## **3M**

### **Instructions and Parts List**

3M-Matic

800rf Type 40800 Random Case Sealer

AccuGlide 3
Taping Heads

Serial No.

For reference, record machine serial number here.



## Important Safety Information

BEFORE INSTALLING
OR OPERATING THIS
EQUIPMENT
Read, understand, and
follow all safety and
operating instructions.

### **Spare Parts**

It is recommended you immediately order the spare parts listed in the "Spare Parts/Service Information" section.
These parts are expected to wear through normal use, and should be kept on hand to minimize production delays.



with

**3M Industrial Adhesives and Tapes** 3M Center, Building 220-5E-06 St. Paul, MN 55144-1000 "3M-Matic"and "AccuGlide" are Trademarks of, 3M St. Paul, MN 55144-1000 Printed in U.S.A.

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This instruction manual covers safety aspects, handling and transport, storage, unpacking, preparation, installation, operation, adjustments, maintenance, troubleshooting, repair work and servicing plus parts list of the **3M-Matic 800rf** Random case sealer.

3M Industrial Adhesives and Tapes 3M Center, Building 220-5E-06 St. Paul, MN 55144-1000

Edition March 2012

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The manufacturer reserves the right to change the product at any time without notice.

800rf-NA 2012 March

#### **Replacement Parts and Service Information**

#### To Our Customers:

This is the 3M-Matic<sup>™</sup>/AccuGlide<sup>™</sup>/Scotch<sup>®</sup> equipment you ordered. It has been set up and tested in the factory with Scotch<sup>®</sup> tapes. If technical assistance or replacement parts are needed, call or fax the appropriate number listed below.

Included with each machine is an Instructions and Parts List manual.

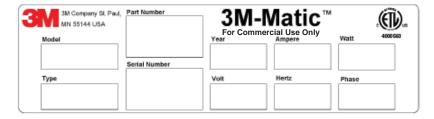
**Technical Assistance / Replacement Parts and Additional Manuals:** 

Contact your local service provider. Provide the customer support coordinator with the model/machine name, machine type, and serial number that are located on the identification plate - (For example: Model 800rf - Type 40800 - Serial Number 13282).

#### **Replacement Parts and Additional Manuals**

Order parts by part number, part description, and quantity required. When ordering parts or additional manuals, include model/machine name, machine type, and serial number that are located on the identification plate (For example: Model 800rf - Type 40800 - Serial Number 13282).

#### **Identification Plate**





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To Our Customers:

This is the 3M-Matic<sup>™</sup>/AccuGlide<sup>™</sup>/Scotch<sup>®</sup> equipment you ordered. It has been set up and tested in the factory with Scotch<sup>®</sup> tapes. If any problems occur when operating this equipment and you desire a service call or phone consultation, call, write, or fax the appropriate number listed below.

Included with each machine is an Instructions and Parts List manual.

SERVICE, REPLACEN AVAILABLE DIRECT F	ND ADDITIONA	L MANUALS	

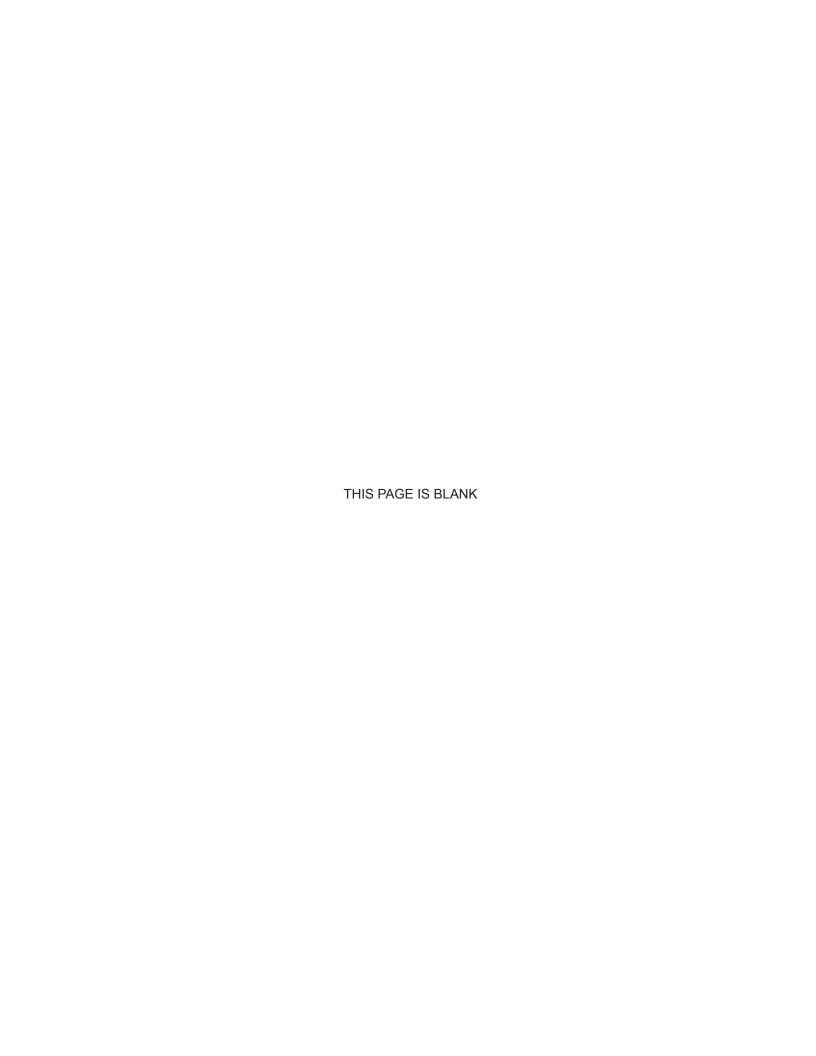
Order parts by part number, part description, and quantity required. Also, when ordering parts or additional manuals, include model/machine name, machine type, and serial number that are located on the identification plate.





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#### **TAPING HEAD INFORMATION -**

MANUAL 2: AccuGlide™ 3 Taping Heads - 2 Inch (See MANUAL 2 for Table of Contents)

#### LIST OF ABBREVIATIONS, ACRONYMS

3M-Matic - Trademark of 3M St. Paul, MN 55144- 1000

AccuGlide - Trademark of 3M St. Paul, MN 55144-1000

Scotch - Trademark of 3M St. Paul, MN 55144-1000

Drw. - drawing

Ex. - for example

Fig. - exploded view figure no. (spare parts)

Figure - Illustration

Max. - maximum

Min. - minimum

Nr. - number

N/A - not applicable

OFF - machine not operating

ON - machine operating

PLC - Programmable Logic Control

PP - Polypropylene

PU/PUFoam - Polyurethane Foam

PTFE - Polytetraflourethelene

PVC - Poly-vinyl chloride

W - Width

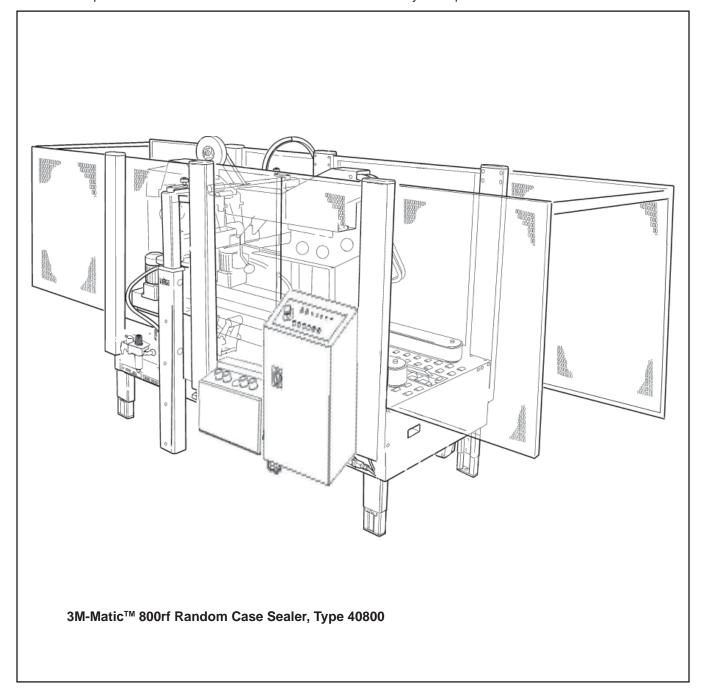
H - Height

L - Length

#### 1.1 Manufacturing Specifications / Description / Intended Use

The **3M-Matic™ Model 800rf Type 40800** Automatic Random Case Sealer with AccuGlide™ 3 Taping Heads is designed to accept filled, regular slotted containers from an existing conveyor, fold the top flaps, and apply a "C" clip of Scotch™ brand Pressure-Sensitive Film Box Sealing Tape to the top and bottom center seams. Two sidedrive belt assemblies convey the cases through the machine.

The 800rf Case Sealer is to be used with infeed and exit conveyors supplied by the customer. Do not attempt to run the case sealer without infeed and exit conveyors in place.



## 1.1 Manufacturing Specifications / Description / Intended Use (continued)

The 800rf Case Sealer is controlled from two operator control panels located on the front left side of the case sealer. These control panels (Electrical Control Panel and Pneumatic Control Panel) have the most-used controls within easy reach of the operator. The case sealer is microprocessor-based and firmware controlled to maintain maximum and precise control over all operations within the case sealer.

The case sealer may be operated in Random, Fixed, or Bypass mode. A selector switch is located on the top of the Electrical Control Panel.

- In Random mode, the case sealer automatically adjusts itself for a wide range of case sizes, providing a tape seal on the top and bottom of the cartons. Random mode is considered the standard operating mode.
- In Fixed mode, the case sealer runs multiple cartons of the same (fixed) size, providing a tape seal on the top and bottom of the cartons.
- In Bypass mode, the case sealer passes certain containers through the machine, providing a tape seal only on the bottom of the containers. The top of these containers is not sealed.



#### **CAUTION**

- Never change operating modes while a box is in the case sealer.
- Change modes only after a box exits the case sealer and before the next box enters the case sealer.

#### 1.2 How to Read and Use the Instruction Manual

This instruction manual covers safety aspects, handling and transport, storage, unpacking, preparation, installation, operation, set-up and adjustments, technical and manufacturing specifications, maintenance, troubleshooting, repair work and servicing, electric diagrams, warranty information, disposal (ELV), a definition of symbols, plus a parts list of the 3M-Matic 800rf Random case sealer 3M Industrial Adhesives and Tapes Division 3M Center, Bldg. 220-5E-06 St. Paul, MN 55144-1000 (USA) Edition March 2012 Copyright 3M 2012 All rights reserved. The manufacturer reserves the right to change the product at any time without notice **Publication** © **3M 2012 44-0009-2085-8.** 

#### 1.2.1 Importance of the Manual

The manual is an important part of the machine; all information contained herein is intended to enable the equipment to be maintained in perfect condition and operated safely. Ensure that the manual is available to all operators of this equipment and is kept up to date with all subsequent amendments. Should the equipment be sold or disposed of, please ensure that the manual is passed on. Electrical and pneumatic diagrams are included in the manual. Equipment using PLC controls and/or electronic components will include relevant schematics or programs in the enclosure and in addition, the relevant documentation will be delivered separately.

#### 1.2.2 Manual Maintenance

Keep the manual in a clean and dry place near the machine. Do not remove, tear, or rewrite parts of the manual for any reason. Use the manual without damaging it. In case the manual has been lost or damaged, ask your after sale service for a new copy.

#### 1.2.3 Consulting the Manual

The manual is composed of:

- Pages which identify the document and the machine
- Index of the subjects
- Instructions and notes on the machine
- Enclosures, drawings and diagrams
- Spare parts (last section)

All pages and diagrams are numbered. The spare parts lists are identified by the figure identification number. All the notes on safety measures or possible dangers are identified by the symbol:

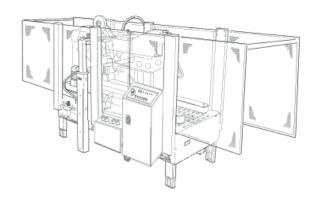
## 1.2.4 How to Update the Manual in Case of Modifications to the Machine

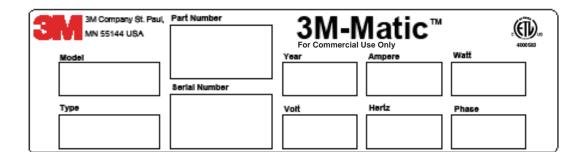
Modifications to the machine are subject to manufacturer's internal procedures. The user receives a complete and up-to-date copy of the manual together with the machine. Afterwards the user may receive pages or parts of the manual which contain amendments or improvements made after its first publication. The user must use them to update this manual.

#### 2.1 Data Identifying Manufacturer and Machine

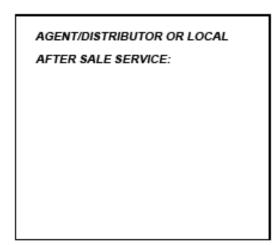


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#### 2.2 Data for Technical Assistance and Service



#### 2.3 Warranty

Equipment Warranty and Limited Remedy: THE FOLLOWING WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, A CUSTOM OR USAGE OF TRADE:

3M sells its 3M-Matic™ 800rf Adjustable Case Sealer, Type 40800 with the following warranties:

- 1. The drive belts and the taping head knives, springs and rollers will be free from all defects for ninety (90 days after delivery.
- 2. All other taping head parts will be free from all defects for three (3) years after delivery.
- 3. All other parts will be free from all defects for two (2) years after delivery.

If any part is proved to be defective within its warranty period, then the exclusive remedy and 3M's and seller's sole obligation shall be, at 3M's option, to repair or replace the part, provided the defective part is returned immediately to 3M's factory or an authorized service station designated by 3M. A part will be presumed to have become defective after its warranty period unless the part is received or 3M is notified of the problem no later than five (5) calendar days after the warranty period. If 3M is unable to repair or replace the part within a reasonable time, then 3M at its option, will replace the equipment or refund the purchase price. 3M shall have no obligation to provide or pay for the labor required to install the repaired or replacement part. 3M shall have no obligation to repair or replace (1) those parts failing due to operator misuse, carelessness, or due to any accidental cause other than equipment failure, or (2) parts failing due to non-lubrication, inadequate cleaning, improper operating environment, improper utilities or operator error.

**Limitation of Liability:** 3M and seller shall not be liable for direct, indirect, special, incidental or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability or any other legal theory.

The foregoing Equipment Warranty and Limited Remedy and Limitation of Liability may be changed only by a written agreement signed by authorized officers of 3M and seller.

#### Contents—800rf Random Case Sealer

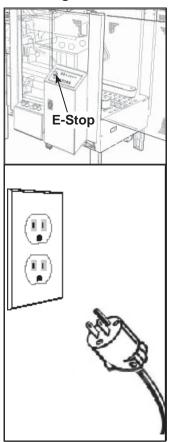
- (1) 800rf Random Case Sealer, Type 40800
- (1) Upper Tape Drum/Bracket/Hardware
- (1) Tool/Spare Parts Kit
- (1) Instruction and Parts Manual

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#### 3.1 General Safety Information

Read all the instructions carefully before starting work with the machine; please pay particular attention to sections marked by the symbol:

Figure 3-1



The machine is provided with a LATCHING EMER-GENCY STOP BUTTON (Figure 3-1); when this button is pressed, it stops the machine at any point in the working cycle. Maintain clear access to power cord while machine is operating. Disconnect plug from power source before machine maintenance (Figure 3-1). Also disconnect air if the machine has a pneumatic system. Keep this manual in a handy place near the machine. This manual contains information that will help you to maintain the machine in a good and safe working condition.

#### 3.2 Explanation of Signal Word and **Possible Consequences**



This safety alert symbol identifies important messages in this manual. READ AND UNDERSTAND THEM BEFORE INSTALLING OR OPERATING THIS EQUIPMENT.



CAUTION:

Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury and/or property damage.



WARNING: Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury and/or property damage.

#### 3.3 Table of Warnings



#### **WARNING**

- To reduce the risk associated with mechanical and electrical hazards:
- Read, understand, and follow all safety and operating instructions before operating or servicing the case sealer.
- Allow only properly trained and qualified personnel to operate and service this equipment.



Figure 3-2

#### SAFETY INSTRUCTIONS

- 1. Shut off machine before adjusting
- 2. Unplug electric power before servicing
- 3. Do not leave machine running unattended
- 4. Refer to instruction manual for complete setup, operating, and servicing information



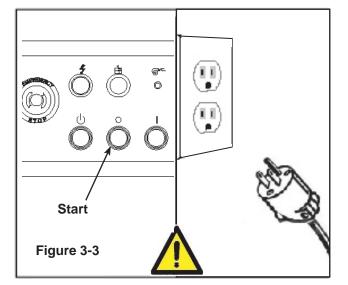
#### **WARNING**

- To reduce the risk associated with hazardous voltage:
- Position electrical cord away from foot and vehicle traffic.



#### **WARNING**

- To reduce the risk associated with pinches, entanglement and hazardous voltage:
- Turn electrical supply off and disconnect before performing any adjustments, maintenance or servicing the machine or taping heads.





Important! Cavity in the conveyor bed. Never put your hands inside any part of the machine while it is working. Serious injury may occur (Figure 3-4).



#### **WARNING**

- To reduce the risk associated with pinches and entanglement hazards:
- Do not leave the machine running while unattended.
- Turn the machine off when not in use.
- Never attempt to work on any part of the machine, load tape, or remove jammed boxes from the machine while the machine is running.



#### **WARNING**

- To reduce the risk associated with sharp blade hazards:
- Keep hands and fingers away from tape cutoff blades under orange blade guards. The blades are extremely sharp.

Important! Tape cutting blade. Never remove the safety device which covers the blade on the top and bottom taping units. Blades are extremely sharp. Any error may cause serious injuries (Figure 3-5).



#### WARNING

- To reduce the risk associated with fire and explosion hazards:
- Do not operate this equipment in potentially flammable/explosive environments.



#### **WARNING**

- To reduce the risk associated with muscle strain:
- Use the appropriate rigging and material handling equipment when lifting or repositioning this equipment.
- Use proper body mechanics when removing or installing taping heads that are moderately heavy or may be considered awkward to lift.

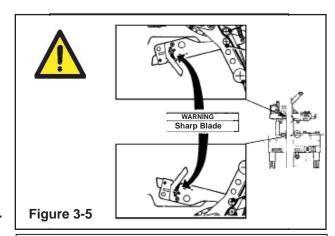


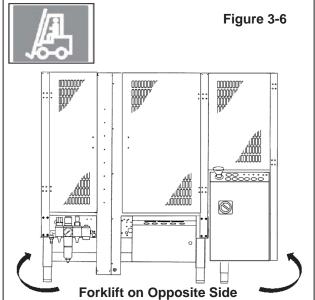
#### **CAUTION**

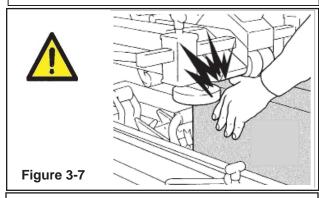
- To reduce the risk associated with pinches hazards:
- Keep hands clear of the upper head support assembly as boxes are transported through the machine.
- Keep hands, hair, loose clothing, and jewelry away from box compression rollers.
- Always feed boxes into the machine by pushing only from the end of the box.
- Keep hands, hair, loose clothing, jewelry away from moving belts and taping heads.

Important! Side flap compression rollers. Never keep hands on the box while it is driven by the belts (Figure 3-7).

Important! Drive belts. Never work on the machine with loose hair or loose garments such as scarfs, ties or sleeves. Although protected, the drive belts may be dangerous (Figure 3-8).









#### 3.4 Operator's Qualifications

- Machine Operator
- Mechanical Maintenance Technician
- Electrical Maintenance Technician
- Manufacturer's Technician/Specialist (See Section 3.11)

#### 3.5 Number of Operators

The operations described below have been analyzed by the manufacturer; the recommended number of operators for each operation provides the best and safest work performance.

**Note:** A smaller or greater number of operators could be unsafe.

## 3.6 Instructions for a Safe Use of the Machine / Definition of Operator's Qualifications

Only persons who have the skills described in the skill levels section should be allowed to work on the machine. It is the responsibility of the user to appoint the operators having the appropriate skill level and the appropriate training for each category of job.

#### 3.7 Residual Hazards

The case sealer 800rf incorporates various safety protections which should never be removed or disabled. It is essential that the operator and service personnel be warned that hazards exist which cannot be eliminated.

#### 3.8 Recommendations and Measures to Prevent Other Hazards which Cannot be Eliminated

- The operator must stay on the working position shown in the Operation Section. He must never touch the running driving belts or put his hands inside any cavity.
- The operator must pay attention to the blades during the tape replacement.



#### **WARNING**

- To reduce the risk associated with mechanical and electrical hazards:
- Read, understand, and follow all safety and operating instructions before operating or servicing the case sealer.
- Allow only properly trained and qualified personnel to operate and service this equipment.

#### 3.9 Personal Safety Measures

Safety glasses, safety gloves, safety helmet, safety shoes, air filters, ear muffs - None is required except when recommended by the user.

## 3.10 Predictable Actions which are Incorrect and Not Allowed

- Never try to stop/hold the box while being driven by the belts.
- Never remove or disable the safety devices.
- Only authorized personnel should be allowed to carry out the adjustments, repairs or maintenance which require operation with reduced safety protections. During such operations, access to the machine must be restricted.
   When the work is finished, the safety protections must immediately be reactivated.
- The cleaning and maintenance operations must be performed after disconnecting the electric power.
- Do not modify the machine or any part of it.
- Clean the machine using only dry cloths or light detergents. Do not use solvents, petrols, etc.
- Install the machine following the suggested layouts and drawings.

## 3.11 Operator's Skill Levels Required to Perform the Main Operations on the Machine

The Table shows the minimum operator's skill for each machine operation.

*Important:* The factory manager must ensure that the operator has been properly trained on all the machine functions before starting work.

#### **Skill 1: Machine Operator**

This operator is trained to use the machine with the machine controls, to feed cases into the machine, make adjustments for different case sizes, to change the tape and to start, stop and restart production.

## **Skill 2: Mechanical Maintenance Technician**This operator is trained to use the machine as the MACHINE OPERATOR and in addition is able to:

- · Work with the safety protection disconnected
- · Check and adjust mechanical parts
- Carry out machine maintenance operations/repairs He is not allowed to work on live electrical components

## **Skill 2a: Electrical Maintenance Technician**This operator is trained to use the machine as the MACHINE OPERATOR and in addition is able to:

- · Work with the safety protection disconnected
- · Check and adjust mechanical parts
- Carry out machine maintenance operations / repairs / adjustments / repair electrical components
   He is allowed to work on live electrical panels, connector blocks, control equipment, etc.

# **Skill 3: Specialist from the Manufacturer** Skilled operator sent by the manufacturer or its agent to perform complex repairs or modifications (on agreement with the customer).



#### **WARNING**

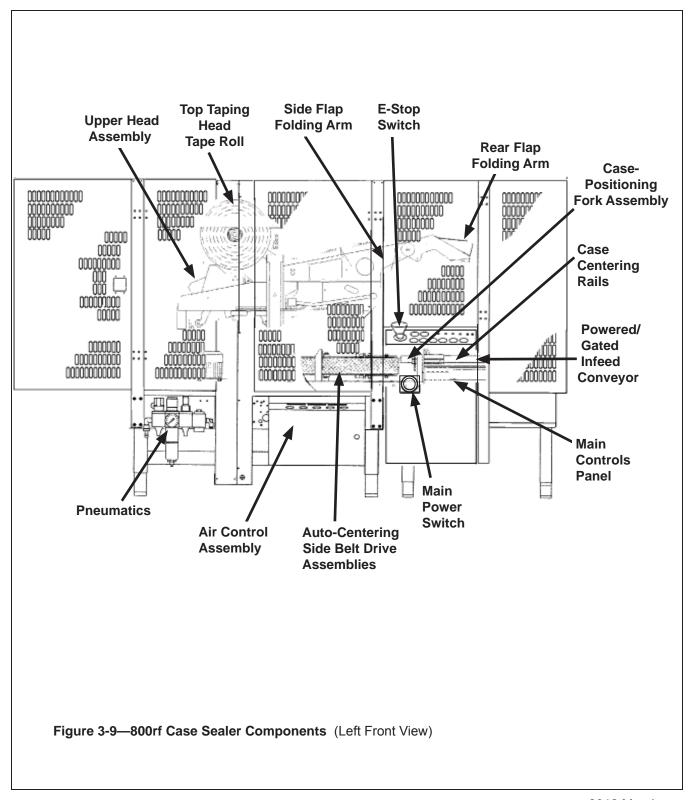
- To reduce the risk associated with mechanical and electrical hazards:
- Allow only properly trained and qualified personnel to operate and service this machine

#### Operator's Skill Levels Required to Perform the Main Operations on Machine

Operation	Machine Status	Required Operator Skill	Number of Operators
Machine installation and setup	Running with safety protections disabled	2 and 2a	2
Adjusting box size	Stopped by pressing the EMERGENCY STOP button	1	1
Tape replacement	Stopped by pressing the EMERGENCY STOP button	1	1
Blade replacement	Electric power disconnected	2	1
Drive belt replacement	Electric power disconnected	2	1
Ordinary maintenance	Electric power disconnected	2	1
Extraordinary mechanical maintenance	Running with safety protections disabled	3	1
Extraordinary electrical maintenance	Running with safety protections disabled	2a - 3	1

#### 3.12 Component Locations

Refer to **Figure 3-9** below to acquaint yourself with the various components and controls of the case sealer. Also refer to Manual 2 for taping head components.



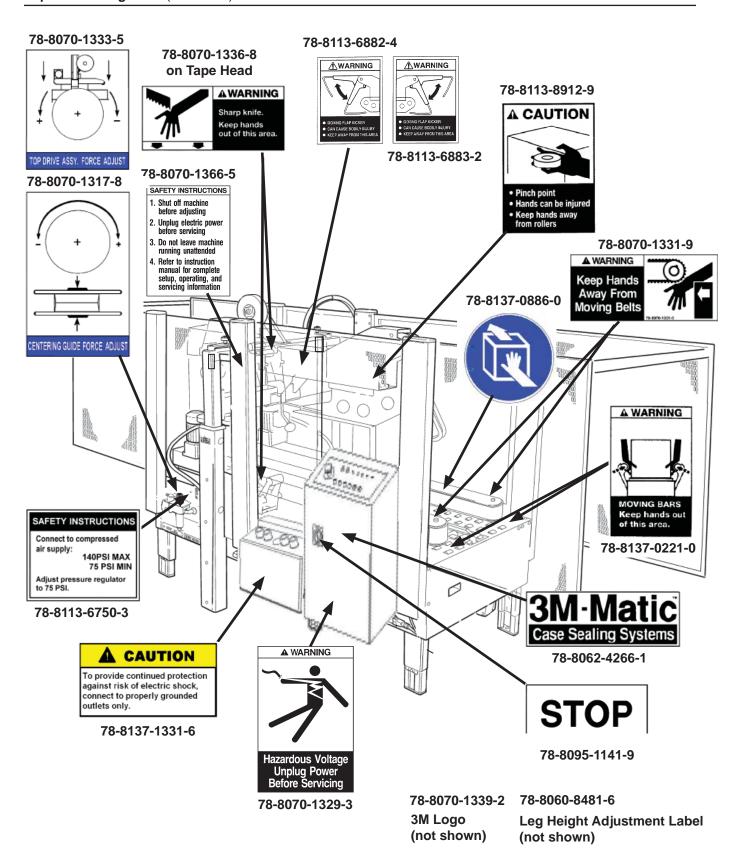


Figure 1-1 – Replacement Labels/3M Part Numbers

#### 4.1 Power Requirements

Electrical: 415 Volt, 60Hz, 3.8 A (440 watts)

208/240V, 60Hz, 3Ph, 4.25A (620W)

(\***Note:** Electric Information may not relect machine electrical settings/requirements in your area)
The machine is equipped with a 2.4m [8 foot] standard neoprene covered power cord and a grounded plug.
Contact your 3M Representative for power requirements not listed above.

Pneumatic – 6 bar gauge pressure [87 PSIG] @ 21 C, 1.01 bar [3.75 SCFM] at 15 boxes per minute A pressure regulator is included

Machine requires 75 - 140 PSIG

[5.2 - 9.5 BAR] 7.0 SCFM

[11.89 m³/h 21°C, 101 kPa] at the regulator, maximum at maximum cycle rate.

The optimum operating set point on the gauge is 95 – 100 PSIG.)

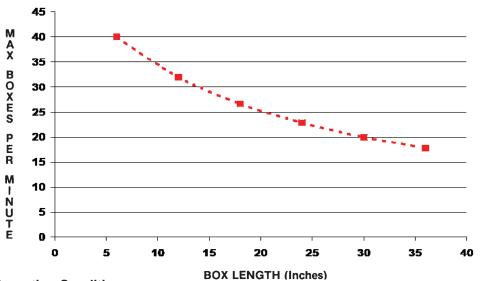
#### 4.2 Operating Rate

Box drive belt speed is approximately 0.5 m/s [100 feet per minute].

Infeed conveyor speed: 21m/min

Production = 600 boxes/hour (average)

## BOXES PER MINUTE VS. BOX LENGTH BOX LENGTH [mm]



#### 4.3 Operating Conditions

Use in dry, relatively clean environments at 4.4° C to 48.9° C [40° F to 120° F] with clean, dry boxes. *Note:* Machine should not be washed or subjected to conditions causing moisture condensation on

components.



#### **WARNING**

- To reduce the risk associated with fire and explosion hazards:
- Do not operate this equipment in potentially flammable or explosive environments.

#### 4.4 Tape

Scotch® pressure-sensitive film box sealing tapes.

#### 4.5 Tape Width

36mm [1 1/2 inch] minimum to 50mm [2 inch] maximum 800rf Case Sealer. This model offers 3-inch wide upper and lower AccuGlide™ 3 Taping Heads for tape widths from 2 inches [48 millimeters] to 3 inches [72 millimeters].

#### 4.6 Tape Roll Diameter

Up to 410mm [16 inch] maximum on a 76.2mm [3 inch] diameter core.

(Accommodates all system roll lengths of **Scotch®** film tapes.)

#### 4.7 Tape Application Leg Length – Standard

 $70 \text{mm} \pm 6 \text{mm} [2 \ 3/4 \ \text{inch} \pm 1/4 \ \text{inch}]$ 

#### Tape Application Leg Length – Optional

50mm ± 6mm [2 inch ±. 1/4 inch]

(See "Removing Taping Heads Procedure - Changing the Tape Leg Length")

#### 4.8 Box Board

Style – regular slotted containers – RSC 125 to 275 P.S.I. bursting test, single wall or double wall B or C flute. 23-44 lbs. per inch of width Edge Crush Test (ECT)

#### 4.9 Box Weight and Size Capacities

A. Box Weight, filled: 65 lbs. [2 kg–30 kg] ,maximum. Minimum must be sufficient to hold case on the conveyor bed with bottom flaps flat.

B.	Box Size:	Minimum	Maximum
	Length -	200mm [8.0 inch]	600mm [23.5 inch]
	Width –	160mm [6.3 inch]*	500mm [20 inch]
	Height -	140mm [5.5 inch]	500mm [20 inch]

(See "Special Set-Up Procedures".)

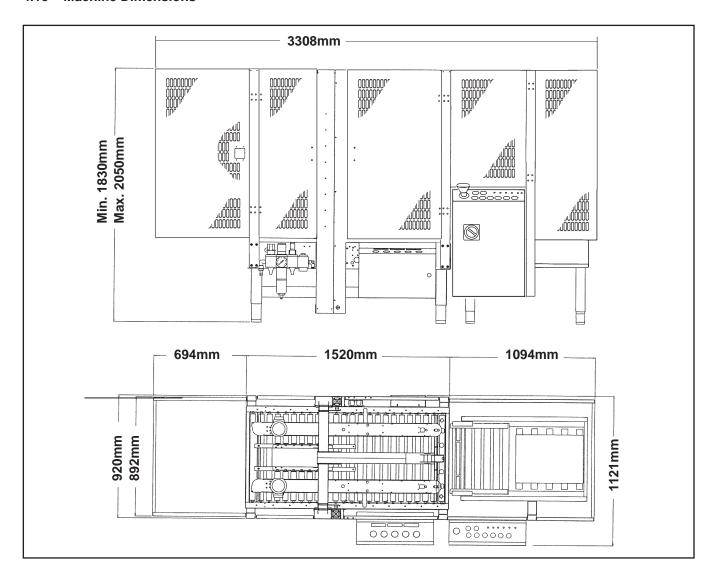
**Note:** The case sealer can accommodate most boxes within the size range listed above. However, if the box length (in direction of seal) to box height ratio is 0.6 or less, test run several boxes to ensure proper machine performance.

#### DETERMINE THE BOX LIMITATIONS BY COMPLETING THIS FORMULA:

### BOX LENGTH IN DIRECTION OF SEAL = SHOULD BE GREATER THAN 0.6 BOX HEIGHT

Any box ratio approaching this limitation should be test run to ensure performance.

#### 4.10 Machine Dimensions



#### 4.11 Machine Noise Level:

Acoustic pressure measured at a distance of 1m. from machine with Scotch PVC adhesive tape in operation; 78dB Acoustic radiation pressure at 1.6m. height with Scotch PVC adhesive tape in operation; 73dB Measurement taken with appropriate instrument: (Type SPYRI-MICROPHON 11).

#### 4.12 Set-Up Recommendations:

- · Machine must be level.
- Customer supplied infeed and exit conveyors (if used) should provide straight and level box entry and exit.
- Exit conveyors (powered or gravity) must convey sealed boxes away from machine.

#### 5.1 Shipment and Handling of Packed Machine

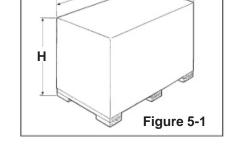
The machine and the infeed conveyor are shipped in 2 separate packings, fixed on a wooden pallet. They can be uplift with a normal forklift. The standard packing is suitable for surface and air transportation. Oversea packing on request.

#### Packing dimensions

#### 800rf

I = length: 2880mm: w = width: 1480mm h = height: 2050mm Weight: 617kg

Packaging Overall Dimensions (Figure 5-1)



## 5.2 Packaging for Overseas Shipment (Optional - Figure 5-2)

The machines shipped by sea freight are covered by an aluminum/polyester/polythene bag which contains dehydrating salts.

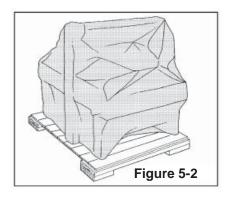


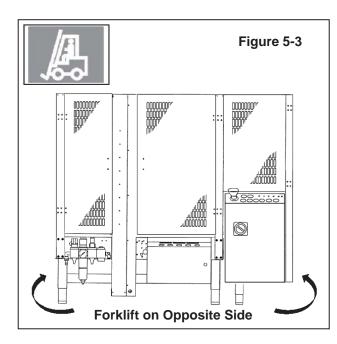
The uncrated machine should not be moved except for short distances and indoors ONLY. Without the supporting pallet, the machine is exposed to damage and may cause injuries. To move the machine use belts or ropes, paying attention to place them in the points indicated using care to not interfere with the lower taping head **(Figure 5-3).** 

#### 5.4 Storage of the Packed or Unpacked Machine

If the machine is not used for a long period, please take the following precautions:

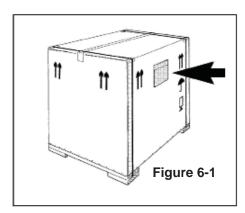
- Store the machine in a dry and clean place.
- If the machine is unpacked it is necessary to protect it from dust.
- Do not stack anything over the machine.



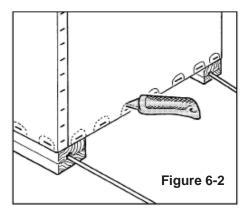


#### 6.1 Uncrating

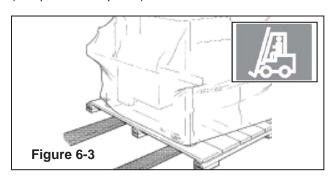
The envelope attached to the shipping box contains the uncrating instructions of the machine (Figure 6-1).



Cut straps. Cut out staple positions along the bottom of the shipping box or remove staples with an appropriate tool **(Figure 6-2).** 



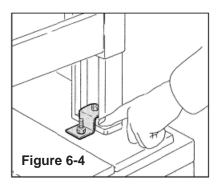
After cutting out or removing the staples, lift the shipping box in order to clear the machine (two persons required).



Transport the machine with a fork-lift truck to the operating position. Lift the pallet at the point indicated by labels on the front, back, and right side of the machine **Figure 6-3** (weight of machine + pallet = See Specifications).

#### Removal of Pallet

Loosen and remove nuts and brackets using the open end spanner supplied in the tool box (Figure 6-4).



A cardboard box is located under the machine body. Retrieve the instruction manual for additional procedures of the set up. The box also contains parts removed for shipping, spare parts and tools.

Cut the stretch film and remove the control board, the guards panel and the accessories box.

#### 6.2 Disposal of Packaging Materials

The 800rf package is composed of:

- Wooden pallet
- Cardboard shipping box
- Wooden supports
- Metal fixing brackets
- PU foam protection
- PP plastic straps
- Dehydrating salts in bag
- Special bag of laminated polyester/aluminium/
- Polyethylene (sea freight package only)
- Polyethylene protective material

For the disposal of the above materials, please follow the environmental directives or the law in your country.

#### 7.1 Operating Conditions

The machine should operate in a dry and relatively clean environment (See Specifications).

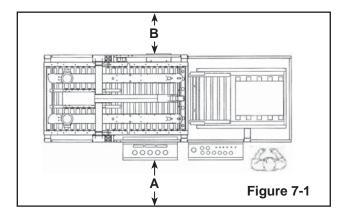
## 7.2 Space Requirements for Machine Operation and Maintenance Work

Minimum distance from wall (Figure 7-1):

A = 1000 mm.

B = 700mm.

Minimum height = 2700mm.

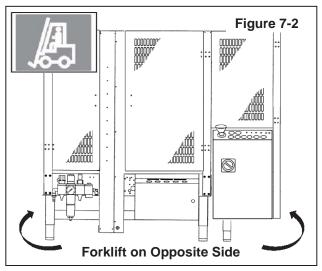


#### 7.3 Tool Kit / Parts Supplied with the Machine

A tool kit containing some tools are supplied with the machine. These tools should be adequate to set-up the machine, however, other tools supplied by the customer will be required for machine maintenance.

The crate should also contain the following:

One warning beacon with bracket (electrically connected, but not mounted in place)





#### **WARNING**

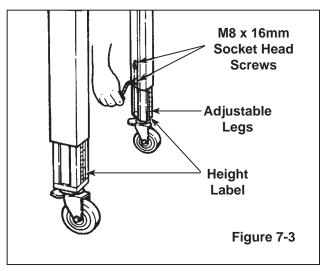
- To reduce the risk associated with muscle strain:
- Use the appropriate rigging and material handling equipment when lifting or repositioning this equipment.
- Use proper body mechanics when removing or installing taping heads that are moderately heavy or may be considered awkward to lift.

#### 7.4 Machine Positioning / Bed Height

Lift the machine with belts or ropes paying attention to place the belts in the points (**Figure 7-2**). To set the machine bed height, do the following:

The legs on the case sealer can be adjusted to obtain different bed heights from the factory set-point. The bed height can be set from 25-7/8 inches [657mm] minimum through 32 inches [815mm] maximum. Set the bed height as follows:

- 1. Block up the case sealer frame to allow adequate leg adjustment.
- 2. Using a 6mm hex key wrench, loosen, but do not remove, two (2) M8 x 16mm socket-head cap screws in one leq. Refer to **Figure 7-3.**
- 3. Using the height label as a guide, adjust the leg length to the desired conveyor bed height. Retighten the two (2) screws to secure the leg.
- 4. Adjust the remaining legs in the same way.



## 7.5 Safety Guards: Inside and Outside Machine Emergency Stop Push-Button

Position and assemble the inside (A) and outside (B) guard panels with the upper and bottom brackets and stiffening profile plates as shown in the pictures (Figure 7-4).

#### **Inside Safety Guards**

Support brackets (upper and bottom); 4+4 socket head screws each bracket (Figure 7-5).

Stiffening profile plate (upper): 2+2 socket head screws (Figure 7-6).

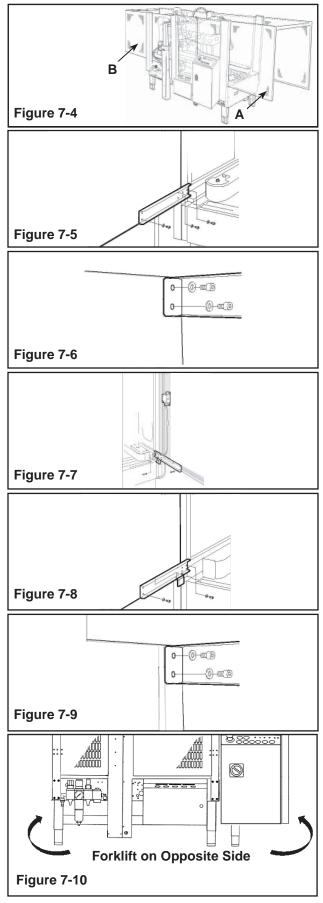
#### **Outside Safety Guards**

Support brackets (upper and bottom); 4+4 socket head screws each bracket. Left hand bracket (with pre-assembled photocell); Right hand bracket (with pre-assembled reflector). Assemble the emergency push button unit as shown (Figure 7-7 & 7-8).

Stiffening profile plate (upper): 2+2 socket head screws (Figure 7-9).

## 7.6 Connection between the Infeed Conveyor 800rf

Lift the infeed conveyor placing the forks under the points where there are the labels (Figure 7-10).



(infeed conveyor attachment continued)

Approach the infeed conveyor to the machine and fix it using the screws previously removed (Figure 7-11).

B10, B1, B2 infeed conveyor photocells connections (Figure 7-12).



#### WARNING

- To reduce the risk associated with mechanical and electrical hazards:
- Allow only properly trained and qualified personnel to operate and/or service this equipment

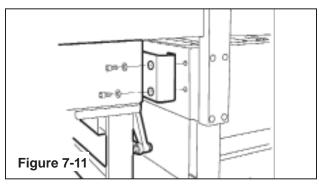
Insert the B10, B1 photocells screw connector in the plug on the sealing machine bench as shown. Connect the cable with screw connector deriving from the machine to the relative B2 photocell on the infeed conveyor (Figure 7-13).

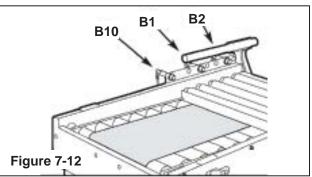


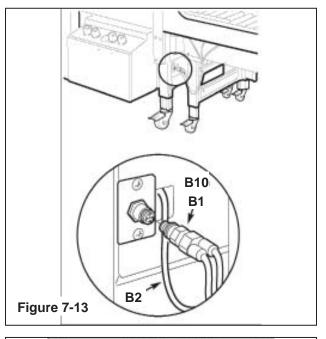
#### **WARNING**

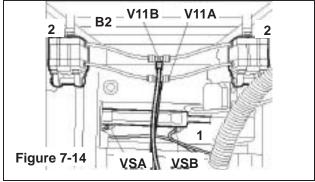
- To reduce the risk associated with impact hazards:
- Always use appropriate supporting means when working under the upper drive assembly

Connect air tubes from the sealing machine to the conveyor centering guides cylinder connectors (1) and to conveyor belt cylinders (2). Connects the air tubes to the connectors above mentioned pay attention to the reference numbers (Figure 7-14).









## 7.6 Pneumatic & Control Board Connections (continued)

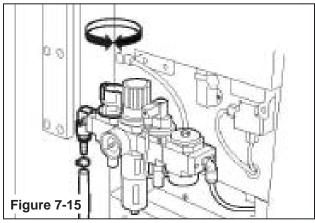
- Connect an air tube to the ON/OFF valve and attach it with a strap.

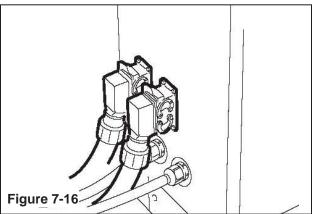
Minimum inside diameter of the tube 10mm; air pressure 6 BAR.

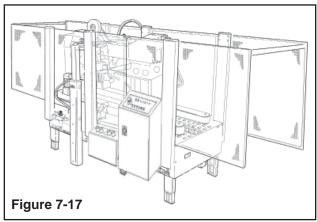
Give air to the machine with the ON/OFF valve (Figure 7-15).

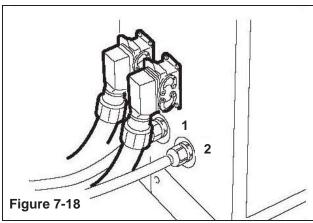
Position the control board near the machine. Feeder cables: Connect the cable with multipolar connectors from the machine and from conveyor to the control board (Figure 7-16).

Front and back junction boxes connections (1, 2 - Figure 7-17 & 7-18):

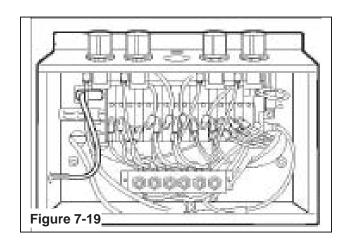




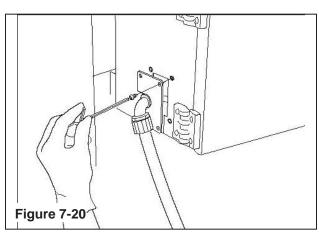




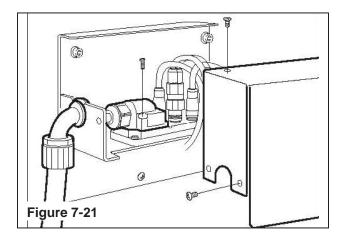
(Pneumatic & Control Board Connections - continued)



Front junction box connector (Figure 7-20).



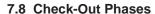
Rear junction box connector. (Figure 7-21).



#### 7.7 Preliminary Electric Check-Out

Before connecting the machine to the mains please carry out the following operations:

- Make sure that the socket is provided with a ground protection circuit and that both the mains voltage and frequency meet the indications on the name plate of the machine.
- Check that the connection of the machine to the mains meets the provisions of law and/or the safety regulations in your country.
- Installed power = 0,620 kW
- Connect the power cable (A) of the control board to an electric socket c
- Standard power supply (See Specifications).



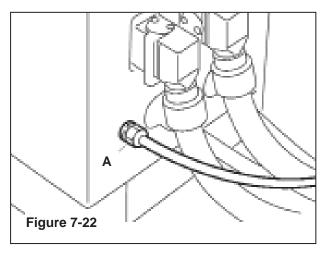
(For Three-Phases Only)

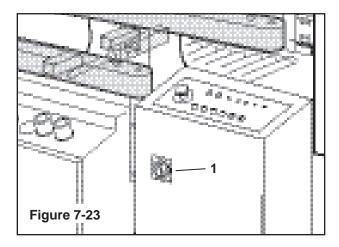
Procedure to be followed in order to connect correctly the position of the phases:

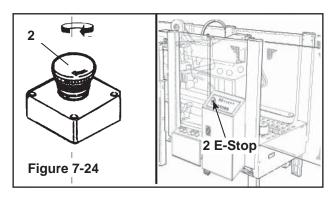
- Set the main switch 1 in ON (I) position (Figure 7-23).
- Check that safety guard panels are clearly shuts;
- Release the emergency stop push buttons rotating them clockwise (**Figure 7-24**).
- Push the AUXILIARIES button 3;
- Push the RESET button 4;
- Push the START button 5; (Figure 7-25).

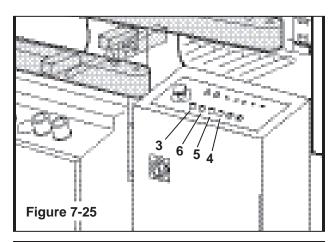
Check the rotation direction of the side drive belts. In case of wrong direction of rotation operate as follows:

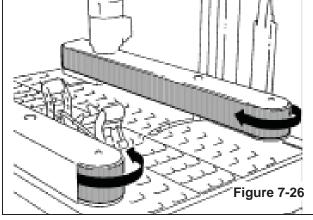
- Push the STOP (O) button 6 and disconnect the plug (Figure 7-26).
- Invert two phases on the terminals of the plug;
- Repeat the above mentioned procedure.









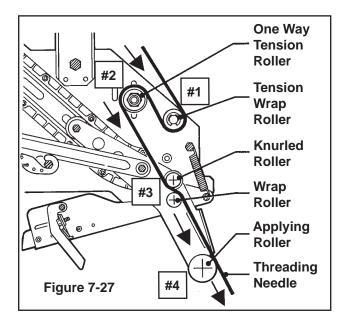


#### 7.9 Completion of Taping Heads

See Manual 2 for Complete Instructions:

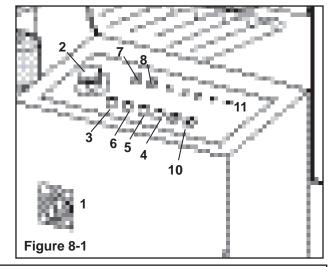
- Place the Upper Taping Head in a convenient working position
- .2. Use Figure 7-22 and tape threading label. Position the tape supply roll so the adhesive side of tape is facing the front of the taping head as it is pulled from the supply roll.
- 3. Attach the threading needle to the end of the roll. Guide the threading needle around the wrap roller (Position 1) then back around the oneway tension roller (Position 2).
- 4. Continue pulling the threading needle down and guide it between the two (2) rollers on the apply arm (Position 3).
- 5. Pull the threading needle down until the tape travels between the apply plate and the ears of the apply arm (Position 4) until it extends past the applying roller. When properly threaded the adhesive side of the tape should be facing the knurled rollers at position 2 and also position 3.
- 6. Cut away any excess tape and repeat steps for Lower Taping Head.

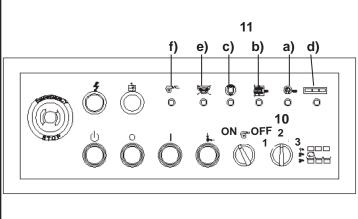
**Important** – Do not cut against the apply roller - roller damage could occur.

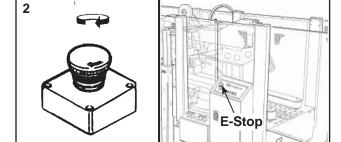


#### 8.1 Controls Board

- 1. Main switch (Figure 8-1).
- 2. Emergency stop push button (lockable)
- 3. Auxiliaries push button (control board electrical components habilitation)
- 4. Reset push button (new work cycle predisposition )
- 5. Start push button
- 6. Stop push button
- 7. Voltage warning light
- 8. Thermal switch warning light
- 9. Warning (flashing light + buzzer on top guardnot shown)
- 10. Operating mode panel (Figure 8-2).
  - a) Selector switch
    - Operating mode: 'unchanging box size'
    - 2) Operating mode: automatic'
    - 3) Operating mode: 'transit only'
- 11. Warning lights panel
  - a) Cycle time out
  - b) Minimum gap between side belts
  - c) Emergency (emergency push button pressed or safety guard opened)
  - d) Full sealing line
  - e) Low air pressure
  - f) Tape end/breakage









Front Junction Box Controls (Figure 8-4).

- 1. Centering guide pressure regulator
- 2. Side belts (motorizations) pressure regulator
- 3. Box height pick-up pressure regulator
- 4. Upper unit pressure regulator

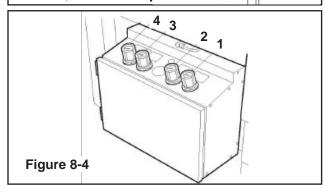


Figure 8-2

Figure 8-3

#### 9.1 Operation

- Give air to the machine by the ON/OFF valve, set the main switch to ON (I) position;
- Close the safety guards; release the E-stops;
- Press AUXILIARIES button,
- Press RESET button; press START button.

The box, after passed the infeed conveyor belt, obscures the first photocell (Figure 9-1)

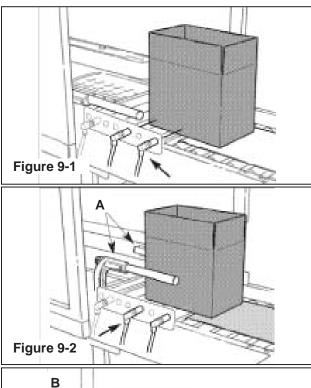
When the second photocell is obscured the infeed conveyor belt goes down in order to stop the next box. The side guides **A** align the box.

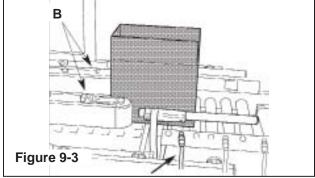
The next box obscuring the first photocell cause the infeed conveyor belt stoppage (Figure 9-2).

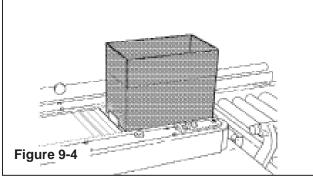
The side guides open and the box obscures the third photocell. The side drive belts **B** go against the box and, if the box is longer than 500mm, the rear flap folder is controlled **(Figure 9-3).** 

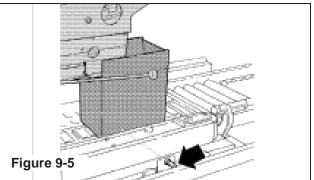
When the 4th photocell is obscured, the side drive belts stop. The gate between the rollers, positions the box correctly (Figure 9-4).

The upper group then comes down on the box after folded the front flap, the height pick-up device stops the upper group descent (Figure 9-5).









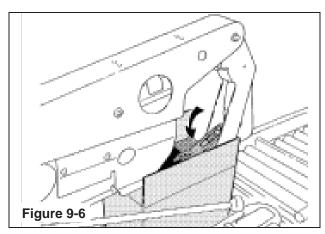
Simultaneously the rear flap is folded the fork goes down and the side belts restart to run (Figure 9-6).

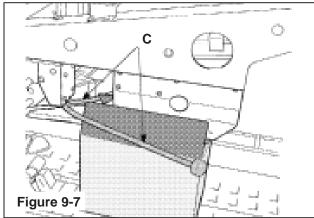
The side flaps are folded (Figure 9-7).

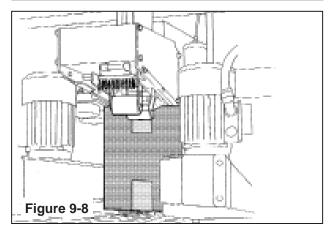
The two taping heads seal the box with adhesive tape (Figure 9-8).

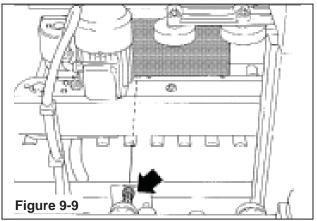
When the box has passed the fifth photocell, the upper group goes up, the side drive belts open and the infeed conveyor belt (on which awaits the next box) comes up and restarts (Figure 9-9).

The sealing machine begins again with a new cycle.









Important! If, for any reason, the box should stop inside the machine, the machine will stop operating after 10 seconds. To remove the box and restart, operate as follows:

- press the E-stop,
- open the safety guard,
- remove the box,
- close the safety guard an release the E-stops,
- press the AUXILIARIES push-button;
- press the RESET push-button,
- press the START (I) button to start the cycle

## 9.2 Operation Methods

The **800rf** works only in automatic:

- Safety guard closed,
- E-stop released,
- START (I) button pressed, air circuit open.

#### **Automatic Operating Modes**

- Unchanging box size (selector switch 10 on 1 pos.): the machine acknowledges the size of the first box. The upper unit maintains its position along whole production. Introducing a box of a different size with consequent machine jam the same stop after 10 seconds with activation of the "cycle time out" warning light on the control board.
- Automatic (selector switch 10 on 2 pos.): the machine acknowledges the box size whenever a new box is placed on the infeed conveyor belt.
- Transit only (selector switch 10 on 3 pos): upper taping unit out of operation; the box is sealed only on the bottom side. Removing the bottom taping unit the boxes can be simply moved inside-outside; a useful condition when the sealing machine is placed in an automatic packaging line.

#### 9.3. Stop Methods

#### Normal Stop:

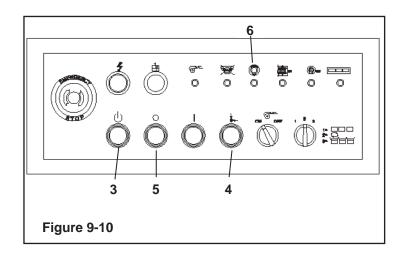
STOP (O) push button 6 on control board panel: the push-button must be pressed at the working cycle end.

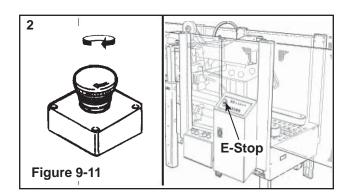
To restart press RESET 4 then START 5.

#### **EMERGENCY STOP:**

Lockable E-stops pressed or safety guard open. They stop the machine at any point of the cycle; also pneumatic circuit are disconnected. To restart release the E-stops and close the safety guards as necessary and then:

- Press AUXILIARIES 3 push-button
- Press RESET 4 push-button,
- Press START 5 push-button (Figure 9-11).





#### 9.4 Alarms

## Warning light a: Thermal switch activation

(motor overload)

- The machine cannot be started; machine stops if it is running
- To restart press 3, after 4, then 5 push-buttons.

Warning light b: Time out cycle (the machine will stop when the cycle taping boxes is not done just in time as preselected; 10 seconds approximately).

- machine stop.
- to restart press 4, 5 push-buttons; if necessary, open a safety guard to eliminate a jam, press 3, 4, 5 push-buttons.

Warning light c: Minimum gap between side belts (box size below allowed minimum dimensions or no box)

- machine stop.
- to restart press 4, 5 push-buttons; if necessary, open a safety guard to eliminate a jam, press 3, 4, 5 push-buttons.

#### Warning light d: Emergency

(emergency push button pressed or safety guard opened).

- machine stop, pneumatic circuit disconnected.
- to restart press 3, 4, 5 push-buttons.

## Warning light e: Full taping line

 Temporary stop of the machine, the outside line photocell is obscured; the cycle restart just when the box is removed and so the above mentioned photocell is reactivated.

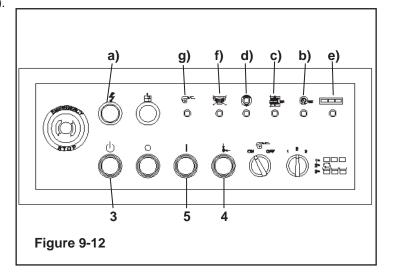
## Warning light f: Low air pressure

(min. 6 bar or no air)

- the machine cannot be started, machine stops if it is running;
- to restart press 4, 5 push-buttons

#### Warning light g: Tape end/breakage

- the machine cannot be started, machine stops if it is running;
- to restart press 3, 4, 5 push-buttons



#### 10.1 Blade and Safety Guards

Both the top and bottom taping units have a blade guard (See Manual 2: AccuGlide™ 3 Taping Heads - 2 Inch).

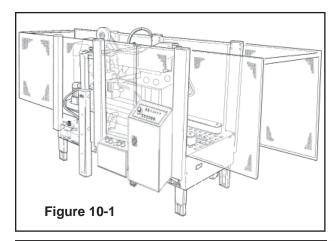


## **WARNING**

- To reduce the risk associated with sharp blade hazards:
- Keep hands and fingers away from tape cutoff blades under orange blade guards.
   The blades are extremely sharp.

### **Safety Guard**

It limits the access to the machine, protecting the operator from the moving parts (Figure 10-1).





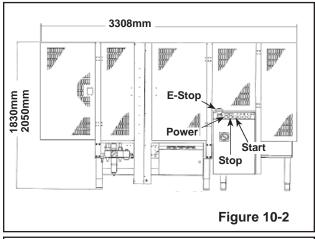
## **WARNING**

- To reduce the risk associated with hazardous voltage:
- Position electrical cord away from foot and vehicle traffic.

#### 10.2 Emergency Stop Button

The box drive belts are turned on and off with the electrical switch on the side of the machine frame.

The machine electrical supply can be turned off by pressing the latching emergency stop switch. To restart machine, rotate the emergency stop switch clockwise to release the switch latch. Restart machine by turning the On/Off switch to the Off (O) position and then to the On (I) position (Figure 10-1).





## **WARNING**

- To reduce the risk associated with mechanical and electrical hazards:
- Allow only properly trained and qualified personnel to operate and service this equipment.

### 10.3 Stop Switches

The **Model 800rf Type 40800** Case Sealer is equipped with three STOP switches. Their locations are shown in **Figure 10-2.** Pressing either of the red E-Stop switches stops the machine, removing electrical power and air pressure from the case sealer. To restart the machine, you must turn and release the E-Stop switch and then press the RESET button and the START (I) button on the Electrical Control Panel.

Pressing the STOP (O) button on the Electrical Control Panel stops the machine and does not remove power from the controller. To restart the machine, you must press the RESET button and then the START (I) button.

### 10.4 Electric System

The electric system is protected by a ground wire whose continuity has been tested during the final inspection. The system is also subject to insulation and dielectric strength tests.

Note: The case sealer has a circuit breaker located in the electrical enclosure on the machine frame. If circuit becomes overloaded and circuit breaker trips, unplug the machine electrical cord and determine cause of overload. After two minutes, reset the circuit breaker. Plug machine electrical cord into outlet and restart machine by pushing the On/Off switch to the On (I) position.

**Important:** The use of an extension cord is not recommended.

## 11.1 Tape Loading on the Top Unit

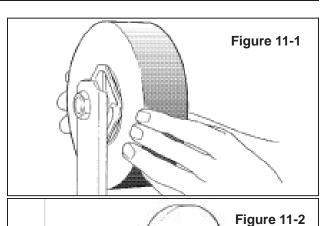
Insert a tape roll on the drum and push it fully forward. Attach the tape leg to the threading tool (supplied with the tools kit) **Figure 11-1.** 

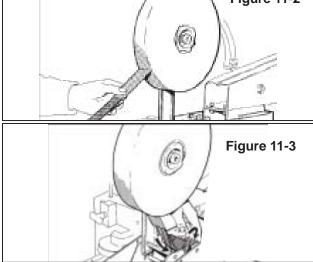
Insert the plastic threading leader through the taping unit. Take care to keep hands away from the tape cutting blades (Figure 11-2 and 11-3).

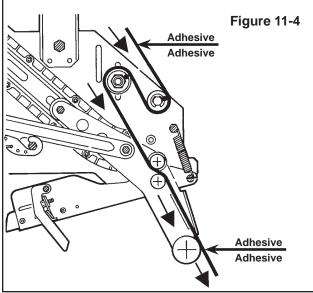
Follow the path through the unit as shown on picture (Figure 11-4) and make sure that the adhesive side is placed on the correct side.

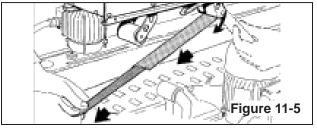
Pull and cut off the excess tape using a pair of scissors as shown (Figure 11-5 and 11-6).











### 11.2 Tape Loading on the Bottom Unit

Remove the bottom taping unit from its housing and put it on a working bench (Figure 11-7).

- Put a tape roll on the drum and thread the tape through the unit as shown on the label in the same manner as for the top unit (Figure 11-8).
- Put the bottom unit back into its housing.

#### 11.3 Tape Drum Alignment

Check the centering of the tape on the rollers of the taping unit. If necessary unscrew the nut 1 and adjust the screw (2) **(Figure 11-9).** 

#### 11.4 Tape Drum Friction Brake Adjustment

Check the tape tension:-with PVC the tape drum must be free-with OPP the tape drum must be slightly frictioned

# 11.5 Adjustment of Taping Units According to the Type of Boxes

Adjust the main spring:-decrease the spring load for light boxes;-increase the spring load for heavy boxes (Figure 11-10).

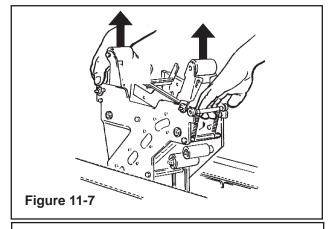


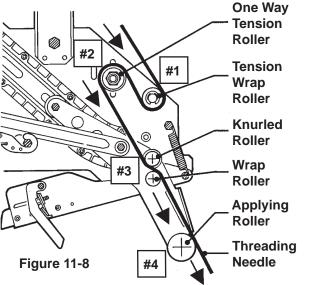
## **CAUTION**

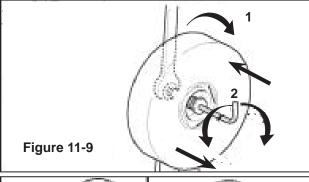
- To reduce the risk associated with pinches hazards:
- Keep hands clear of the upper head support assembly as boxes are transported through the machine.
- Keep hands, hair, loose clothing, and jewelry away from box compression rollers.
- Always feed boxes into the machine by pushing only from the end of the box.
- Keep hands, hair, loose clothing, and jewelry away from moving belts and taping heads.

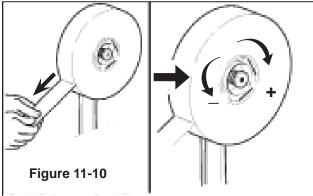
Important – If drive belts are allowed to slip on box, excessive belt wear will occur.

**Note -** For belt replacement and tension specifications - refer to **Section 13** / **Maintenance and Repairs**).









#### 11.6 Main Pressure Regulator

A) it adjusts the entry working pressure

B) gauge to read the entry air pressure

Optimal working pressure: 6 BAR Feeding tube diameter: 10mm

Note: in case the working pressure is below 6 BAR or the feeding tube has a small diameter, some malfunctions can happen! (ex: the upper group comes down, the rear flap folder works but the machine stops)

#### 11.7 Centering Guides Pressure

 Pressure regulator with built-in pressure gauge. The pressure regulator 1 located on the front junction box adjusts the pressure of the centering guides of the infeed conveyor.

Working pressure: 2,5÷3,5 bar (entry pressure: 6 bar).

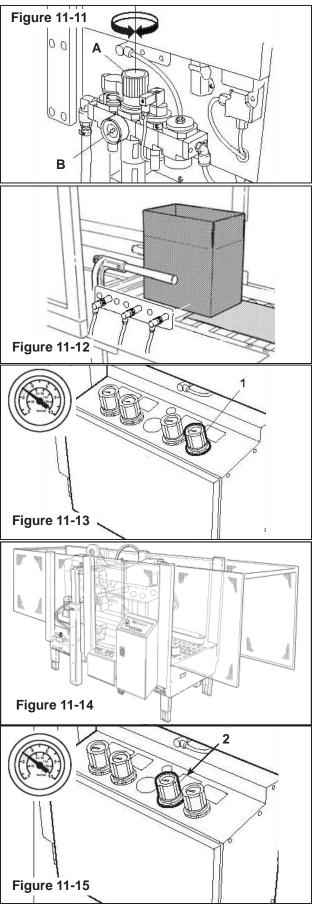
### 11.8 Side Drives Pressure Adjustment

- Pressure regulator with built-in pressure gauge. The pressure regulator 2 located on the front junction box adjusts the pressure of the side drives against the box.
  - Increase for strong or heavy boxes.
  - Decrease for light boxes.
     Working pressure: 2,5÷3,5 bar



## **CAUTION**

- To reduce the risk associated with pinches hazards:
- Keep hands clear of the upper head support assembly as boxes are transported through the machine.
- Keep hands, hair, loose clothing, and jewelry away from box compression rollers.
- Always feed boxes into the machine by pushing only from the end of the box.
- Keep hands, hair, loose clothing, and jewelry away from moving belts and taping heads.



## 11.9 Box Height Pick-up

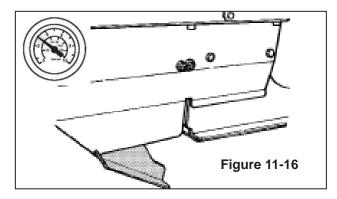
- Pressure regulator with built-in pressure gauge. The pressure regulator 3 adjusts the pressure according to the board strength.
  - Decrease in case of light boxes.
  - Increase in case of strong boxes.
  - Minimum pressure must be adjusted so that the paddle returns automatically in position once the box is passed.

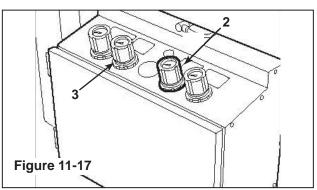
Working pressure: 0,5÷1,0 bar (entry pressure: 6 bar).

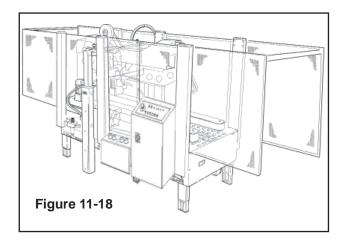


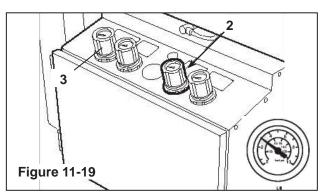
- 4) Pressure regulator with built-in pressure gauge. The pressure regulator 4 adjusts the pressure according to the board strength.
  - Decrease in case of light boxes.
  - Increase in case of strong boxes.

Working pressure: 2÷3 bar (entry pressure: 6 bar)









#### 11.11 Pneumatic Speed Regulators

- A) Upper unit ascent-descent speed regulators
- B) Centering guides (infeed conveyor) speed regulators
- C) Side belts opening-closing speed regulators

## Side belts opening-closing speed regulators.

These are not common operations. They have to be made only when it has been necessary to work on the pneumatic cylinder.

To change the speed, do as follows:

- 1) Unscrew the locking nut 1
- Turn the knob 2 clockwise to reduce the belts closing speed; counter-clockwise to increase the belts closing speed.
- 3) unscrew the locking nut 3
- 4) turn the knob 4 clockwise to reduce the belts opening speed, counter-clockwise to increase the belts opening speed.

## Centering guides opening-closing speed regulators

These are not common operations. They have to be made only when it has been necessary to work on the pneumatic cylinder.

To change the speed, do as follows:

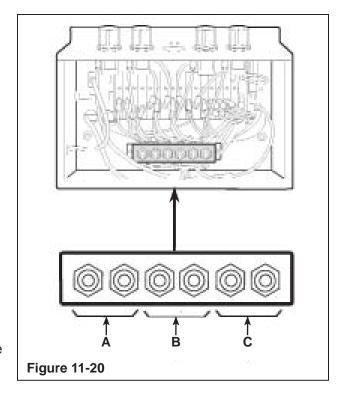
- 1) unscrew the locking nut 1
- turn the knob 2 clockwise to reduce opening speed; counter-clockwise to increase opening speed.
- 3) unscrew the locking nut 3
- turn the knob 4 clockwise to reduce closing speed, counter-clockwise to increase closing speed.

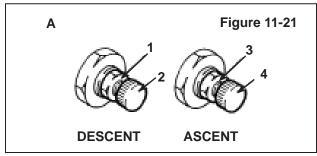
## Upper unit ascent-descent speed regulators

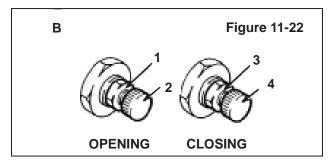
These are not common operations. They have to be made only when it has been necessary to work on the pneumatic cylinder.

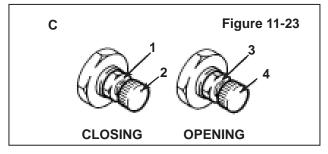
To change the speed, do as follows:

- 1) unscrew the locking nut 1
- turn the knob 2 clockwise to reduce the descent speed; counter-clockwise to in-crease the descent speed.
- 3) unscrew the locking nut 3
- 4) turn the knob **4** clockwise to reduce the ascent speed, counter-clockwise to increase the ascent speed.









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### 11.12 Speed Regulators of the Rear Flap Folder

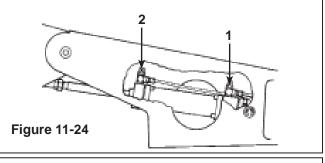
These are not common operations. They have to be made only when it has been necessary to work on the pneumatic cylinder.

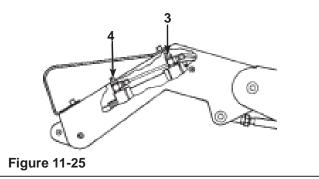
To change the speed, do as follows:

The speed of the rear flap folder unit can be adjusted by the flow regulators mounted on the pneumatic cylinders.

It is necessary to introduce a screw driver into the hole corresponding to the regulator:

- 1) to adjust the descent speed of the arm.
- 2) to adjust the ascent speed of the arm.
- 3) to adjust the descent speed of the flap folder.
- 4) to adjust the ascent speed of the flap folder.



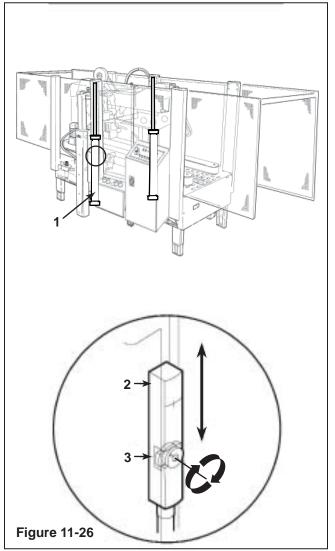


## 11.13 Adjustment of the Upper Unit Height

In case the height of the box to be sealed is not higher then 300mm, it is possible to stop the ascent of the upper group so to reduce the time of the sealing cycle.

To limit the upper group ascent move down the magnetic sensor 2 located on the air cylinder 1, machine side operator, after have removed the guard. Turn the cam screw 3 to reposition the sensor.

Position the sensor so that the upper unit stops at 100mm above the box height.



# 11.14 Adjustment of the Sensor that Stops the Descent of the Upper Unit

The descent of the upper group is stopped when the sensor 1 is activated (yellow led up).

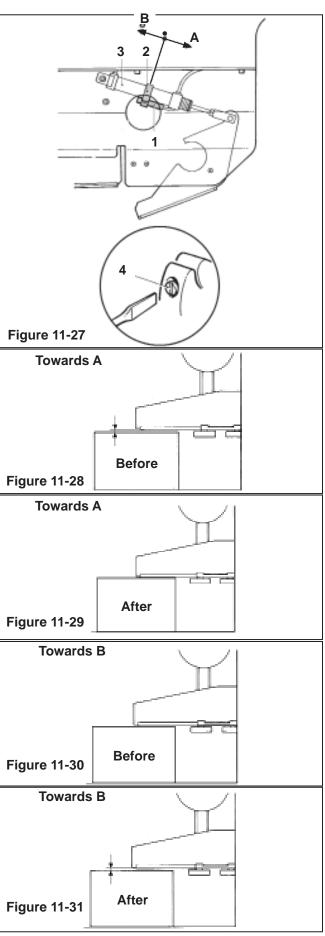
The sensor is mounted on the cylinder 2 by the support 3.

To change the intervention time of the sensor do as follows:

- 1) Loosen, the screw 4 of the support;
- 2) Move the support with the sensor along the cylinder;

Towards A to delay the braking.

Towards B to anticipate the braking.



## 11.15 Adjustments of the Side Compression Rollers

To increase or decrease the pressure of the side rollers on the box, do as follows:

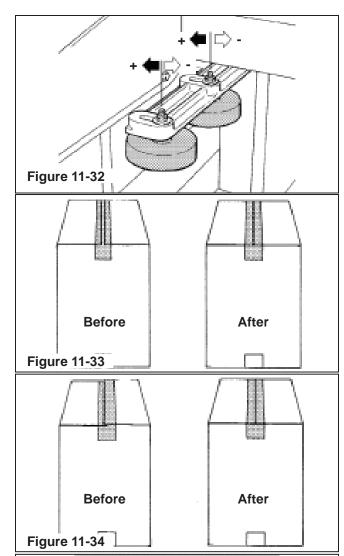
- loosen the nuts;
- change the position of the rollers;
- lock the nuts.

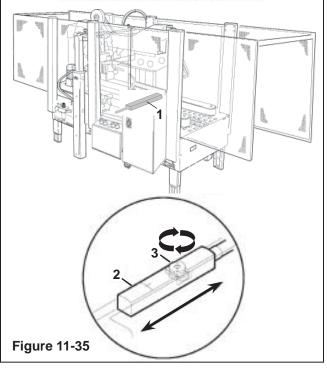
- increase the pressure when the upper flaps are not well closed after the sealing.

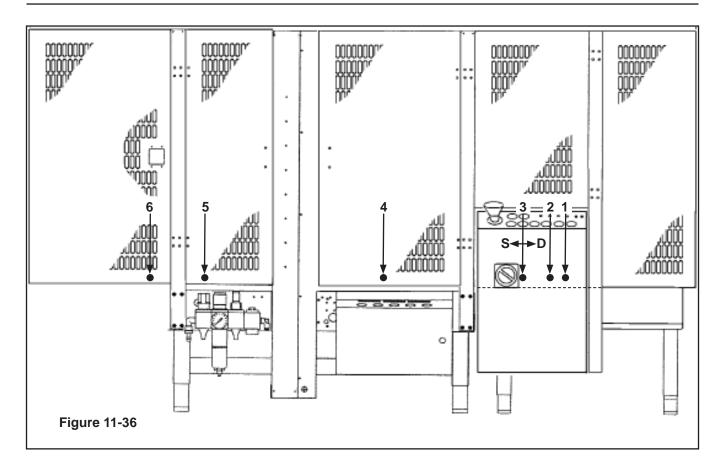
- decrease the pressure when the upper flaps are one upon the other.

# 11.16 Adjustment of the Magnetic Limit Switch on the Side Drives Air Cylinder

Limit switch 2 on the air cylinder body - check maximum closure of the side drives avoiding that the compression rollers hit the upper unit. Some little adjustments are possible by moving the limit switch longitudinally on the cylinder body; to do this, loosen the cam screw 3.







#### 11.17 Use and Adjustments of the Photocells

#### Photocell 1

The photocell does not operate at the first machine starting; when it is obscured by the next box the motorized plane of the infeed conveyor stops. No adjustment is necessary.

#### Photocell 2

When is obscured by the box the motorized plane goes down and the side guides center the box. No adjustment is necessary.

#### Photocell 3

It controls the closure of the side drives and and the descent of the rear flap folder. The position can be changed according to box lengthy; move the photocell towards D for long boxes, towards S for short boxes.

#### Photocell 4

It stops the side drives and control the upper unit descent. No adjustment is necessary.

### Photocell 5

When the box is passed it controls the machine reset for a new working cycle. No adjustment is necessary.

#### Photocell 6

When is obscured stops the machine and activates the 'full line' warning light on the control board. It's a temporary stop; he machine restarts just when the box is removed an so the photocell is rearmed. No adjustment is necessary.

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## 12-TROUBLE-SHOOTING

The Troubleshooting Guide lists some possible machine problems, causes and corrections. Also see Manual 2 "Troubleshooting" for taping head problems.

## 12.1 Troubleshooting Guide

Problem	Cause	Correction
Tape is not centered on the box.	The side belts are not correctly positioned.	Check the position.
	The box flaps are not centered.	Check the flaps dimensions; the flaps must be equals.
	Tape is not positioned in the center of the taping head.	Adjust the tape position.
The length of the front tape leg on the box is not constant.	Tape path through the heads is not correct.	Check.
	Type unwind tension too loose.	Adjust the tension.
	Knurled roller friction too loose.	Adjust
	Taping head idler rollers	Clean and lubricate the rollers
The blade does not cut properly.	Blade dirty of adhesive.	Clean.
	Tape tension not enough.	Increase the friction on the core- holder.
	Springs on cutting lever not strong enough.	Replace.
	Blade damaged (broken teeth).	Replace the blade
The tape is not well applied on the	Blade does not cut properly.	Replace/Clean.
rear of the box.	Main spring is not tensioned.	Adjust the spring tension.
	Adhesive residues on the head rollers.	Clean and lubricate the rollers.
The head comes down and crash the box.	The box does not stop properly against the gate (stop device) on the machine rollers.	Check the photocell position  Check the pressure value Check for jams (inside frictions)
	The box height pick-up is not correctly positioned.	Check position of the magnetic limit switch. Check magnetic limit
	The magnetic limit switch on the the box height pick-up cylinder is not correctly positioned or is not	switch ope-ration.
	working.	(continued on next page)

# 12-TROUBLE-SHOOTING (continued)

# **Troubleshooting Guide**

Problem	Cause	Correction
The box is not dragged under the head.	The box is too full load; box side flaps are opened.	Check.
		Replace as necessary.
	Driving pulley rings on motorizing side units are worn out.	Replace valve
		Check pressure value (working
	Motorizing side units low pressure.	pressure)
	The head is not correctly positioned; it is too down. Defective head power valve	Check the magnetic limit switch position on the box height pick-up cylinder.

#### 13.1 Safety Measures (see section 3)

Carrying out maintenance and repairs may imply the necessity to work in dangerous situations.

# 13.2 Tools and Spare Parts Supplied with the Machine

See Spare Parts Order Section.

#### 13.3 Recommended Frequency of Inspection and Maintenance Operations

Operation	Frequency	Qualification	Sections	
Inspection safety features	daily	1	13.4	
Cleaning of machine	weekly	1	13.5	
Cleaning of cutter blade	weekly	2	13.6	
Oiling of felt pad	weekly	2	13.7	
Lubrication	monthly	2	13.7-13.8	
Blade replacement	when worn	2	See Manual 2	
Drive belt replacement	when worn	2	13.10	

# 13.4 Inspections to be Performed Before and After Every Maintenance Operation

Before every maintenance operation, turn the main switch OFF (O) and disconnect. During the maintenance operation, only properly trained and qualified personnel must work on the machine. At the end of every maintenance operation check the safety devices.

#### 13.5 Check Efficiency of Safety Features

- 1. Blade guard assembly upper taping head
- 2. Blade guard assembly lower taping head
- 3. Latching Emergency stop button with mechanical lock (interrupt supply of electrical power)
- 4. Turn the main switch STOP/OFF (O)
- 5. Safety guards top drive belts

#### 13.6 Cleaning of Machine

#### **Qualification 1**

A weekly cleaning with dry rags or diluted detergents is necessary. Cardboard boxes produce a significant quantity of dust and paper chips when processed or handled in case sealing equipment. If this dust is allowed to build up on machine components, it can cause component wear and over-heating of drive motors. The dust build up is best removed from the machine with a vacuum cleaner. Depending on the number of cartons processed, this cleaning should be done weekly. Excessive build-up that cannot be removed by vacuuming should be removed with a damp cloth.

#### 13.7 Cleaning of Cutter Blade

#### **Qualification 2**

Should tape adhesive build-up occur, carefully wipe clean with oily cloth or brush **(Figure 13-1).** Oil prevents the build-up of tape adhesive.

(See manual 2.)



## **WARNING**

- To reduce the risk associated with mechanical and electrical hazards:
- Read, understand, and follow all safety and operating instructions before operating or servicing the case sealer.
- Allow only properly trained and qualified personnel to operate and service this equipment.
- To reduce the risk associated with pinches, entanglement and hazardous voltage:
- Turn electrical and air supply off and disconnect before performing any adjustments, maintenance or servicing the machine or taping heads.

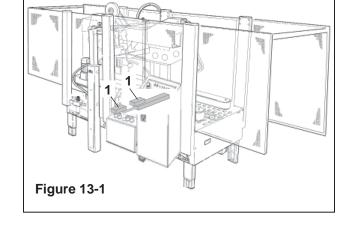
## 13.8 Securities Check-up

- 1) Tape units blade guards;
- 2) Lockable emergency stop push-buttons;
- 3) Rigid protection plate mounted on the side drives:
- 4) Safety guards;

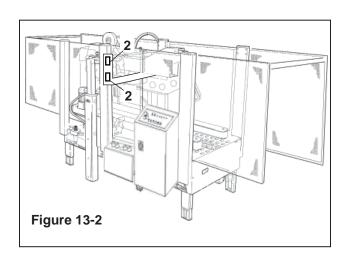


Lubricate quarterly with grease/Metal/metal

1) Slide cross bar ball guides for side drives (grease nipples on the blocks);



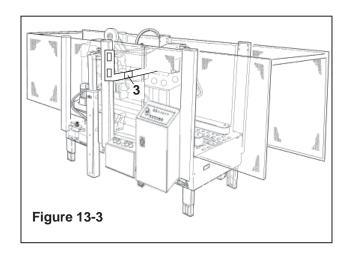
2) Columns-upper unit cross bar ball guides (grease nipples on the blocks);



3) Side compression rollers ball guides (grease nipples on the blocks).

## 13.10 Suggested Products for Lubrication

Grease Type: Synthetic spray lubricant.





## **WARNING**

- To reduce the risk associated with mechanical and electrical hazards:
- Turn electrical and air supply off and disconnect before performing any adjustments, maintenance or servicing the machine or taping heads
- To reduce the risk associated with impact hazards:
- Always use appropriate supporting means when working under the upper drive assembly

#### 13.11 Side Drive Belts Replacement

Operator - Skill Level 2.

**Note:** in order to convey the case correctly, it is necessary that both belts have the same level of wear.

Remove the plug from the mains and turn the air off Disconnect the plug from the socket.

Loosen and remove the bolts that fix the connecting rod to the side flap folder.

Remove the side drives locking screws.

Remove the side drive and place it on a working table.

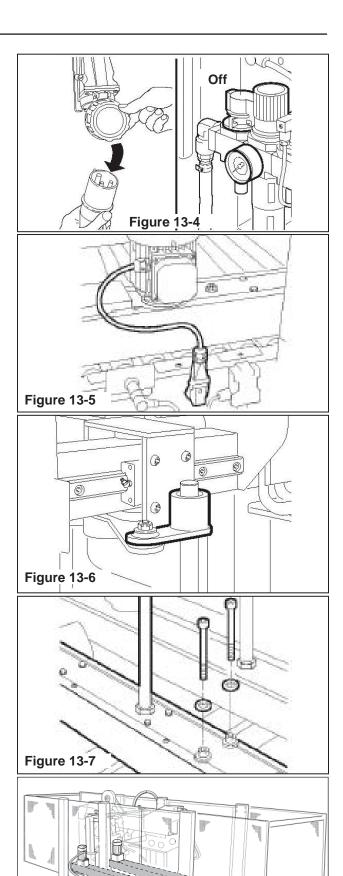


Figure 13-8

Remove the locking screws and the protection covers.

Loosen the tensioning screws.

Release the nut of the tensioning plate.

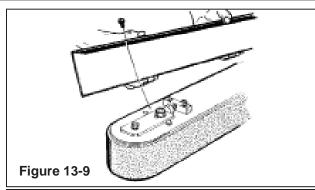
Remove and replace the drive belt.

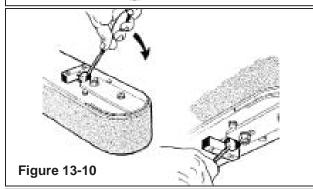
**Important** Before setting the new belt, check the wear of the orange plastic rings on the drive pulleys: replace them if they are worn out.

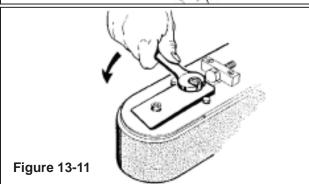


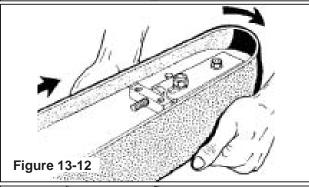
## **WARNING**

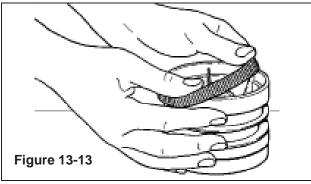
- To reduce the risk associated with mechanical and electrical hazards:
- Turn electrical and air supply off and disconnect before performing any adjustments, maintenance or servicing the machine or taping heads









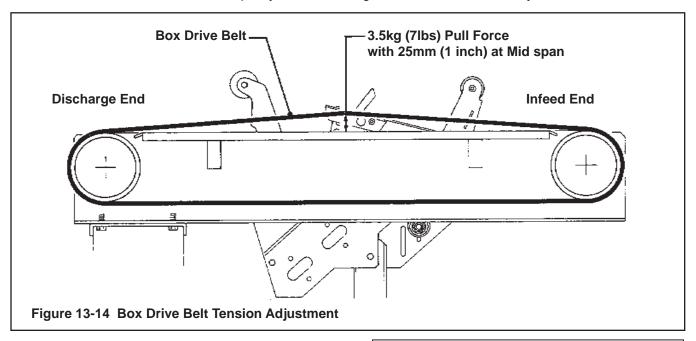


#### 13.12 Box Drive Belt Tension

The two (2) continuously moving drive belts convey boxes through the tape applying mechanism. The box drive belts are powered by an electric gear motor.

Tension adjustment of these belts may be required during normal operation. Belt tension must be adequate to positively move the box through the machine and the belts should run fully on the surface of the pulleys at each end of the frame. The idler pulleys on the infeed end are adjusted in or out to provide proper belt tension. Each belt is adjusted separately.

Belt tension is obtained by tightening the adjustment screw so that a moderate pulling force of 3.5kg [7lbs.] applied at the mid span, as shown in **Figure 13-14**, will deflect the belt 25mm [1 inch]. This will assure positive contact between the belt and the drive pulley on the discharge end of the drive assembly.

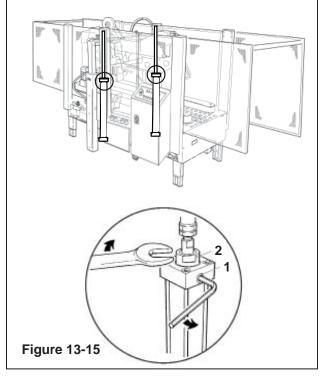


### 13.13 Adjustment of the Upper Assembly Descent Brake

The brake adjustment must be done when the upper group does not stay in position and tends to come down further.

- Loosen the screw 1
- Turn the ring nut 2 clockwise
- Tighten the screw 1

Do this operation on both cylinders.



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13.14 List of	13.14 List of the Maintenance Operations		
Date:	Description of Operation		
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<del></del>	<del></del>		
	<del></del>		
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	<del></del>		

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#### 14.1 Information for Disposal of Machine

The machine is composed of the following materials:

- Steel structure
- Nylon rollers
- Drive belts in PVC
- Nylon pulleys

For machine disposal, follow the regulations published in each country.

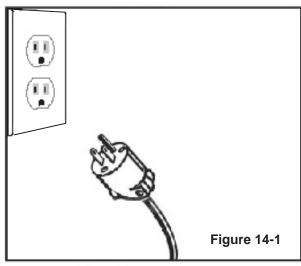
## 14.2 Emergency Procedures

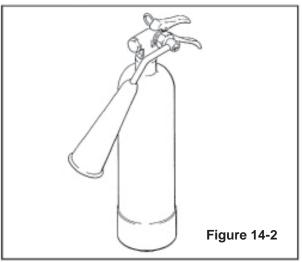
In case of danger/fire:

Disconnect plug of power cable from power supply. (Figure 14-1)

#### IN CASE OF FIRE

Use a fire extinguisher containing CO2 (Figure 14-2).





#### 15.1 Statement of Conformity

See Section 1.

#### 15.2 Emission of Hazardous Substances

Nothing to report

#### 15.3 List of Safety Features

List of components/assemblies with safety functions

- LATCHING EMERGENCY STOP BUTTON
- Thermal cut-out relay
- Fixed guards upper drive belts
- Blade guard assemblies on both taping heads
- *Important:* Install earth wire protection on electrical installation.

All safety features/components must be explained and highlighted to all operators and to the person responsible for spare parts in order to ensure that these components are always on hand or ordered as a priority procedure.

ONLY USE ORIGINAL REPLACEMENT PARTS

# 15.4 Copies of Test Reports, Certifications (etc.) Required by User

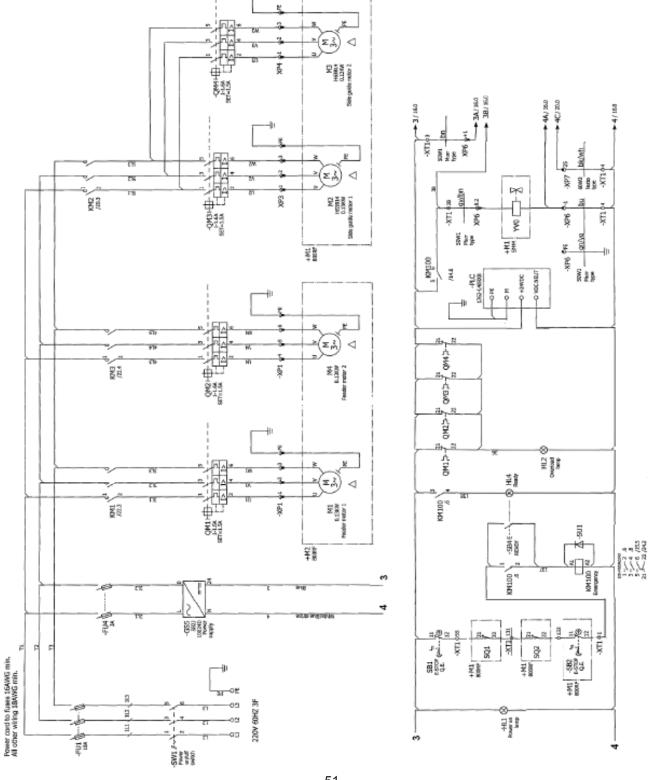
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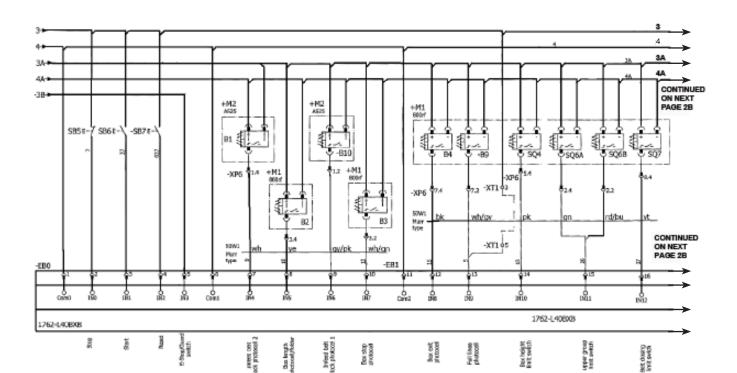


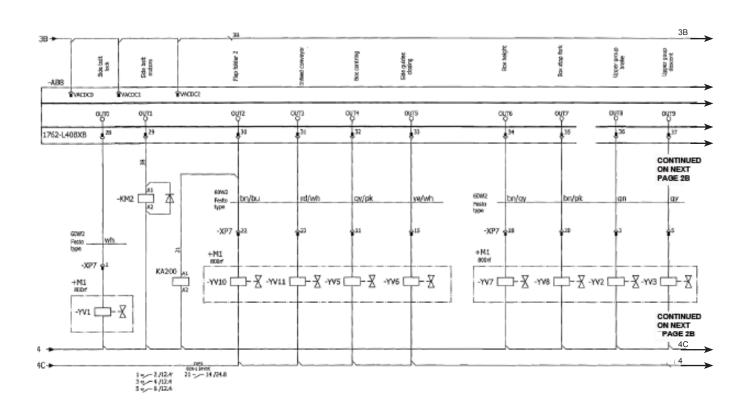
# **WARNING**

- To reduce the risk associated with mechanical and electrical hazards:
- Turn electrical and air supply off and disconnect before performing any adjustments, maintenance or servicing the machine or taping heads



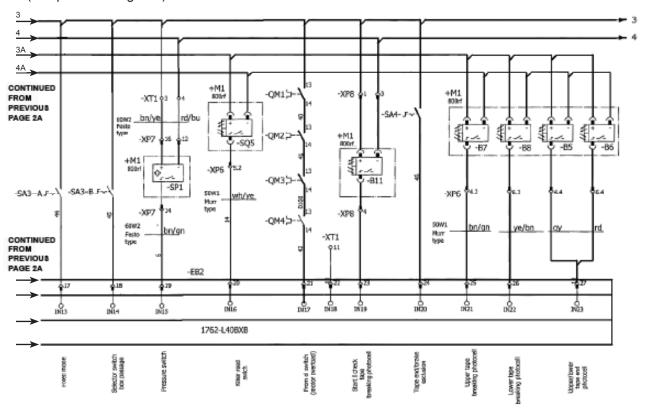
# **16.1 Electric Diagram - Page 2A** (see next Page 2B)

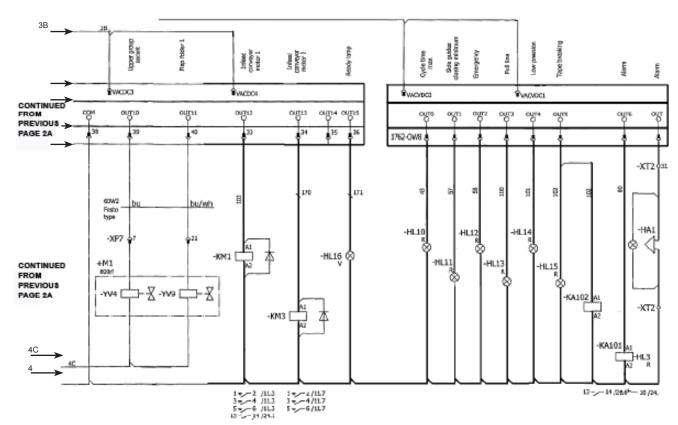


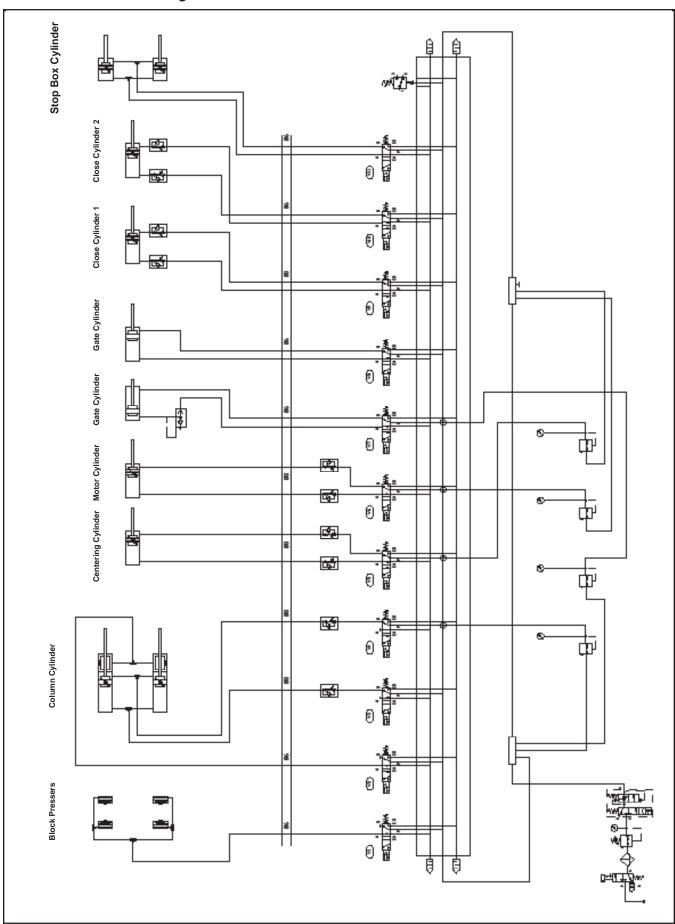


## 16.1 Electric Diagram - Page 2B

(see previous Page 2A)







#### 16-TECHNICAL DOCUMENTATION AND INFORMATION (continued)

#### 16.3 Spare Parts Order

The following parts are normal wear items and should be ordered and kept on hand as used.

Qty.	Part Number	Description
4	78-8054-8841-4	Belt – Drive W/Pin

Also see Manual 2 for recommended taping head spare parts.

#### Label Kit

In the event that any labels are damaged or destroyed, they must be replaced to ensure operator safety. A label kit, part number 78-8098-9177-9 is available as a stock item. It contains all the safety labels used on the 800rf Random Case Sealer.

### **Tool Kit**

A tool kit, part number TBA, is supplied with the machine. The kit contains the necessary open end and hex socket wrenches for use with the metric fasteners on the case sealer. The threading tool, part number 78-8076-4726-4, contained in above kit is also available as a replacement stock item.

## **Replacement Parts Ordering Information and Service**

Refer to the first page of this instruction manual "Replacement Parts and Service Information".

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# 800rf Random Case Sealer, Type 40800 Frame Assemblies

#### To Order Parts:

- Refer to first illustration, Frame Assemblies, for the Figure Number that identifies a specific portion of the machine.
- 2. Refer to the appropriate Figure or Figures to determine the parts required and the parts reference number.
- 3. The Parts List that follows each illustration, includes the **Reference Number**, **Part Number** and **Part Description** for the parts on that illustration.
  - **Note** The complete description has been included for standard fasteners and some commercially available components. This has been done to allow obtaining these standard parts locally, if desired.
- 4. Order parts by Part Number, Part Description and Quantity required. Also include the model/machine name, machine type, and serial number that are located on the identification plate.
- 5. Refer to the first page of this instruction manual "**Replacement Parts and Service Information**" for replacement parts ordering information.

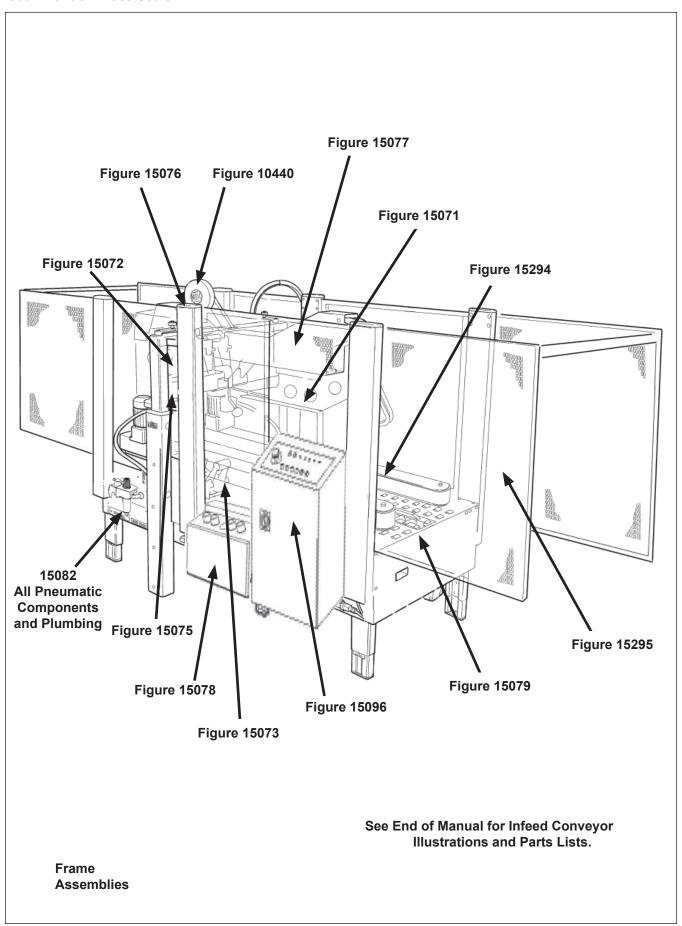
Important – Not all the parts listed are normally stocked items. Some parts or assemblies shown are available only on special order. Contact 3M/Tape Dispenser Parts to confirm item availability.

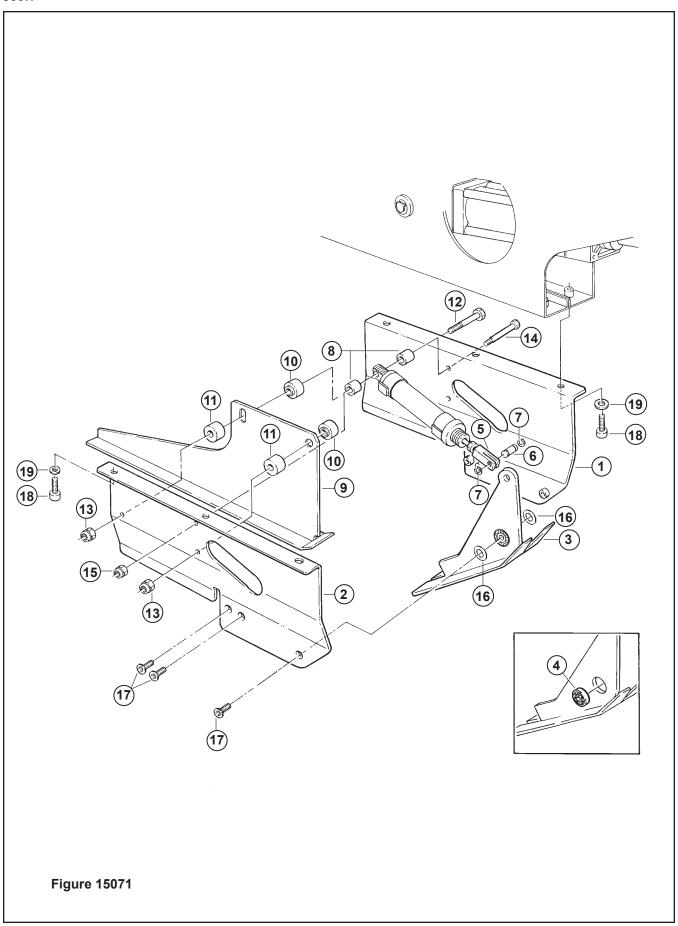
## **Options and Accessories**

For additional information on the options and accessories listed below, contact your 3M Representative.

Part Number	Option/Accessory
78-8069-3983-7	Caster Kit Attachment
70-0064-4963-4	AccuGlide 3 Upper Taping Head - 2 inch, Type 10800
70-0064-4962-6	AccuGlide 3 Lower Taping Head - 2 inch, Type 10800
78-8095-4854-4	2-Inch Tape Edge Fold Attachment, Upper Head
78-8095-4855-1	2-Inch Tape Edge Fold Attachment, Lower Head

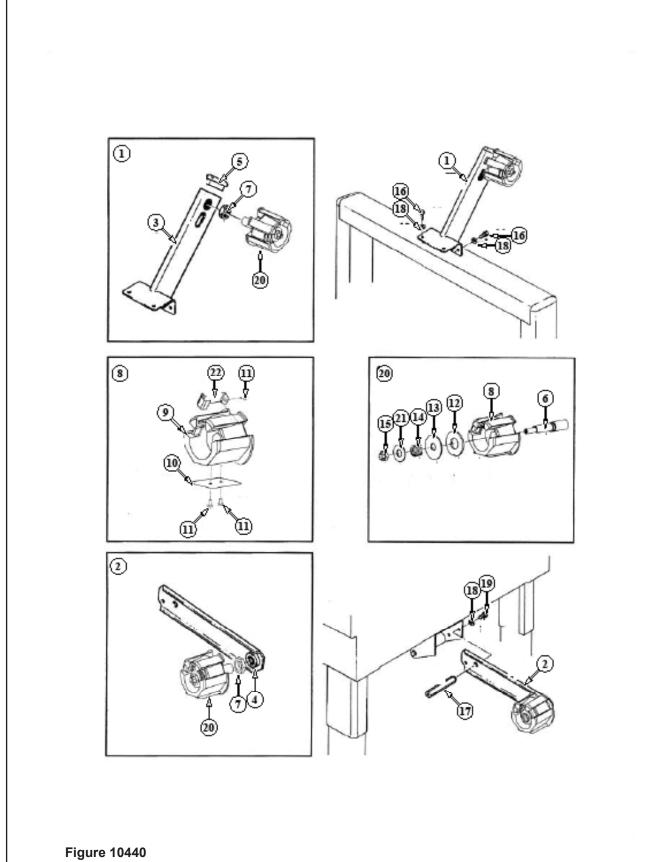
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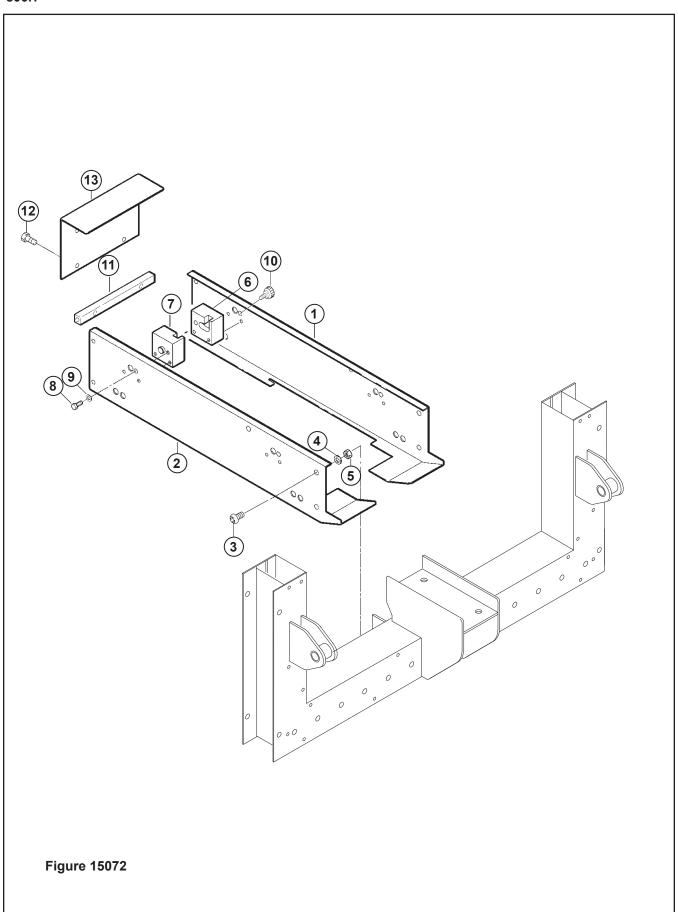


#### 800rf

Ref. No.	3M Part No.	Description
15071-1	78-8119-8507-2	Support Assy - Guide, R/H
15071-2	78-8119-8508-0	Support - Guide, L/H
15071-3	78-8137-3606-9	Height Positioner
15071-4	78-8060-7568-1	Bearing 618/9 / 9 -17-4
15071-5	78-8076-5081-3	Fork - Cylinder
15071-6	78-8060-7566-5	Stud Fork
15071-7	78-8060-7565-7	Ring
15071-8	78-8060-7558-2	Spacer, Cylinder
15071-9	78-8076-5080-5	Guide - Box
15071-10	78-8060-7561-6	Spacer
15071-11	78-8060-7562-4	Spacer
15071-12	26-1002-5836-2	Screw Hex Hd. M6X40
15071-13	26-1003-6916-9	Nut Locking Plastic Insert M6
15071-14	78-8114-4903-8	Screw - Special, M5
15071-15	26-1005-6859-6	Nut Self Locking M-5
15071-16	78-8119-8510-6	Washer - Special
15071-17	78-8017-9170-4	Screw - Phillips FH M4X8
15071-18	26-1003-7957-2	Screw Soc. Hd. Hex Hd M6X16
15071-19	26-1000-0010-3	Washer - Flat M6

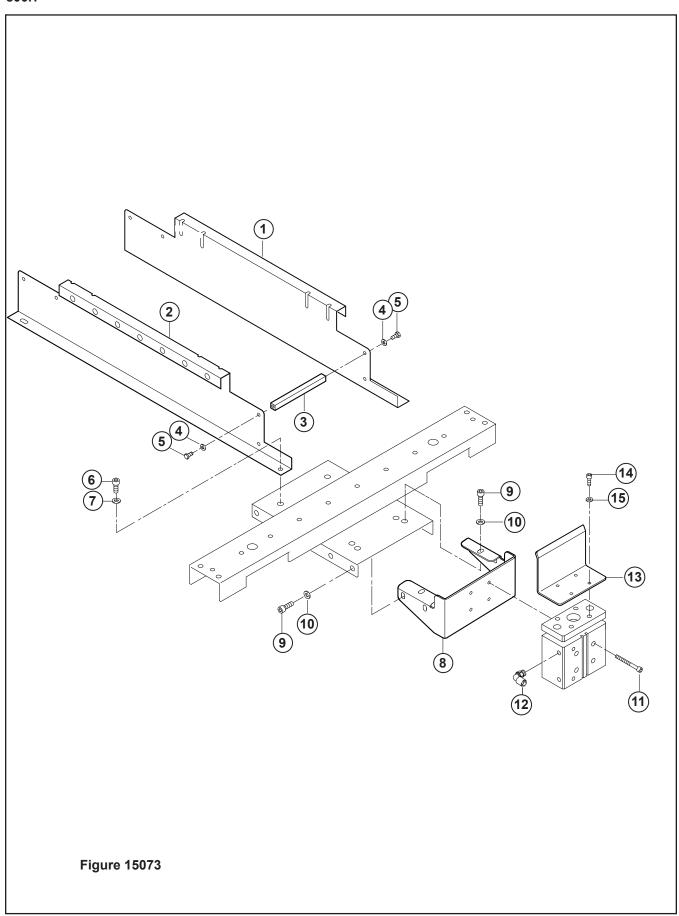


Ref. No.	3M Part No.	Description
10440-1	78-8070-1564-5	Tape Roll Bracket Assembly
10440-2	78-8070-1565-2	Tape Drum Bracket Assembly
10440-3	78-8070-1566-0	Bracket – Tape Drum
10440-4	78-8070-1395-4	Bracket – Bushing Assembly
10440-5	78-8070-1568-6	Cap – Bracket
10440-6	78-8076-4519-3	Shaft – Tape Drum
10440-7	78-8017-9169-6	Nut – M18 x 1
10440-8	78-8098-8827-0	Tape Drum Sub-Assembly - 2 Inch
10440-9	78-8098-8749-6	Tape Drum
10440-10	78-8098-8817-1	Leaf Spring
10440-11	26-1002-5753-9	Screw – Self Tapping
10440-12	78-8060-8172-1	Washer – Friction
10440-13	78-8052-6271-0	Washer – Tape Drum
10440-14	78-8100-1048-4	Spring – Core Holder
10440-15	78-8017-9077-1	Nut – Self Locking, M10 x 1
10440-16	78-8032-0375-7	Screw – Hex Hd, M6 x 16
10440-17	78-8070-1215-4	Spacer – Stud
10440-18	26-1000-0010-3	Washer – Flat, M6
10440-19	78-8010-7169-3	Screw – Hex Hd, M6 x 12
10440-20	78-8060-8474-1	Tape Drum Assembly – 2 Inch Head
10440-21	26-1004-5510-9	Washer - Plain, M10
10440-22	78-8098-8816-3	Latch - Tape Drum



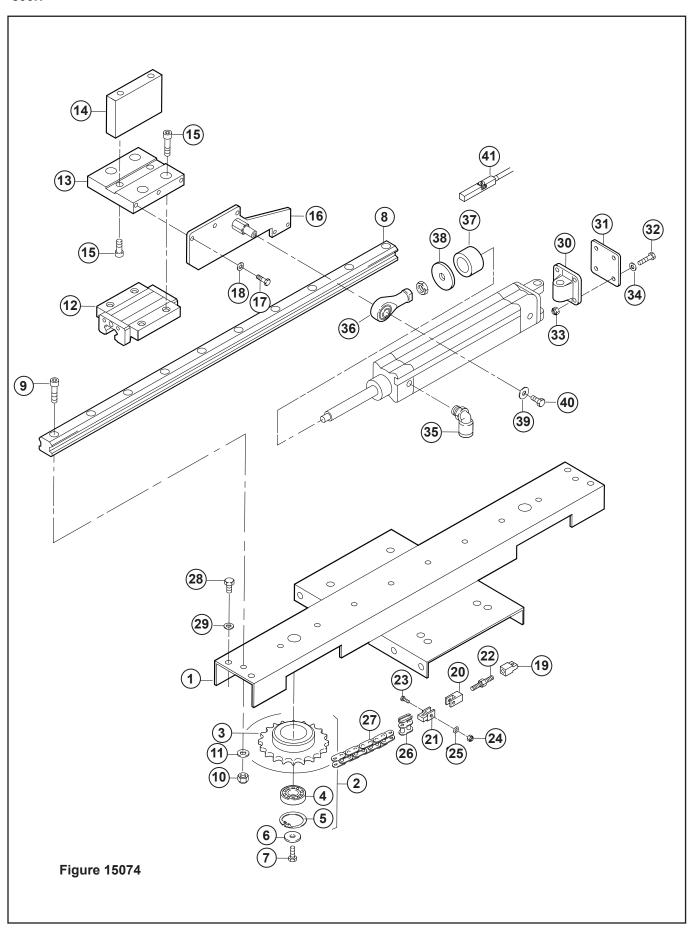
### 800rf

Ref. No.	3M Part No.	Description
15072-1	78-8137-3607-7	Frame - Upper Head- R/H
15072-2	78-8137-3608-5	Frame - Upper Head- L/H
15072-3	78-8137-3609-3	Screw - M8 X 20
15072-4	78-8017-9318-9	Washer-Plain-Metric M8
15072-5	78-8017-9313-0	Nut Self Locking M8 Nick. Pl.
15072-6	78-8137-3601-1	Holder - Upper Head- R/H
15072-7	78-8137-3611-9	Holder - Upper Head- L/H
15072-8	26-1003-5820-4	Screw - Hex HdM-5 X 12
15072-9	78-8005-5741-1	Washer - Flat, M5
15072-10	78-8137-0902-5	Knurled Knob
15072-11	78-8094-6247-2	Spacer
15072-12	78-8010-7169-3	Screw - Metric, M6 X 12, Hex Hd
15072-13	78-8137-3612-7	Rear Plate

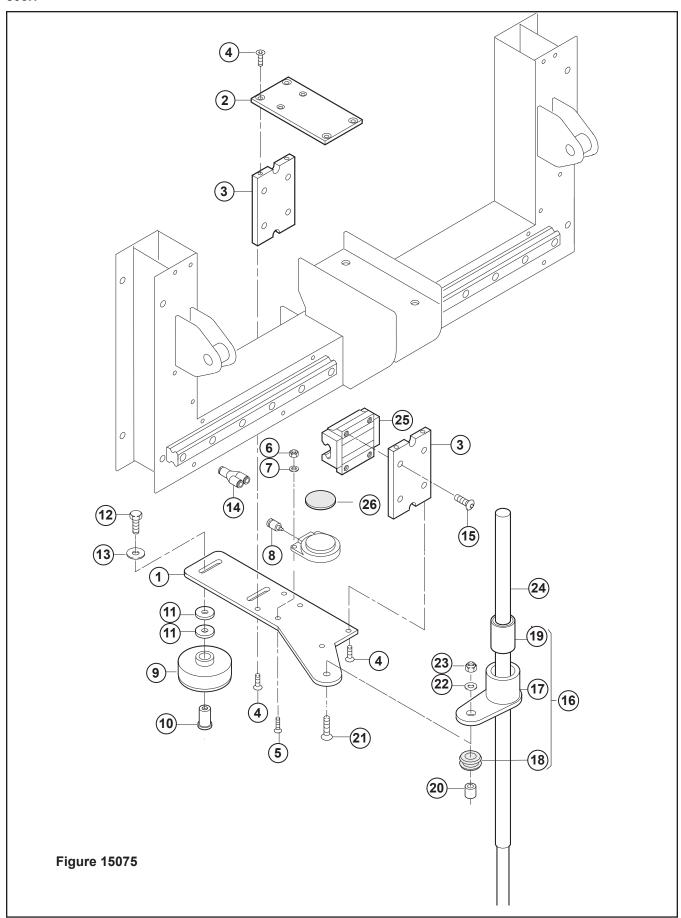


#### 800rf

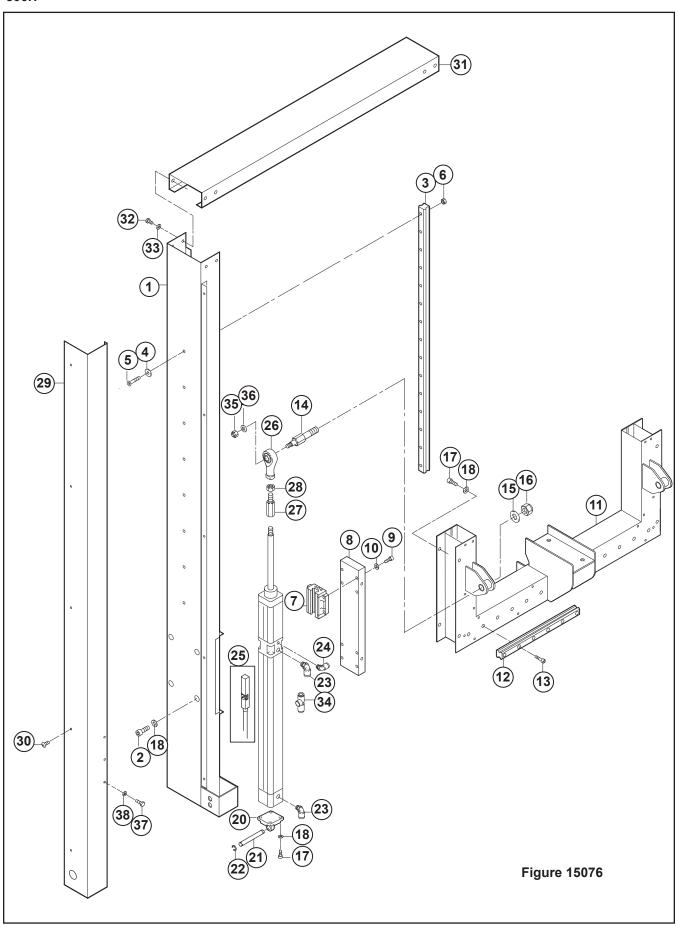
Ref. No.	3M Part No.	Description
15073-1	78-8137-3613-5	Frame - Bottom Head- R/H
15073-2	78-8137-3614-3	Frame - Bottom Head- L/H
15073-3	78-8054-8862-0	Spacer - 12 X 12 X 1 - M40
15073-4	78-8010-7169-3	Washer - Flat M6
15073-5	26-1000-0010-3	Screw - Metric, M6 X 12, Hex Hd
15073-6	26-1003-7963-0	Screw - Soc. Hd. M8 X 16
15073-7	78-8017-9318-9	Washer - Plain - Metric M8
15073-8	78-8137-3615-0	Cylinder Support
15073-9	26-1003-7964-8	Screw Soc. Hd. Hex Soc. Dr., M8 X 20
15073-10	78-8017-9318-9	Washer - Plain - Metric M8
15073-11	78-8137-3616-8	Screw Soc. Hd. Hex Hd M6 X 60
15073-12	26-1005-6893-5	90 Degree Elbow
15073-13	78-8137-3617-6	Plate - Box-Holder
15073-14	26-1003-7957-2	Screw Soc. Hd. Hex Hd M6 X 16
15073-15	26-1000-0010-3	Washer - Flat M6



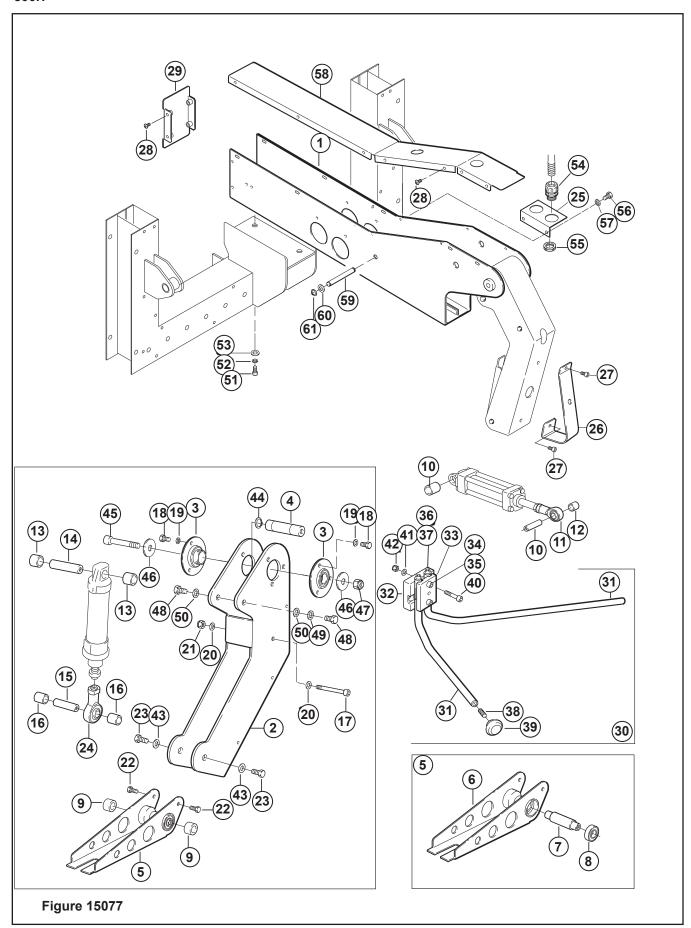
Ref. No.	3M Part No.	Description
45074.4	70.0407.0040.4	
15074-1	78-8137-3618-4	Crossbar- Drive Assy Guides
15074-2	78-8137-3619-2	Sprocket - 3/8" Assy
15074-3	78-8137-3620-0	Sprocket - 3/8" - 35 Teeth
15074-4	78-8023-2551-0	Bearing - 6005-2RS
15074-5	78-8137-3621-8	Stop Ring
15074-6	78-8052-6709-9	Washer - Special
15074-7	78-8032-0375-7	Screw Metric M6 X 16 Hex Hd
15074-8	78-8137-3622-6	Rail Linear Guide
15074-9	26-1003-7966-3	Screw, Soc. Hd Hex Soc M8 X 30
15074-10	78-8017-9313-0	Nut Self Locking M8 Nick. Pl.
15074-11	78-8017-9318-9	Washer-Plain-Metric M8
15074-12	78-8137-3623-4	Slide Guide
15074-13	78-8137-3624-2	Lower Block
15074-14	78-8137-3625-9	Vertical Block
15074-15	78-8017-9303-1	Screw - Soc.Hd Hex. Hd M10 X2 0
15074-16	78-8137-3626-7	Side Plate
15074-17	78-8032-0375-7	Screw Metric M6X16 Hex Hd
15074-18	26-1000-0010-3	Washer - Flat M6
15074-19	78-8137-3627-5	Wishbone - L/H
15074-20	78-8137-3628-3	Wishbone - R/H
15074-21	78-8137-3629-1	Junction For Chain
15074-22	78-8054-8785-3	Rod - Threaded Right/Left
15074-23	78-8060-8488-1	Screw - Hex Hd M5 X 20
15074-24	26-1005-6859-6	Nut Self Locking M-5
15074-25	78-8005-5741-1	Washer - Flat, M5
15074-26	78-8046-8269-4	Connecting - LINK - 3/8" Pitch Chain
15074-27	78-8137-3630-9	Chain - P=3/8" - L=57
15074-28	26-1003-7963-0	Screw - Soc. Hd. M8 X 16
15074-29	78-8017-9318-9	Washer-Plain-Metric M8
15074-30	78-8137-3631-7	Swinging Flange
15074-31	78-8137-3632-5	Fixing Plate For Cylinder
15074-32	26-1003-5833-7	Screw Hex Hd. 6 X 30
15074-33	78-8091-0418-1	Nut - Self-Locking, M6
15074-34	26-1000-0010-3	Washer - Flat M6
15074-35	78-8091-0315-9	Elbow - 3199.08.13
15074-36	78-8057-5747-9	Mount, Cylinder Rod End
15074-37	78-8137-3633-3	Buffer For Cylinder
15074-38	78-8060-7699-4	Washer /12-45,5 X 4
15074-39	78-8042-2919-9	Washer - Triple, M6
15074-40	78-8010-7169-3	Screw-Metric, M6 X 12, Hex Hd
15074-41	26-1017-3313-2	Limit SwitchSME-8M-DS-24V-K-0,3-M8D
		,



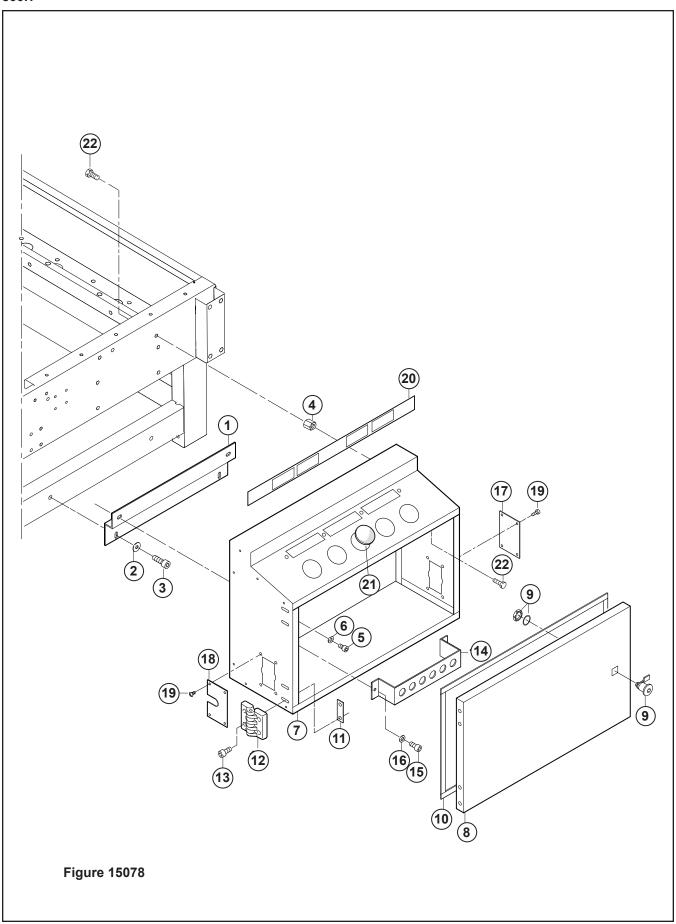
Ref. No.	3M Part No.	Description
15075-1	78-8137-3634-1	Bottom Plate For Side Roller R/H
	78-8137-3635-8	Bottom Plate For Side Roller L/H
15075-2	78-8137-3636-6	Top Plate For Side Roller
15075-3	78-8137-3637-4	Block For Union Plates
15075-4	26-1001-9843-6	Screw Flat Soc. Hd.M6 X 16
15075-5	26-1005-5316-8	Screw, Flat Hd. Hex Dr. M5 X 16
15075-6	78-8010-7417-6	Nut - Metric, Hex Stl. M5
15075-7	78-8005-5741-1	Washer - Flat, M5.
15075-8	78-8137-3638-2	Junction
15075-9	78-8114-4977-2	Roller - Compression
15075-10	78-8076-4629-0	Shaft - Roller
15075-11	78-8052-6703-2	Washer - Special
15075-12	26-1003-5842-8	Screw Hex Hd M8 X 20
15075-13	26-1004-5507-5	Washer M8
15075-14	78-8076-4664-7	Union - Female
15075-15	78-8137-3609-3	Screw M8 X 20
15075-16	78-8137-3640-8	Rod w/Bearing
15075-17	78-8137-3641-6	Rod - Assy
15075-18	78-8137-3642-4	Rubber Grommet
15075-19	78-8060-7752-1	Bearing - Linear LBCR, O.D. M32
15075-20	78-8137-3643-2	Bushing
15075-21	78-8137-3639-0	Screw - Flat HD, Soc. Dr. M8 X 30
15075-22	26-1004-5507-5	Washer M8
15075-23	78-8017-9313-0	Nut Self Locking M8 Nick. Pl.
15075-24	78-8137-3644-0	Rod - Guide For Side Roller
15075-25	78-8137-3645-7	Slide Guide
15075-26	78-8137-3646-5	Fixing Plate



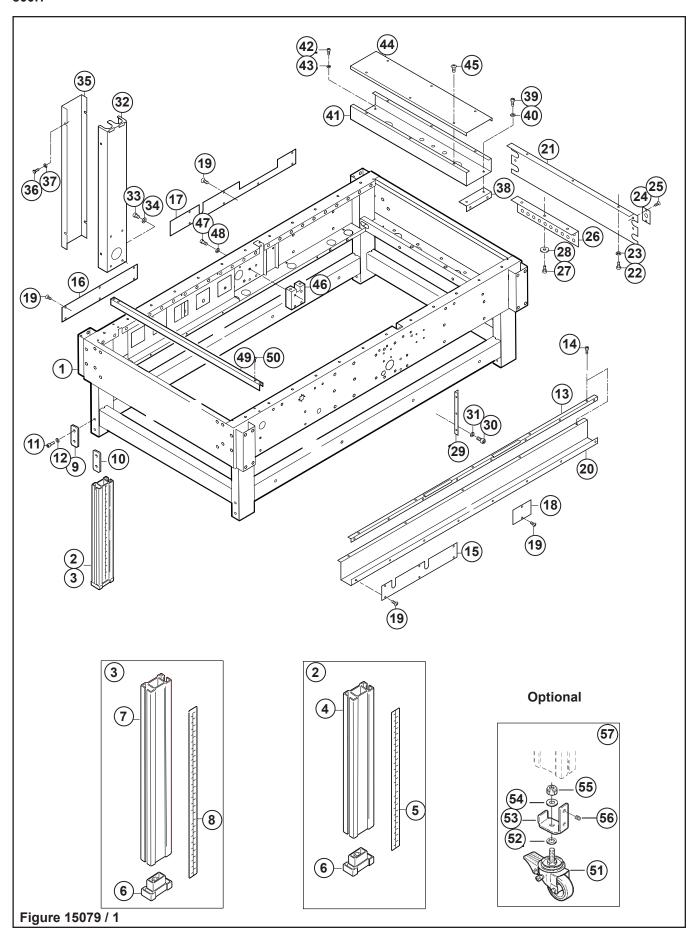
Ref. No.	3M Part No.	Description
45050.4		
15076-1	78-8137-3647-3	Outer Column Assy - R/H
45070.0	78-8137-3648-1	Outer Column Assy - L/H
15076-2	26-1003-7964-8	Screw Soc. Hd. Hex Soc. Dr., M8 X 20
15076-3	78-8137-3649-9	Rail - Linear Guide
15076-4	78-8076-5477-3	Washer - Special / 6.5 X 20 X 4
15076-5	78-8060-7918-8	Screw Flat Soc. Hd. M6X25
15076-6	78-8010-7418-4	Nut - Metric, Hex, Stl., M6
15076-7	78-8137-3645-7	Slide Guide
15076-8	78-8137-3651-5	Fixing Block, Crossbar
15076-9	26-1003-7965-5	Screw - Soc. Hd. Hx. Soc. M8 X 25
15076-10	78-8137-3652-3	Lockwasher for M8 Screw
15076-11	78-8137-3653-1	Crossbar, Flap Folder
15076-12	78-8137-3654-9	Rail Linear Guide
15076-13	78-8023-2334-1	Screw-Soc. Hd., Hex. Soc.M6 X 25
15076-14	78-8137-3655-6	Stud - Cylinder
15076-15	78-8094-6339-7	Washer - Flat, M16
15076-16	78-8094-6338-9	Nut - Self Locking, M16
15076-17	26-1003-7963-0	Screw - Soc. Hd. M8 X 16
15076-18	78-8017-9318-9	Washer-Plain-Metric M8
15076-20	26-1017-3315-7	Swinging Flange
15076-21	78-8094-6335-5	Stud - Cylinder
15076-22	78-8056-3965-1	Ring - 8 DIN 6799
15076-23	78-8091-0315-9	Elbow - 3199.08.13
15076-24	26-1005-6893-5	90 Degree Elbow
15076-25	26-1017-3313-2	Limit Switch SME-8M-DS-24V
15076-26	78-8057-5747-9	Mount, Cylinder Rod End
15076-27	78-8137-3656-4	Spacer - Cylinder
15076-28	78-8091-0775-4	Nut - M12 X 1.25
15076-29	78-8137-3657-2	Cover - Cylinder, R/H
	78-8137-3658-0	Cover - Cylinder, L/H
15076-30	78-8129-6103-1	Screw - Special, M4 X 10
15076-31	78-8137-3659-8	Crossbar, Column
15076-32	26-1003-5829-5	Screw Hex HdM6 X 12
15076-33	26-1000-0010-3	Washer - Flat M6
15076-34	78-8137-3660-6	Quick Exhaust
15076-35	78-8060-7532-7	Nut M12 Self-Locking
15076-36	78-8017-9059-9	Washer-Flat For M12 Screw
15076-37	78-8060-7818-0	Screw, Hex Hd M4 X 12
15076-38	78-8005-5740-3	Washer Plain - Metric M4 Nick.



Ref. No.	3M Part No.	Description
15077-1	78-8137-3661-4	Support - Side Flap Folder
15077-2	78-8137-3662-2	Arm - Rear Flap Folder
15077-3	78-8137-3663-0	Support NSK
15077-4	78-8137-3664-8	Spacer - Flap Folder
15077-5	78-8119-8809-2	Rear Flap Folder Assy
15077-6	78-8119-8811-8	Flap Folder Assy - Rear
15077-7	78-8091-0554-3	Shaft - Flap Folder
15077-8	78-8023-2410-9	Bearing - 6000-2RS O.D. M26
15077-9	78-8091-0389-4	Spacer - Bearing
15077-10	78-8054-8944-6	Shaft - 12 X M51
15077-11	78-8057-5747-9	Mount, Cylinder Rod End
15077-12	78-8137-3665-5	Spacer
15077-13	78-8137-3666-3	Spacer For Cylinder
15077-14	78-8054-8946-1	Shaft - 5/8 X M51
15077-15	78-8119-8810-0	Pivot - Rear Flap Folder
15077-16	78-8137-3667-1	Spacer - Rear Flap Folder
15077-17 15077-18	78-8137-3668-9 26-1003-5829-5	Screw, Soc. Hd. Hex Soc M5 X 65 Screw Hex Hd M6 X 12
15077-10	78-8094-6166-4	Washer - Star, M6
15077-19	78-8005-5741-1	Washer - Stat, M5
15077-21	26-1005-6859-6	Nut Self Locking M-5
15077-22	26-1003-5829-5	Screw Hex Hd M6 X 12
15077-23	78-8010-7169-3	Screw - Metric, M6 X 12, Hex Hd
15077-24	78-8057-5748-7	Mount, Cylinder Rod End
15077-25	78-8137-3669-7	Bracket
15077-26	78-8076-5076-3	Extension Flap Folder
15077-27	78-8010-7169-3	Screw-Metric, M6 X 12, Hex Hd.
15077-28	78-8017-9066-4	Screw - Metric, M5 X 12
15077-29	78-8137-3670-5	Cover - Rear
15077-30	78-8114-4627-3	Side Flap Folder Assy
15077-31	78-8100-1079-9	Side Flap Folder
15077-32	78-8100-1077-3	Block Blota Sida Flan Folder
15077-33 15077-34	78-8100-1080-7 78-8017-9318-9	Plate - Side Flap Folder Washer - Plain - Metric M8
15077-34	26-1003-7966-3	Screw, Soc. Hd Hex Soc M8 X 30
15077-35	78-8010-7209-7	Screw, Soc. Hd.M6 X 12
15077-37	78-8042-2919-9	Washer - Triple, M6
15077-38	78-8060-7863-6	Threaded Rod M6 X 20
15077-39	78-8076-4546-6	Knob
15077-40	78-8114-4633-1	Screw - Soc. Hd. Hex Hd. M8 X 100
15077-41	78-8017-9318-9	Washer - Plain - Metric M8
15077-42	78-8017-9313-0	Nut Self Locking M8 Nick. Pl.
15077-43	26-1000-0010-3	Washer - Flat M6.
15077-44	78-8017-9079-7	Ring - Snap For M15 Shaft
15077-45	78-8114-4633-1	Screw - Soc. Hd. Hex Hd M8 X 100
15077-46	26-1004-5507-5	Washer M8
15077-47	78-8017-9313-0	Nut Self Locking M8 Nick. Pl.
15077-48	26-1003-5842-8	Screw Hex HdM8 X 20
15077-49	78-8100-0833-0	Washer - M8 Washer - Plain - Metric M8
15077-50 15077-51	78-8017-9318-9 26-1003-7964-8	Screw Soc. Hd. Hex Soc. Dr., M8 X 20
15077-51	78-8017-9318-9	Washer - Plain - Metric M8
15077-53	78-8005-5736-1	Lock Washer - For M8 Screw
15077-54	78-8129-6468-8	Union - Straight, BVND-M207
15077-55	78-8129-6469-6	Nut
15077-56	26-1002-5820-6	Screw - Hex Hd. M5 X 16
15077-57	78-8005-5741-2	Washer - Flat, M5
15077-58	78-8137-3671-3	Cover - Upper
15077-59	78-8054-8937-0	Shaft - 12 X M100
15077-60	78-8017-9059-9	Washer-Flat for M12 Screw
15077-61	78-8056-3965-1	Ring - 8 DIN 6799

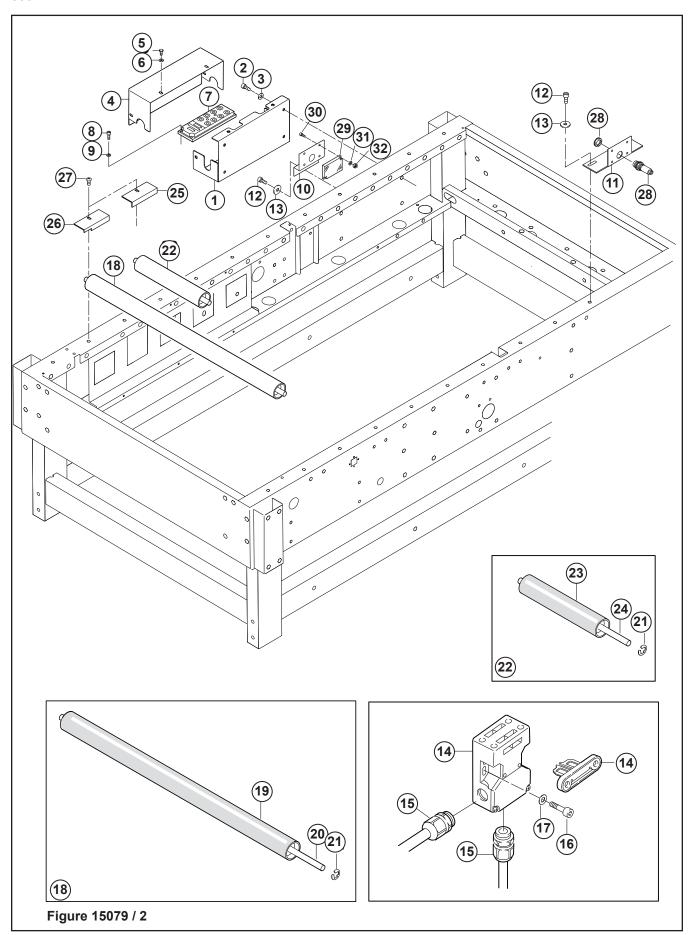


Ref. No.	3M Part No.	Description
15078-1	78-8137-3672-1	Fixing Bracket, Box
15078-2	26-1004-5507-5	Washer M8
15078-3	26-1003-5842-8	Screw Hex Hd M8 X 20
15078-4	78-8137-3673-9	Fixing Spacer, Box
15078-5	78-8091-0656-6	Screw - Hex. Soc. Hd. M8 X 12
15078-6	78-8017-9318-9	Washer - Plain - Metric M8
15078-7	78-8137-3674-7	Pneumatic Box W/INS
15078-8	78-8137-3675-4	Pneumatic Box Gate W/INS
15078-9	78-8119-8549-4	Lock "Southco"
15078-10	78-8119-8548-6	Foam Rubber
15078-11	78-8137-3676-2	Fixing Plate For Gate
15078-12	78-8129-6293-0	Hinge
15078-13	26-1003-7957-2	Screw Soc. Hd. Hex Hd M6 X 16
15078-14	78-8137-3677-0	Flow Regulator Support
15078-15	26-1003-7957-2	Screw Soc. Hd. Hex Hd M6 X 16
15078-16	26-1000-0010-3	Washer - Flat M6
15078-17	78-8137-3678-8	Cover For Pneumatic Box
15078-18	78-8137-3679-6	Plate - Pneumatic Box
15078-19	78-8017-9066-4	Screw - Metric, M5 X 12
15078-20	78-8137-3680-4	Adhesive Label - Pneumatic Box
15078-21	78-8114-5064-8	Сар
15078-22	78-8091-0656-6	Screw - Hex. Soc. Hd. M8 X 12



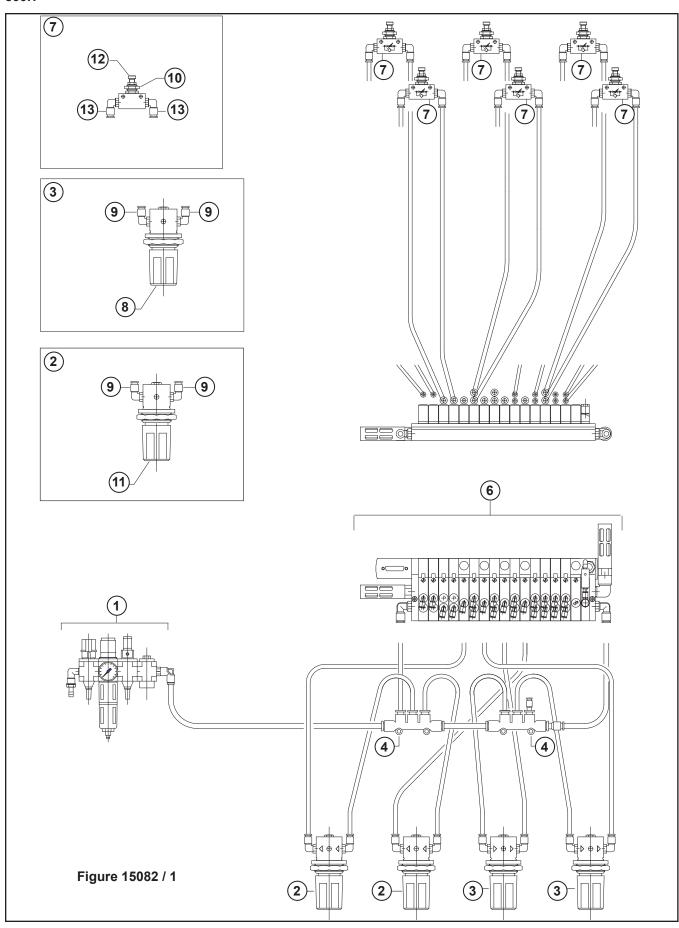
### Figure 15079 / 1

Ref. No.	3M Part No.	Description
15079-1	78-8137-3681-2	Frame - Conveyor
15079-2	78-8129-6370-6	Leg Assy
15079-3	78-8137-3682-0	Leg Assy L=600
15079-4	78-8129-6096-7	Leg
15079-5	78-8129-6371-4	Label - Leg
15079-6	78-8137-0641-9	Pad - Foot
15079-7	78-8137-3683-8	Leg - Inner
15079-8	78-8137-3684-6	Label - Leg
15079-9	78-8137-0635-1	Clamp - Leg
15079-10	78-8129-6100-7	Bracket
15079-11	26-1003-7963-0	Screw - Soc. Hd. M8 X 16
15079-12	78-8017-9318-9	Washer - Plain - Metric M8
15079-13	78-8137-3685-3	Profile
15079-14 15079-15	26-1003-7949-9 78-8137-3686-1	Screw Soc. Hd. Hex Soc. M5 X 12 Cover - Front, R/H
15079-16	78-8137-3687-9	Cover - Front, I/H
15079-17	78-8137-3688-7	Cover - Rear R/H
15079-18	78-8137-3689-5	Cover - Short
15079-19	78-8017-9066-4	Screw - Metric, M5 X 12
15079-20	78-8137-3690-3	Housing - Wire
15079-21	78-8137-3691-1	Cover - Bottom
15079-22	26-1003-7957-2	Screw Soc. Hd. Hex Hd M6 X 16
15079-23	26-1000-0010-3	Washer - Flat M6
15079-24	78-8137-3692-9	Plate - Cover
15079-25	78-8017-9066-4	Screw - Metric, M5 X 12
15079-26	78-8137-3693-7	Bracket for Bulkhead
15079-27	26-1003-7957-2	Screw Soc. Hd. Hex Hd M6 X 16
15079-28	78-8042-2919-9	Washer - Triple, M6
15079-29	78-8137-3694-5	Profile - Cover
15079-30	26-1003-7957-2	Screw Soc. Hd. Hex Hd M6 X 16
15079-31 15079-32	26-1000-0010-3 78-8137-3695-2	Washer - Flat M6 Housing - Wire
15079-32	26-1003-7957-2	Screw Soc. Hd. Hex Hd M6 X 16
15079-34	26-1000-0010-3	Washer - Flat M6
15079-35	78-8137-3696-0	Cover for Housing - Wire
15079-36	78-8032-0382-3	Screw-Soc.Hex HdM5 X 16 Zinc.Pl
15079-37	78-8005-5741-1	Washer - Flat, M5
15079-38	78-8137-3697-8	Bracket For Housing - Wire
15079-39	26-1003-7957-2	Screw Soc. Hd. Hex Hd M6 X 16
15079-40	26-1000-0010-3	Washer - Flat M6
15079-41	78-8137-3698-6	Housing - Wire
15079-42	26-1003-7957-2	Screw Soc. Hd. Hex Hd M6 X 16
15079-43	26-1000-0010-3	Washer - Flat M6
15079-44	78-8137-3699-4	Cover For Housing - Wire
15079-45	78-8017-9066-4	Screw - Metric, M5 X 12
15079-46	78-8137-3700-0	Block - Support
15079-47 15079-48	26-1003-7964-8 78-8094-6227-4	Screw Soc. Hd. Hex Soc. Dr., M8 X 20
15079-49	78-8137-3701-8	Washer - Special, /8 Profile, Support - Drive
15079-50	78-8017-9066-4	Screw - Metric, M5 X 12
15079-51	78-8098-9076-3	Caster
15079-52	78-8060-8124-2	Spacer - Caster
15079-53	78-8129-6105-6	Bracket - Wheel
15079-54	78-8017-9059-9	Washer-Flat For M12 Screw
15079-55	78-8060-7532-7	Nut M12 Self-Locking
15079-56	78-8129-6104-9	Set Screw - M8 X 8
15079-57	78-8137-3702-6	Wheel Set- /80



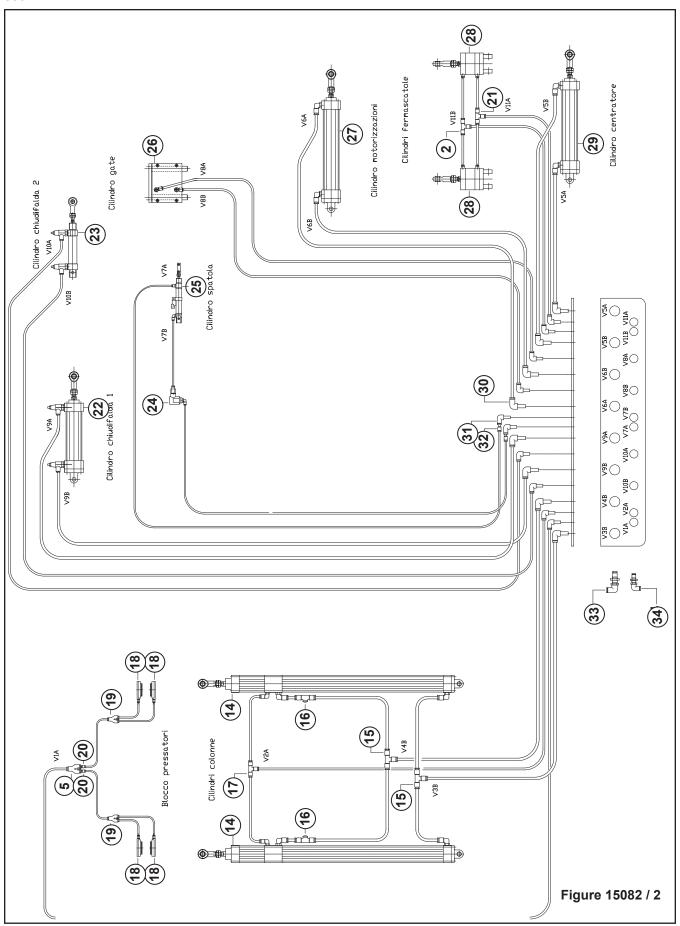
# Figure 15079 / 2

Ref. No.	3M Part No.	Description
15079-1	78-8137-3703-4	Support - Plate Connectors
15079-2	26-1003-7957-2	Screw Soc. Hd. Hex Hd M6 X 16
15079-3	26-1000-0010-3	Washer - Flat M6
15079-4	78-8137-3704-2	Carter Protection Connectors
15079-5	26-1003-5820-4	Screw - Hex HdM-5 X 12
15079-6	78-8005-5741-1	Washer - Flat, M5
15079-7	78-8137-3705-9	Basing Housing M12
15079-8	78-8032-0379-9	Screw - Soc. Hd. Hex Hd M4 X 16
15079-9	78-8005-5740-3	Washer Plain-Metric M4 Nick.
15079-10	78-8137-3706-7	Plate - Photocell/Reflector
15079-11	78-8137-3707-5	Bracket - Photocell
15079-12	26-1003-7957-2	Screw Soc. Hd. Hex Hd M6 X 16
15079-13	78-8042-2919-9	Washer - Triple, M6
15079-14	78-8076-4929-4	Security Switch AZ15ZVR
15079-15	78-8076-4532-6	Cord Grip
15079-16	78-8032-0382-3	Screw - Soc. Hex Hd M5X16 Zinc.PI
15079-17	78-8005-5741-1	Washer - Flat, M5
15079-18	78-8137-3708-3	Roller Assy - L=650
15079-19	78-8137-3709-1	Roller - L=650
15079-20	78-8137-3710-9	Shaft - Roller
15079-21	78-8656-3972-4	E-Ring M12
15079-22	78-8137-3711-7	Roller Assy - L=220
15079-23	78-8137-3712-5	Roller - L=220
15079-24	78-8137-3713-3	Shaft - Roller
15079-25	78-8137-3714-1	Bracket - Roller
15079-26	78-8137-3715-8	Bracket - Roller
15079-27	78-8017-9066-4	Screw - Metric, M5X12
15079-28	78-8114-4824-6	PhotocelL E3F2-R2B4-P1-E
15079-29	78-8076-5057-3	Reflector E39-R1
15079-30	78-8137-3716-6	Screw - Soc. Hd. Hex Hd M3 X 10
15079-31	78807645383	Washer - Flat, M3
15079-32	78805955172	Nut-Self-Locking M3 Zinc. Pl.



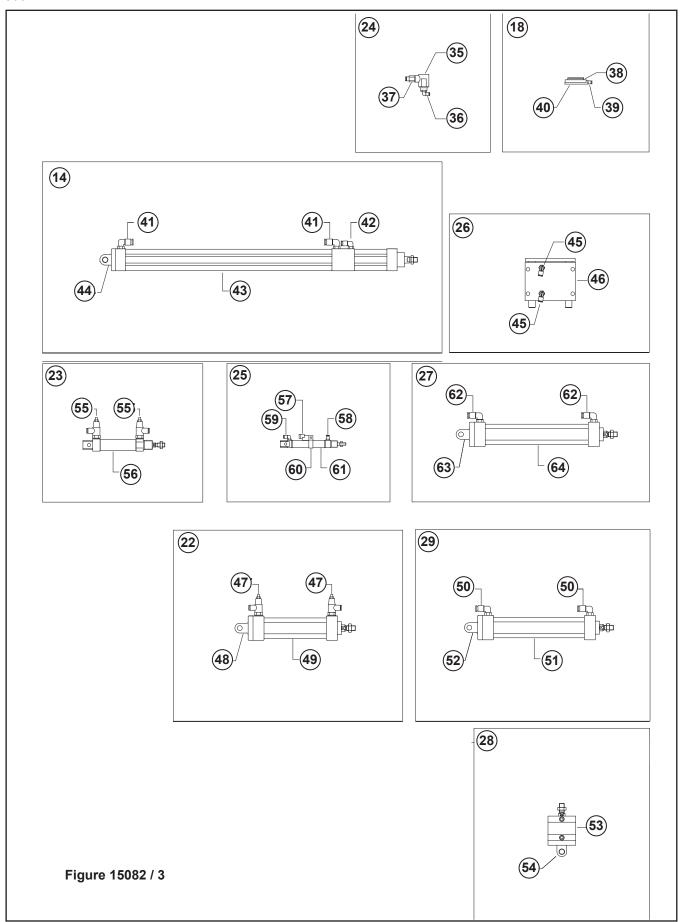
### Figure 15082 / 1

Ref. No.	3M Part No.	Description	
15082-1	78-8137-3745-5	Pneumatic Unit	
15082-2	78-8137-3746-3	Regulator - Air Pressure 0-6 ATM	
15082-3	78-8137-3747-1	Regulator - Air Pressure 0-10 ATM	
15082-4	78-8119-8618-7	Union - Multiple, 33041008	
15082-5	78-8076-4664-7	Union - Female	
15082-6	78-8137-3748-9	Multipolar Connector	
15082-7	78-8137-3749-7	Speed Regulator Assy	
15082-8	78-8137-3750-5	Regulator W/Gauge - Pressure	
15082-9	78-8091-0315-9	Elbow - 3199.08.13	
15082-10	78-8060-7529-3	Nut GRM 3/8"	
15082-11	78-8137-3751-3	Regulator w/Gauge - Pressure	
15082-12	78-8137-3752-1	Flow Regulator	
15082-13	78-8119-8628-6	Union - Elbow, 31990817	
15082-14	78-8137-3753-9	Cylinder For Columns	
15082-15	78-8094-6277-9	Union - Tee, 31040800	
15082-16	78-8137-3660-6	Quick Exhaust	
15082-17	78-8057-6170-3	Tee - M6 Tubing	
15082-18	78-8137-3754-7	Blocking Module	
15082-19	78-8094-6079-9	Union - Y, Female	
15082-20	78-8057-5735-4	Fitting - Reducer	
15082-21	78-8057-6170-3	Tee - M6 Tubing	
15082-22	78-8137-3755-4	Cylinder Assy - /40 Stroke 100	
15082-23	78-8137-3756-2	Cylinder Assy - /25 Stroke 60	
15082-24	78-8119-8652-6	Exhaust Valve Assy	
15082-25	78-8137-3757-0	Cylinder Assy - /16 Stroke 50	
15082-26	78-8137-3758-8	Cylinder - Barrier	
15082-27	78-8137-3759-6	Cylinder Assy - /40 Stroke 200	
15082-28	78-8137-3760-4	Cylinder Assy	
15082-29	78-8137-3761-2	Cylinder Assy - /40 Stroke 170	
15082-30	78-8119-8639-3	Union - Elbow, 31820800	



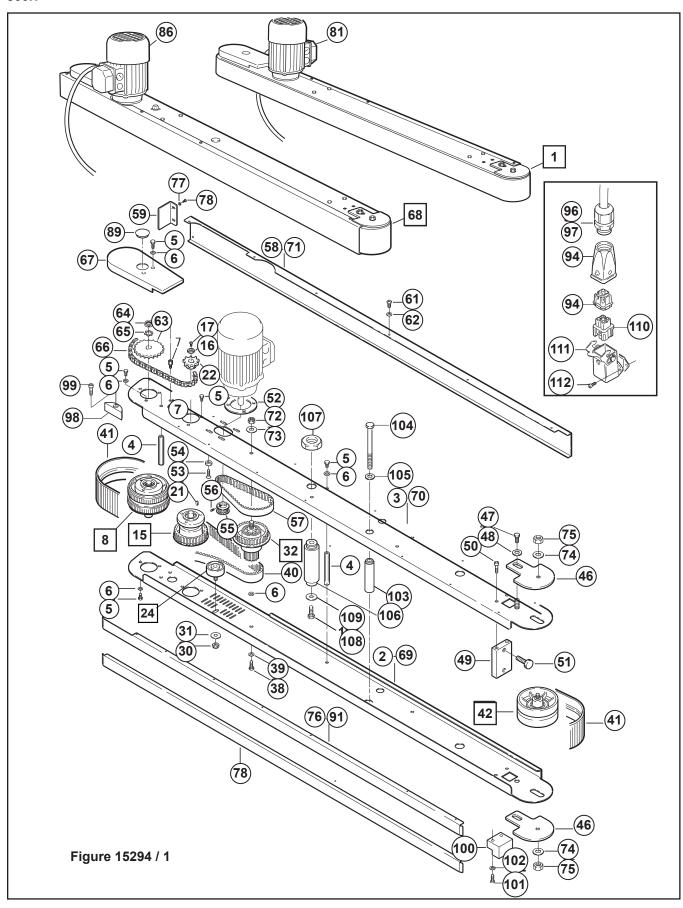
### Figure 15082 / 2

15082-31 78-8119-8640-1 Union - Elbow, 31820600 15082-32 78-8057-5735-4 Fitting - Reducer 15082-33 78-8091-0350-6 Union - Special 15082-34 78-8076-4666-2 Elbow - Bulkhead 15082-35 78-8013-9935-9 Valve - Quick Exhaust 15082-36 26-1005-6909-9 Elbow 15082-37 78-8076-4672-0 Union - Straight, Female 15082-38 78-8137-3762-0 Locking Plate 15082-39 78-8137-3638-2 Junction 15082-40 78-8137-3638-2 Junction 15082-41 78-8091-0315-9 Elbow - 3199.08.13 15082-42 26-1005-6893-5 90 Degree Elbow 15082-43 78-8137-3764-6 Cylinder DNCKE /40 Stroke 450 15082-44 26-1017-3315-7 Swinging Flange 15082-45 26-1005-6893-5 90 Degree Elbow 15082-46 78-8137-3765-3 Linear Unit DR-40-B-P-A-KF 15082-47 78-8137-3766-1 Flow Regulator 15082-48 26-1017-3315-7 Swinging Flange 15082-49 78-8076-5170-4 Cylinder DNU-40-100-PPV-A-SN 15082-49 78-8076-5170-4 Cylinder DNU-40-100-PPV-A-SN 15082-50 78-8019-0315-9 Elbow - 3199.08.13 15082-51 78-8137-3769-5 Swinging Flange 15082-52 26-1017-3315-7 Swinging Flange 15082-53 78-8137-3769-5 Swinging Flange 15082-55 78-8137-3769-5 Swinging Flange 15082-56 78-8017-3315-7 Swinging Flange 15082-57 28-1017-3315-7 Swinging Flange 15082-59 78-8137-3769-5 Swinging Flange SNCB-50 15082-50 78-8137-3769-5 Union - 31010419 15082-50 78-8137-3769-5 Linit Switch SME-8M-DS-24V 15082-50 78-8137-3769-5 Linit Switch SME-8M-DS-24V 15082-50 78-8017-3313-5 Flow Regulator GRLA - 1/8 15082-50 78-8137-3770-3 Flow Regulator GRLA - 1/8 15082-50 78-8017-3313-5 Flow Regulator GRLA - 1/8 15082-50 78-8017-3313-5 Swinging Flange SNCB-50 15082-50 78-8017-3313-5 Flow Regulator GRLA - 1/8 15082-50 78-8017-3313-5 Swinging Flange SNCB-50 15082-50 78-8017-3313-7 SWinging Flange SNCB-50 15082-50 78-8017-3313-7 SWinging Flange 15082-60 78-8017-3313-7 SWinging Flange 15082-60 78-8017-3315-7 Swinging Flange	Ref. No.	3M Part No.	Description
15082-32         78-8057-5735-4         Fitting - Reducer           15082-33         78-8091-0350-6         Union - Special           15082-34         78-8076-4666-2         Elbow - Bulkhead           15082-35         78-8013-9935-9         Valve - Quick Exhaust           15082-36         26-1005-6909-9         Elbow           15082-37         78-8076-4672-0         Union - Straight, Female           15082-38         78-8137-3638-2         Junction           15082-39         78-8137-3763-8         Locking Module           15082-40         78-8091-0315-9         Elbow - 3199.08.13           15082-41         78-8091-0315-9         Elbow - 3199.08.13           15082-42         26-1005-6893-5         90 Degree Elbow           15082-43         78-8137-3764-6         Cylinder DNCKE /40 Stroke 450           15082-44         26-1017-3315-7         Swinging Flange           15082-45         26-1005-6893-5         90 Degree Elbow           15082-46         78-8137-3766-1         Flow Regulator           15082-47         78-8137-3766-1         Flow Regulator           15082-48         26-1017-3315-7         Swinging Flange           15082-49         78-8076-5170-4         Cylinder DNL-40-100-PPV-A-SN           15082-50 <td></td> <td></td> <td></td>			
15082-33         78-8091-0350-6         Union - Special           15082-34         78-8076-4666-2         Elbow - Bulkhead           15082-35         78-8013-9935-9         Valve - Quick Exhaust           15082-36         26-1005-6909-9         Elbow           15082-37         78-8076-4672-0         Union - Straight, Female           15082-38         78-8137-3762-0         Locking Plate           15082-39         78-8137-3638-2         Junction           15082-40         78-8137-3763-8         Locking Module           15082-41         78-8091-0315-9         Elbow - 3199.08.13           15082-42         26-1005-6893-5         90 Degree Elbow           15082-43         78-8137-3764-6         Cylinder DNCKE /40 Stroke 450           15082-44         26-1017-3315-7         Swinging Flange           15082-45         26-1005-6893-5         90 Degree Elbow           15082-46         78-8137-3766-1         Flow Regulator           15082-47         78-8137-3766-1         Flow Regulator           15082-49         78-8076-5170-4         Cylinder DNU-40-100-PPV-A-SN           15082-50         78-8091-0315-9         Elbow - 3199.08.13           15082-51         78-8137-3768-7         Cylinder DNC-40-170-PPV-A           15082-	15082-31	78-8119-8640-1	Union - Elbow, 31820600
15082-34         78-8076-4666-2         Elbow - Bulkhead           15082-35         78-8013-9935-9         Valve - Quick Exhaust           15082-36         26-1005-6909-9         Elbow           15082-37         78-8076-4672-0         Union - Straight, Female           15082-38         78-8137-3762-0         Locking Plate           15082-39         78-8137-362-8         Locking Module           15082-40         78-8137-3763-8         Locking Module           15082-41         78-8091-0315-9         Elbow - 3199.08.13           15082-42         26-1005-6893-5         90 Degree Elbow           15082-43         78-8137-3764-6         Cylinder DNCKE /40 Stroke 450           15082-44         26-1017-3315-7         Swinging Flange           15082-45         26-1005-6893-5         90 Degree Elbow           15082-46         78-8137-3765-3         Linear Unit DFM-40-B-P-A-KF           15082-47         78-8137-3765-3         Linear Unit DFM-40-B-P-A-KF           15082-48         26-1017-3315-7         Swinging Flange           15082-49         78-8076-5170-4         Cylinder DNU-40-100-PPV-A-SN           15082-50         78-8137-3767-9         Cylinder DNC-40-170-PPV-A           15082-51         78-8137-3768-7         Compact Cylinder ADNP-50-15 <td>15082-32</td> <td>78-8057-5735-4</td> <td>Fitting - Reducer</td>	15082-32	78-8057-5735-4	Fitting - Reducer
15082-35         78-8013-9935-9         Valve - Quick Exhaust           15082-36         26-1005-6909-9         Elbow           15082-37         78-8076-4672-0         Union - Straight, Female           15082-38         78-8137-3762-0         Locking Plate           15082-39         78-8137-3763-8         Locking Module           15082-40         78-8137-3763-8         Locking Module           15082-41         78-8091-0315-9         Elbow - 3199.08.13           15082-42         26-1005-6893-5         90 Degree Elbow           15082-43         78-8137-3764-6         Cylinder DNCKE /40 Stroke 450           15082-44         26-1017-3315-7         Swinging Flange           15082-45         26-1005-6893-5         90 Degree Elbow           15082-45         26-1007-6893-5         90 Degree Elbow           15082-45         26-1017-3315-7         Swinging Flange           15082-46         78-8137-3765-3         Linear Unit DFM-40-B-P-A-KF           15082-47         78-8137-3766-1         Flow Regulator           15082-49         78-8076-5170-4         Cylinder DNU-40-100-PPV-A-SN           15082-50         78-8091-0315-9         Elbow - 3199.08.13           15082-51         78-8137-3768-7         Compact Cylinder DNU-40-170-PPV-A	15082-33	78-8091-0350-6	Union - Special
15082-36         26-1005-6909-9         Elbow           15082-37         78-8076-4672-0         Union - Straight, Female           15082-38         78-8137-3762-0         Locking Plate           15082-39         78-8137-3763-8         Locking Module           15082-40         78-8137-3763-8         Locking Module           15082-41         78-8091-0315-9         Elbow - 3199.08.13           15082-42         26-1005-6893-5         90 Degree Elbow           15082-43         78-8137-3764-6         Cylinder DNCKE /40 Stroke 450           15082-44         26-1017-3315-7         Swinging Flange           15082-45         26-1005-6893-5         90 Degree Elbow           15082-46         78-8137-3765-3         Linear Unit DFM-40-B-P-A-KF           15082-47         78-8137-3766-1         Flow Regulator           15082-48         26-1017-3315-7         Swinging Flange           15082-49         78-8076-5170-4         Cylinder DNU-40-100-PPV-A-SN           15082-50         78-8091-0315-9         Elbow - 3199.08.13           15082-51         78-8137-3767-9         Cylinder DNC-40-170-PPV-A           15082-52         26-1017-3315-7         Swinging Flange           15082-53         78-8137-3770-3         Flow Regulator GRLA - 1/8      <	15082-34	78-8076-4666-2	Elbow - Bulkhead
15082-37         78-8076-4672-0         Union - Straight, Female           15082-38         78-8137-3762-0         Locking Plate           15082-39         78-8137-3638-2         Junction           15082-40         78-8137-3763-8         Locking Module           15082-41         78-8091-0315-9         Elbow - 3199.08.13           15082-42         26-1005-6893-5         90 Degree Elbow           15082-43         78-8137-3764-6         Cylinder DNCKE /40 Stroke 450           15082-44         26-1017-3315-7         Swinging Flange           15082-45         26-1005-6893-5         90 Degree Elbow           15082-46         78-8137-3765-3         Linear Unit DFM-40-B-P-A-KF           15082-47         78-8137-3766-1         Flow Regulator           15082-48         26-1017-3315-7         Swinging Flange           15082-49         78-8076-5170-4         Cylinder DNL-40-100-PPV-A-SN           15082-50         78-8091-0315-9         Elbow - 3199.08.13           15082-51         78-8137-3767-9         Cylinder DNC-40-170-PPV-A           15082-52         26-1017-3315-7         Swinging Flange           15082-53         78-8137-3769-5         Swinging Flange SNCB-50           15082-54         78-8076-5169-6         Cylinder DSN-25-60-P <td>15082-35</td> <td>78-8013-9935-9</td> <td>Valve - Quick Exhaust</td>	15082-35	78-8013-9935-9	Valve - Quick Exhaust
15082-38         78-8137-3762-0         Locking Plate           15082-39         78-8137-3638-2         Junction           15082-40         78-8137-3763-8         Locking Module           15082-41         78-8091-0315-9         Elbow - 3199.08.13           15082-42         26-1005-6893-5         90 Degree Elbow           15082-43         78-8137-3764-6         Cylinder DNCKE /40 Stroke 450           15082-44         26-1017-3315-7         Swinging Flange           15082-45         26-1005-6893-5         90 Degree Elbow           15082-46         78-8137-3765-3         Linear Unit DFM-40-B-P-A-KF           15082-47         78-8137-3766-1         Flow Regulator           15082-48         26-1017-3315-7         Swinging Flange           15082-49         78-8076-5170-4         Cylinder DNU-40-100-PPV-A-SN           15082-50         78-8091-0315-9         Elbow - 3199.08.13           15082-51         78-8137-376-9         Cylinder DNC-40-170-PPV-A           15082-52         26-1017-3315-7         Swinging Flange           15082-53         78-8137-3769-5         Swinging Flange SNCB-50           15082-54         78-8137-3770-3         Flow Regulator GRLA - 1/8           15082-55         78-8137-3770-3         Flow Regulator GRLA - 1/8	15082-36	26-1005-6909-9	Elbow
15082-39         78-8137-3638-2         Junction           15082-40         78-8137-3763-8         Locking Module           15082-41         78-8091-0315-9         Elbow - 3199.08.13           15082-42         26-1005-6893-5         90 Degree Elbow           15082-43         78-8137-3764-6         Cylinder DNCKE /40 Stroke 450           15082-44         26-1017-3315-7         Swinging Flange           15082-45         26-1005-6893-5         90 Degree Elbow           15082-46         78-8137-3766-3         Linear Unit DFM-40-B-P-A-KF           15082-47         78-8137-3766-1         Flow Regulator           15082-48         26-1017-3315-7         Swinging Flange           15082-49         78-8076-5170-4         Cylinder DNU-40-100-PPV-A-SN           15082-50         78-8091-0315-9         Elbow - 3199.08.13           15082-51         78-8137-3767-9         Cylinder DNC-40-170-PPV-A           15082-52         26-1017-3315-7         Swinging Flange           15082-53         78-8137-3768-7         Compact Cylinder ADNP-50-15           15082-54         78-8137-3769-5         Swinging Flange           15082-55         78-8137-3770-3         Flow Regulator GRLA - 1/8           15082-56         78-8076-5169-6         Cylinder DSN-25-60-P	15082-37	78-8076-4672-0	Union - Straight, Female
15082-40         78-8137-3763-8         Locking Module           15082-41         78-8091-0315-9         Elbow - 3199.08.13           15082-42         26-1005-6893-5         90 Degree Elbow           15082-43         78-8137-3764-6         Cylinder DNCKE /40 Stroke 450           15082-44         26-1017-3315-7         Swinging Flange           15082-45         26-1005-6893-5         90 Degree Elbow           15082-46         78-8137-3765-3         Linear Unit DFM-40-B-P-A-KF           15082-47         78-8137-3766-1         Flow Regulator           15082-48         26-1017-3315-7         Swinging Flange           15082-49         78-8076-5170-4         Cylinder DNU-40-100-PPV-A-SN           15082-50         78-8091-0315-9         Elbow - 3199.08.13           15082-51         78-8137-3767-9         Cylinder DNC-40-170-PPV-A           15082-52         26-1017-3315-7         Swinging Flange           15082-53         78-8137-3768-7         Compact Cylinder ADNP-50-15           15082-54         78-8137-3770-3         Flow Regulator GRLA - 1/8           15082-55         78-8137-3770-3         Flow Regulator GRLA - 1/8           15082-56         78-8076-5169-6         Cylinder DSN-25-60-P           15082-58         78-8119-8655-9         Union	15082-38	78-8137-3762-0	Locking Plate
15082-41       78-8091-0315-9       Elbow - 3199.08.13         15082-42       26-1005-6893-5       90 Degree Elbow         15082-43       78-8137-3764-6       Cylinder DNCKE /40 Stroke 450         15082-44       26-1017-3315-7       Swinging Flange         15082-45       26-1005-6893-5       90 Degree Elbow         15082-46       78-8137-3765-3       Linear Unit DFM-40-B-P-A-KF         15082-47       78-8137-3766-1       Flow Regulator         15082-48       26-1017-3315-7       Swinging Flange         15082-49       78-8076-5170-4       Cylinder DNU-40-100-PPV-A-SN         15082-50       78-8091-0315-9       Elbow - 3199.08.13         15082-51       78-8137-3767-9       Cylinder DNC-40-170-PPV-A         15082-52       26-1017-3315-7       Swinging Flange         15082-53       78-8137-3768-7       Compact Cylinder ADNP-50-15         15082-54       78-8137-3769-5       Swinging Flange SNCB-50         15082-55       78-8137-3770-3       Flow Regulator GRLA - 1/8         15082-56       78-8076-5169-6       Cylinder DSN-25-60-P         15082-57       26-1017-3313-2       Limit Switch SME-8M-DS-24V         15082-59       78-8057-5732-1       Fitting - Elbow         15082-60       78-8137-3771-1	15082-39	78-8137-3638-2	Junction
15082-42       26-1005-6893-5       90 Degree Elbow         15082-43       78-8137-3764-6       Cylinder DNCKE /40 Stroke 450         15082-44       26-1017-3315-7       Swinging Flange         15082-45       26-1005-6893-5       90 Degree Elbow         15082-46       78-8137-3765-3       Linear Unit DFM-40-B-P-A-KF         15082-47       78-8137-3766-1       Flow Regulator         15082-48       26-1017-3315-7       Swinging Flange         15082-49       78-8076-5170-4       Cylinder DNU-40-100-PPV-A-SN         15082-50       78-8091-0315-9       Elbow - 3199.08.13         15082-51       78-8137-3767-9       Cylinder DNC-40-170-PPV-A         15082-52       26-1017-3315-7       Swinging Flange         15082-53       78-8137-3768-7       Compact Cylinder ADNP-50-15         15082-54       78-8137-3769-5       Swinging Flange SNCB-50         15082-55       78-8137-3770-3       Flow Regulator GRLA - 1/8         15082-56       78-8076-5169-6       Cylinder DSN-25-60-P         15082-57       26-1017-3313-2       Limit Switch SME-8M-DS-24V         15082-59       78-8057-5732-1       Fitting - Elbow         15082-60       78-8137-3771-1       Fixing Kit SMBR-8-16         15082-61       78-8091-0315-9 <td>15082-40</td> <td>78-8137-3763-8</td> <td>Locking Module</td>	15082-40	78-8137-3763-8	Locking Module
15082-43         78-8137-3764-6         Cylinder DNCKE /40 Stroke 450           15082-44         26-1017-3315-7         Swinging Flange           15082-45         26-1005-6893-5         90 Degree Elbow           15082-46         78-8137-3765-3         Linear Unit DFM-40-B-P-A-KF           15082-47         78-8137-3766-1         Flow Regulator           15082-48         26-1017-3315-7         Swinging Flange           15082-49         78-8076-5170-4         Cylinder DNU-40-100-PPV-A-SN           15082-50         78-8091-0315-9         Elbow - 3199.08.13           15082-51         78-8137-3767-9         Cylinder DNC-40-170-PPV-A           15082-52         26-1017-3315-7         Swinging Flange           15082-53         78-8137-3768-7         Compact Cylinder ADNP-50-15           15082-54         78-8137-3769-5         Swinging Flange SNCB-50           15082-55         78-8137-3770-3         Flow Regulator GRLA - 1/8           15082-56         78-8076-5169-6         Cylinder DSN-25-60-P           15082-57         26-1017-3313-2         Limit Switch SME-8M-DS-24V           15082-58         78-8119-8655-9         Union - 31010419           15082-60         78-8137-3771-1         Fixing Kit SMBR-8-16           15082-61         78-8091-0315-9	15082-41	78-8091-0315-9	Elbow - 3199.08.13
15082-44         26-1017-3315-7         Swinging Flange           15082-45         26-1005-6893-5         90 Degree Elbow           15082-46         78-8137-3765-3         Linear Unit DFM-40-B-P-A-KF           15082-47         78-8137-3766-1         Flow Regulator           15082-48         26-1017-3315-7         Swinging Flange           15082-49         78-8076-5170-4         Cylinder DNU-40-100-PPV-A-SN           15082-50         78-8091-0315-9         Elbow - 3199.08.13           15082-51         78-8137-3767-9         Cylinder DNC-40-170-PPV-A           15082-52         26-1017-3315-7         Swinging Flange           15082-53         78-8137-3768-7         Compact Cylinder ADNP-50-15           15082-54         78-8137-3769-5         Swinging Flange SNCB-50           15082-55         78-8137-3770-3         Flow Regulator GRLA - 1/8           15082-56         78-8076-5169-6         Cylinder DSN-25-60-P           15082-57         26-1017-3313-2         Limit Switch SME-8M-DS-24V           15082-58         78-8119-8655-9         Union - 31010419           15082-60         78-8137-3771-1         Fixing Kit SMBR-8-16           15082-61         78-8076-5171-2         Cylinder DSNU 16-50-PPV-A           15082-63         26-1017-3315-7	15082-42	26-1005-6893-5	90 Degree Elbow
15082-45       26-1005-6893-5       90 Degree Elbow         15082-46       78-8137-3765-3       Linear Unit DFM-40-B-P-A-KF         15082-47       78-8137-3766-1       Flow Regulator         15082-48       26-1017-3315-7       Swinging Flange         15082-49       78-8076-5170-4       Cylinder DNU-40-100-PPV-A-SN         15082-50       78-8091-0315-9       Elbow - 3199.08.13         15082-51       78-8137-3767-9       Cylinder DNC-40-170-PPV-A         15082-52       26-1017-3315-7       Swinging Flange         15082-53       78-8137-3768-7       Compact Cylinder ADNP-50-15         15082-54       78-8137-3769-5       Swinging Flange SNCB-50         15082-55       78-8137-3770-3       Flow Regulator GRLA - 1/8         15082-56       78-8076-5169-6       Cylinder DSN-25-60-P         15082-57       26-1017-3313-2       Limit Switch SME-8M-DS-24V         15082-58       78-8119-8655-9       Union - 31010419         15082-59       78-8057-5732-1       Fitting - Elbow         15082-60       78-8137-3771-1       Fixing Kit SMBR-8-16         15082-61       78-8076-5171-2       Cylinder DSNU 16-50-PPV-A         15082-62       78-8091-0315-9       Elbow - 3199.08.13         15082-63       26-1017-3315-7 <td>15082-43</td> <td>78-8137-3764-6</td> <td>Cylinder DNCKE /40 Stroke 450</td>	15082-43	78-8137-3764-6	Cylinder DNCKE /40 Stroke 450
15082-4678-8137-3765-3Linear Unit DFM-40-B-P-A-KF15082-4778-8137-3766-1Flow Regulator15082-4826-1017-3315-7Swinging Flange15082-4978-8076-5170-4Cylinder DNU-40-100-PPV-A-SN15082-5078-8091-0315-9Elbow - 3199.08.1315082-5178-8137-3767-9Cylinder DNC-40-170-PPV-A15082-5226-1017-3315-7Swinging Flange15082-5378-8137-3768-7Compact Cylinder ADNP-50-1515082-5478-8137-3769-5Swinging Flange SNCB-5015082-5578-8137-3770-3Flow Regulator GRLA - 1/815082-5678-8076-5169-6Cylinder DSN-25-60-P15082-5726-1017-3313-2Limit Switch SME-8M-DS-24V15082-5878-8119-8655-9Union - 3101041915082-5978-8057-5732-1Fitting - Elbow15082-6078-8137-3771-1Fixing Kit SMBR-8-1615082-6178-8076-5171-2Cylinder DSNU 16-50-PPV-A15082-6278-8091-0315-9Elbow - 3199.08.1315082-6326-1017-3315-7Swinging Flange	15082-44	26-1017-3315-7	Swinging Flange
15082-4778-8137-3766-1Flow Regulator15082-4826-1017-3315-7Swinging Flange15082-4978-8076-5170-4Cylinder DNU-40-100-PPV-A-SN15082-5078-8091-0315-9Elbow - 3199.08.1315082-5178-8137-3767-9Cylinder DNC-40-170-PPV-A15082-5226-1017-3315-7Swinging Flange15082-5378-8137-3768-7Compact Cylinder ADNP-50-1515082-5478-8137-3769-5Swinging Flange SNCB-5015082-5578-8137-3770-3Flow Regulator GRLA - 1/815082-5678-8076-5169-6Cylinder DSN-25-60-P15082-5726-1017-3313-2Limit Switch SME-8M-DS-24V15082-5878-8119-8655-9Union - 3101041915082-5978-8057-5732-1Fitting - Elbow15082-6078-8137-3771-1Fixing Kit SMBR-8-1615082-6178-8076-5171-2Cylinder DSNU 16-50-PPV-A15082-6278-8091-0315-9Elbow - 3199.08.1315082-6326-1017-3315-7Swinging Flange	15082-45	26-1005-6893-5	90 Degree Elbow
15082-48 26-1017-3315-7 Swinging Flange 15082-49 78-8076-5170-4 Cylinder DNU-40-100-PPV-A-SN 15082-50 78-8091-0315-9 Elbow - 3199.08.13 15082-51 78-8137-3767-9 Cylinder DNC-40-170-PPV-A 15082-52 26-1017-3315-7 Swinging Flange 15082-53 78-8137-3768-7 Compact Cylinder ADNP-50-15 15082-54 78-8137-3769-5 Swinging Flange SNCB-50 15082-55 78-8137-3770-3 Flow Regulator GRLA - 1/8 15082-56 78-8076-5169-6 Cylinder DSN-25-60-P 15082-57 26-1017-3313-2 Limit Switch SME-8M-DS-24V 15082-58 78-8137-3771-1 Fitting - Elbow 15082-60 78-8137-3771-1 Fixing Kit SMBR-8-16 15082-61 78-8076-5171-2 Cylinder DSNU 16-50-PPV-A 15082-62 78-8091-0315-9 Elbow - 3199.08.13 15082-63 26-1017-3315-7 Swinging Flange	15082-46	78-8137-3765-3	Linear Unit DFM-40-B-P-A-KF
15082-49       78-8076-5170-4       Cylinder DNU-40-100-PPV-A-SN         15082-50       78-8091-0315-9       Elbow - 3199.08.13         15082-51       78-8137-3767-9       Cylinder DNC-40-170-PPV-A         15082-52       26-1017-3315-7       Swinging Flange         15082-53       78-8137-3768-7       Compact Cylinder ADNP-50-15         15082-54       78-8137-3769-5       Swinging Flange SNCB-50         15082-55       78-8137-3770-3       Flow Regulator GRLA - 1/8         15082-56       78-8076-5169-6       Cylinder DSN-25-60-P         15082-57       26-1017-3313-2       Limit Switch SME-8M-DS-24V         15082-58       78-8119-8655-9       Union - 31010419         15082-59       78-8057-5732-1       Fitting - Elbow         15082-60       78-8137-3771-1       Fixing Kit SMBR-8-16         15082-61       78-8076-5171-2       Cylinder DSNU 16-50-PPV-A         15082-62       78-8091-0315-9       Elbow - 3199.08.13         15082-63       26-1017-3315-7       Swinging Flange	15082-47	78-8137-3766-1	Flow Regulator
15082-50 78-8091-0315-9 Elbow - 3199.08.13 15082-51 78-8137-3767-9 Cylinder DNC-40-170-PPV-A 15082-52 26-1017-3315-7 Swinging Flange 15082-53 78-8137-3768-7 Compact Cylinder ADNP-50-15 15082-54 78-8137-3769-5 Swinging Flange SNCB-50 15082-55 78-8137-3770-3 Flow Regulator GRLA - 1/8 15082-56 78-8076-5169-6 Cylinder DSN-25-60-P 15082-57 26-1017-3313-2 Limit Switch SME-8M-DS-24V 15082-58 78-8119-8655-9 Union - 31010419 15082-59 78-8057-5732-1 Fitting - Elbow 15082-60 78-8137-3771-1 Fixing Kit SMBR-8-16 15082-61 78-8076-5171-2 Cylinder DSNU 16-50-PPV-A 15082-62 78-8091-0315-9 Elbow - 3199.08.13 15082-63 26-1017-3315-7 Swinging Flange	15082-48	26-1017-3315-7	Swinging Flange
15082-51       78-8137-3767-9       Cylinder DNC-40-170-PPV-A         15082-52       26-1017-3315-7       Swinging Flange         15082-53       78-8137-3768-7       Compact Cylinder ADNP-50-15         15082-54       78-8137-3769-5       Swinging Flange SNCB-50         15082-55       78-8137-3770-3       Flow Regulator GRLA - 1/8         15082-56       78-8076-5169-6       Cylinder DSN-25-60-P         15082-57       26-1017-3313-2       Limit Switch SME-8M-DS-24V         15082-58       78-8119-8655-9       Union - 31010419         15082-59       78-8057-5732-1       Fitting - Elbow         15082-60       78-8137-3771-1       Fixing Kit SMBR-8-16         15082-61       78-8076-5171-2       Cylinder DSNU 16-50-PPV-A         15082-62       78-8091-0315-9       Elbow - 3199.08.13         15082-63       26-1017-3315-7       Swinging Flange	15082-49	78-8076-5170-4	Cylinder DNU-40-100-PPV-A-SN
15082-5226-1017-3315-7Swinging Flange15082-5378-8137-3768-7Compact Cylinder ADNP-50-1515082-5478-8137-3769-5Swinging Flange SNCB-5015082-5578-8137-3770-3Flow Regulator GRLA - 1/815082-5678-8076-5169-6Cylinder DSN-25-60-P15082-5726-1017-3313-2Limit Switch SME-8M-DS-24V15082-5878-8119-8655-9Union - 3101041915082-5978-8057-5732-1Fitting - Elbow15082-6078-8137-3771-1Fixing Kit SMBR-8-1615082-6178-8076-5171-2Cylinder DSNU 16-50-PPV-A15082-6278-8091-0315-9Elbow - 3199.08.1315082-6326-1017-3315-7Swinging Flange	15082-50	78-8091-0315-9	Elbow - 3199.08.13
15082-53       78-8137-3768-7       Compact Cylinder ADNP-50-15         15082-54       78-8137-3769-5       Swinging Flange SNCB-50         15082-55       78-8137-3770-3       Flow Regulator GRLA - 1/8         15082-56       78-8076-5169-6       Cylinder DSN-25-60-P         15082-57       26-1017-3313-2       Limit Switch SME-8M-DS-24V         15082-58       78-8119-8655-9       Union - 31010419         15082-59       78-8057-5732-1       Fitting - Elbow         15082-60       78-8137-3771-1       Fixing Kit SMBR-8-16         15082-61       78-8076-5171-2       Cylinder DSNU 16-50-PPV-A         15082-62       78-8091-0315-9       Elbow - 3199.08.13         15082-63       26-1017-3315-7       Swinging Flange	15082-51	78-8137-3767-9	Cylinder DNC-40-170-PPV-A
15082-54       78-8137-3769-5       Swinging Flange SNCB-50         15082-55       78-8137-3770-3       Flow Regulator GRLA - 1/8         15082-56       78-8076-5169-6       Cylinder DSN-25-60-P         15082-57       26-1017-3313-2       Limit Switch SME-8M-DS-24V         15082-58       78-8119-8655-9       Union - 31010419         15082-59       78-8057-5732-1       Fitting - Elbow         15082-60       78-8137-3771-1       Fixing Kit SMBR-8-16         15082-61       78-8076-5171-2       Cylinder DSNU 16-50-PPV-A         15082-62       78-8091-0315-9       Elbow - 3199.08.13         15082-63       26-1017-3315-7       Swinging Flange	15082-52	26-1017-3315-7	Swinging Flange
15082-55       78-8137-3770-3       Flow Regulator GRLA - 1/8         15082-56       78-8076-5169-6       Cylinder DSN-25-60-P         15082-57       26-1017-3313-2       Limit Switch SME-8M-DS-24V         15082-58       78-8119-8655-9       Union - 31010419         15082-59       78-8057-5732-1       Fitting - Elbow         15082-60       78-8137-3771-1       Fixing Kit SMBR-8-16         15082-61       78-8076-5171-2       Cylinder DSNU 16-50-PPV-A         15082-62       78-8091-0315-9       Elbow - 3199.08.13         15082-63       26-1017-3315-7       Swinging Flange	15082-53	78-8137-3768-7	Compact Cylinder ADNP-50-15
15082-56       78-8076-5169-6       Cylinder DSN-25-60-P         15082-57       26-1017-3313-2       Limit Switch SME-8M-DS-24V         15082-58       78-8119-8655-9       Union - 31010419         15082-59       78-8057-5732-1       Fitting - Elbow         15082-60       78-8137-3771-1       Fixing Kit SMBR-8-16         15082-61       78-8076-5171-2       Cylinder DSNU 16-50-PPV-A         15082-62       78-8091-0315-9       Elbow - 3199.08.13         15082-63       26-1017-3315-7       Swinging Flange	15082-54	78-8137-3769-5	Swinging Flange SNCB-50
15082-57       26-1017-3313-2       Limit Switch SME-8M-DS-24V         15082-58       78-8119-8655-9       Union - 31010419         15082-59       78-8057-5732-1       Fitting - Elbow         15082-60       78-8137-3771-1       Fixing Kit SMBR-8-16         15082-61       78-8076-5171-2       Cylinder DSNU 16-50-PPV-A         15082-62       78-8091-0315-9       Elbow - 3199.08.13         15082-63       26-1017-3315-7       Swinging Flange	15082-55	78-8137-3770-3	Flow Regulator GRLA - 1/8
15082-58       78-8119-8655-9       Union - 31010419         15082-59       78-8057-5732-1       Fitting - Elbow         15082-60       78-8137-3771-1       Fixing Kit SMBR-8-16         15082-61       78-8076-5171-2       Cylinder DSNU 16-50-PPV-A         15082-62       78-8091-0315-9       Elbow - 3199.08.13         15082-63       26-1017-3315-7       Swinging Flange	15082-56	78-8076-5169-6	Cylinder DSN-25-60-P
15082-59       78-8057-5732-1       Fitting - Elbow         15082-60       78-8137-3771-1       Fixing Kit SMBR-8-16         15082-61       78-8076-5171-2       Cylinder DSNU 16-50-PPV-A         15082-62       78-8091-0315-9       Elbow - 3199.08.13         15082-63       26-1017-3315-7       Swinging Flange	15082-57	26-1017-3313-2	Limit Switch SME-8M-DS-24V
15082-60       78-8137-3771-1       Fixing Kit SMBR-8-16         15082-61       78-8076-5171-2       Cylinder DSNU 16-50-PPV-A         15082-62       78-8091-0315-9       Elbow - 3199.08.13         15082-63       26-1017-3315-7       Swinging Flange	15082-58	78-8119-8655-9	Union - 31010419
15082-61       78-8076-5171-2       Cylinder DSNU 16-50-PPV-A         15082-62       78-8091-0315-9       Elbow - 3199.08.13         15082-63       26-1017-3315-7       Swinging Flange	15082-59	78-8057-5732-1	Fitting - Elbow
15082-62 78-8091-0315-9 Elbow - 3199.08.13 15082-63 26-1017-3315-7 Swinging Flange	15082-60	78-8137-3771-1	Fixing Kit SMBR-8-16
15082-63 26-1017-3315-7 Swinging Flange	15082-61	78-8076-5171-2	Cylinder DSNU 16-50-PPV-A
	15082-62	78-8091-0315-9	Elbow - 3199.08.13
15082-64 78-8137-3772-9 Cylinder DNCB-40-200-PPV-A	15082-63	26-1017-3315-7	Swinging Flange
	15082-64	78-8137-3772-9	Cylinder DNCB-40-200-PPV-A



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Ref. No.	3M Part No.	Description
15082-46	78-8137-3765-3	Linear Unit DFM-40-B-P-A-KF
15082-47	78-8137-3766-1	Flow Regulator
15082-48	26-1017-3315-7	Swinging Flange
15082-49	78-8076-5170-4	Cylinder DNU-40-100-PPV-A-SN
15082-50	78-8091-0315-9	Elbow - 3199.08.13
15082-51	78-8137-3767-9	Cylinder DNC-40-170-PPV-A
15082-52	26-1017-3315-7	Swinging Flange
15082-53	78-8137-3768-7	Compact Cylinder ADNP-50-15
15082-54	78-8137-3769-5	Swinging Flange SNCB-50
15082-55	78-8137-3770-3	Flow Regulator GRLA - 1/8
15082-56	78-8076-5169-6	Cylinder DSN-25-60-P
15082-57	26-1017-3313-2	Limit Switch SME-8M-DS-24V
15082-58	78-8119-8655-9	Union - 31010419
15082-59	78-8057-5732-1	Fitting - Elbow
15082-60	78-8137-3771-1	Fixing Kit SMBR-8-16
15082-61	78-8076-5171-2	Cylinder DSNU 16-50-PPV-A
15082-62	78-8091-0315-9	Elbow - 3199.08.13
15082-63	26-1017-3315-7	Swinging Flange
15082-64	78-8137-3772-9	Cylinder DNCB-40-200-PPV-A



### Figure 15294 / 1

11guic 102047 1		
Ref. No.	3M Part No.	Description
15294-1	78-8137-3773-7	Drive Assy - R/H
15294-2	78-8137-3774-5	Guide - Lower, R/H
15294-3	78-8137-3775-2	Guide - Upper, R/H
15294-4	78-8054-8910-7	Spacer - Hexagonal
15294-5	78-8010-7169-3	Screw-Metric, M6 X 12, Hex Hd
15294-6	26-1000-0010-3	Washer - Flat M6
15294-7	78-8054-8891-9	Screw Special
15294-8	78-8137-3776-0	Drive Pulley Assy
15294-9	78-8137-3777-8	Pulley Assy - Drive
15294-10	78-8052-6713-1	Ring - Polyurethane
15294-11	78-8060-7648-1	Flange Assy - Ball Bearing 6002- 2RS
15294-12	78-8046-8135-7	Key - 5 X 5 X 12mm
15294-13	26-0001-5862-1	Screw, Flat Hd Soc. M5 X 12
15294-14	78-8054-8877-8	Washer, 5,5/20X4
15294-15	78-8137-3778-6	Pulley - Keyed
15294-16	78-8054-8877-8	Washer, 5,5/20X4
15294-17	26-0001-5862-1	Screw, Flat Hd Soc. M5 X 12
15294-21	78-8028-8244-5	Key - 4 X 4 X 10mm
15294-22	78-8137-3779-4	Sprocket 3/8" Z=13
15294-23	78-8137-3780-2	Pulley - PD30 L075F
15294-24	78-8060-8006-1	Jockey Pulley Assy
15294-25	78-8060-8009-5	Jockey Pulley
15294-26	78-8060-8007-9	PIN-Jockey Pulley
15294-27	78-8060-8008-7	Bearing 6004-2RS
15294-28	78-8017-9061-5	Snap Ring - for M20 Shaft
15294-29	78-8060-8010-3	Snap Ring - M42 Shaft
15294-30	78-8017-9313-0	Nut Self Locking M8 Nick. Pl.
15294-31	26-1000-0010-3	Washer M8
15294-32	78-8060-8011-1	Wrap Pulley Assy
15294-33	78-8076-5106-8	Pulley Assy - Idler
15294-34	78-8023-2410-9	Bearing - 6000-2RS O.D. M26
15294-35	78-8023-2544-5	Bearing-6203-2RS / 17 - 40 - 12
15294-36	78-8054-8887-7	Shaft - Pulley Wrap
15294-37	78-8016-5855-6	E - Ring M10
15294-38	78-8032-0375-7	Screw Metric M6X16 Hex Hd
15294-39	78-8042-2919-9	Washer - Triple, M6
15294-40 15294-41	78-8137-3781-0 78-8054-8841-4	Belt-Timing 240 L 075 Drive Belt 12AF
15294-41	78-8060-8014-5	Idler Roller Assy
15294-42	78-8052-6710-7	Roller - Idler
15294-44	78-8054-8913-1	Shaft-Roller
15294-45	12-7997-0272-0	E-Ring, M-25
15294-46	78-8137-3782-8	Plate - Belt Adjustment
15294-47	26-1002-4189-7	Screw - HX.HD. M10 X 20
15294-48	26-1004-5510-9	Washer - Plain, M10
15294-49	78-8137-3783-6	Block - Drive
15294-50	78-8010-7210-5	Screw - Soc. Hd. Hex Soc. M6 X 20
15294-51	78-8114-4855-0	Screw - Special
15294-52	78-8094-6050-0	Spacer - Motor
15294-53	26-1005-4757-4	Screw - Flat HD, Soc. Dr. M5 X 20
15294-54	78-8060-8073-1	Washer - Motor
15294-55	78-8060-8015-2	Pulley 17 X L050
15294-56	26-1003-8816-9	Screw, Set M5 X 6

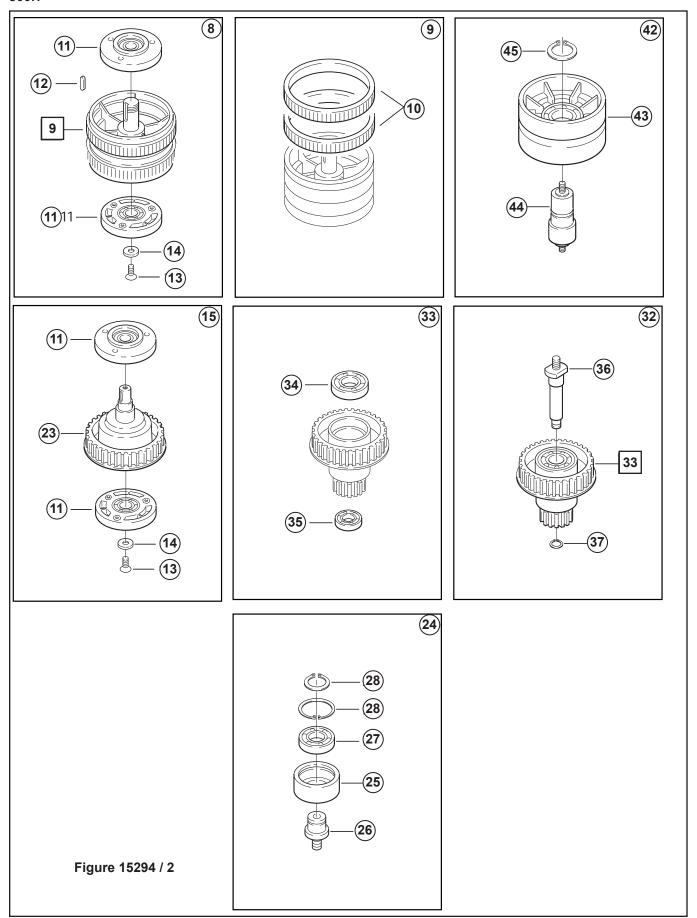
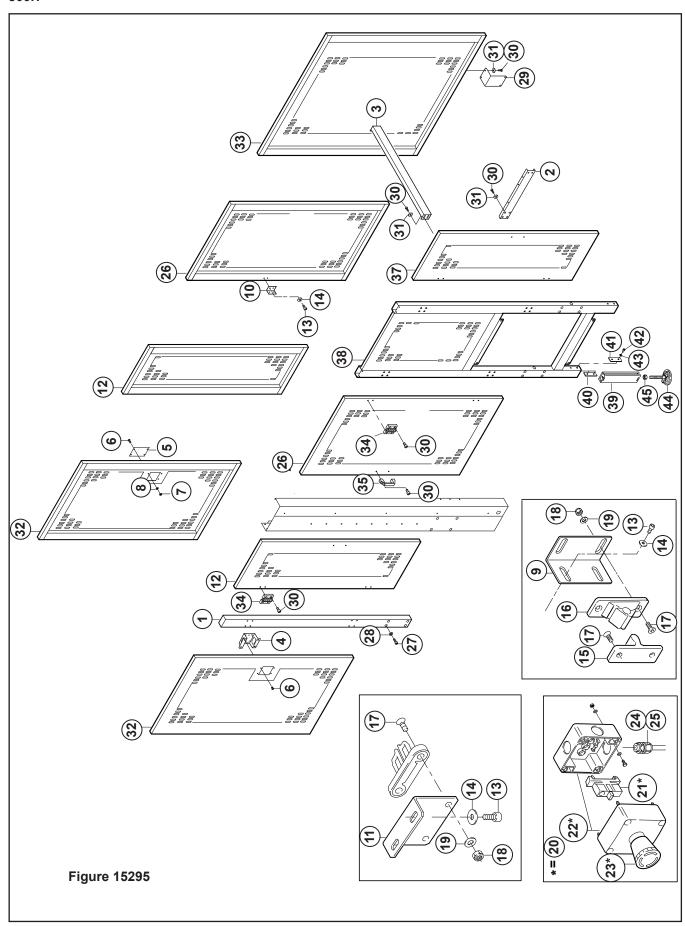


Figure 15294 / 2

Ref. No.	3M Part No.	Description
15294-57	78-8060-8140-8	Belt-Timing 160 X L050
15294-58	78-8137-3785-1	Cover - Drive, Right
15294-59	78-8137-3786-9	Cover - Drive, Rear
15294-60	78-8129-6100-7	Bracket
15294-61	26-1002-4955-1	Screw - Self Tapping 8P X 13
15294-62	78-8005-5740-3	Washer Plain - Metric M4 Nick.
15294-63	78-8060-8019-4	Sprocket - 3/8" 28 Teeth
15294-64	78-8057-5835-2	Centering Washer
15294-65	78-8057-5834-5	Tab Washer
15294-66	78-8076-4933-6	Chain 3/8" Pitch, 52 Pitch
15294-67	78-8076-5112-6	Cover - Chain
15294-68	78-8137-3787-7	Drive Assy - L/H
15294-69	78-8137-3788-5	Guide - Lower, L/H
15294-70	78-8137-3789-3	Guide - Upper, L/H
15294-71	78-8137-3790-1	Cover - Drive, Left
15294-72	78-8017-9313-0	Nut Self Locking M8 Nick. Pl.
15294-73	26-1004-5507-5	Washer M8
15294-74	78-8017-9318-9	Washer-Plain-Metric M8
15294-75	26-1003-6904-5	Nut - Hex, M8
15294-76	78-8137-3791-9	Upper Plate, R/H
15294-77	78-8005-5741-1	Washer - Flat, M5
15294-78	78-8137-3792-7	Lower Plate
15294-81 & 86	78-8129-6207-0	Motor Self-Braking, 220V 60HZ 3PH
	78-8094-6472-6	Motor - 200/220V 50/60 Hz H63 A4 KW 0.12 B14
	78-8094-6378-5	Motor - 220/415V 50 Hz H63 A4 KW 0.13 B14
	78-8060-7841-2	Motor - 200/220V 50/60 Hz H63 A4 KW 0.12 B14
	78-8094-6473-4	Motor - 100/115V 50/60 Hz 1 Phase
	78-8100-0866-0	Motor - 100/110V 50/60 Hz 1 Phase 0.12 KW
15294-89	78-8137-3793-5	Plastic Cap DP-1375
15294-91	78-8137-3794-3	Upper Plate, L/H
15294-94	78-8060-7877-6	Plug Housing Vertical
15294-96	78-8076-4532-6	Cord Grip
15294-97	78-8137-3795-0	Cable Olflex 400P 4G 1,5mm
15294-98	78-8137-3796-8	Belt Tensioning
15294-99	78-8010-7165-1	Screw, Flat Hd Soc M5 X 25
15294-100	78-8137-3797-6	Slide - Drive
15294-101	26-1003-7960-6	Screw, Soc. Hd M6 X 30
15294-102	26-1000-0010-3	Washer - Flat M6
15294-103	78-8137-3798-4	Spacer - Drive
15294-104	78-8137-3799-2	Screw - Metric, M10 X 110, Hex Hd
15294-105	78-8137-3800-8	Washer 10,5/26 X 4
15294-106	78-8060-7728-1	Sleeve, Threaded
15294-107	78-8076-5104-3	Special Nut M22 X 1,5 /8
15294-108	26-1003-5841-0	Screw M8X16
15294-109	26-1004-5507-5	Washer M8
15294-110	78-8060-7873-5	Plug Female
15294-111	78-8060-7876-8	Cover Plug Lateral
15294-112	78-8137-3801-6	Screw - Phillips Hd, M3 x 10



Ref. No.	3M Part No.	Description
15295-1	78-8137-3717-4	Jamb Assy
15295-2	78-8137-3718-2	Bracket - Guard
15295-3	78-8137-3719-0	Crossbar- Guard
15295-4	78-8137-3720-8	Support - Guard
15295-5	78-8137-3721-6	Closure Plate
15295-6	78-8017-9066-4	Screw - Metric, M5 X 12
15295-7	78-8010-7417-6	Nut - Metric, Hex Stl. M5
15295-8	78-8005-5741-1	Washer - Flat, M5
15295-9	78-8137-3722-4	Bracket - Lock
15295-10	78-8137-3679-6	Plate - Pneumatic Box
15295-11	78-8137-3723-2	Bracket - Safety Switch
15295-12	78-8137-3724-0	Door L=430
15295-13	26-1003-7949-9	Screw Soc. Hd. Hex Soc. M5 X 12
15295-14	78-8005-5741-1	Washer - Flat, M5
15295-15	78-8076-4931-0	Drawbar - Lock
15295-16	78-8076-4932-8	Lock - Drawbar
15295-17	26-0001-5862-1	Screw, Flat Hd Soc. M5 X 12
15295-18	26-1005-6859-6	Nut Self Locking M-5
15295-19	78-8005-5741-1	Washer - Flat, M5
15295-20	78-8137-3725-7	Emergency Stop Button Assy
15295-21	78-8137-3726-5	Box - Emergency Stop
15295-22	78-8137-3727-3	Contact 3SB3420-0C
15295-23	78-8137-3728-1	Emergency Stop Button
15295-24	78-8076-4532-6	Cord Grip
15295-25	78-8076-5211-6	Set Nut GMP13.5
15295-26	78-8137-3729-9	Door L=700
15295-27	26-1003-7964-8	Screw Soc. Hd.Hex Soc. Dr., M8 X 20
15295-28	78-8137-3652-3	Lockwasher For M8 Screw
15295-29	78-8137-3730-7	Bracket - Income Panel
15295-30	26-1003-7957-2	Screw Soc. Hd. Hex Hd M6 X 16
15295-31	78-8042-2919-9	Washer - Triple, M6
15295-32	78-8137-3731-5	Fixed Panel L=700
15295-33	78-8137-3732-3	Entered Fixed Panel
15295-34	78-8129-6293-0	Hinge
15295-35	78-8060-7807-3	Handle
15295-37	78-8137-3733-1	Fixed Panel L=510
15295-38	78-8137-3734-9	Electrical Panel Support Frame
15295-39	78-8137-3735-6	Leg - Inner
15295-40	78-8137-0635-1	Clamp - Leg
15295-41	78-8129-6100-7	Bracket
15295-42	26-1003-7963-0	Screw - Soc. Hd. M8 X 16
15295-43	78-8017-9318-9	Washer-Plain-Metric M8
15295-44	78-8129-6433-2	Foot - Leveling
15295-45	26-1003-6906-0	Nut - Metric M-12

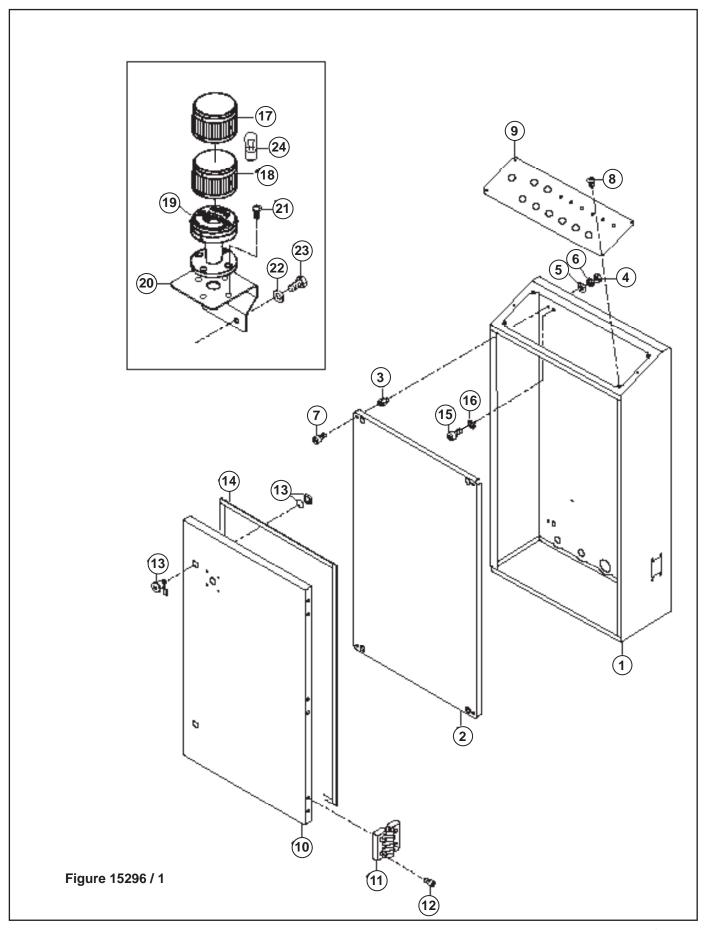
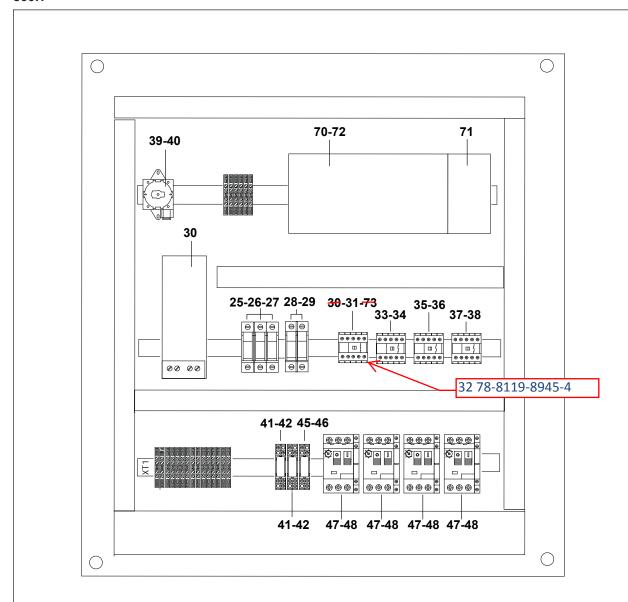


Figure 15296 / 1

Ref No	3M Part Number	Description
15296-1	78-8137-3737-2	Box - Electric
15296-2	78-8137-3738-0	Panel - Electric Box
15296-3	78-8060-7814-9	Spacer, Electric Box
15296-4	78-8010-7418-4	Nut - Metric, Hex, Stl., M6
15296-5	26-1000-0010-3	Washer - Flat M6
15296-6	78-8137-3739-8	Washer - Lock M6
15296-7	78-8010-7209-7	Screw, Soc.HD.M6 X 12
15296-8	78-8017-9066-4	Screw - Metric, M5 X 12
15296-9	78-8137-3740-6	Switchboard
15296-10	78-8137-3741-4	Door - Electric Box
15296-11	78-8129-6293-0	Hinge
15296-12	26-1003-7957-2	Screw Soc. HD. Hex HD. M6 X1 6
15296-13	78-8119-8549-4	Lock "Southco"
15296-14	78-8119-8548-6	Foam Rubber
15296-15	26-1003-7964-8	Screw Soc.Hd.Hex Soc.Dr.,M8 X 20
15296-16	78-8137-3652-3	Lockwasher M8
15296-17	78-8137-3736-4	Buzzer
15296-18	78-8137-3742-2	Lamp - Red
15296-19	78-8137-3743-0	Module Base
15296-20	78-8137-3744-8	Bracket Plate
15296-21	78-8032-0382-3	Screw-Soc.Hex HD.M5 X 16 Zinc. PI
15296-22	78-8010-7209-7	Washer - Flat M6
15296-23	26-1000-0010-3	Screw, Soc.HD.M6 X 12
15296-24	78-8119-8587-4	Lamp BA15D 5W 30V
15296-25	78-8137-6012-7	Fuse UL10-F 600V
15296-26	78-8137-5995-4	3-Pole Fuse-Holder
15296-27	78-8137-6010-1	Fuse Holder 10 X 38
15296-28	78-8137-6011-9	Fuse UL3-F 600V
15296-29	78-8137-4084-8	Fuse Holder 10,3 X 38
15296-30	78-8137-5996-2	Power Supply
15296-31	78-8137-6008-5	Contactor 24VCC
15296-32	78-8119-8945-4	Surge Suppressor - 199-MSMD1
15296-33	78-8137-6008-5	Contactor 24VCC
15296-34	78-8119-8945-4	Surge Suppressor - 199-MSMD1
15296-35	78-8137-6008-5	Contactor 24VCC
15296-36	78-8119-8945-4	Surge Suppressor - 199-MSMD1
15296-37	78-8137-6008-5	Contactor 24VCC
15296-38	78-8119-8945-4	Surge Suppressor - 199-MSMD1
15296-39	78-8137-4089-7	Switch16A
15296-40	78-8137-6006-9	Knob



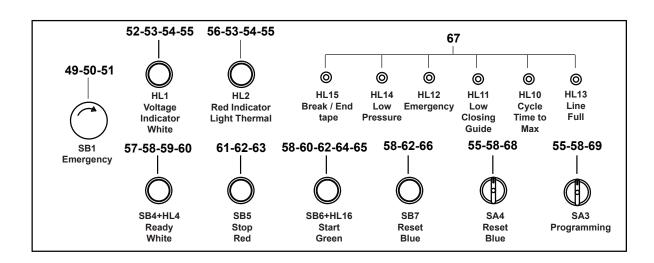


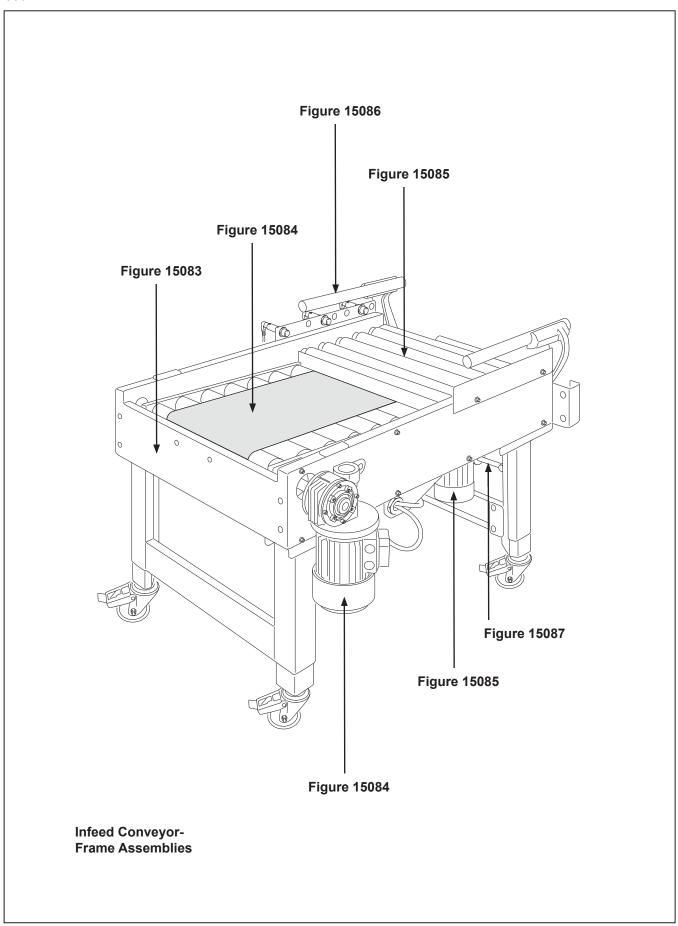
Figure 15296 / 2

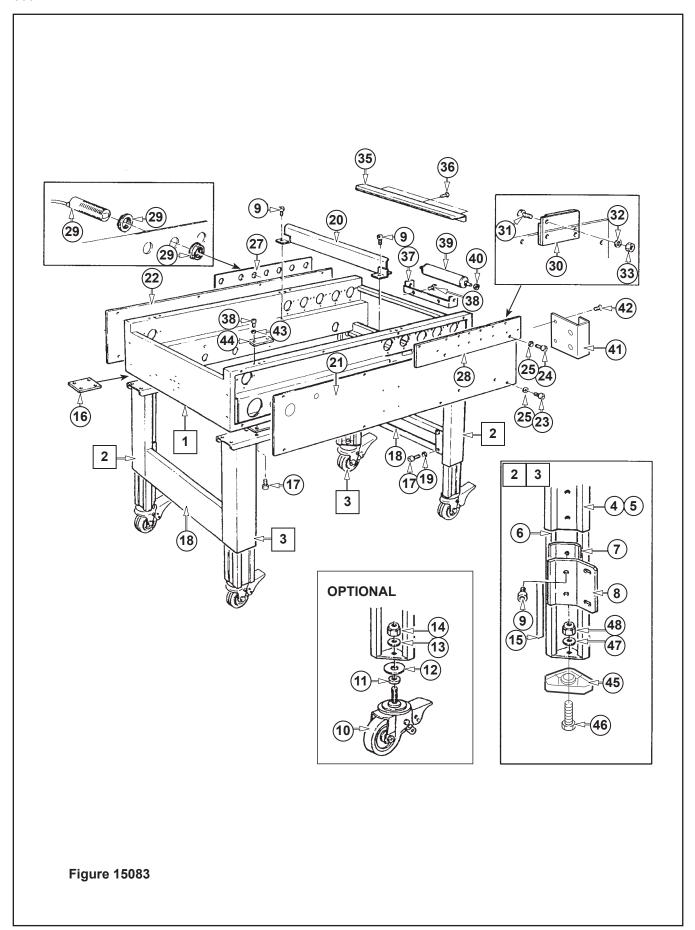
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Figure 15296 / 2

Ref No	3M Part Number	Description
15296-41	78-8137-6015-0	Relays G2R-2 24VDC
15296-42	78-8137-4085-5	Socket
15296-43	78-8137-6015-0	Relays G2R-2 24VDC
15296-44	78-8137-4085-5	Socket
15296-45	78-8137-6015-0	Relays G2R-2 24VDC
15296-46	78-8137-4085-5	Socket
15296-47	78-8137-6017-4	Contact
15296-48	78-8137-0778-9	Automatic Switch
15296-49	78-8137-0609-6	Emergency Button
15296-49	78-8137-0009-0 78-8137-0797-9	Latch & contact.
15296-50	78-8137-4099-6	Contact Holder
15296-51	78-8137- <del>4</del> 099-0	
15296-52		Lamp-Holder White
	78-8137-5999-6 78-8119-8801-9	Lamp-Holder
15296-54	78-8137-4099-6	Light - BA9S, 30V Contact Holder
15296-55		
15296-56	78-8137-5998-8	Lamp-Holder Red
15296-57	78-8137-6016-8	White Unstable Button
15296-58	78-8137-4098-8	Contact Holder
15296-59	78-8137-4099-6	Contact Holder
15296-60	78-8119-8801-9	Light - BA9S, 30V
15296-61	78-8137-6004-4	Red Light Button
15296-62	78-8137-4099-6	Contact Holder
15296-63	78-8137-0797-9	Latch & contact.
15296-64	78-8137-6000-2	Green Light Button
15296-65	78-8137-5999-6	Lamp-Holder
15296-66	78-8137-6005-1	Blue Light Button
15296-67	78-8137-6009-3	LED Assy
15296-68	78-8137-4093-9	Black Selector
15296-69	78-8137-6007-7	3-Position Selector
15296-70	78-8137-6017-6	PLC Micrologix
15296-71	78-8137-6013-5	8-Output Module
15296-72	78-8137-6014-3	Micrologix Memory Module

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## **Figure 15083**

Ref. No.	3M Part No.	Description
15083-1	78-8137-6095-2	Bed Assembly - Conveyor
15083-2	78-8137-6096-0	Assembly - Left Leg
15083-3	78-8137-6097-8	Assembly - Right Leg
15083-4	78-8076-5041-7	Leg – Left
15083-5	78-8076-5040-9	Leg – Right
15083-6	78-8052-6678-6	Leg – Inner
15083-7	78-8052-6677-8	Clamp – Inner
15083-8	78-8060-7697-8	Bracket - Special
15083-9	26-1003-7963-0	Screw - Soc. Hd. M8 X 16
15083-10	78-8060-8061-6	Caster
15083-11	78-8060-8124-2	Spacer - Caster
15083-12	78-8060-7699-4	Washer /12-45, 5 X 4
15083-13	78-8017-9059-9	Washer - Flat for M12 Screw
15083-14	78-8060-7532-7	Nut M12 Self-Locking
15083-15	78-8052-6680-2	Label - Leg Height Adjustment
15083-16	78-8076-5339-5	Leg Plate
15083-17	26-1003-7964-8	Screw Soc. Hd. Hex Soc. Dr., M8 X 20
15083-18	78-8137-6098-6	Support - Leg Cross Bar
15083-19	78-8017-9318-9	Washer - Plain - Metric M8
15083-20	78-8137-6099-4	Box Stop
15083-21	78-8137-6100-0	Cover - Right Side
15083-22	78-8137-6101-8	Cover - Left Side
15083-23	26-1003-7949-9	Screw Soc. Hd. Hex Soc. M5 X 12
15083-24	78-8032-0382-3	Screw - Soc. Hex Hd. M5 X 16 Zinc Pl.
15083-25	78-8005-5741-1	Washer - Flat, M5
15083-27	78-8137-6102-6	Support - Photocell
15083-28	78-8137-6103-4	Support - Reflectors
15083-29	78-8114-4824-6	Photocel E3F2-R2B4-P1-E
15083-30	78-8076-5057-3	Reflector E39-R1
15083-31	78-8010-7157-8	Screw – Hex Hd, M4 X 10
15083-32	78-8005-5740-3	Washer Plain - Metric M4 Nick.
15083-33	78-8010-7416-8	Nut - Plastic Insert - M4
15083-35	78-8129-6225-2	Profile, Support - Drive
15083-36	26-1002-5753-9	Screw – Self Tapping
15083-37	78-8076-5348-6	Support - External Roller
15083-38	26-1003-5829-5	Screw Hex Hd. M6 X 12
15083-39	78-8076-5349-4	Roller Assembly
15083-40	78-8052-6668-7	Snap - Roller
15083-41	78-8137-6104-2	Connector Bracket
15083-42	78-8057-5716-4	Screw - Flat Soc. Hd M8 X 15
15083-43	26-1000-0010-3	Washer - Flat M6
15083-44	78-8137-6105-9	Bracket
15083-45	78-8052-6679-4	Pad – Foot
15083-46	26-1003-5842-8	Screw – Hex Hd, M8 X 20
15083-47	26-1004-5507-5	Washer – M8
15083-48	78-8017-9313-0	Nut – Self-Locking, M8

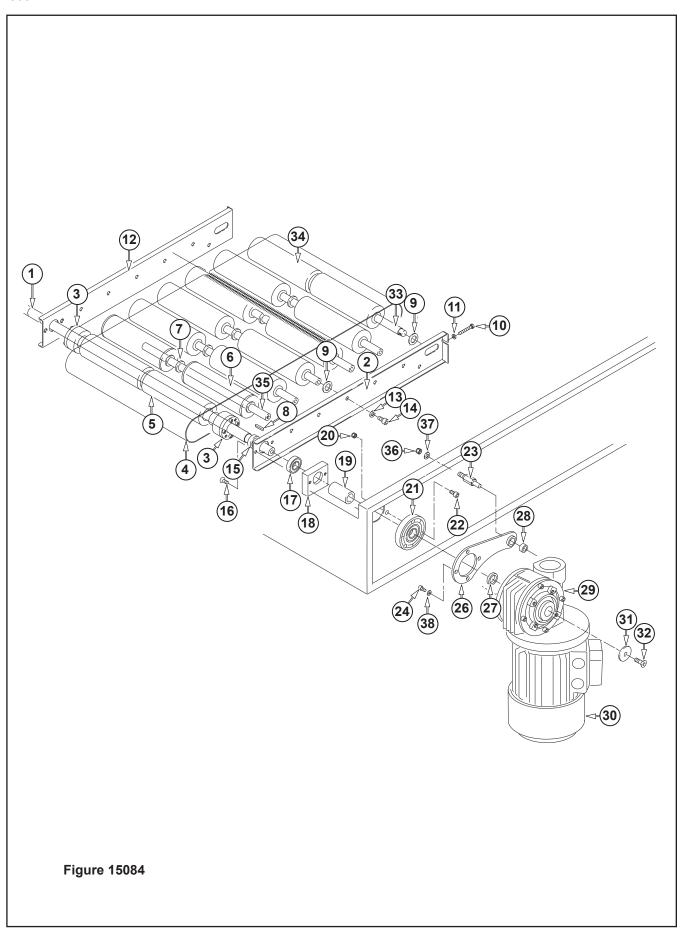
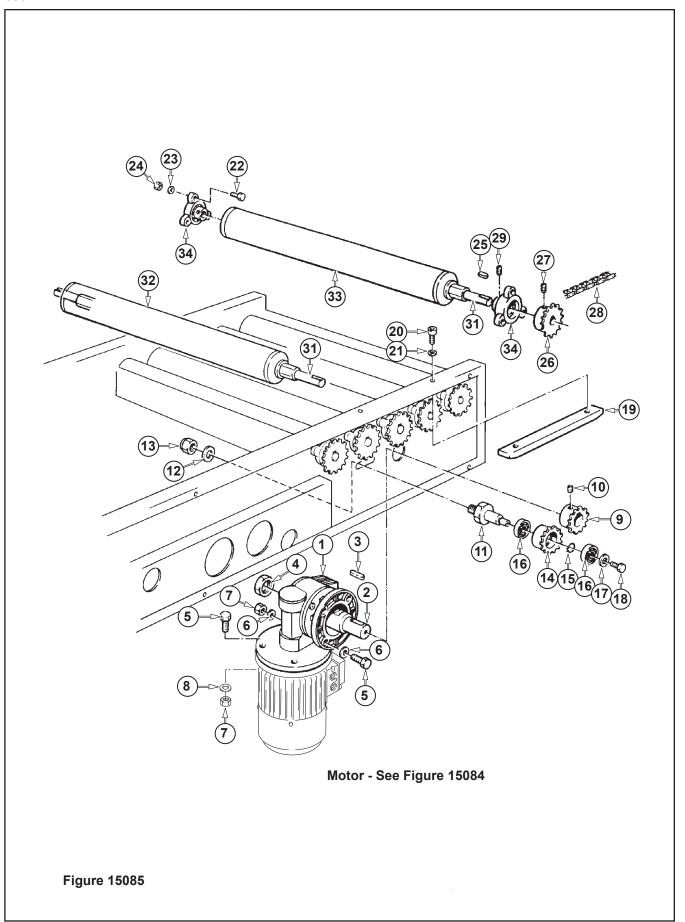


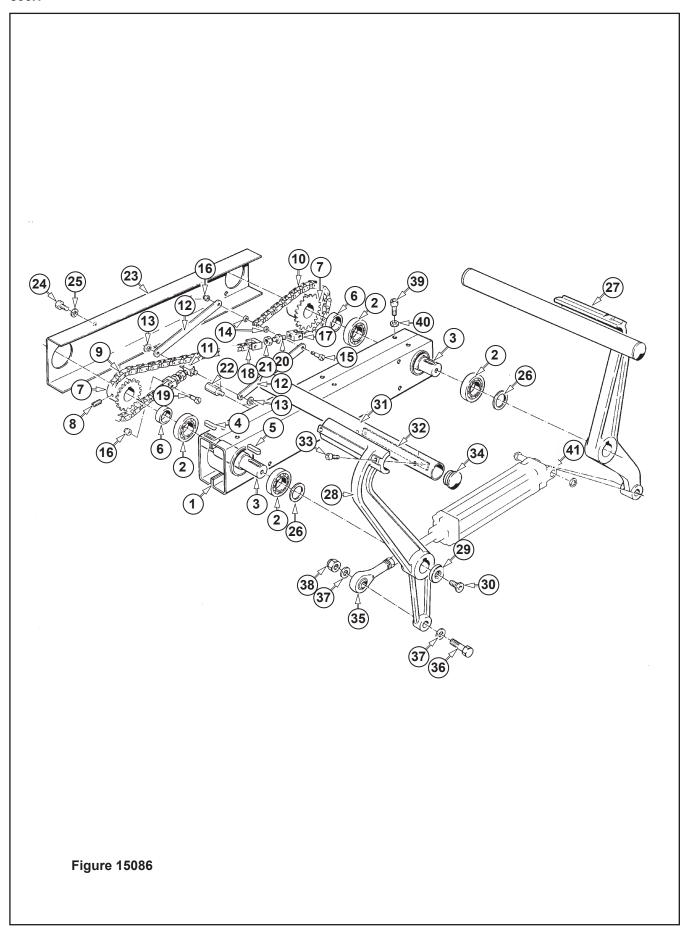
Figure 15084

Ref. No.	3M Part No.	Description	
15084-1	78-8137-6106-7	Shaft - Motor	
15084-2	78-8137-6107-5	Frame - Right Side	
15084-3	78-8137-6108-3	Roller Assembly	
15084-4	78-8076-5309-8	Belt	
15084-5	78-8137-6109-1	Powered Roller	
15084-6	78-8137-6110-9	Roller 6 X 6 X 20	
15084-7	78-8076-5302-3	Snap - Roller	
15084-8	78-8057-5811-3	Key - 6 X 6 X 20mm	
15084-9	78-8055-0668-6	Washer	
15084-10	26-1005-5318-4	Screw M6 X 55 Zinc.	
15084-11	26-1000-0010-3	Washer - Flat M6	
15084-12	78-8137-6128-1	Frame - Left Side	
15084-13	78-8017-9318-9	Washer - Plain - Metric M8	
15084-14	26-1003-7963-0	Screw - Soc. Hd. M8 X 16	
15084-15	78-8137-6129-9	Snap - Roller 25 X 9	
15084-16	78-8137-6111-7	Screw - Special M6 X 16	
15084-17	78-8137-6112-5	Bearing	
15084-18	78-8137-6113-3	Support - Bearing	
15084-19	78-8137-6114-1	Spacer	
15084-20	26-1003-6916-9	Nut – Locking, M6, Plastic Insert	
15084-21	78-8091-0725-9	Bearing	
15084-22	26-1003-7957-2	Screw - Soc Hd, Hex Hd, M6 X 16	
15084-23	78-8137-6115-8	Pivot	
15084-24	78-8010-7209-7	Screw - Soc. Hd. M6 X 12	
15084-26	78-8129-6331-8	Actuator - Arm	
15084-27	78-8137-6102-6	Snap - Roller 25 X 5	
15084-28	78-8070-1269-1	Spacer	
15084-29	78-8137-6117-4	Flange	
15084-30	78-8100-0865-2	Motor - 220/220v, 50/60 Hz, 3 Phase	
	78-8076-5361-9	Motor - 220/415v, 50 Hz, 3 Phase	
	78-8057-5716-4	Motor - 260/440v, 50 Hz, 3 Phase	
15084-31	78-8137-6118-2	Washer	
15084-32	78-8137-6119-0	Screw - Flat Soc. Hd M8 X 15	
15084-33	78-8137-6120-8	Tension Shaft	
15084-34	78-8137-6119-0	Roller - Idler	
15084-35	78-8017-9318-9	Pin	
15084-36	78-8094-6243-1	Nut – Self-Locking, M8	
15084-37	78-8017-9318-9	Washer - Plain - Metric M8	
15084-38	78-8094-6243-1	Washer M6	
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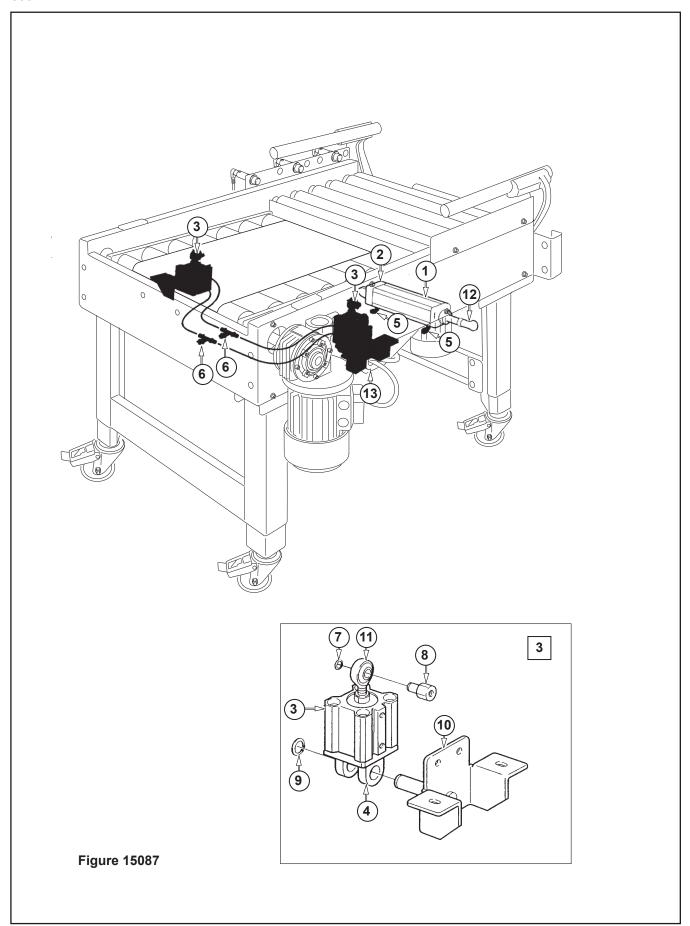
**Figure 15085** 

Ref. No.	3M Part No.	Description
15085-1	78-8137-6117-4	Flange
15085-2	78-8076-5365-0	Pin - Gear 24 X 171
15085-3	78-8057-5811-3	Key - 6 X 6 X 20mm
15085-4	78-8017-9169-6	Nut – M18 x 1
15085-5	78-8017-9301-5	Screw - M8 X 25
15085-6	78-8017-9318-9	Washer - Plain - Metric M8
15085-7	78-8059-5619-6	Nut M8
15085-8	78-8005-5736-1	Lockwasher – For M8 Screw
15085-9	78-8076-5366-8	Sprocket - Z=16, 3/8"
15085-10	78-8059-5617-0	Set Screw M6 x 8
15085-11	78-8076-5367-6	Shaft - Chain Tension
15085-12	78-8059-5623-8	Washer
15085-13	26-1003-6918-5	Nut – Plastic Insert, M10 Hex Flange
15085-14	78-8076-5368-4	Sprocket - Z=15, 3/8"
15085-15	78-8060-7830-5	Washer 30 X 5
15085-16	78-8059-5625-3	Bearing
15085-17	78-8042-2919-9	Washer – Triple, M6
15085-18	78-8010-7169-3	Screw - Metric, M6 X 12, Hex Hd.
15085-19	78-8059-5615-4	Chain Rail
15085-20	26-1003-7957-2	Screw – Soc Hd, Hex Hd, M6 x 16
15085-21	26-1000-0010-3	Washer - Flat M6
15085-22	83-0002-7336-3	Screw - Hex Hd M4 X 14 Zinc PI
15085-23	78-8005-5740-3	Washer Plain - Metric M4 Nick
15085-24	78-8010-7416-8	Nut - Plastic Insert - M4
15085-25	78-8059-5611-3	Key, 4 X 4 X 15mm
15085-26	78-8076-5370-0	Sprocket - Z=17, 3/8"
15085-27	78-8059-5613-9	Set Screw M5 X 14
15085-28	78-8059-5616-2	Chain - 3/8" Pitch L=81 Links
15085-29	78-8091-0726-7	Set Screw M5 X 5
15085-31	78-8114-5092-9	Pin - Shaft
15085-32	78-8114-4832-9	Roller - Rubber
15085-33	78-8137-6121-6	Roller Assembly
15085-34	78-8010-7416-8	Flange - Roller Assembly



## **Figure 15086**

Ref. No.	3M Part No.	Description	
15086-1	78-8137-6122-4	Frame - Infeed	
15086-2	78-8023-2551-0	Bearing – 6005-2RS	
15086-3	78-8137-6097-8	Shaft - Centering Lever	
15086-4	78-8057-5811-3	Key - 6 X 6 X 20mm	
15086-5	78-8076-5353-6	Key - 6 X 6 X 25mm	
15086-6	78-8076-5358-5	Spacer	
15086-7	78-8076-5355-1	Sprocket 3/8" Z=20	
15086-8	78-8059-5617-0	Set Screw M6 x 8	
15086-9	78-8054-8777-0	Chain – 3/8 Inch Pitch, 41 Pitch Long	
15086-10	78-8137-6123-2	Chain – 3/8 Inch Pitch, 31 Pitch Long	
15086-11	78-8054-8784-6	Block – Chain	
15086-12	78-8054-8787-9	Chain Link	
15086-13	78-8056-3945-3	E-Ring - M4	
15086-14	78-8054-8783-8	Washer – Special	
15086-15	78-8060-7519-4	Screw – M3 x 25	
15086-16	78-8059-5517-2	Nut – Self Locking, M3	
15086-17	78-8054-8788-7	Connector – Chain	
15086-18	78-8054-8786-1	Connector – Chain	
15086-19	78-8060-7520-2	Screw - M3 x 20	
15086-20	78-8054-8785-3	Rod – Threaded Right/Left	
15086-21	78-8010-7418-4	Nut - Metric, Hex, Stl., M6	
15086-22	78-8076-5356-9	Stud - Joint 10 X 42	
15086-23	78-8137-6124-0	Frame	
15086-24	78-8032-0375-7	Screw – Hex Hd, M6 x 16	
15086-25	26-1000-0010-3	Washer - Flat M6	
15086-26	78-8076-5358-5	Washer	
15086-27	78-8076-5359-3	Centering Lever - Right	
15086-28	78-8076-5360-1	Centering Lever - Left	
15086-29	78-8076-5361-9	Washer	
15086-30	78-8057-5716-4	Screw - Flat Soc. Hd M8 x 15	
15086-31	78-8076-5362-7	Guide Assembly	
15086-32	78-8076-5363-5	Plate – Guide	
15086-33	26-1003-7957-2	Screw - Soc Hd, Hex Hd, M6 x 16	
15086-34	78-8054-8779-6	End – Cap	
15086-35	78-8057-5747-9	Mount – Cylinder Rod End	
15086-36	78-8076-5364-3	Screw M12 X 5	
15086-37	78-8017-9059-9	Washer - Flat for M12 Screw	
15086-38	78-8060-7532-7	Nut M12 Self-Locking	
15086-39	26-1003-7964-8	Screw Soc. Hd. Hex Soc. Dr., M8 X 20	
15086-40	78-8017-9318-9	Washer - Flat M8	
15086-41	26-1017-3315-7	Mount – Cylinder Rod End	
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## **Figure 15087**

Ref. No.	3M Part No.	Description
15087-1	78-8137-3767-9	Cylinder DNC-40-170-PPV-A
15087-2	26-1017-3315-7	Swinging Flange
15087-3	78-8137-3768-7	Compact Cylinder ADNP-50-15
15087-4	78-8137-3769-5	Swinging Flange SNCB-50
15087-5	78-8091-0315-9	Elbow - 3199.08.13
15087-6	78-8057-6170-3	Tee - M6 Tubing
15087-7	78-8016-5855-6	E - Ring M10
15087-8	78-8137-6125-7	Pin - Cylinder
15087-9	78-8023-2234-3	Ring - Snap for M12 Shaft
15087-10	78-8137-6126-5	Bracket Support - Cylinder
15087-11	78-8057-5747-9	Mount – Cylinder Rod End
15087-12	78-8137-6127-3	Pin - Clevis
15087-13	26-1005-6888-5	Tubing 6/4 - Connector

