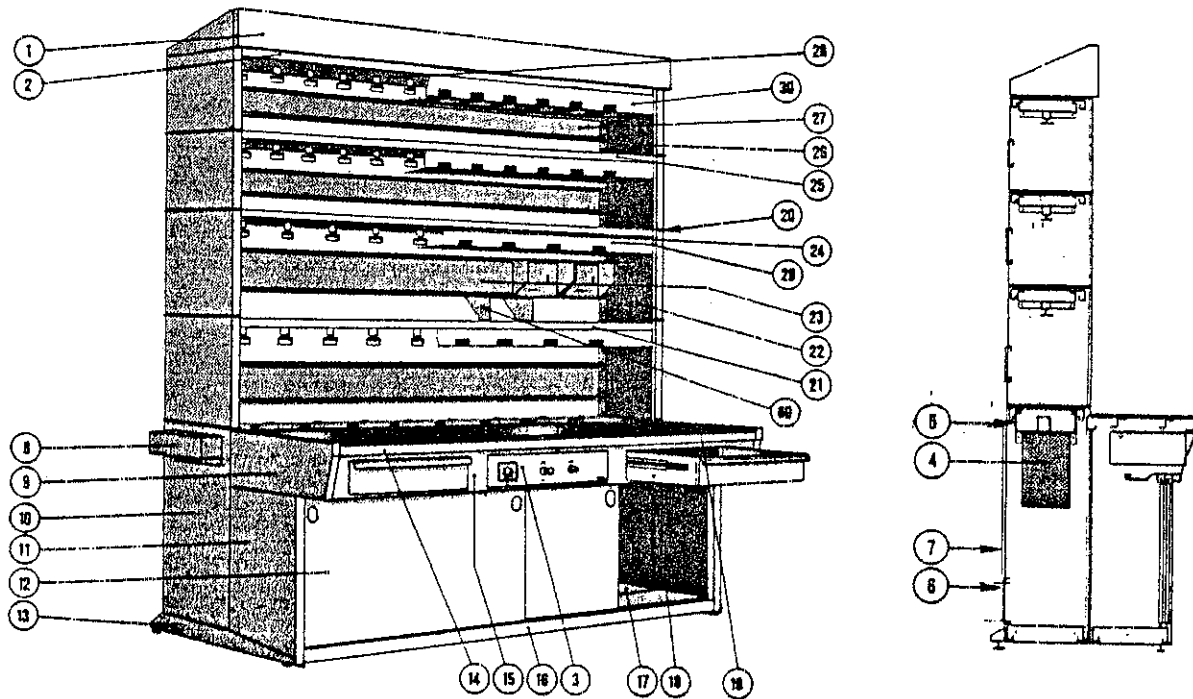
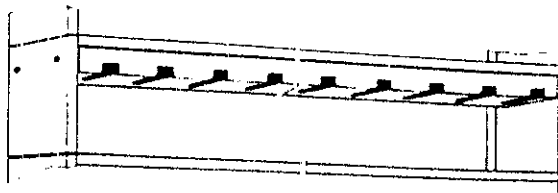
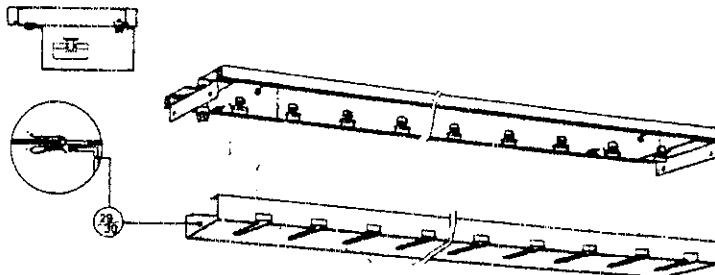
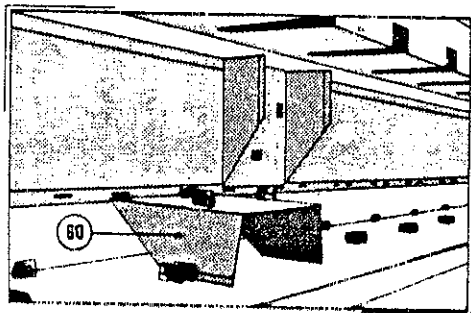


Diagram represents only one of several possible combinations of modular elements you may construct.

Detachable quart platform



THE EQUIPMENT

Your EFM mix unit is shipped in two or more pre-assembled parts, according to the number of mix-shelves ordered :

1. The base unit, together with the header plate and adjustable feet. The fully Approved electrical motor is ready mounted.
2. Mix-shelves, each fully assembled and separately shipped.

Two types :
- 9 x 1 gallon
- 12 x 1 quart

You may mount as many mix-shelves as you require, in any configuration of 9 can or 12 can shelves.

CAUTION : The top shelf should not be so high as to make access difficult. Do not handle heavy cans above head level.

3. Control Panel :

This is already mounted on to the drawer unit, and consists of ON/OFF controls, and a mechanical timer.

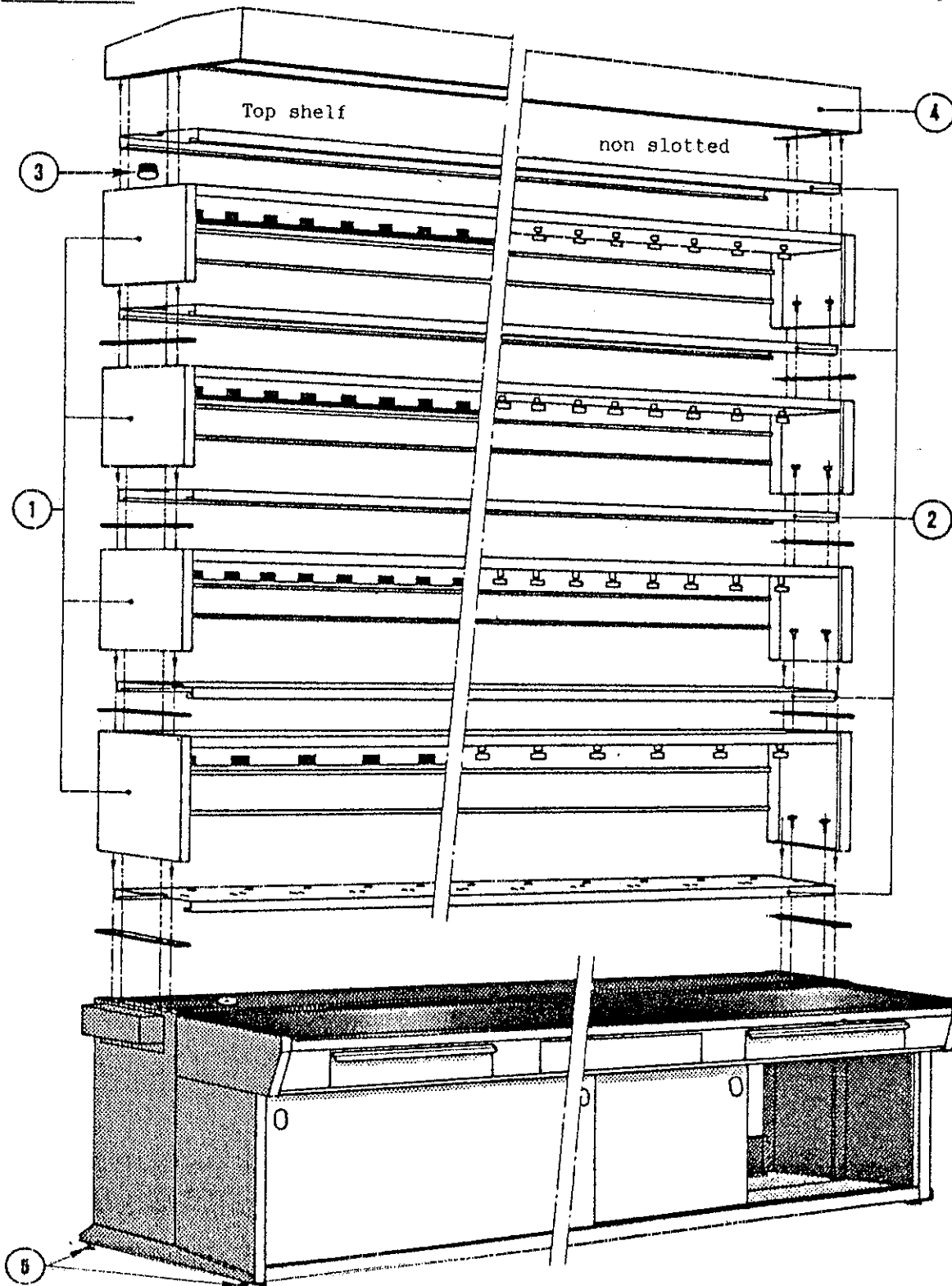
CAUTION : Electrical connections and installation must be carried out in accordance with all Federal, State, and local regulations, and only by a fully qualified electrician.

Optional

- . Detachable Quart platforms, enabling quart cans to be mounted at gallon stations, can be ordered individually, and may be shipped separately or with the base unit or with the mix-shelf.
- . Agitator lids, in gallon or quart sizes, incorporating safety handles and Patent flow control system, are ordered and shipped separately.

ASSEMBLY & INSTALLATION

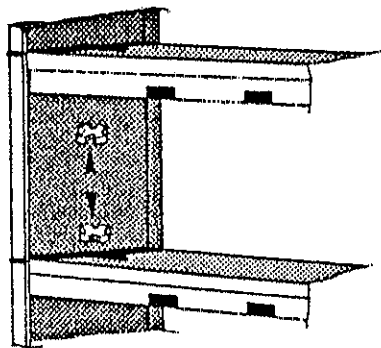
MIX-SHELVES



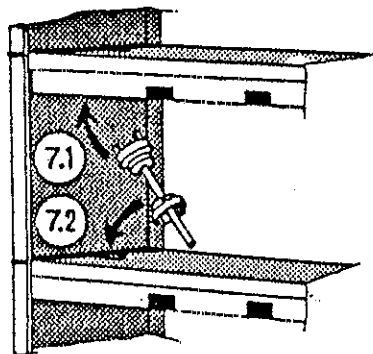
ASSEMBLY & INSTALLATION

MIX SHELVES

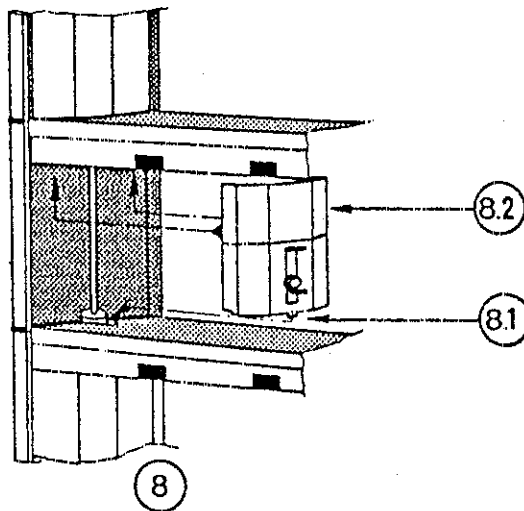
DRIVE SHAFTS AND PROTECTION COVERS



6



7



8

ASSEMBLY & INSTALLATION

I. MIX UNIT ASSEMBLY

- Assemble the various components as shown in the example on Page 4. Mix-shelves may be mounted in any configuration.
- The yellow plastic safety cap, supplied with the drive unit, should be mounted on the drive bloc of the top shelf (3 Page 4).
- Check that the assembled mix-unit is perfectly level. A bubble level is provided. The feet of the unit can be adjusted for height by turning clockwise or anti-clockwise.

II. MOUNTING DRIVE SHAFTS AND SHAFI COVERS

- Start by mounting the 2 cross-pieces, one on the lower drive block, the other on the upper drive sleeve, of each mix-shelf.
 - . Locate the drive sleeve, fixed at the end of the shaft, on to the lower cross-piece, and push down firmly until it is fully engaged.
 - . Unscrew the other drive sleeve and slide it up the shaft. Again, make sure it is fully engaged into the upper cross-piece. Lock the drive sleeve by tightening screw against flat surface of shaft. Allen wrench is provided.
- Insert lug(s) at base of shaft covers into the space (s) provided in the lower shelf cover. By pulling together the 2 lugs in the center of the cover, the upper section is drawn up into place. Secure with bolt provided.

ELECTRICAL INSIALLATION

Your mix-unit is supplied with an explosion-proof (Class I, Div. I, Group D) electric motor(UL & CSA Approved).

Power supply and other electrical connections must conform to all Federal, State, and local regulations, and should be carried out only by a fully qualified electrician.

Electrical Supply : 115 volts - 60 Hz - Single-phase.

IMPORTANT

1. Mix-units driven by a non-explosion-proof electrical assembly should not be used in any area where there is possible risk of paint vapor ignition.
2. Check that the shaft of the motor rotates clockwise. Arrow labels are provided to guide you.
3. The mix-unit must be fully grounded.
4. The mix-unit must not be installed in a damp place.

COMMISSIONING & OPERATION

COMMISSIONING

Before first using your mix-unit, check that :

1. The operator has seen and read all CAUTION markings and texts on the mix-unit and in the Service Manual.
2. The power supply is compatible with the power rating of the mix-unit.
3. All protective covers are firmly in place.
4. All electrical connections are covered.
5. All nuts and bolts are tight. They may have worked loose in transport.
6. Belts are correctly adjusted (see Routine Maintenance). If they are too loose, they will slip ; if too tight, you may overload the motor.
7. All belts are securely in place and running smoothly after 2 - 3 minutes operation.
8. Can clamps are correctly mounted. At each station, the notch on each of the three clamps should point outwards.
9. The unit is installed away from any source of heat (explosive vapors).
10. Do not use dented cans. Check manually that the agitator blades turn freely, before placing can in mix-unit.

OPERATION

1. Paint cans may be safely placed in, or removed from the mix-unit, whether the unit is in operation or not.
2. Make sure that agitator lids are firmly locked in position before placing cans in mix-unit.

Agitator lids should preferably incorporate a handle, to make can handling easier and safer.
3. DO NOT OVERREACH when placing cans in, or removing cans from the mix-unit.
4. Mix small (quart) cans rather than larger (gallon) cans on higher mix-shelves, for easier handling and greater safety.
5. Make sure that all cans are securely in position before switching mix-unit ON.
6. The unit will not operate until the timer has been set.
7. Do not sit on the work table.

ROUTINE & ELECTRICAL MAINTENANCE

CAUTION : Before removing any protective covers, and prior to any maintenance or repair operation, make sure the unit is switched OFF (disconnect the unit, if possible).

Your mix unit will serve you longer, and risk of accidents will be reduced, if regular maintenance is carried out.

DAILY : Remove all dust and paint residues after each use of the mix-unit, or at the end of the day. Use a standard, non-abrasive thinner. NEVER USE WATER TO WASH DOWN THE MIX-UNIT.

MONTHLY : Check condition and tension of all mix-shelf drive belts. To adjust :

- use tension regulator 106 (see Page 15).

ANUALLY : Check condition and tension of motor drive belt. Adjust belt by means of tension regulator 119 (see Page 15).

ELECTRICAL MAINTENANCE

CAUTION : Any check, adjustment, or repair to any electrical component (motor, connections, etc....) should be carried out only by a fully qualified electrician.

PARTS REPLACEMENT

1. SPARE PARTS REPLACEMENT

1 - Drive cross-piece (101)

- 1.1 - Remove the shaft cover.
- 1.2 - Unscrew lower drive sleeve, push it up, and remove drive shaft.
- 1.3 - Replace defective cross-piece, reinstall shaft and protection cover.

2 - Mechanical shelf belt (108), drive block (102), adjustable tension regulator (106), fixed belt roller (107), pulley (109 or 133), autolube ring (110).

- 2.1 - To replace any of these parts, first remove the shaft cover (123), the shaft (124), and the slotted shelf of the mix-shelf involved.

NOTE : For the topmost shelf, remove the top cover.
Slacken belt (108) by loosening adjustable tension regulator (106) and fixed belt rollers (107).

2.2 - Mechanical shelf belt (108)

- Remove the defective belt and install new one. Make sure that it is correctly positioned with regard to the adjustable tension regulator (106) and the fixed belt rollers (107).
- Adjust the fixed belt rollers (107) to ensure correct belt tension.

2.3 - Drive block (102)

- Remove the shaft cover and shaft from the shelf immediately below the shelf involved.
- Remove belt (108) and replace defective block.

2.4 - Adjustable tension regulator (106)

Simply replace.

2.5 - Fixed belt rollers (107)

Unscrew to replace.

2.6 - Mechanical shelf pulley

- Remove protective driving device cover.
- Drive out pin (112) to release driving device.
- Replace pulley (109 or 133), and reinstall all parts in reverse order.

2.7 - Autolube ring (110)

- Remove protective driving device cover.
- Drive out pin (112) to release driving device.
- Remove ring, and reinstall all other parts in reverse order.

PARTS REPLACEMENT

3. DRIVE BELT (114)

3.1 - Remove shaft cover, shaft and slotted shelf cover from the mix shelf at work top level.

3.2 - Slacken the drive belt by loosening the tension regulator (119). Replace belt, adjust tension and replace all parts.

PARTS LIST

| Item | Description | No. | |
|------|---|-----------|--|
| | <u>EFM 175 BASE UNIT</u> | | |
| 1 | Header plate | 18 61 00 | |
| 2 | Top shelf cover | 13 14 01 | |
| | <u>3/4 HP single phase explosion-proof motor assembly 115 V - 60 HZ including :</u> | | |
| 3 | Mechanical control panel (explosion-proof) with cable | 24 85 00 | |
| | . Cable only (with fittings) | 24 82 70 | |
| 4 | <u>3/4 HP single phase explosion-proof motor assembly</u> | | |
| | Parts detailed in assembly instructions | | |
| 5 | Motor shelf | 12 50 10 | |
| 6 | Lower rear strip | 19 04 12 | |
| 7 | Cross brace | 25 17 00 | |
| 8 | Pulley housing | 19 01 09 | |
| 9 | Drawer unit side panel : | | |
| | - left | 16 64 00 | |
| | - right | 16 65 00 | |
| 10 | Standard base side panel : | | |
| | - left | 16 60 00D | |
| | - right | 16 61 00D | |
| 11 | Lower front side panel : | | |
| | - left | 16 62 00 | |
| | - right | 16 63 00 | |
| 12 | Sliding door | 19 10 91D | |
| 13 | Adjustable feet : | | |
| | - left | 15 57 01D | |
| | - right | 15 57 02D | |
| 14 | Work-top | 14 29 00D | |
| 15 | Front panel | 14 34 00D | |
| 16 | Floor section | 15 22 00D | |

PARTS LIST

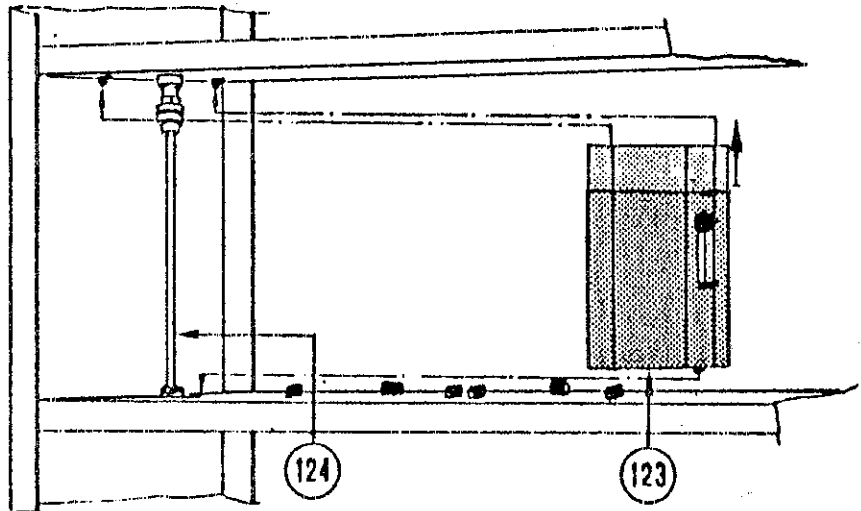
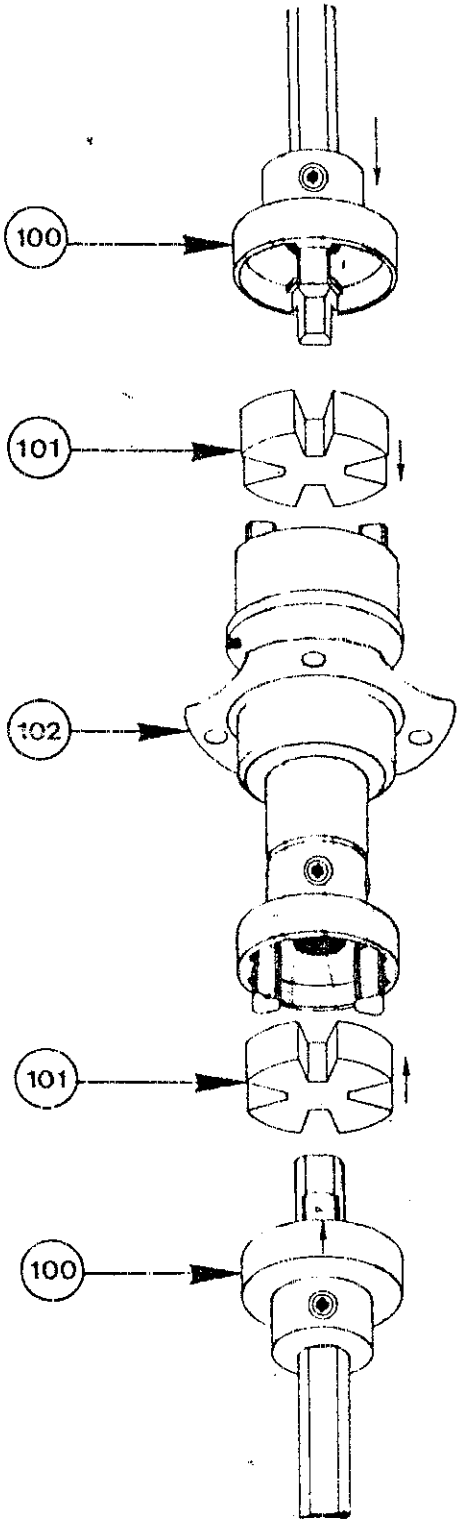
| Item | Description | No. |
|------|--|--|
| 17 | Lower shelf | 15 07 00D |
| 18 | Drawer with : . telescopic runners : - left - right with : . section supports - left - right | 17 10 00 17 30 30 17 30 40 17 26 11 17 26 12 |
| 19 | Stainless steel work surface | 14 64 00 |
| 20 | Plastic spacers for modular shelves (set of 2) | 04 20 06 |

PARTS LIST

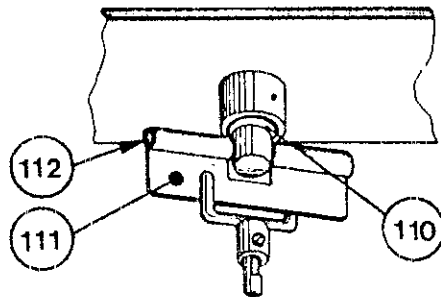
| Item | Description | No. | |
|------|---|--------------------------|--|
| | <u>MODULAR MIX-SHELF 9 x 1 GALLON</u> | | |
| 21 | Slotted shelf cover 9 x 1 Gallon | 13 14 02 | |
| 22 | Gallon shelf side panel : . left . right | 11 27 05 D 11 27 06 D | |
| 23 | Back plate (Modular 1 Quart platforms) | 21 09 03 | |
| 24 | Mechanical shelf 9 x 1 Gallon complete | 12 51 11 | |
| 29 | Drive plate protection cover (9 x 1 Gallon modular shelf) | 19 12 36 | |
| | <u>MODULAR MIX SHELF 12 x 1 QUART</u> | | |
| 25 | Slotted shelf cover 12 x 1 Quart | 13 14 03 | |
| 26 | Quart shelf side panel : . left . right | 11 27 03 D 11 27 04 D | |
| 27 | Back plate | 19 02 12 | |
| 28 | Mechanical shelf 12 x 1 Quart complete | 12 52 11 | |
| 29 | Drive plate protection cover (12x 1 Quart modular shelf) | 19 12 37 | |
| | <u>OPTIONAL</u> | | |
| 60 | Détachable Quart platform (H = 70 mm) | 21 05 03D | |

PARTS DIAGRAM

FLEXIBLE DRIVE SYSTEM SHAFT ASSEMBLY



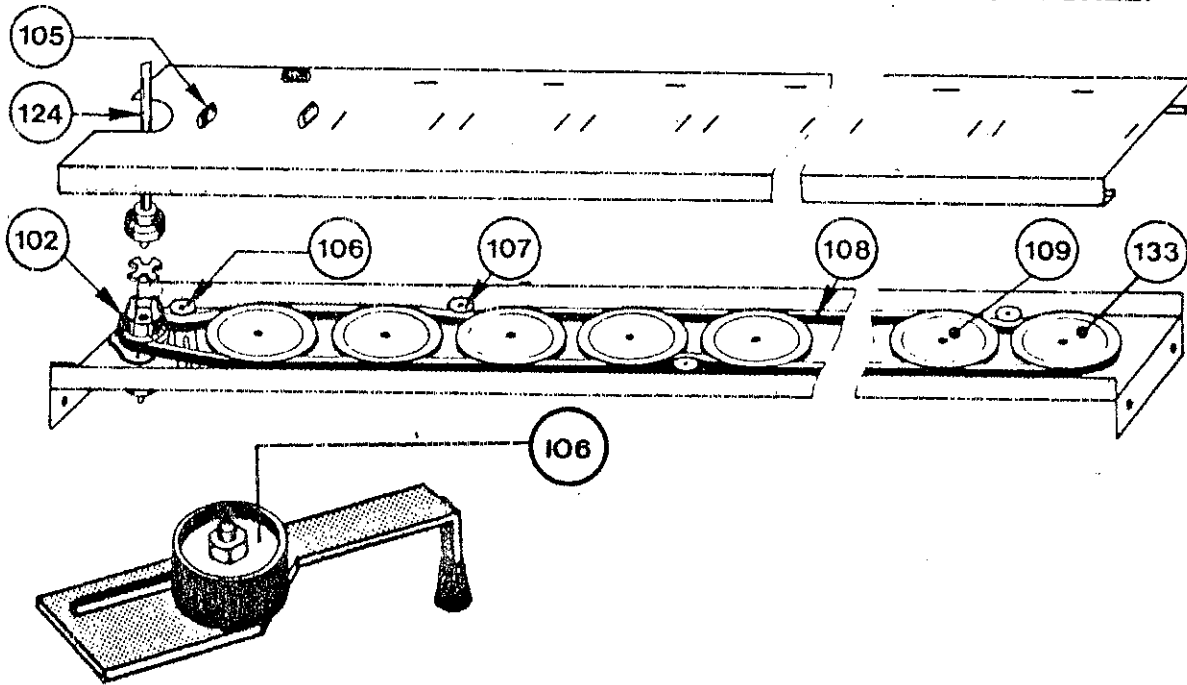
SHAFT COVER



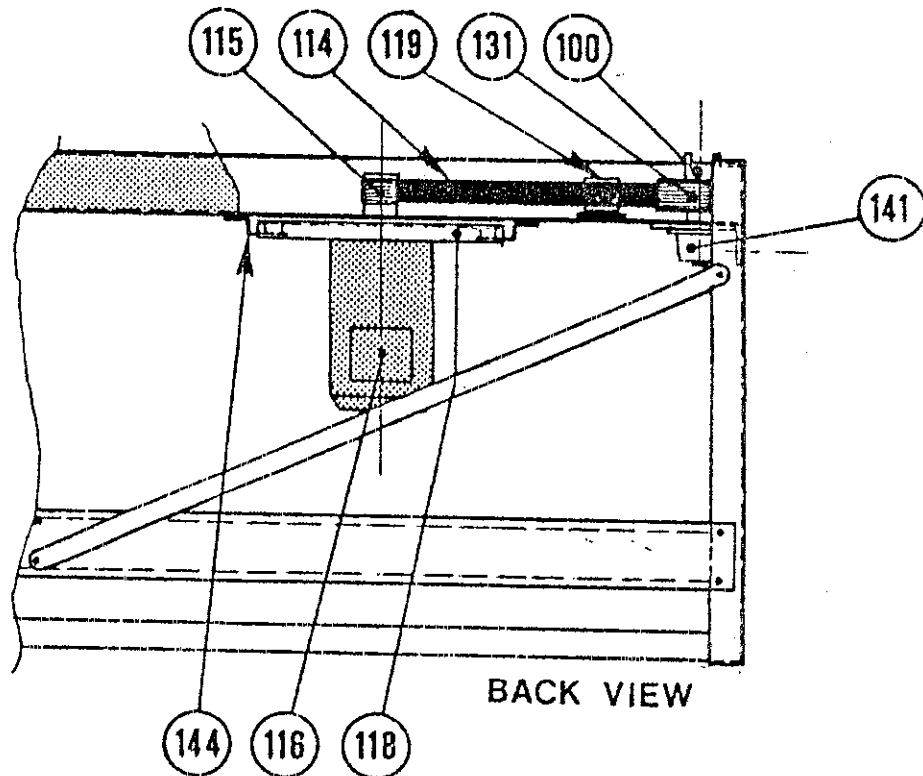
DRIVING DEVICE

PARTS DIAGRAM

MECHANICAL SHELF



MOTOR ASSEMBLY



PARTS LIST

| | Item | Description | No. | |
|--|--------------|--|------------|--|
| | 100 | Drive sleeve (with screw) | 04 10 04D | |
| | 101 | Drive cross piece | 04 20 01 | |
| | 102 | Standard drive block | 08 17 00 | |
| | 105 | Can clamp (bag of 25 pieces) | 04 01 29E | |
| | 106 | Adjustable belt regulator TR83 | 08 22 00 | |
| | 107 | Fixed belt roller | 04 01 05D | |
| | 108 | Mechanical shelf drive belt 3614 mm | 03 01 34 | |
| | 109 & 133 | Mechanical shelf pulley \varnothing 150 mm | 04 20 03 | |
| | 110 | Self lubricating ring BP25.C 12x15x12 | 03 04 01 | |
| | 111 | Driving device | 08 05 00 | |
| | 112 | Driving device pin | 03 03 01 | |
| | 114 | Motor belt L = 955 mm | 03 01 56 | |
| | 115 | Motor pulley POLY V 33/15,875/49 .. for motor with flange | 05 01 104D | |
| | 116 | Explosion-proof single-phase motor 3/4 HP (with pulley) .. with flange | 06 01 71D | |
| | | .. Silentblocs (with nuts) | 03 02 03D | |
| | | .. Ground wire | 06 05 01 | |
| | 118 | Support bracket .. for motor with flange | 20 34 10 | |
| | 119 | Motor belt regulator | 08 31 00 | |
| | 123 | Shaft cover (Gallon can stage) | 19 08 00D | |
| | | Shaft cover (quart can stage) | 19 08 10D | |
| | 124 | Drive shaft 222 (Gallon can stage) | 29 2 222 | |
| | | Drive shaft 153 (Quart can stage) | 29 2 153 | |

PARTS LIST

| Item | Description | No. | |
|------|---------------------------------------|-----------|--|
| 131 | Driven pulley POLY V 165 (with screw) | 05 01 80D | |
| 141 | Drive block SIM | 08 32 00 | |
| 144 | Mount for motor support bracket | 20 29 20 | |
| | Upper drive block cap (③ page 4) | 03 09 15 | |
| | Bag of tools | 08 50 01 | |

SUMMARY OF CAUTIONS

1. The mix-unit should be installed in a damp-free place, away from any source of heat (explosive vapors). Mix-units driven by a non-explosion-proof electrical assembly should not be used in any area where there is a possible risk of paint vapor ignition.
2. Installation of the mix-unit, as well as any check, adjustment, or repair of any electrical component (motor, switch, connections, etc..) should be carried out only by a fully qualified electrician. Installation should be in accordance with all Federal, State, and local regulations, and the mix-unit must be fully grounded.
3. All electrical connections should be fully covered at all times.
4. Protective covers should always be in position. They are provided to protect you against any possible risk of injury.
5. Before removing any protective covers, and prior to any maintenance or repair operation, make sure the switch is locked in the OFF position (unit fully disconnected, if possible).
6. The upper mix-shelves should be reserved for smaller cans, which are lighter, and thus safer, to handle.
7. Do not use dented cans. Check manually that the agitator blades turn freely, before placing cans in mix-unit.
8. Make sure that agitator lids are firmly secured before placing cans in the mix-unit.
9. Make sure that cans are securely in place before switching mix-unit ON.
10. Never overreach when placing cans in, or removing cans from the mix-unit.
11. Never use water to wash down the mix-unit.
12. Do not sit on the work table.

The manufacturer cannot be held responsible for any accident resulting from non-compliance with the cautions contained in this Manual or affixed to the mix-unit, nor in the case of a mix-unit modified without the prior knowledge and consent of the manufacturer.

WARRANTY

FILLON PICHON USA, INC. warrants each new mix unit to be free from defects in material and workmanship under normal use and service.

FILLON PICHON USA, INC. will replace and/or repair any part of the mix unit which it determines is defective for a period of twelve (12) months after delivery of the mix unit to the original end user. Not included under the terms of this Warranty are any parts which require replacement due to normal wear and tear (belts, fuses, etc.).

All Warranty claims should be made by contacting the company which was responsible for selling the mix unit to the original end user. Under no circumstances should the mix unit or any part thereof be returned to the factory for inspection, replacement and/or repair without the express written consent of FILLON PICHON USA, INC.

This Warranty is expressly in lieu of all other warranties and representations express or implied, and all other obligations and liabilities on the part of FILLON PICHON USA, INC.

All electrical components of the mix unit furnished by FILLON PICHON USA, INC. but not manufactured by FILLON PICHON USA, INC. are warranted specifically by their respective manufacturers and FILLON PICHON USA, INC. makes no warranties with respect to these items.

This Warranty shall be valid for the Warranty period, as long as the mix unit has been properly installed or repaired by a fully qualified electrician or mechanic. The Warranty shall be void, if the mix unit has been subjected to unauthorized modification, misuse, neglect, accident or noncompliance with instructions in the service manual.

This Warranty is for the sole benefit of the original end user and is not assignable or transferable. The term "original end user" in this Warranty shall be deemed to mean that person or entity for whom the mix unit is originally installed.