

Installation and User Manual

CE
REPORT
No.02-SKM-
CM-121

PRS Series Rollstock

Model: 320-Mini



NOTE

This manual should be retained for future reference.

Store it somewhere easily accessible

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TRADEMARKS



DISCLAIMER

WARNING: YOUR RESPONSIBILITY

This machine should only be operated by qualified staff that can read, understand and respect warnings and instructions mentioned about this machine in this user / owner's manual. Doing so otherwise can cause serious machine malfunction, serious personal injury and/or even death. Save these instructions for future reference.



Document Revisions:

| Date | Version Number | Document Changes |
|--------------|----------------|------------------|
| June 9, 2021 | 1.0 | Initial Draft |

Distribution:

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Warning:

NOTE

This manual should be retained for future reference. Store it somewhere easily accessible

The points listed below indicate precautions that the user must be aware of in order to safely operate this equipment. Failure to follow these precautions can result in serious or possibly fatal injury as well as possible damage to the equipment. The symbols shown here in this user manual and on machine indicate the presence of a potentially hazardous condition which if not avoided, could result in serious personal injury or death.

- Read and understand all of the instructions in this manual or on the machine before starting this equipment. Keep this manual in a safe place for further reference and for ordering parts.
- Only allow responsible individuals familiar with the operating instructions to operate this machine. Be sure that they understand the controls and how to stop the machine quickly.
- Never put your hands near any moving parts.
- Only allow qualified individuals to perform maintenance on the machine.
- Remove all obstacles that may interfere with the machine's functions.
- Clear the work area of all obstacles before beginning production.
- Be sure that all other personnel are clear of your work area before operating the machine.
- Do not sit or stand on the machine.
- Always turn off the machine when your work is completed. Never leave a running machine unattended.
- Always disconnect, lock out / tag out and wait for the machine to cool before attempting any maintenance.
- Do not wear any loose fitting clothes or jewelry as they may become caught in the machine's moving parts.

Continued to next page



- Work only in good natural or artificial light.
- Do not operate the machine under the influence of alcohol or drugs.
- Always turn OFF all power, including the main power supply, before carrying out the required daily inspection. Performing the inspection with the power connected may result in electrical shock.
- Do not touch any of the electrical control components while the power is turned on as this may result in electric shock or machine malfunction.
- Do not damage cables, pinch them or subject them to excessive stress as this may result in electrical shock.
- Never modify the machine.

SERVICE POINTS

- ✓ Always use proper containers when draining the oil. Do not use food or beverage containers as this may mislead someone into drinking the contents. Properly dispose of the containers or store them in a safe place immediately after draining the oil.
- ✓ Prior to disposal, determine the proper method of disposal of this type of waste by calling the local office of the Environmental Protection Agency.



Authorized Technician Warning

All installation and / or service on your PRS must be performed by qualified, certified and / or authorized installation or technical service personnel. All electrical, gas and plumbing connections must be made by authorized technicians and in compliance with all respective safety requirements and adherence to local building codes.

- **DEFINITIONS:**

QUALIFIED INSTALATION TECHNICIAN:

- A qualified installation technician can be: an individual, a company or a corporation that is involved and responsible for:
 - The installation of electrical wiring from the main electrical meter, main control box or from the service outlet of an electrical appliance.
- A qualified technician must be experienced and be familiar with all of the precautions, safety requirements and local building codes.

The appliance once installed must be properly grounded in accordance with local codes or in the absence of local codes then in accordance with the electrical diagrams provided with your PRS machine.



Qualified Installation Technician

A qualified installation technician can be: an individual, a company or a corporation that is involved and responsible for:

The installation of electrical wiring from the main electrical meter, main control box or from the service outlet of an electrical appliance. A qualified technician must be experienced and be familiar with all of the precautions, safety requirements and local building codes. The PRS machine once installed must be properly grounded in accordance with local codes or in the absence of local codes then in accordance with the electrical diagrams provided with your RPS machine.



Safety

Please read and follow the safety guidelines and recommendations provided in this manual, and practice good safety habits. The possible consequences of failure to observe these guidelines could result in property damage, bodily injury, or death.

GENERAL SAFETY

- ✓ Press any of the “EMERGENCY STOP” push buttons when there is any danger or abnormal condition on the machine.
- ✓ Before performing any work/repairs in that area or on the machine in general, remember to turn the mains / power disconnect switch to the “OFF” position and lock it in this position.
- ✓ Prior to performing any work in a danger area shut off the compressed air supply to the machine. Only authorized personnel should perform repairs on this machine.
- ✓ Only properly trained employees can operate this machine
- ✓ All safety devices must be used properly maintained properly in operation and safety equipment on the machine.
- ✓ Never operate the machine without the safety covers in place

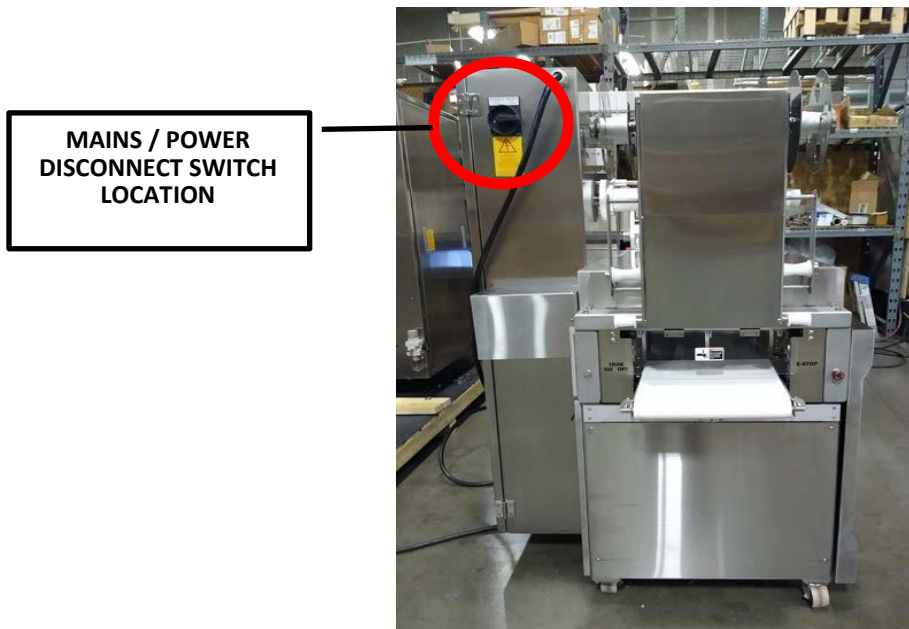
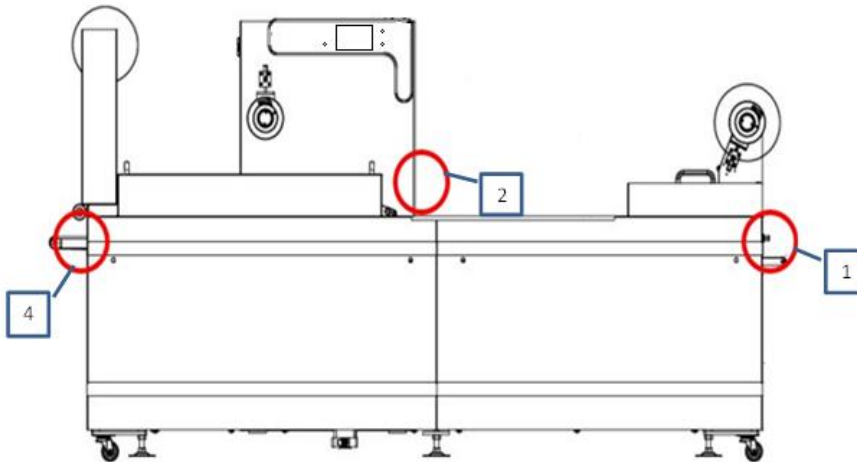
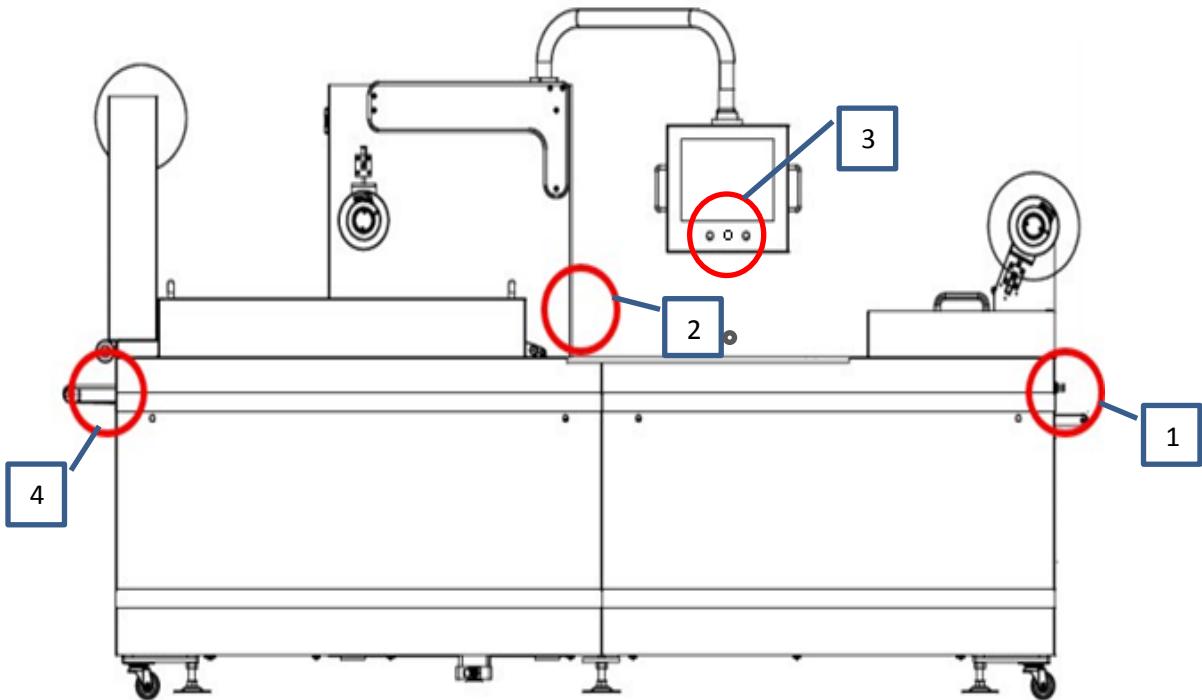


Fig. Safty-1

Continued to next page



Your PRS machine is equipped with **four** emergency stops, #1 at the bottom film loading area, #2 on the main electrical panel, #3 on the HMI box, and #4 at the output side of the machine.



IMPORTANT! The electricity supply to the machine is not cut off when any of the emergency stop buttons is pressed.



Compressed Air

For standard PRS (PRS 320 / 420) the air consumption is 35 liter per cycle.

For example, 6 cycles per minute you will need $6 \times 35L = 210$ Liters per minute.

More cycles you run per minute, more air flow per minute is required.



Extreme Caution Areas

DIE SCISSOR / LIFTING MECHANISM

The die lifting mechanism is made of moving parts that operate at high pneumatic pressure. Never reach inside the scissor mechanism without first turning off the electrical power and shutting off the main air pressure.



DIE SAFETY

The forming and sealing die have parts hidden from normal view. These parts can crush and amputate fingers if caught between the forming or sealing head and the die. Never place your hand or any part of your body under the heads of the machine without first turning off the electrical power and shutting off the main air pressure. Never remove or bypass the guards on the machine.

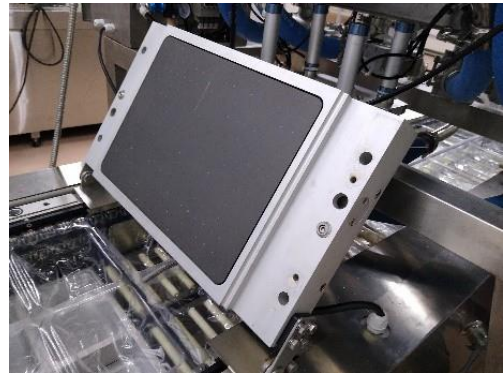


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HOT SURFACES

Both the forming and sealing heads use heater elements to form and seal the film. Heating plates can reach high temperatures and can cause severe burns to the skin. Always allow the die sets to cool down before working inside the forming or sealing area, or when making die changes. Even after shutdown of the machine, these areas can be extremely hot. Wear protective gloves when handling this parts without a cooling period.



GUILLOTINE / CROSS CUTTERS

The guillotine cuts across the full width of the film with a pneumatic cylinder going up at high speed and great force. The serrated blade can severely cut or amputate fingers, hand or any part place between the blade and the blade support. Never place your hand or any part of your body in the guillotine area without first turning off the electrical power and shutting off the main air pressure. Never remove or bypass the guards on the machine.

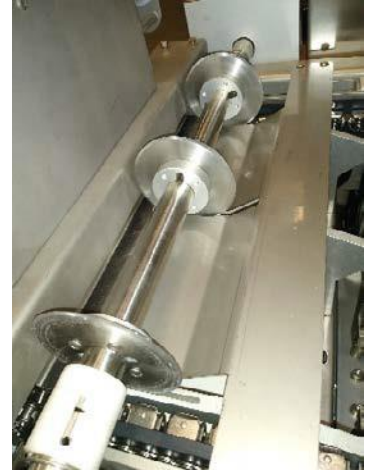


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ROTARY BLADES / CIRCULAR CUTTERS

The rotary blades run at high speed to cut and separate the packages lengthwise. The blades can start intermittently when the machine is running. These blades are extremely sharp and can cut or amputate parts of the body. Never place your hand or any part of your body in the rotary blade area without first turning off the electrical power and shutting off the main air pressure. Never remove or bypass the guards on the machine. Do not reach under the safety guards while the machine is running.



FILM INFEEED

The film infeed sprockets can grip clothing, and through mere skin contact force an arm or hand into a dangerous position. Injuries due to contact with rotating parts can be severe. Do not wear any loose clothing or jewelry. Use safe lifting techniques to place the film reels into place

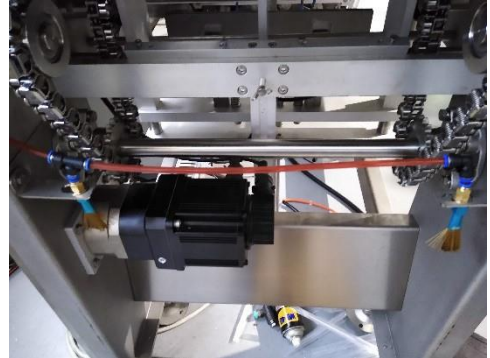


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SERVO MOTOR

The servo motor area sprockets can grip clothing, and through mere skin contact force an arm or hand into a dangerous position. Injuries due to contact with rotating parts can be severe. Never place your hand or any part of your body in the rotary blade area without first turning off the electrical power and shutting off the main air pressure. Never remove or bypass the guards on the machine. Do not reach under the safety guards while the machine is running.





Safety/Caution Labels

ON EACH PRS YOU WILL FIND THE FOLLOWING LABELS (NOT TO SCALE) THESE LABELS SHOULD NEVER BE REMOVED AND SHOULD BE REPLACED IF THEY BECOME UNREADABLE. PROMARKSVAC CAN SUPPLY REPLACEMENTS.



This symbol indicates that an **ELECTRICAL SHOCK HAZARD** condition exists. **DO NOT TOUCH** any of the electrical connection terminals when the machine' power is on. This precautionary symbol appears on labels attached to the PRS to alert the user to conditions requiring concern for safety.

Continued to next page





This symbol indicates that a **HAND CRUSH HAZARD** condition exists. Always keep your hands clear of this area and follow all lock out / tag out procedures before any service work is started. Labels with this symbol are attached to your PRS to alert the user to conditions requiring concern for safety.



This symbol indicates that a **HAND STUCK HAZARD** condition exists. Always keep your hands clear of this area and follow all lock out / tag out procedures before any service work is started. Labels with this symbol are attached to your PRS to alert the user to conditions requiring a concern for safety.

Continued to next page





This symbol indicates that a MOVING BLADE HAZARD condition exists. Always keep your hands clear of this area and follow all lock out / tag out procedures before any service work is started. Labels with this symbol are attached to your PRS to alert the user to conditions requiring a concern for safety.

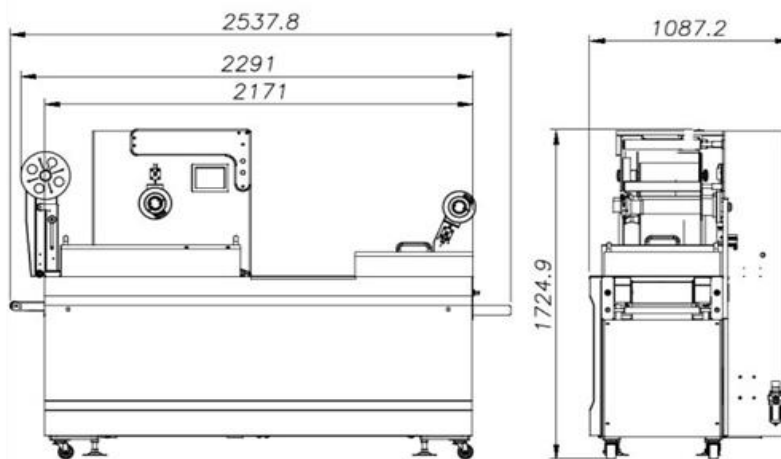
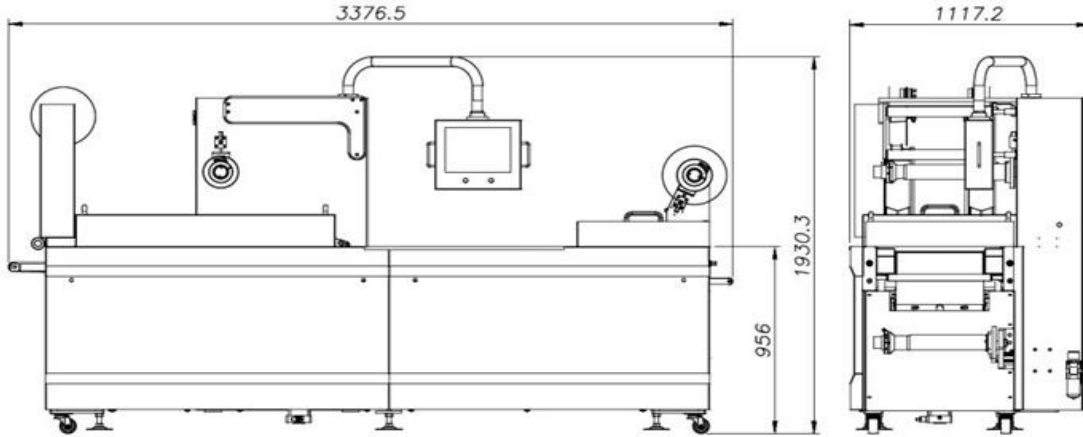


This symbol indicates that a HOT SURFACE HAZARD condition exists. Always keep your hands clear of this area and follow all lock out / tag out procedures before any service work is started. Labels with this symbol are attached to your PRS to alert the user to conditions requiring a concern for safety.



Specification & Installation

OVERALL DIMENSION



All measurements above are in mm.



Installation Requirements

Improper installation, adjustments, alterations, service or maintenance could result in damage, injury or even death.

Prior to the installation of your new PRS, you should make sure that:

- You have a clear path within your building to the desired location that takes into account the overall dimensions of your PRS-420 as shown in section 3.1.
- A qualified technician will be in charge of the installation and first start up.
- The conditions required for the start-up of the machine is already in place (refer to section).
- The positioning of the machine must allow for proper accessibility for maintenance and operation. Before choosing the site for your new PRS-420, please consider that you also need room for both packaged and non-packaged product in addition to the space required for the machine itself. Below are the clearances we suggest:
 1. 36” of clearance minimum on both sides for workers
 2. 33” of clearance minimum between the electrical box door and the wall.
 3. 24” of clearance minimum between the back of the machine and the wall.
- Leveling of the machine is accomplished using a level and the adjusting the machine’s feet. Make sure to lock each foot using the locknut after completing the leveling procedure. Use the sealing and forming heads as reference for leveling.
- Maximum ambient temperature 35 degrees C and no freezing. The machine must be distanced from any heat generating devices and must be indoors.

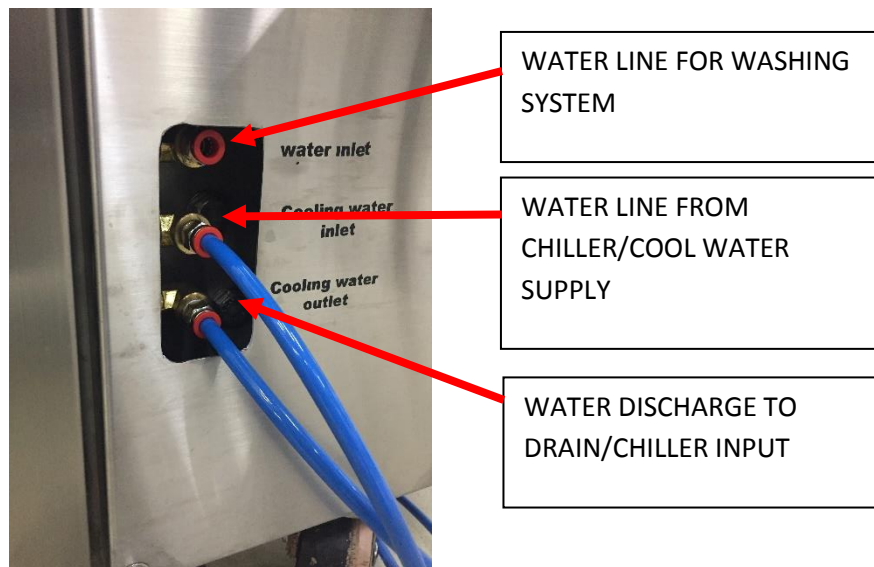
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Connections

The machine must be supplied the following:

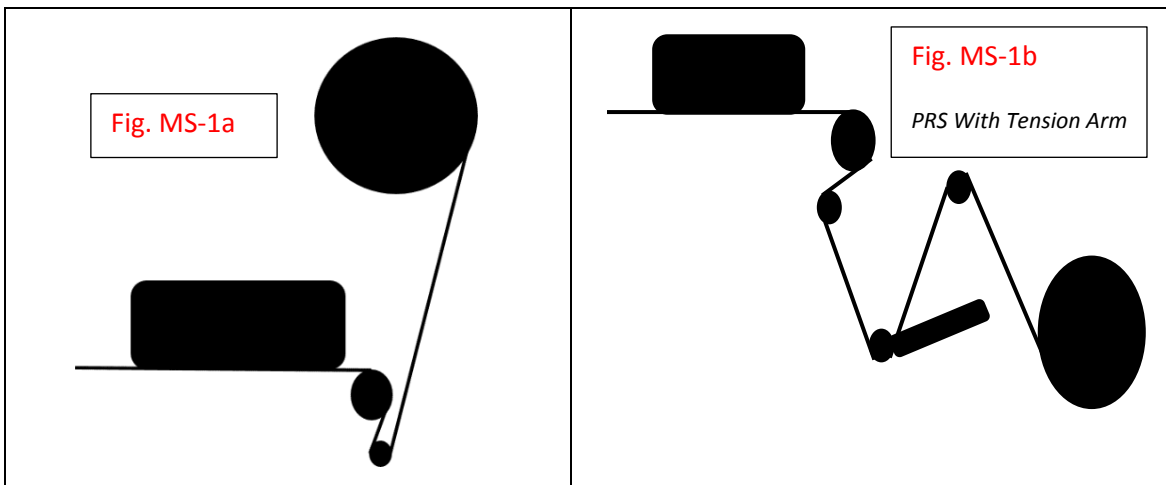
- **Electrical:** 220V/3PH/60HZ @ 50AMPS with a disconnect switch in close proximity to machine's main electrical housing.
 - **Compressed Air:** $\frac{3}{4}$ " to 1" air line with compressed air shut-off valve. 20 SCFM @ 80-100 PSI. The operating pressure is 90 PSI. Filter element 25 microns (to be fitted by customer) and moisture content max 7 g/m³.
 - **Cooling Water:** Water connections are located in the back of the machine, on the discharge side. Water pressure in supply line must be of 20 PSI (minimum) ~ 65 PSI (maximum).
- A chiller could be provided as an option. Connect cool water supply to the "cooling water inlet" port, and the "Cooling water outlet" port to a drain.
- **Washing System Water:** Connect an additional water line to the "water inlet" port, to supply water to the automatic chain washing system.



Machine Setup

Loading Forming / Bottom Film

- Once the roll of film has been loaded into the film rack follow the forming film loading diagram shown in (Fig. Machine Setup 1 below) to complete the forming film loading process.
- Advance the film as required by using the JOG button shown in (Fig. MS-2 below)

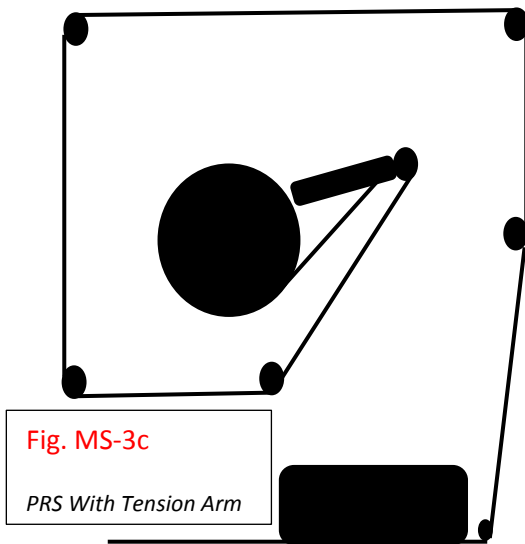
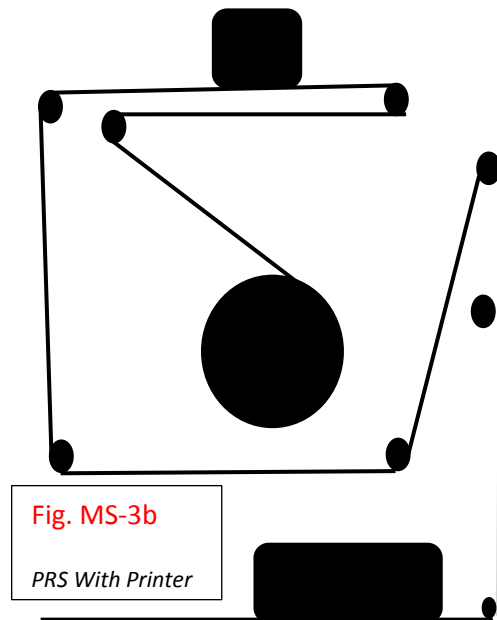
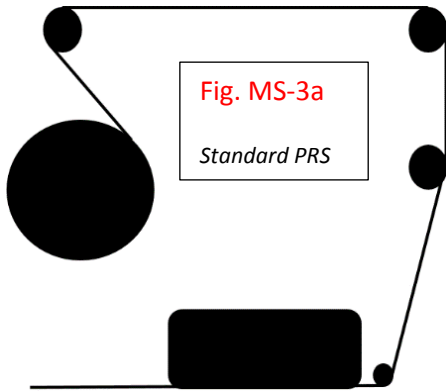


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Loading Sealing / Top Film

- Once the film has been loaded into the film rack follow the sealing film loading diagrams shown in (MS-3a, 3b, 3c) based on your PRS machine to complete the sealing film loading process.
- Advance the sealing film as required by hand.



Operation

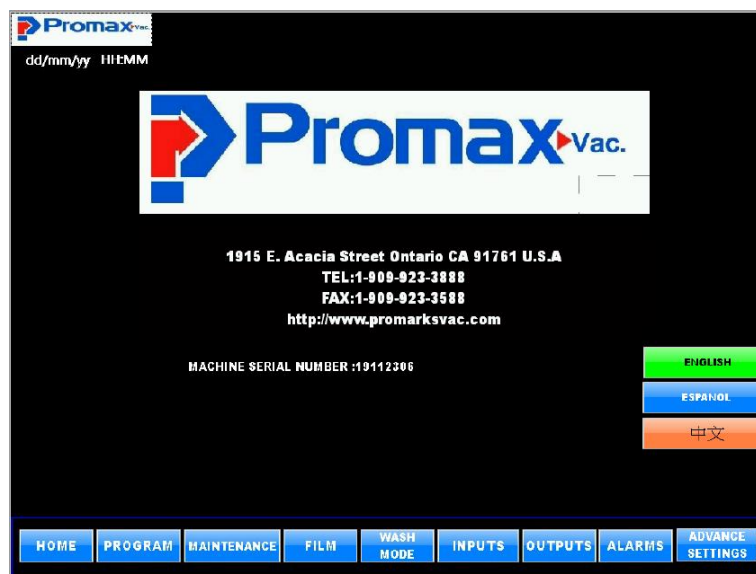
Your PRS series thermoforming machines have been designed to package a wide variety of fresh, frozen and processed food and non-food products. These products will be sold in safe, clean and appealing containers. (If your PRS is equipped with the optional M.A.P. (Modified Atmosphere Packaging) system that helps provide a tightly controlled oxygen level, you can expect a high level of freshness for even longer periods of time.)

HMI Screen Start Up

Fig.OP-1



Fig.OP-2



Power On and Safety Check

Rotate the main power switch to the ON position (Fig.OP-3).



Fig.OP-3

Once the HMI completes the loading process, the SAFETY INSTRUCTIONS SCREEN (Fig. OP-4) will appear. At this point you need to make the following safety checks.

- Verify that all safety covers are in place
- Verify main air pressure.
- Verify that no objects are in loading area.
- Press e-stops from entrance, loading and exit area as well as on HMI box.

Once all these safety items have been checked on the screen, the home button will appear. Press the home button to go to HOME SCREEN.

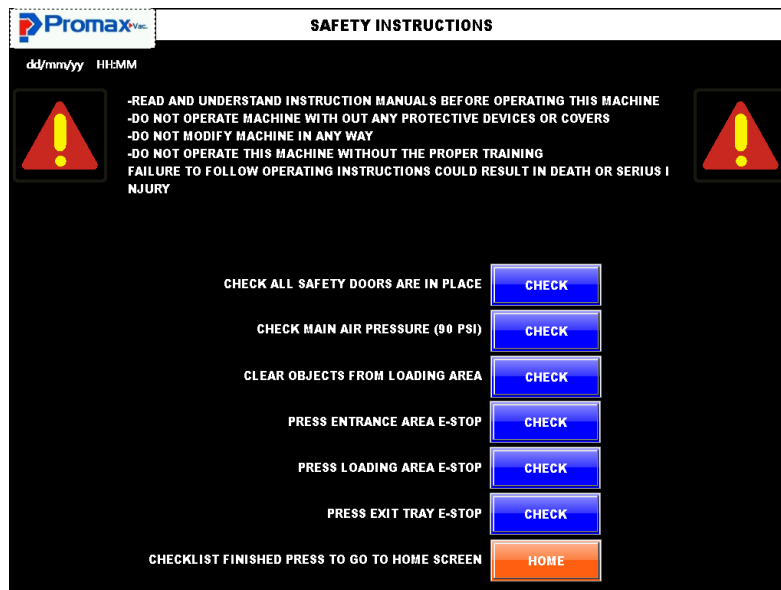


Fig.OP-4



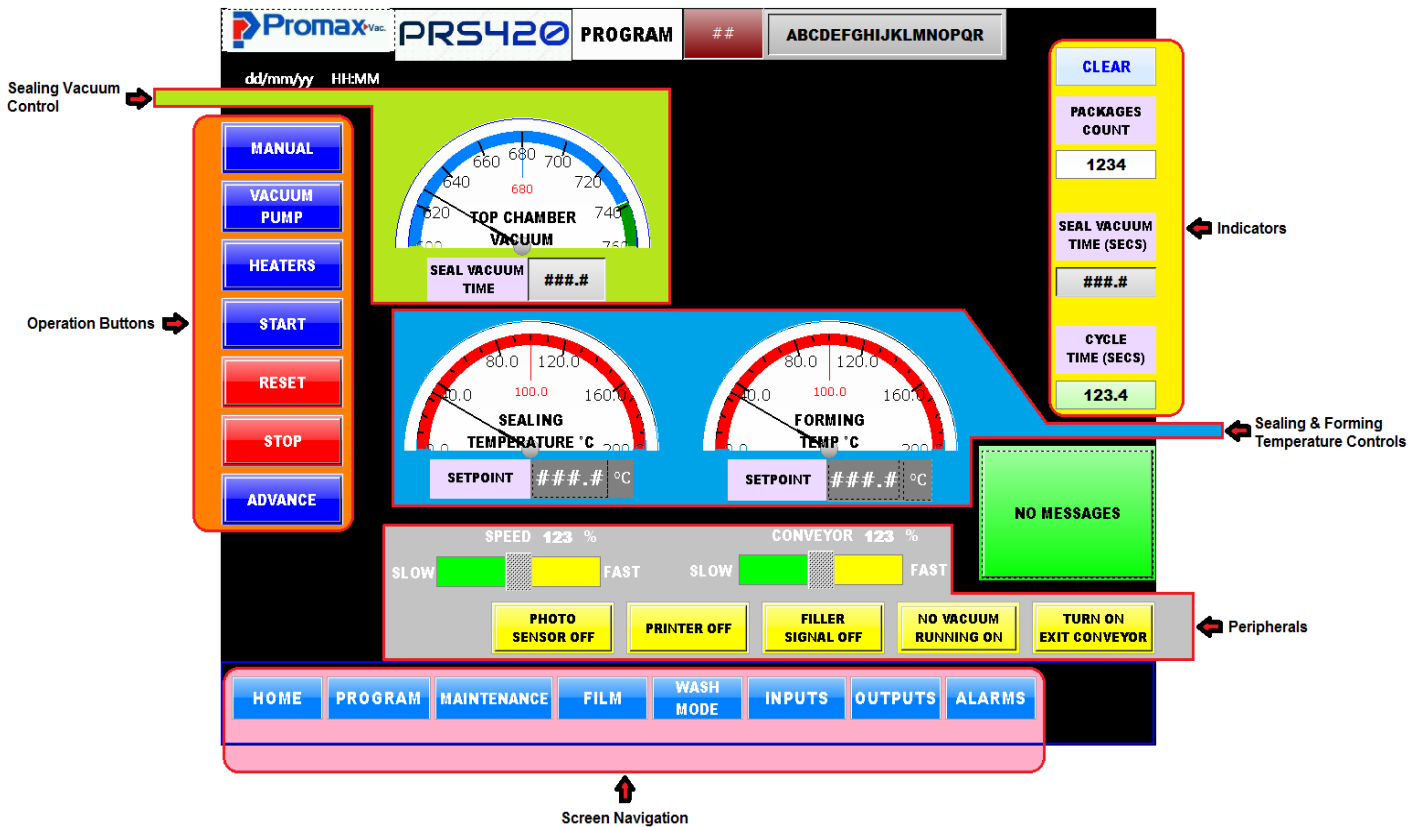
Home Screen

Once on HOME screen (Fig. OP-5), release all the E-STOPS pressed on the previous step. You can return to HOME screen from anywhere by pressing HOME on the Screen Navigation bar.

Please familiarize yourself with Home screen; for the most part this is screen that you will access to first before accessing detailed functions.

For better understanding, different sections of Home screen are highlighted in different colors in bellow diagram (Namely: Screen Navigation, Operation Buttons, Peripherals, Sealing & Forming Temperature Controls, Indicators and Sealing Vacuum Control). Following pages would briefly introduce these different sections' functions.

Fig. OP-5



Screen Navigation



To return to HOME SCREEN. *Fig.OP-5.1*



To access and to set parameters for all the programmable components. *Fig.OP-5.2*



Here you can operate each of the machine's components individually for testing or troubleshooting. *Fig.OP-5.3*



Film tension adjustment and film tracking diagrams/video can be accessed on this screen. *Fig.OP-5.4*



Screen for wash mode setup and control (optional). *Fig.OP-5.5*



Shows all the inputs in and their current status. *Fig.OP-5.6*



Shows all the outputs and their current status. *Fig.OP-5.7*



Alarm history screen. *Fig.OP-5.8*





Fig.OP-5.1

Promax^{Vac} PRS420 PROGRAM ## ABCDEFGHIJKLMNOPQR

dd/mm/yy HH:MM

MANUAL
VACUUM PUMP
HEATERS
START
RESET
STOP
ADVANCE

TOP CHAMBER VACUUM
680

SEAL VACUUM TIME ###.#

SEALING TEMPERATURE °C
100.0

FORMING TEMP °C
100.0

SEAL VACUUM TIME ###.#

SEALING TEMPERATURE °C SETPOINT ###.# °C

FORMING TEMP °C SETPOINT ###.# °C

SPEED 123 % SLOW FAST

CONVEYOR 123 % SLOW FAST

NO MESSAGES

PHOTO SENSOR OFF **PRINTER OFF** **FILLER SIGNAL OFF** **NO VACUUM RUNNING ON** **TURN ON EXIT CONVEYOR**


HOME PROGRAM MAINTENANCE FILM WASH MODE INPUTS OUTPUTS ALARMS

CLEAR
PACKAGES COUNT 1234
SEAL VACUUM TIME (SECS) ###.#
CYCLE TIME (SECS) 123.4





Fig.OP-5.2

Promax^{CVac} PROGRAM  *****

dd/mm/yy HH:MM

| | | | | | | |
|-----------------|---------------------|---|------------------|-------------------|---|---|
| FORM | TEMP | # | 3 | HEATING TIME | # | 3 |
| | FORMING TIME | # | 3 | FORMING VENT TIME | # | 3 |
| SEAL | TEMP | # | 3 | SEAL TIME | # | 3 |
| | VAC PRESSURE | # | | GAS TIME | # | |
| | VAC TIME | # | 3 | VENT TIME | # | 3 |
| | VAC DELAY TOP | # | 3 | VENT DELAY TOP | # | 3 |
| | MIDDLE VACUUM DELAY | # | 3 | MIDDLE VENT DELAY | # | 3 |
| | VAC DELAY BOTTOM | # | 3 | VENT DELAY BOTTOM | # | 3 |
| | FULL CYCLE TIME | # | 3 | MARK SENSOR DELAY | # | |
| PACKS PER CYCLE | # | | GUILLOTINE 1 OFF | GUILLOTINE 2 OFF | | |

HOME PROGRAM MAINTENANCE FILM WASH MODE INPUTS OUTPUTS ALARMS





Fig.OP-5.3

Promax⁺vac **MAINTENANCE MAIN MENU**

dd/mm/yy HH:MM

MANUAL

VACUUM PUMP

HEATERS

RESET

VACUUM SETTINGS

TEMPERATURE SETTINGS

FORMING STATION

SEALING STATION

| | | | |
|----------------|------------------|--------------------|-----------------------|
| FORMING | FORMING DIE UP | TOP BLOW (FORMING) | BOTTOM BLOW (HEATING) |
| SEALING | TOP VAC VALVE | TOP VENT VALVE | VACUUM PUMP |
| SEALING DIE UP | GAS VAC | VENT GAS | SEAL PLATE |
| | BOTTOM VAC VALVE | BOTTOM VENT VALVE | |

| | | | | |
|----------------|---------------------|----------------------|---------------|---------------|
| CHAIN JOG | FRONT TRIM MOTOR | TOP FILM PRESS PLATE | SAFETY GUARD | ADVANCE |
| SLOW JOG SPEED | REAR TRIM MOTOR | AIR CLEAN VALVE | ROTARY CUTTER | EXIT CONVEYOR |
| GUILLOTINE 1 | GUILLOTINE 2 | FILM RELEASED | PRINTER LEFT | PRINTER RIGHT |
| FILLER | RESET TOP FILM MARK | | | |

MAIN AIR PRESSURE

PSI

TOP CHAMBER VACUUM

mm/Hg



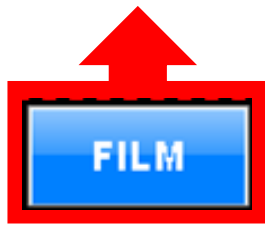


Fig.OP-5.4

Promax^{vac}

dd/mm/yy H:MM

FILM

MANUAL

VACUUM PUMP

HEATERS

RESET

ADVANCE

TOP FILM

ADVANCE

PHOTO SENSOR

FILM MARK

FILM DETECTION WINDOW AT LOW SPEED

400 MM

TOP FILM

BOTTOM FILM

START VIDEO

HOME PROGRAM MAINTENANCE FILM WASH MODE INPUTS OUTPUTS ALARMS






Fig.OP-5.5

Promax^{CVac}

dd/mm/yy HH:MM

'REMOVE FILM BEFORE WASHING'



MANUAL WASH

START WASH


NUMBER OF CYCLES

WATER

AIR

LUBRICATING

CHECK OIL LEVEL BEFORE LUBRICATING



START VIDEO

HOME PROGRAM MAINTENANCE FILM WASH MODE INPUTS OUTPUTS ALARMS



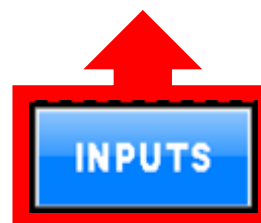



Fig.OP-5.6



INPUTS

dd/mm/yy HHMM

MANUAL

VACUUM PUMP

HEATERS

START

RESET

STOP

OUTPUTS

| | | |
|---|--|--|
| BOTTOM FILM JOG X0 | FRONT TRIM PROXIMITY SWITCH X20 | FILM MARK POINT DETECTION X40 |
| E-STOP (FORMING DIE) X1 | REAR TRIM PROXIMITY SWITCH X21 | FORMING DIE UP POSITION X41 |
| E-STOP (ELECTRICAL BOX) X2 | FRONT TRIM LIMIT SWITCH X22 | FORMING DIE DOWN POSITION X42 |
| E-STOP (EXIT TRAY) X3 | REAR TRIM LIMIT SWITCH X23 | SEALING DIE UP POSITION X43 |
| START X4 | GUILLOTINE 1 UP X24 | SEALING DIE DOWN POSITION X44 |
| STOP X5 | GUILLOTINE 1 DOWN X25 | CHAIN POSITION SET X45 |
| TRIM MOTOR ON/OFF X6 | FORMING SAFETY GUARD X26 | SERVO WARNING X46 |
| PHASE SENSOR X7 | SEALING SAFETY GUARD X27 | NOT USED X47 |
| EXPANSION X10 | SAFETY RELAY ON X30 | FRONT TRIM MOTOR OVERLOAD X50 |
| EXPANSION X11 | SPARE X31 | REAR TRIM MOTOR OVERLOAD X51 |
| EXPANSION X22 | REAR SAFETY DOOR X32 | ROTARY BLADES MOTOR OVERLOAD X52 |
| EXPANSION X23 | FRONT SAFETY DOOR X33 | PRINT MOTOR FRONT POSITIONING X53 |
| EXPANSION X24 | GUILLOTINE 2 UP X34 | PRINT MOTOR REAR POSITIONING X54 |
| EXPANSION X25 | GUILLOTINE 2 DOWN X35 | VAC PUMP OVERLOAD (FORMING) X55 |
| EXPANSION X26 | TOP PRESSING PLATE DOWN X36 | VAC PUMP OVERLOAD (SEALING) X56 |
| EXPANSION X27 | TOP PRESSING PLATE UP X37 | PRINT MOTOR OVERLOAD X57 |

HOME

PROGRAM

MAINTENANCE

FILM

WASH MODE

INPUTS

OUTPUTS

ALARMS



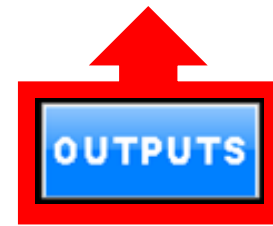



Fig.OP-5.7



PLC OUTPUTS

dd/mm/yy HHMM

MANUAL

VACUUM PUMP

HEATERS

START

RESET

STOP

INPUTS

NEXT

| | | | | | |
|------------|-----|---------------------------|-----|-----------------------------|-----|
| EXPANSION | Y0 | FRONT TRIM MOTOR | Y20 | SEALING BLADDER (SEALING) | Y40 |
| START LAMP | Y1 | REAR TRIM MOTOR | Y21 | TOP VAC VALVE (SEALING) | Y41 |
| EXPANSION | Y2 | CIRCULAR CUTTER MOTOR | Y22 | FORMING DIE UP | Y42 |
| EXPANSION | Y3 | PRINT MOTOR MOVE BACK | Y23 | BOTTOM VAC VALVE (SEALING) | Y43 |
| EXPANSION | Y4 | PRINT MOTOR MOVE FRONT | Y24 | TOP VENT VALVE (SEALING) | Y44 |
| EXPANSION | Y5 | VAC. PUMP (FORMING) | Y25 | SEALING DIE UP | Y45 |
| EXPANSION | Y6 | VAC. PUMP (SEALING) | Y26 | BOTTOM VENT VALVE (SEALING) | Y46 |
| EXPANSION | Y7 | FORMING TEMP PROTECT | Y27 | MIDDLE GAS VALVE (SEALING) | Y47 |
| EXPANSION | Y10 | SEALING TEMP PROTECT | Y30 | GUILLOTINE 1 | Y50 |
| EXPANSION | Y11 | TOP FILM PRESSING PLATE | Y31 | GUILLOTINE 2 | Y51 |
| EXPANSION | Y12 | NOT USED | Y32 | SAFETY GUARD | Y52 |
| EXPANSION | Y13 | NOT USED | Y33 | AIR BLOW (WASH MODE) | Y53 |
| EXPANSION | Y14 | TOP AIR BLOW (FORMING) | Y34 | WATER WASH (WASH MODE) | Y54 |
| EXPANSION | Y15 | NOT USED | Y35 | FEED IN SIGNAL | Y55 |
| EXPANSION | Y16 | BOTTOM AIR BLOW (FORMING) | Y36 | LUBRICANT (WASH MODE) | Y56 |
| EXPANSION | Y17 | EXPANSION | Y37 | PRINTING ON (PRE-WIRE) | Y57 |

HOME PROGRAM MAINTENANCE FILM WASH MODE INPUTS **OUTPUTS** ALARMS



Operation Buttons



MANUAL/SEMI/AUTO Selects the operation mode for the machine.



-Manual mode for maintenance or troubleshooting.

-Semi Auto for running one cycle each time the button is pressed.



-Auto for running continuously until the stop button is pressed.



Starts/stops the vacuum pump.



Starts/stops forming and sealing heater elements.



Press to start machine's cycle.



Press to reset faults or warnings.



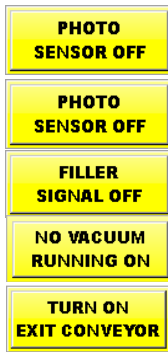
Press to stop the machine. Machine will finish the current cycle and then stops.



Press to advance the chain once.



Peripherals



Turns on/off film mark detection program for registered printed film. (optional)

Turns on/off printer program for date/lot coding. (optional)

Turns on/off signal for external filler/loader equipment.

Indicates whether the machine will run cycles without vacuum.

Turns on/off exit conveyor (optional).



Controls the speed of the machine.

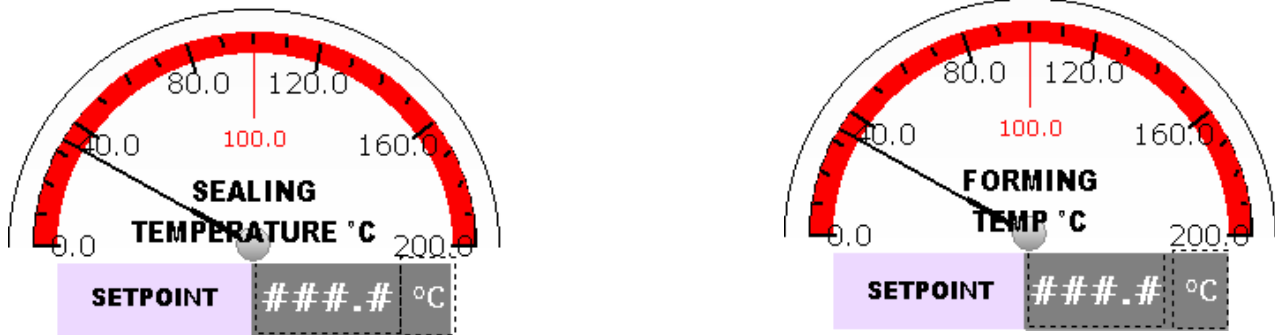
At 100% the machine works at full speed. If speed percentage is reduced, the machine will have a delay between cycles.



Conveyor speed control.



Forming / Sealing Temperature Controls



- Push the RUN button to begin the packaging operation.
- For a quick tweak of temperature of either FORMING or SEALING just press the current temperature numbers on HOME screen (Fig.OP-5.9). Enter the new value and push the OK button (Fig. OP-5.10).
- To configure temperature control press PROGRAM on HOME screen (Fig. OP-5.11) and select temperature settings for either FORMING or SEALING (Fig. OP-5.12).
- To access temperature limit adjustments/temperature parameters press MAINTENANCE on HOME screen (Fig. OP-5.13), enter user credentials and press ok, press the TEMPERATURE SETTING button (Fig. OP-5.14) to go to next control screen (Fig. OP-5.15) to control temperature limits to every related component.

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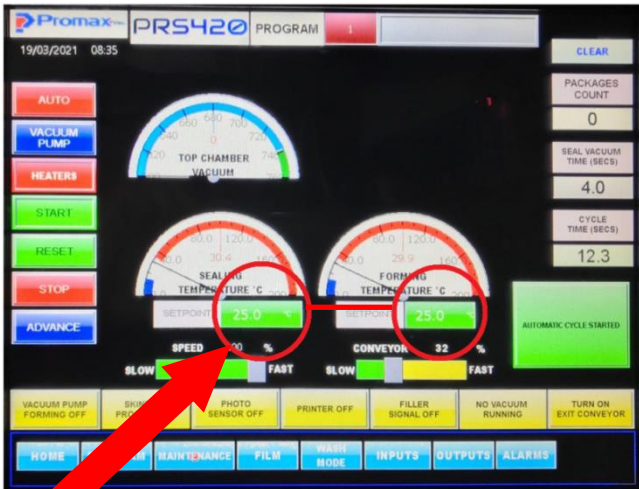


Fig.OP-5.9

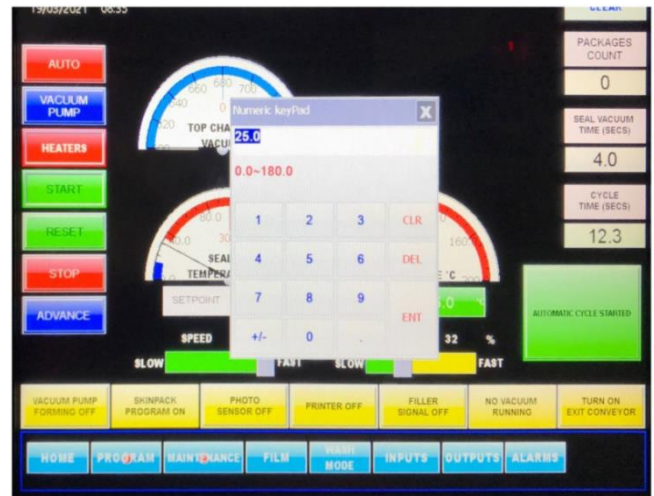


Fig.OP-5.10

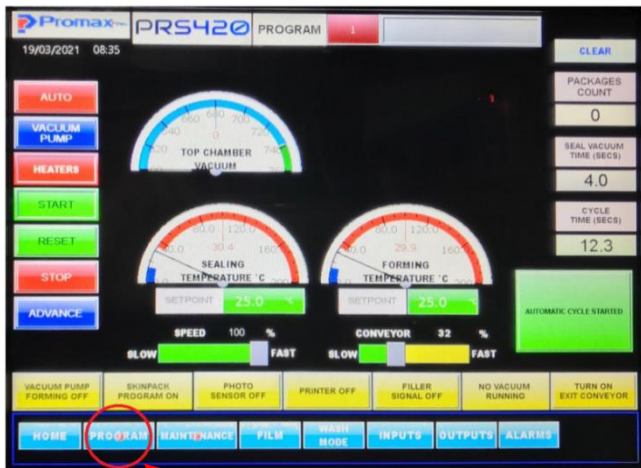


Fig.OP-5.11

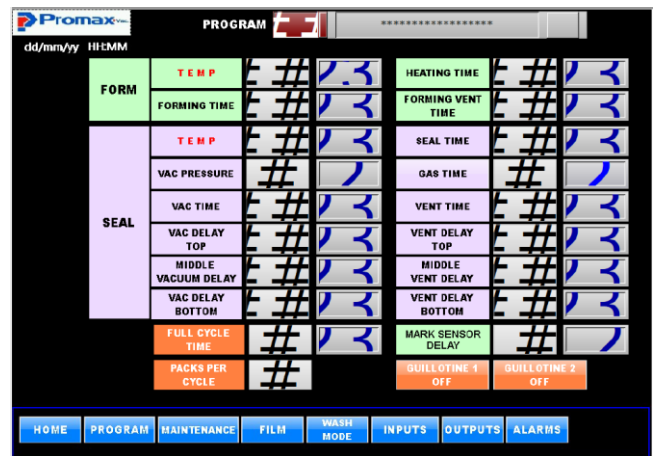


Fig.OP-5.12

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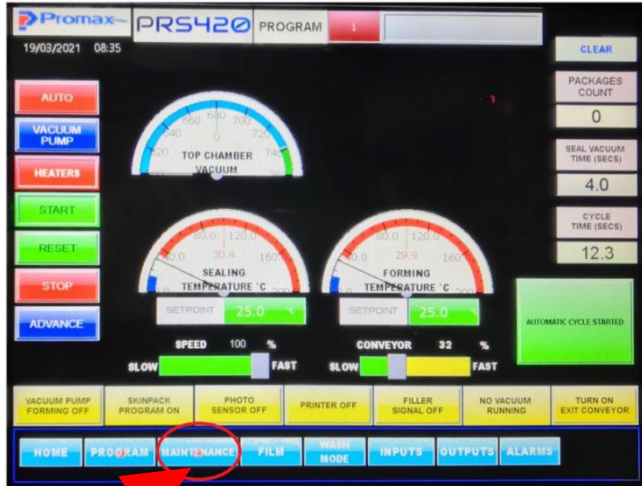


Fig.OP-5.13

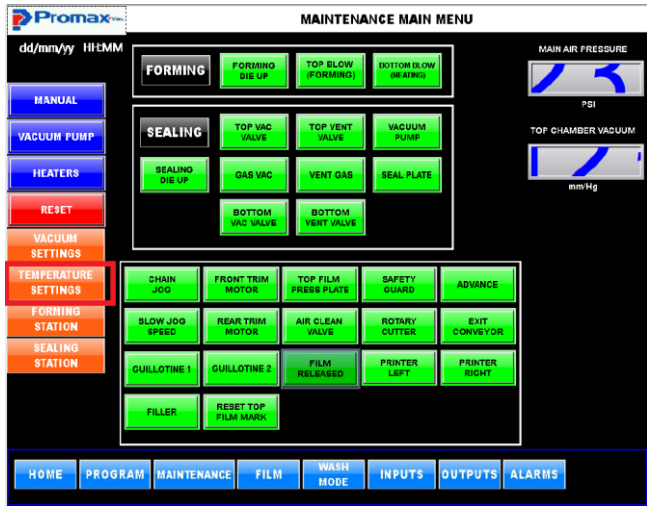


Fig.OP-5.14

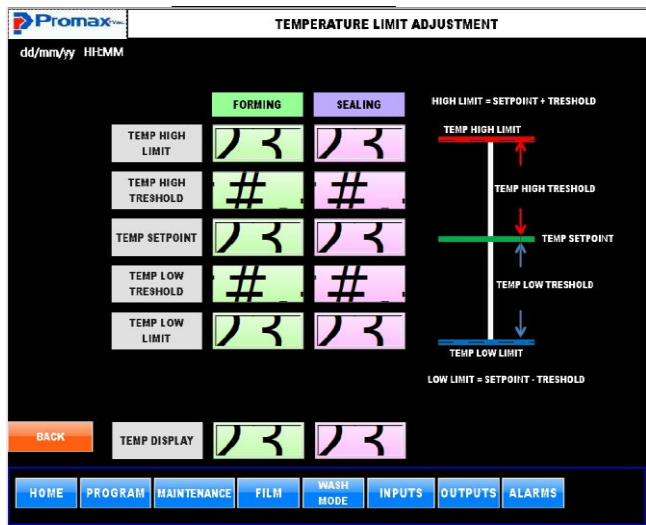


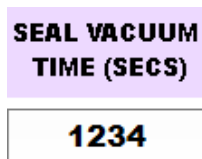
Fig.OP-5.15



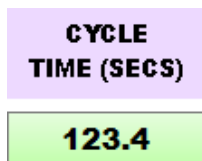
Indicators



Counts packages accordingly to tool configuration (packages per cycle) Press clear to reset the counter to 0.



Seal Vacuum time. Press the numeric display to change the value.



Displays machine's last cycle time.



Setting Up New Programs

-Press the PROGRAM button on the left side of the home screen (Fig. OP-5.17) and a password screen will appear.

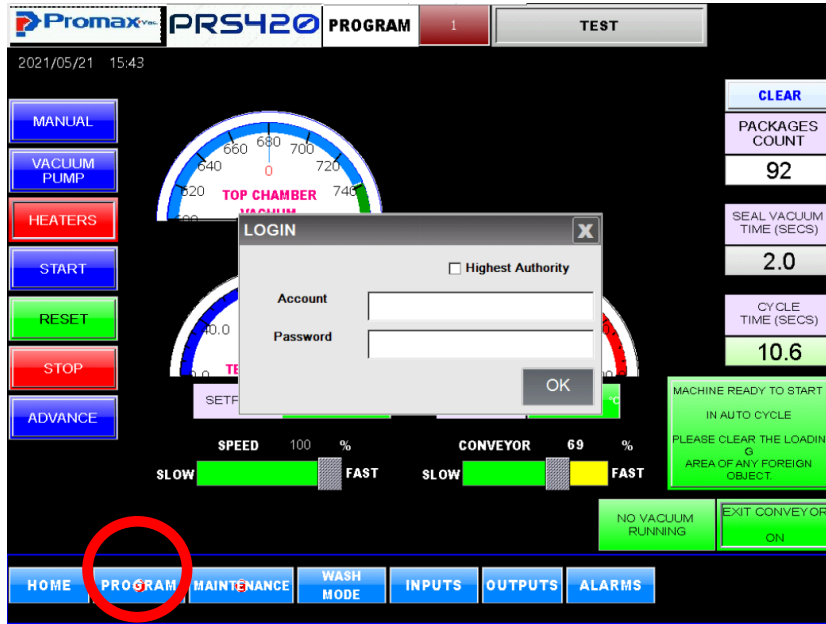


Fig.OP-5.17

-Enter the proper account number and password the push the OK button. (Fig. OP-5.18)



Fig.OP-5.18

Continued to next page



-The program screen will appear (Fig. OP-5.19 below).

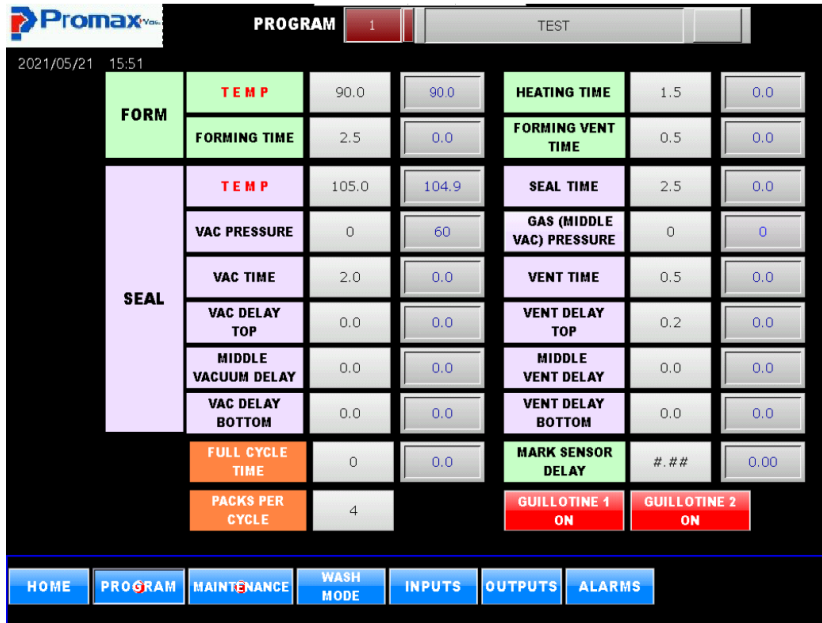


Fig.OP-5.19

-Push the button for the first parameter you wish to set and a keyboard screen.

-Enter the parameter and push Enter.

-Continue this process until all the parameters for Forming / Sealing etc. have been entered.



Maintenance

-Press the Maintenance button on the left side of the home screen (Fig. OP-5.20) and a password screen will appear .

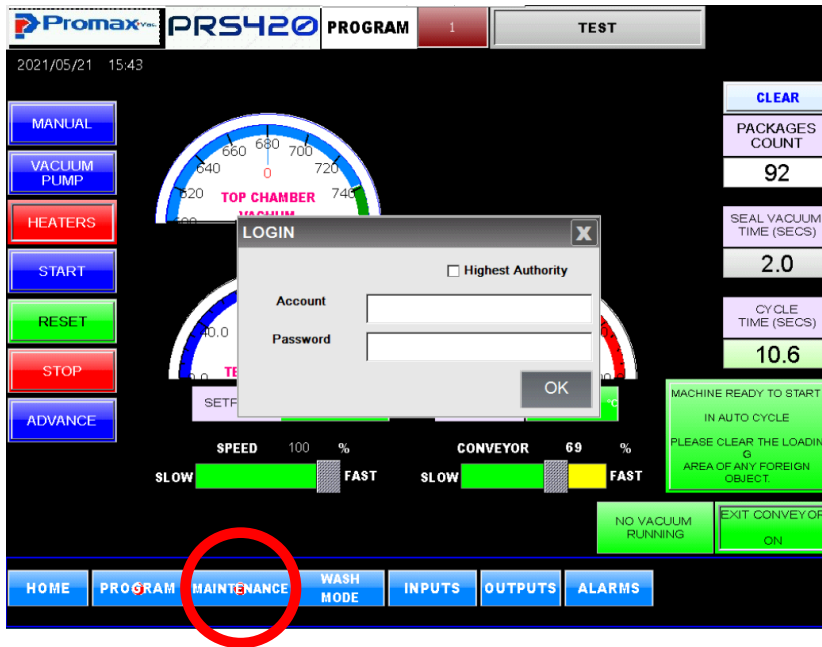


Fig.OP-5.20

-Enter the proper account number and password the push the OK button. (Fig. OP-5.21)



Fig.OP-5.21

Continued to next page



-The program screen will appear (Fig. OP-5.22 below).

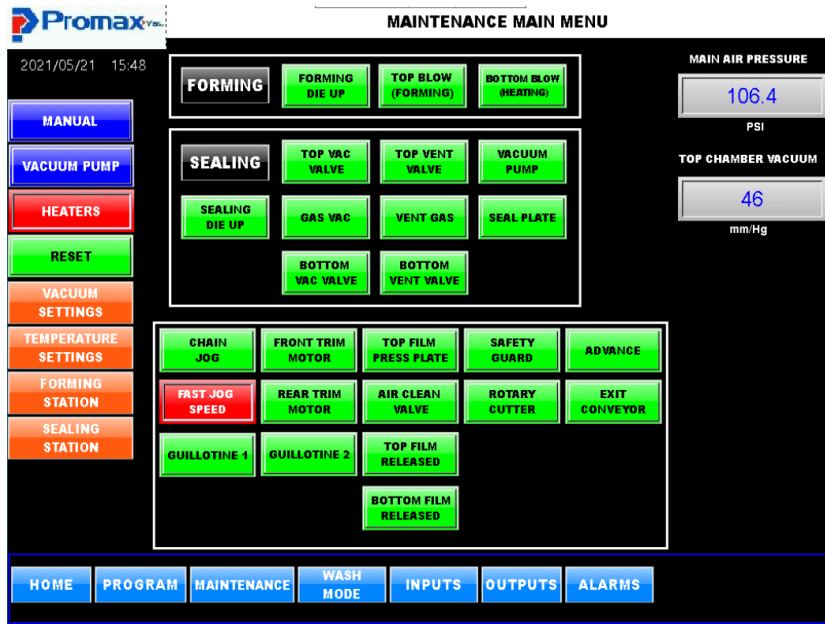


Fig.OP-5.22

-Push the button for the component that you wish to do the maintenance of.

-Enter the parameter for the e to carry out the maintenance.

-Continue this process until all the maintenance has been done.



Factory Reset

-Press the marked (circled) points on the screen as shown in the below picture (Fig.OP-5.23) to access to factory reset option.

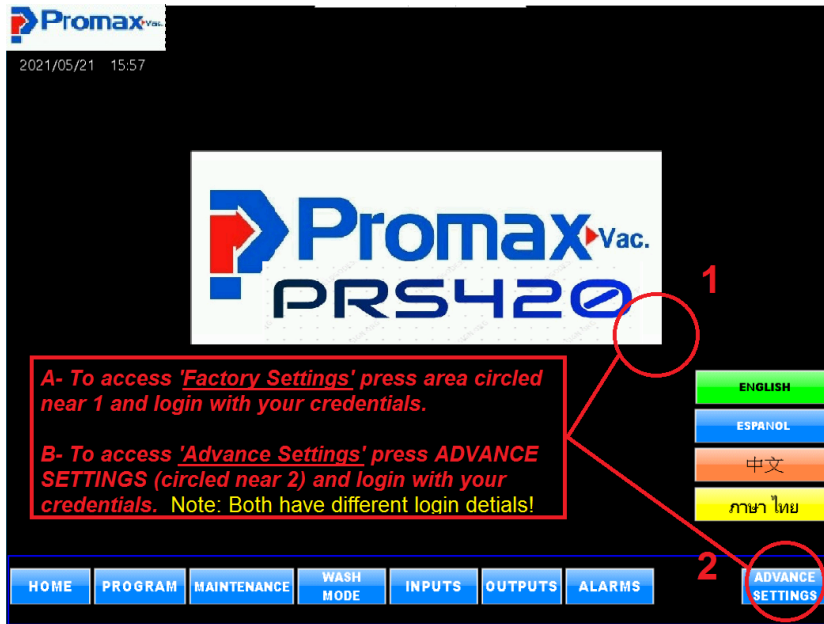


Fig.OP-5.23

-A password screen will come up, enter the appropriate higher level credentials for first level and then advance setting. (Fig. OP-5.24)



Fig.OP-5.24

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Advance setting screen will appear (Fig. 5.11.3)

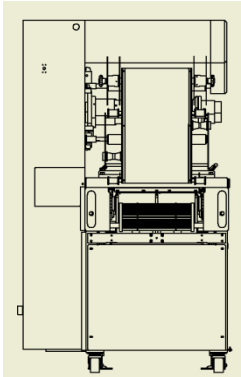
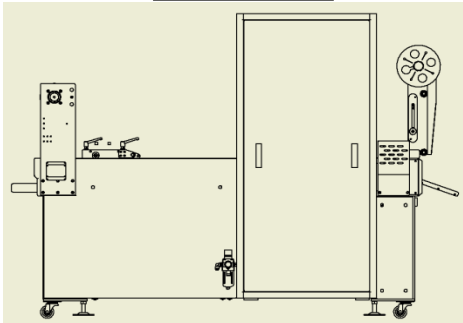
Fig.OP-5.25



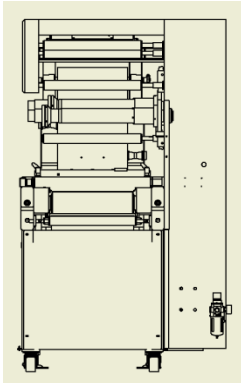


Different Views of PRS

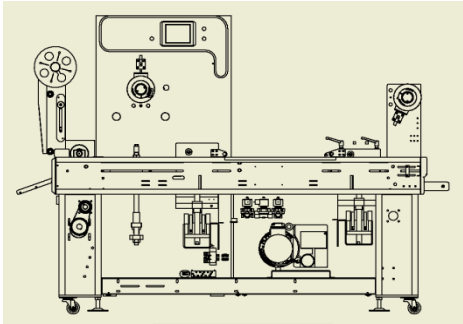
Rear View



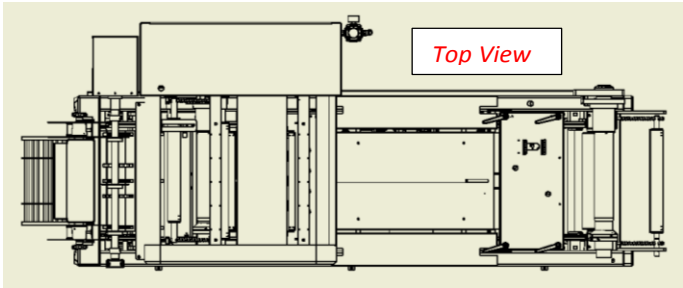
Exit/Discharge View



Infeed View



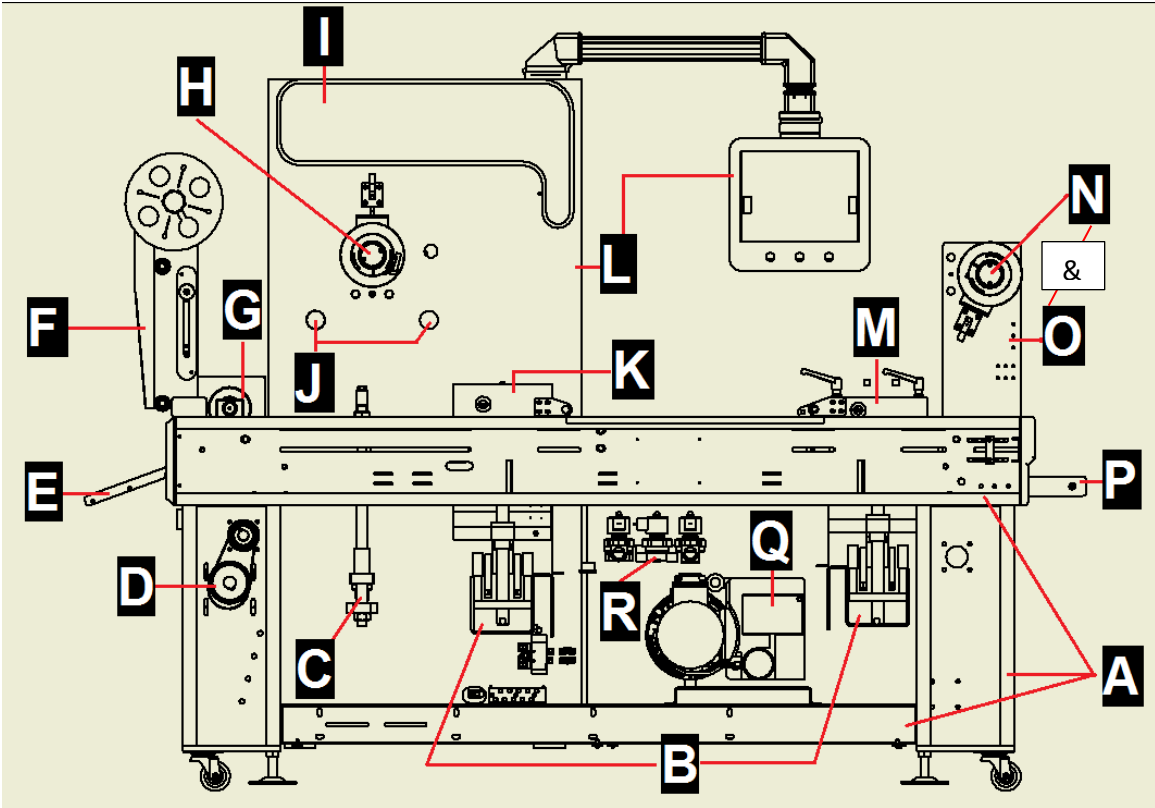
Front View



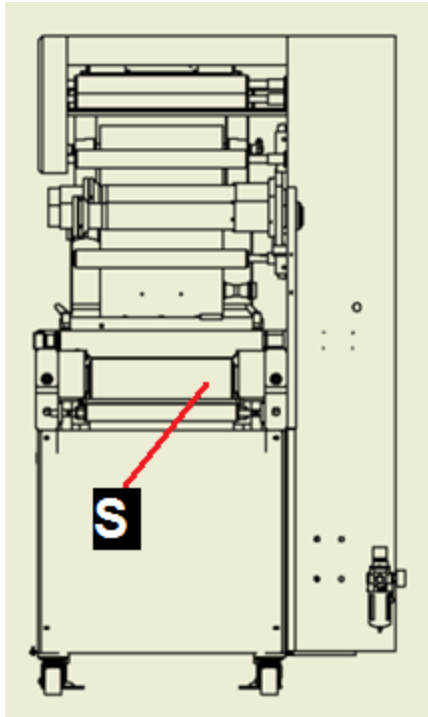
Top View



Front View



Infeed View

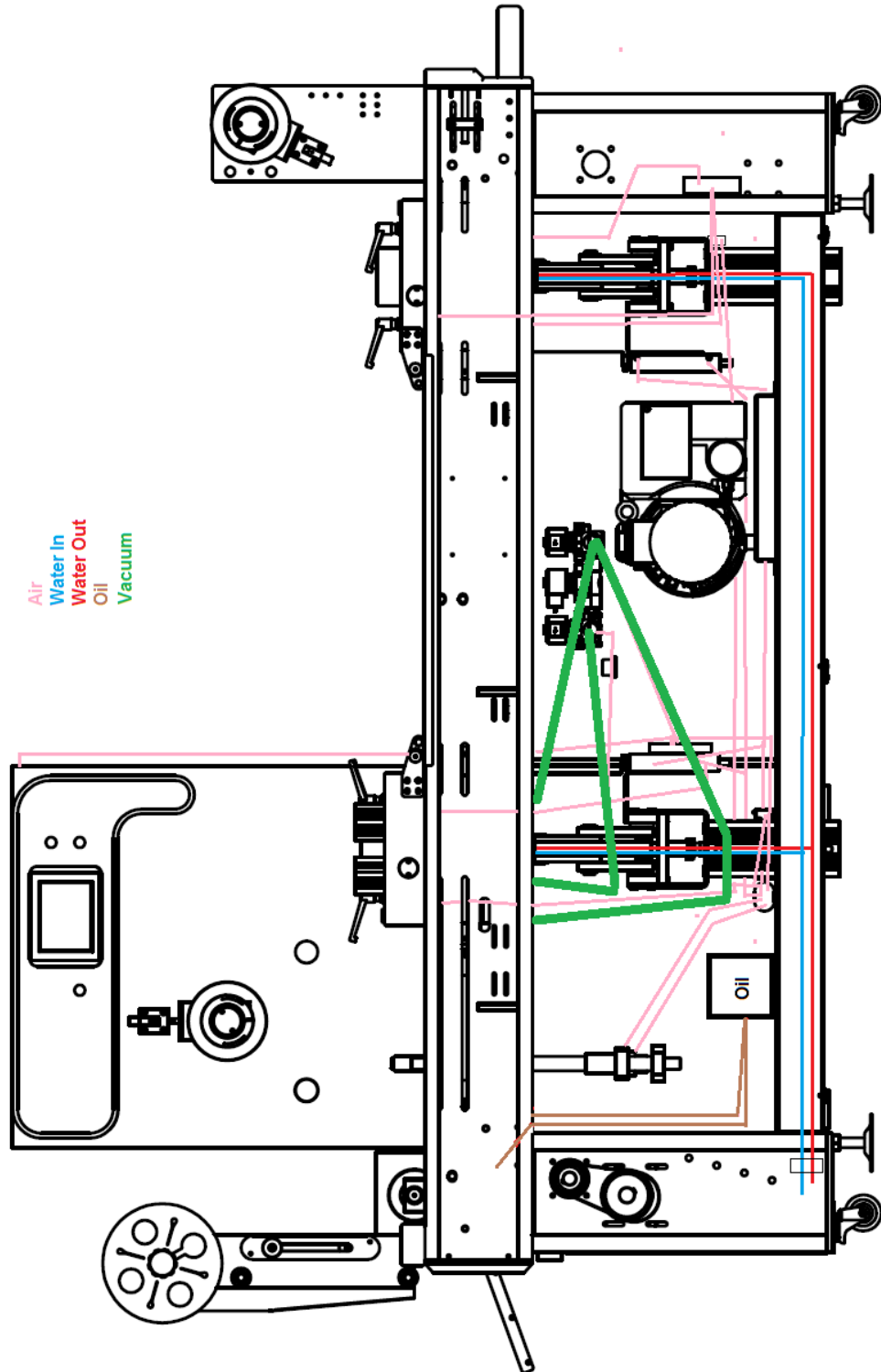


Machine's Main Sections

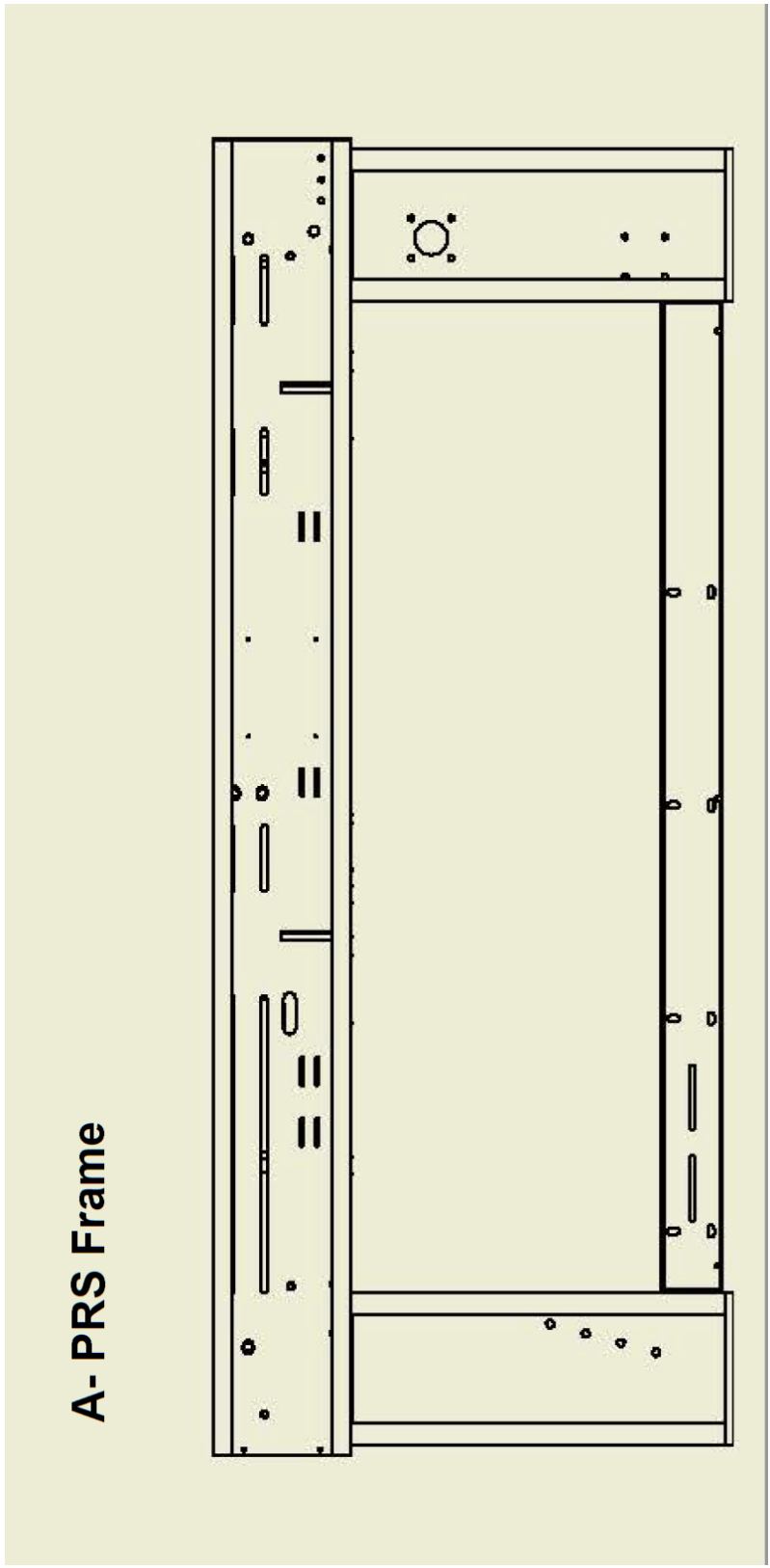
| Letter | Corresponding Section's & Drawing's Name |
|--------------------------------|---|
| A | PRS Frame. |
| B | PRS Lifting System. |
| C | PRS Cross Cutting/Guillotine System. |
| D | PRS Chain Drive Servo System. |
| E | PRS Discharge/Exit Conveyor. |
| F | PRS Film Trim Winding System. |
| G | PRS Roller/Rotary Cutter System. |
| H | PRS Top/Sealing Film Roller. |
| I | PRS Upper Film Arm System. |
| J | PRS Film Guide Rollers. |
| K | PRS Sealing Die System. |
| L | PRS Main Electrical & HMI Enclosure. |
| M | PRS Forming Die System. |
| N & O | PRS Forming Film Roller & Roller Wall. |
| P | PRS Forming Film Tensioner. |
| Q | PRS Vacuum Pump. |
| R | PRS Vacuum Valves. |
| S | PRS Forming Film Infeed System. |
| PRS 420 Version 1 (V.1) | |
| T | Frame V.1 |
| U | Top Tension Arm V.1 |



Air, Water, Oil and Vacuum Layout



A - PRS Frame

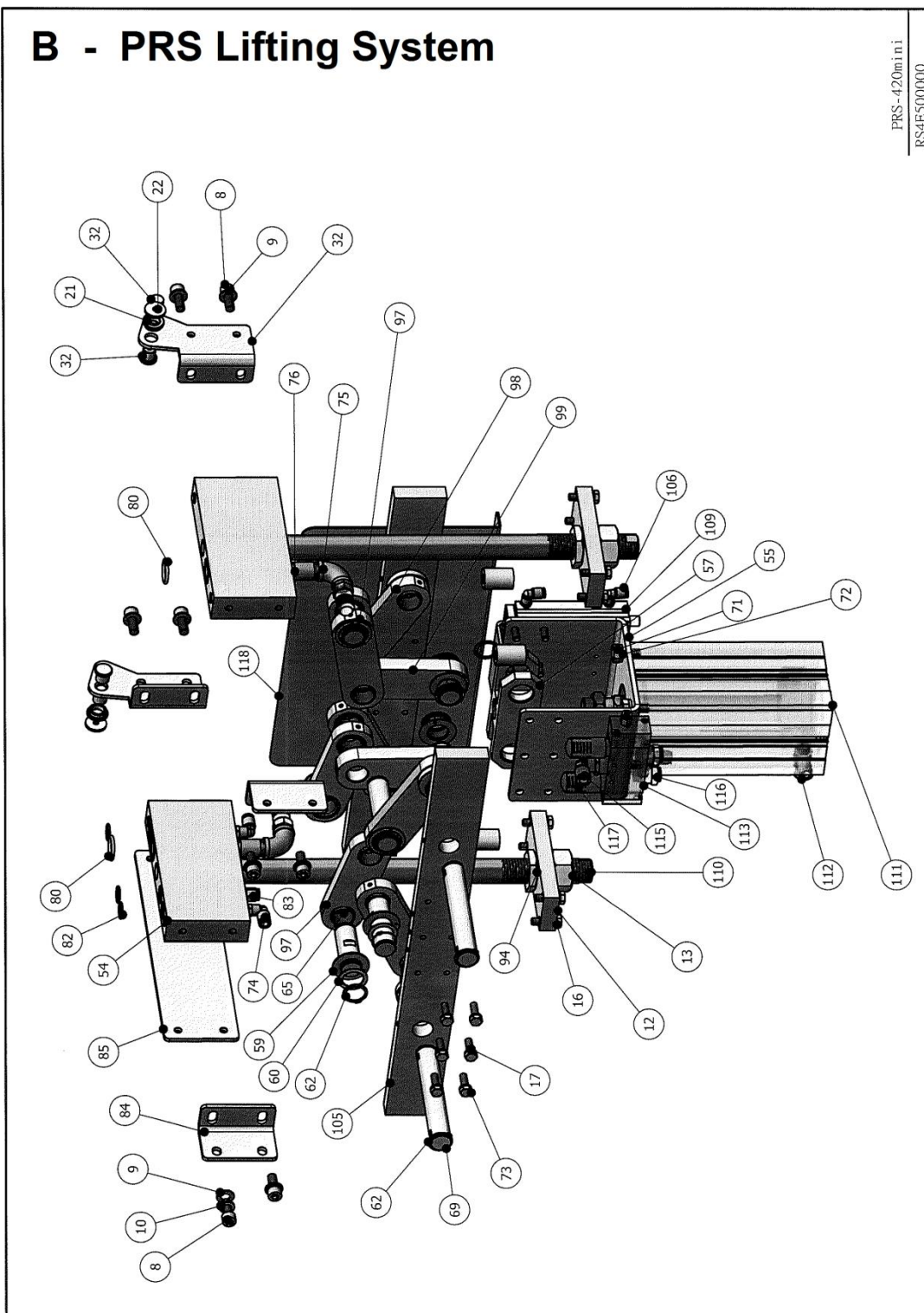


B - PRS Lifting System



B - PRS Lifting System

PRS-420mini
RS4E500000



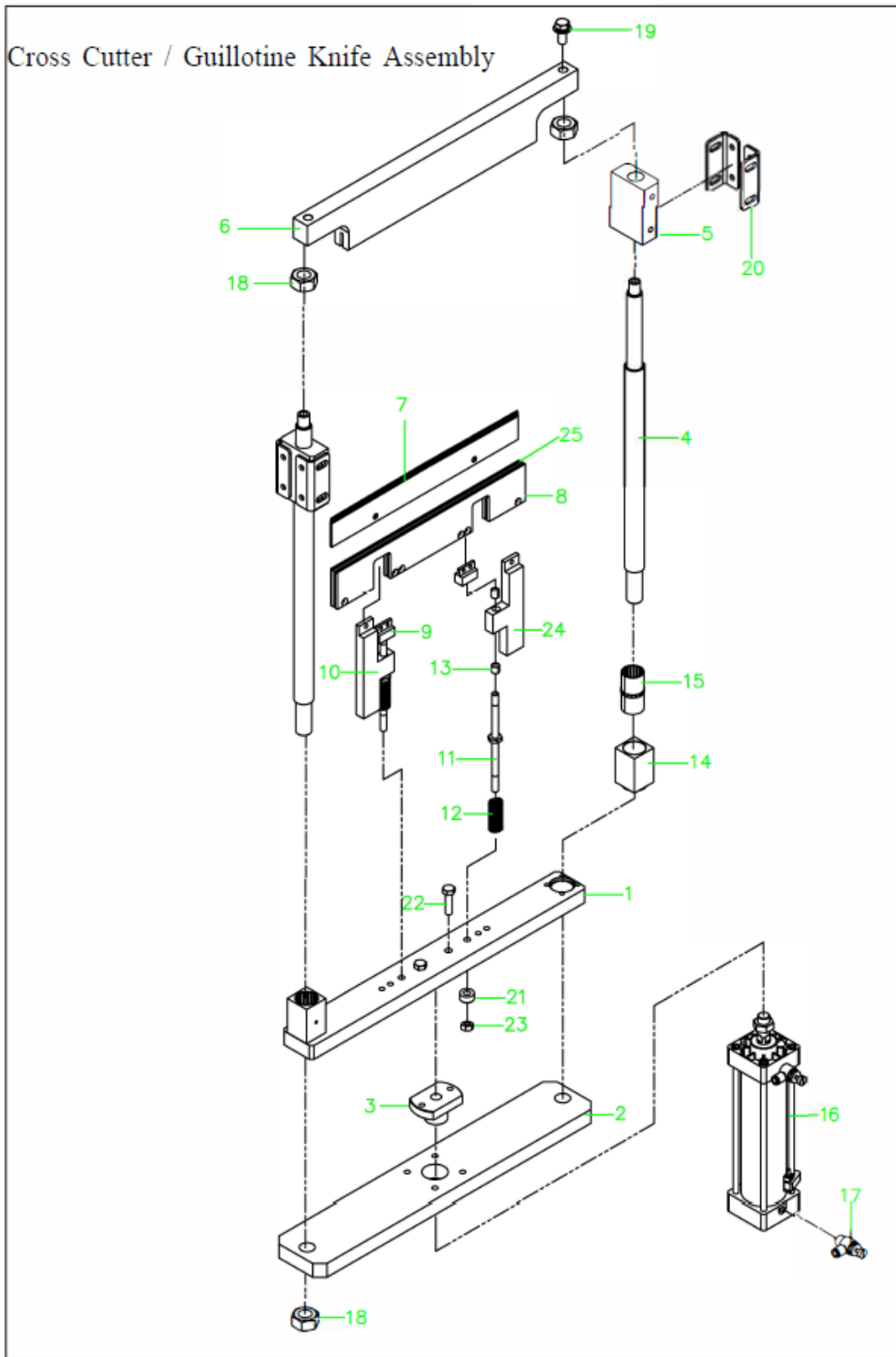
PRS Lifting System Parts List



| No. | Part Number | English Description |
|-----|-------------|-----------------------------------|
| 8 | 2700400 | SCREW, SUS, HEX, M10x25 |
| 9 | 27046155 | WASHER, SUS, M10xt1 |
| 10 | 27141132 | SPRING WASHER, 1/2 |
| 12 | RS39406000 | FIXING PLATE |
| 13 | 2707229 | NUT, SUS, M30x3.5 |
| 16 | 2700427 | SCREW, SUS, HEX, M8x30 |
| 17 | 2705301 | SPRING WASHER, SUS, M8 |
| 21 | RS4A418000 | BUSHING, ψ 25x8L |
| 22 | RS4A419000 | SPACER |
| 32 | RS39422000 | BLOCK, STOPPER |
| 55 | RS4M414000 | HOLDER, AIR CYLINDER |
| 57 | RS39408000 | CONNECTOR, AIR CYLINDER |
| 59 | 27280200 | BEARING |
| 60 | RS39409000 | SPACER |
| 62 | 27060171 | SNAP RING, SUS, S25 |
| 65 | 272832522 | BEARING, OILLESS |
| 69 | RS39416000 | SHAFT |
| 71 | 2700457 | SCREW, SUS, HEX, M12x25 |
| 72 | 2714813 | SPRING WASHER, SUS, M12 |
| 73 | 2700405 | SCREW, HEX, SUS, M8x25 |
| 74 | 2909345 | CONNECTOR |
| 75 | 27400066S | ELBOW, PT1/2", FEMALE THREAD, SUS |
| 76 | 290932651 | NIPPLE, SUS, 1/2"x5cm |
| 80 | 27401587 | O RING P24(FPM.V.T) |
| 82 | 27401631 | O RING P16 |
| 83 | 2909461 | CONNECTOR |
| 84 | RS3M505000 | MOUNTING PLATE, L SHAPE |
| 85 | RS4E507000 | MOUNTING PLATE, SIDE, SEALING |
| 94 | RS66407000 | NUT, HEX, M30 |
| 96 | RS4N414000 | SHAFT |
| 97 | RS4N509000 | CONNECTING ROD |
| 98 | RS4N510000 | CONNECTING ROD |
| 99 | RS4N511000 | CONNECTING ROD, AIR CYLINDER |
| 105 | RS4N512001 | HOLDING PLATE |
| 106 | 2909321 | CONNECTOR |
| 109 | 29276406 | AIR CYLINDER |
| 110 | RS4M413000 | LINEAR SLIDING SHAFT |
| 111 | 2927660 | AIR CYLINDER |
| 112 | 2908019 | CONNECTOR, AIR FLOW CONTROL |
| 113 | 2934102 | VALVE, PNEUMATIC |
| 115 | 29093334 | CONNECTOR |
| 116 | 29081004 | CONNECTOR |
| 117 | 2916013 | SILENCER |
| 118 | RS4E511000 | FINGER GUARD |



C - PRS Cross Cutting/Guillotine System



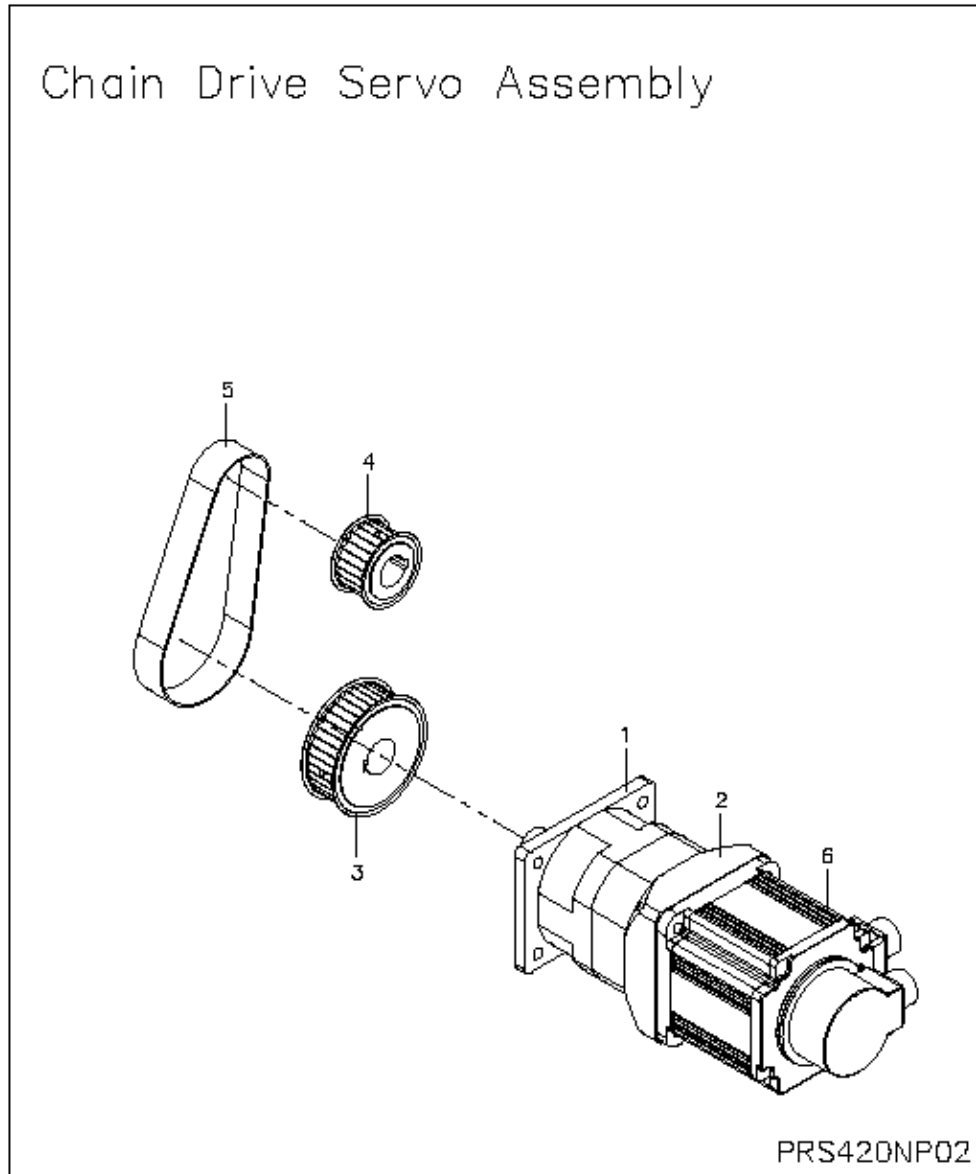
C - Cross Cutter / Guillotine Knife Assembly Parts List

| NO. | PART NO. | DESCRIPTION | QTY | NOTES |
|-----|------------|---------------------------------------|-----|-------|
| 1 | RS4N602000 | Bracket slide guillotine knife | 1 | |
| 2 | RS4N601000 | Bracket air cylinder guillotine knife | 1 | |
| 3 | RS4A602001 | Vacuum pump mounting bracket | 1 | |
| 4 | RS4A604002 | Rod support guillotine knife | 2 | |
| 5 | RS4N604000 | Holder main guillotine knife | 2 | |
| 6 | RS4N603001 | Anvil guillotine knife | 1 | |
| 7 | RS4N606001 | Knife | 1 | |
| 8 | RS4N607001 | Safety cover guillotine knife | 1 | |
| 9 | RS42613000 | Block guide rod | 2 | |
| 10 | RS42607001 | Holder guillotine knife | 1 | |
| 11 | RS42610000 | Guide rod | 2 | |
| 12 | RS42611001 | Spring | 2 | |
| 13 | 2728303 | Dried bearing | 4 | |
| 14 | RS4A605001 | Bracket linear | 2 | |
| 15 | 27281066 | Bushing | 2 | |
| 16 | 29276402 | Cylinder | 1 | |
| 17 | 29080171 | Fitting | 2 | |
| 18 | 2707072 | Nut | 4 | |
| 19 | 27004571 | Hex head screw | 1 | |
| 20 | RS4N605000 | Plate holder guillotine knife | 4 | |
| 21 | RS42612000 | Pad cushion | 2 | |
| 22 | 2700442 | Hex head screw | 2 | |
| 23 | 2707017 | Nu | 2 | |
| 24 | RS42608001 | Holder guillotine knife | 1 | |
| 25 | RS4N608001 | Gasket Safety cover guillotine knife | 1 | |
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D - PRS Chain Drive Servo System

D - PRS CHAIN DRIVE SERVO SYSTEMY

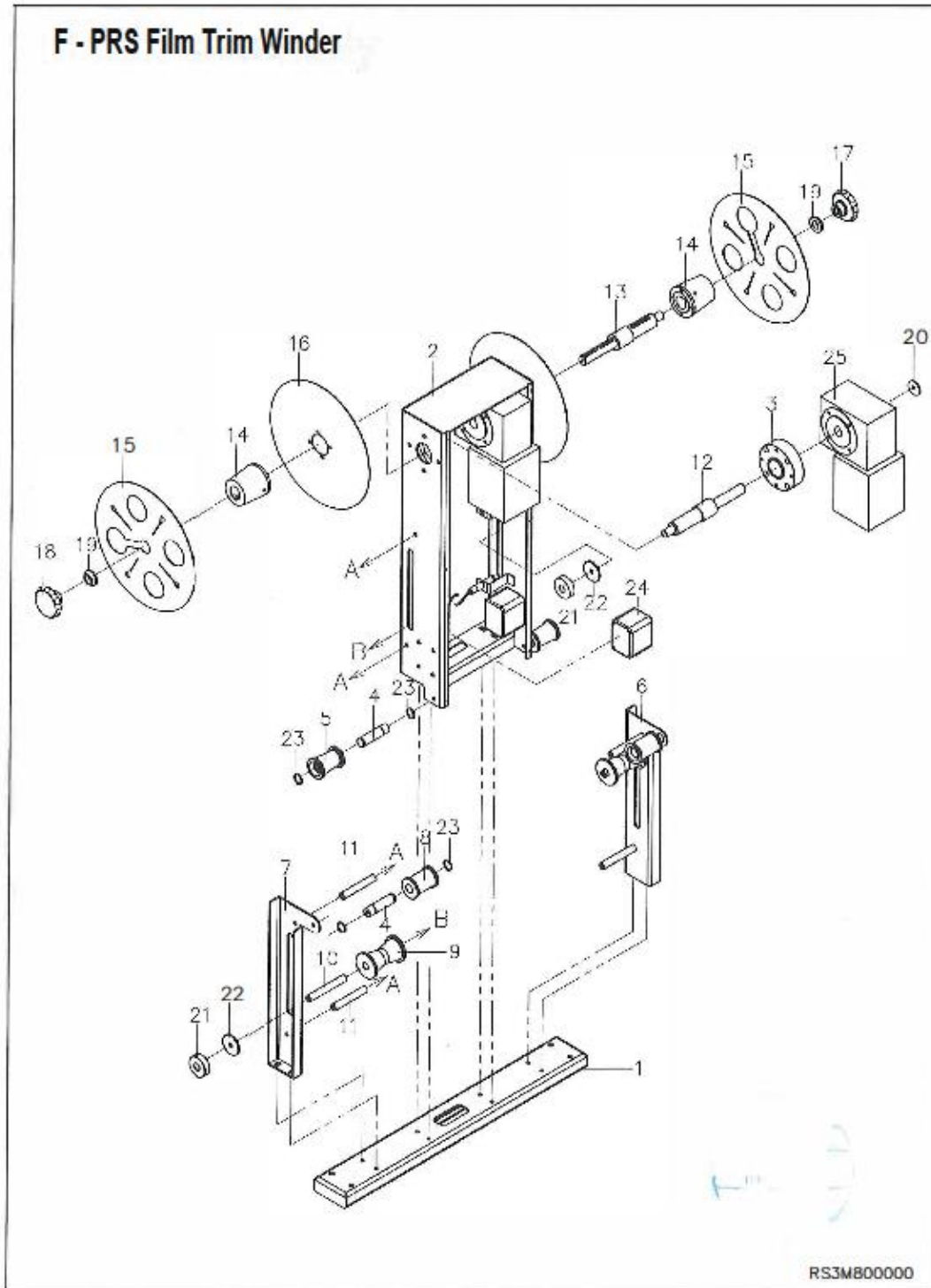


E - PRS Discharge/Exit Conveyor





F - PRS Film Trim Winding System



F - PRS FILM TRIM WINDER PARTS

6.1-PRS3M80000

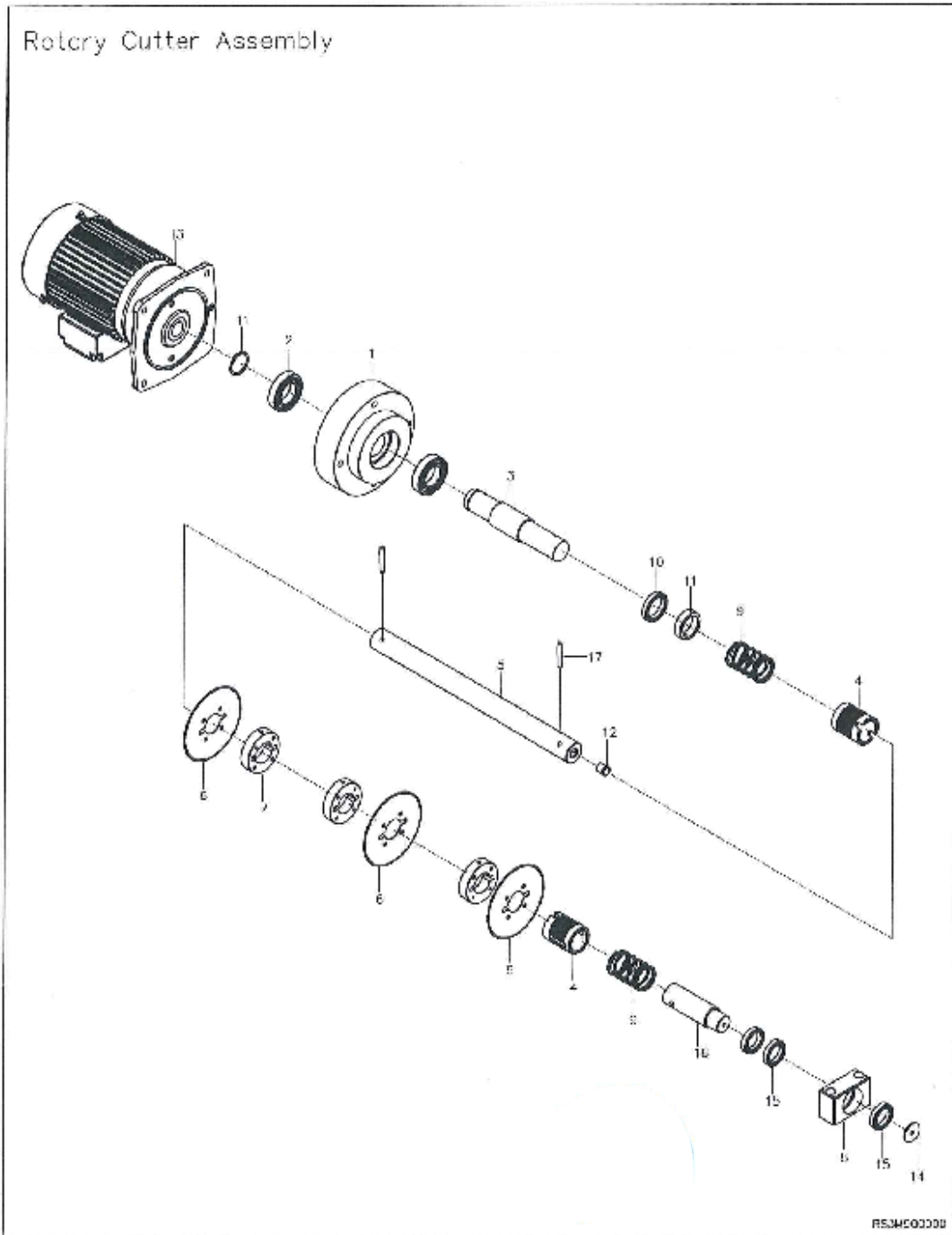
| NO. | PART NO. | DESCRIPTION | QTY | NOTES |
|-----|------------|----------------------|-----|-------|
| 1 | RS3M801000 | Beam assembly | 1 | |
| 2 | RS3M802000 | In film frame | 1 | |
| 3 | RS3M803000 | Mounting plate motor | 2 | |
| 4 | RS3M804000 | Shaft | 4 | |
| 5 | RS3M805000 | Tensioner | 2 | |
| 6 | RS3M806000 | In film frame | 1 | |
| 7 | RS3M807000 | In film frame | 1 | |
| 8 | RS3M808000 | Steering wheel | 2 | |
| 9 | RS3M809000 | Clamping roller | 2 | |
| 10 | RS3M810000 | Shaft | 2 | |
| 11 | RS3M811000 | Shaft | 4 | |
| 12 | RS3M812000 | Shaft | 1 | |
| 13 | RS3M813000 | Shaft | 1 | |
| 14 | RS3M814000 | Shaft | 2 | |
| 15 | RS3M815000 | Frame | 2 | |
| 16 | RS3M816000 | Frame | 2 | |
| 17 | RS42747000 | Handle | 1 | |
| 18 | RS42748000 | Handle | 1 | |
| 19 | RS42758000 | Bushing | 2 | |
| 20 | RS42744001 | Washer | 2 | |
| 21 | RS4A815000 | Shaft | 2 | |
| 22 | RS4A817000 | Washer | 2 | |
| 23 | 2706031 | Ring S17 | 4 | |
| 24 | 2732935 | Box | 2 | |
| 25 | 2814467 | Motor | 2 | |
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G - PRS Roller/Rotary Cutter System

G - PRS Roller/Rotary Cutter System

Rotary Cutter Assembly



G - PRS Roller/Rotary Cutter System

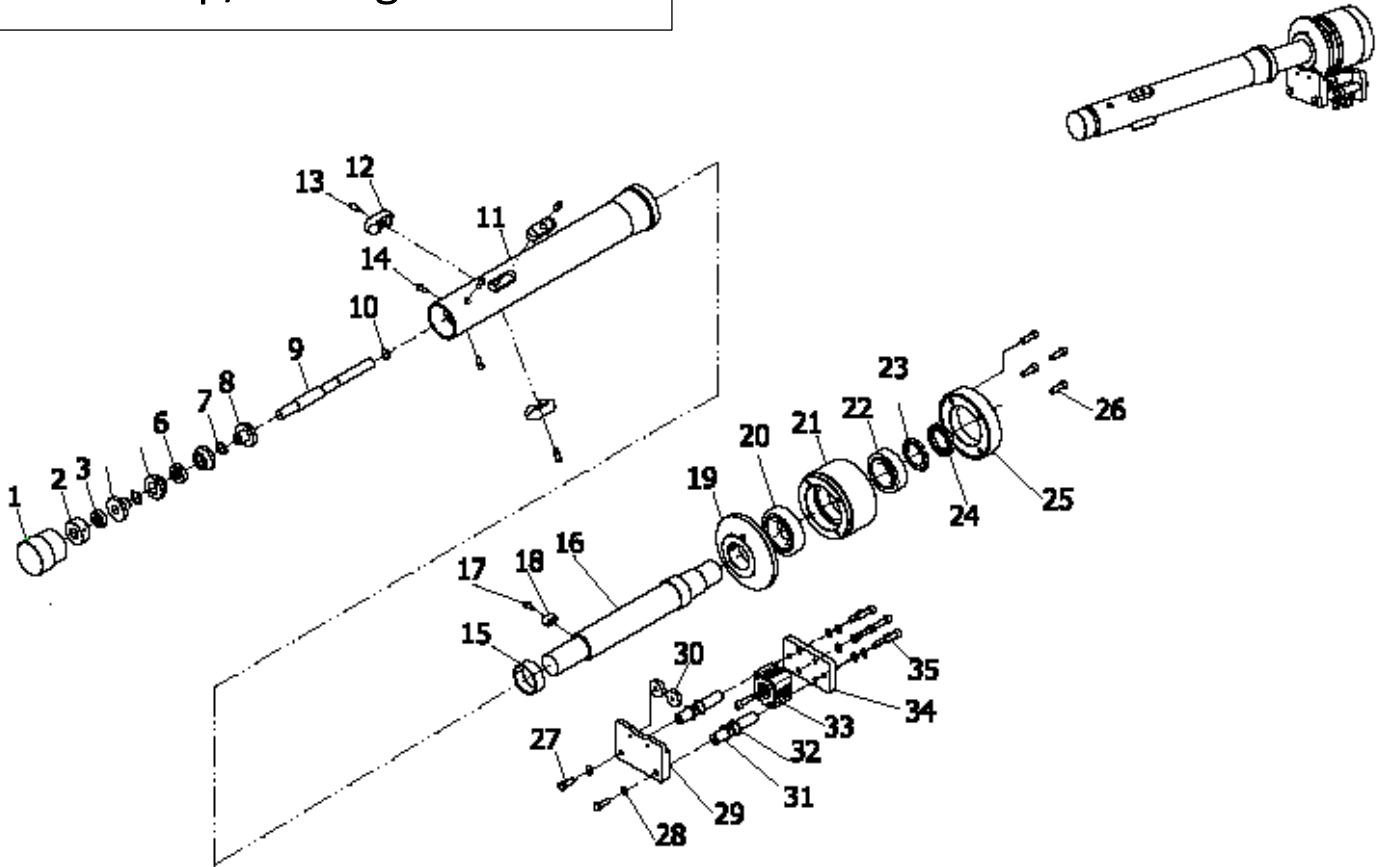
6.1-PRS3M90000

| NO. | PART NO. | DESCRIPTION | QTY | NOTES |
|-----|------------|-------------------------|-----|-------|
| 1 | RS3M901000 | Motor Bracket | 1 | |
| 2 | 27280061 | Bearing 6006 | 2 | |
| 3 | RS3M902000 | Shaft | 1 | |
| 4 | RS42663000 | Bushing | 2 | |
| 5 | RS32902000 | Shaft | 1 | |
| 6 | RS42668003 | Blade rotary semicircle | 3 | |
| 7 | RS42667002 | Holder rotary blade | 3 | |
| 8 | RS39908000 | House bearing | 1 | |
| 9 | RS39909000 | Spring | 2 | |
| 10 | 27280447 | Bearing 6806 | 1 | |
| 11 | 27060091 | Ring S30 | 1 | |
| 12 | 2701804 | Ball bolt | 1 | |
| 13 | 2814469 | Motor | 1 | |
| 14 | RS42744001 | Washer | 1 | |
| 15 | 27280448 | Bearing 6805 | 3 | |
| 16 | RS4N904000 | Shaft | 1 | |
| 17 | 2708019 | Pin | 2 | |
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H - PRS Top/Sealing Film Roller

H-PRS Top/Sealing Film Roller

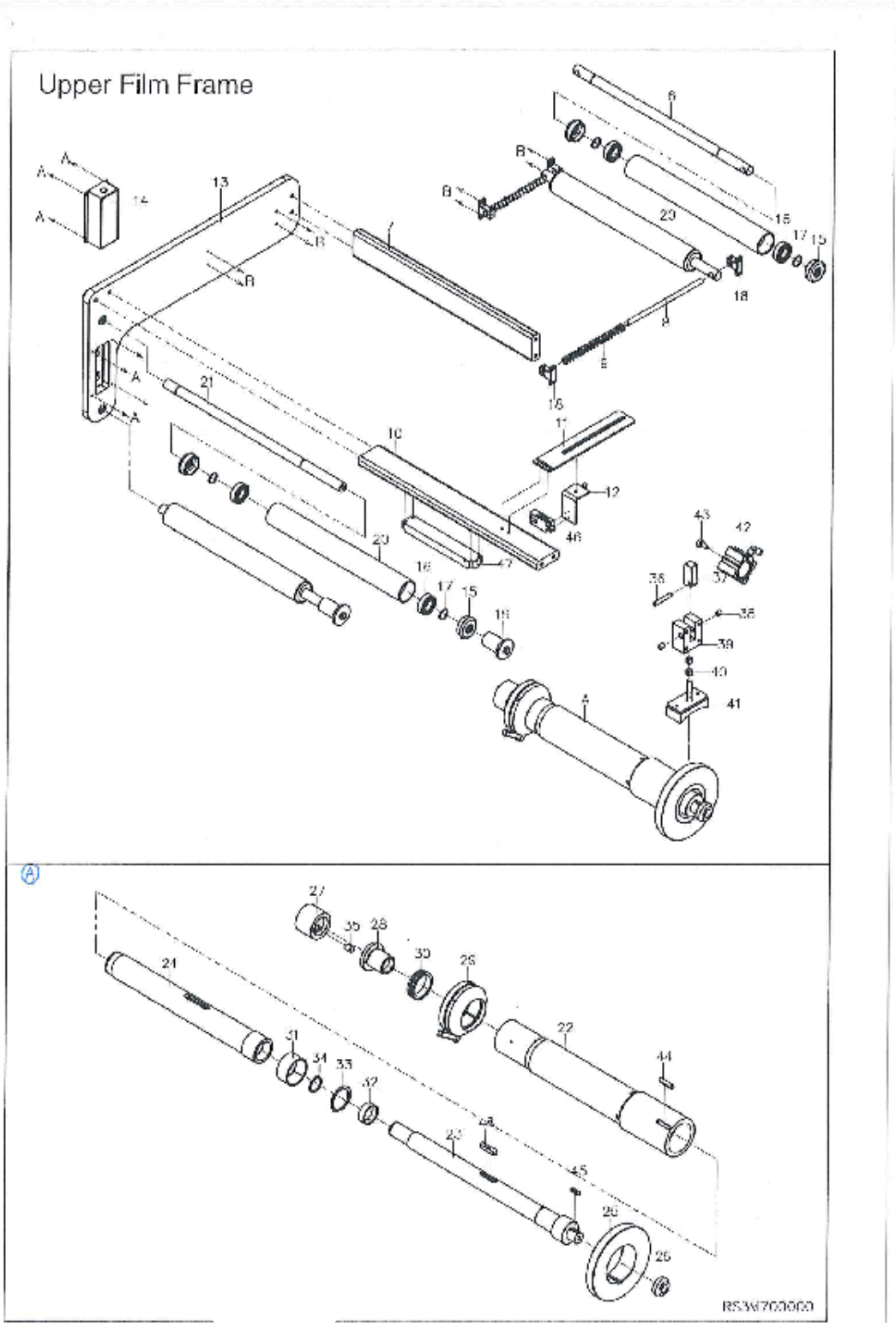


H-PRS Top/Sealing Film Roller

| H - PRS Top/Sealing Film Roller | | | | |
|--|-------------|-----------------------------|--|-----|
| No | Part Number | Description | | Qty |
| 1 | RS42234000 | PLUG, ROLLER | | 1 |
| 2 | 2740164 | O RING | | 2 |
| 3 | RS42232000 | ROLLER | | 1 |
| 4 | 27280041 | BEARING | | 2 |
| 5 | RS42233000 | PLUG, ROLLER | | 1 |
| 6 | RS42231001 | SHAFT, BRAKE ROLL | | 1 |
| 7 | RS4T732000 | TENSION ARM, REAR | | 1 |
| 8 | 27070123 | NUT, HEX | | 1 |
| 9 | 2701156 | SCREW, SOCKET HD | | 1 |
| 10 | RS42227001 | SPACER, LOCK | | 1 |
| 11 | 2728A61 | BEARING, SELF-LUBRICATED | | 2 |
| 12 | RS42225003 | SHAFT, ARM, BRAKE | | 1 |
| 13 | RS4A320001 | BLOCK, BRAKE SHAFT | | 1 |
| 14 | RS4T727000 | PUSH ROD, REAR TENSION ARM | | 1 |
| 15 | 2706060 | SNAP RING S10, SUS | | 1 |
| 16 | RS4T308000 | PIN, Y HOLDER | | 1 |
| 17 | RS4T728000 | Y HOLDER | | 1 |
| 18 | 27070222 | NUT, HEX | | 1 |
| 19 | 2930108 | CYLINDER | | 1 |
| 20 | 2916010 | SILENCER | | 1 |
| 21 | 2909321 | FITTING | | 1 |
| 22 | RS4T730001 | HOLDER, REAR CYLINDER | | 1 |
| 23 | RS4T731000 | CLIP, HOLDER, REAR CYLINDER | | 1 |



I - PRS Upper Film Arm System



I – PRS Upper Film Arm System Parts-A

6.1-PRS3M70000

| NO. | PART NO. | DESCRIPTION | QTY | NOTES |
|-----|------------|------------------------|-----|-------|
| 1 | RS3M701000 | Electrical box | 1 | |
| 2 | RS3M702001 | Electrical box support | 1 | |
| 3 | RS3M703000 | Pad | 1 | |
| 4 | RS42802000 | Door | 1 | |
| 5 | RS3M739000 | Pad | 1 | |
| 6 | RS3M706010 | Shaft | 1 | |
| 7 | RS3M707000 | Beam | 1 | |
| 8 | RS3M705000 | Shaft | 2 | |
| 9 | RS3M740000 | Spring | 2 | |
| 10 | RS3M704001 | Beam | 1 | |
| 11 | RS3M711000 | Adjust plate | 1 | |
| 12 | RS3M719000 | Sensor mounting | 1 | |
| 13 | RS3M722000 | Bushing | 1 | |
| 14 | RS3M727000 | Corver | 1 | |
| 15 | RS42233000 | Plug | 6 | |
| 16 | 27280044 | Bearing 6004 | 2 | |
| 17 | 27060151 | Ring S20 | 1 | |
| 18 | 27281070 | Shaft fixed mount | 4 | |
| 19 | RS4A719000 | Shaft mount | 2 | |
| 20 | RS32705000 | Roller | 3 | |
| 21 | RS32715000 | Shaft | 2 | |
| 22 | RS3M713000 | Film roller | 1 | |
| 23 | RS32712000 | Shaft | 1 | |
| 24 | RS32714000 | Bushing | 1 | |
| 25 | RS4N306000 | Disk brake | 1 | |
| 26 | RS4N309000 | Washer | 1 | |
| 27 | RS4N308000 | Adjust | 1 | |
| 28 | RS4N722000 | Adjust nut | 1 | |
| 29 | RS4N740000 | Film | 1 | |
| 30 | RS4N316001 | Bushing | 1 | |
| 31 | 27283426 | Dried bearing BM5530 | 1 | |
| 32 | 27283427 | Dried bearing BM3815 | 1 | |
| 33 | 2706037 | Ring S48 | 1 | |
| 34 | 27060091 | Ring S30 | 1 | |
| 35 | 2701804 | Ball bolt | 1 | |



I – PRS Upper Film Arm System Parts-B

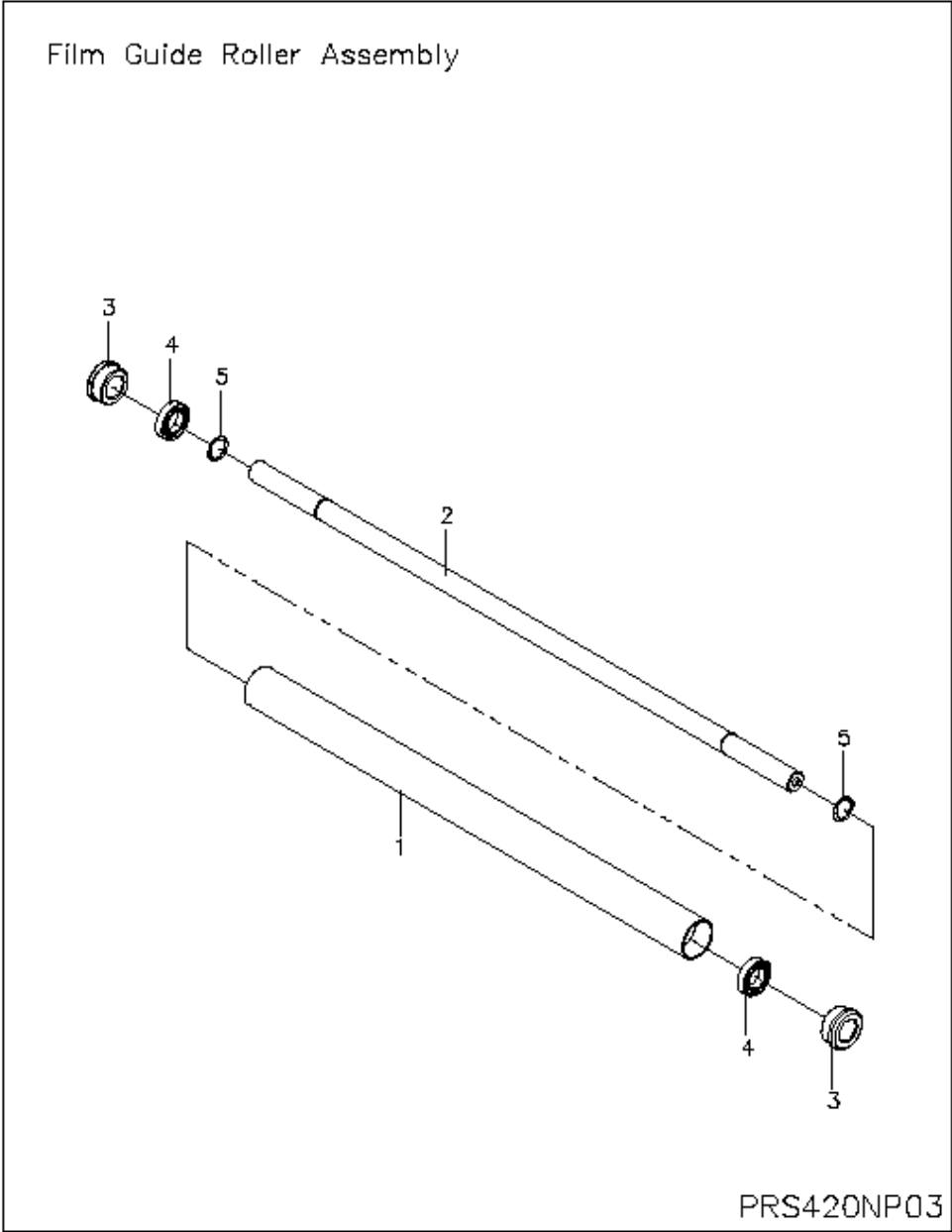
6.1-PRS3M70001

| NO. | PART NO. | DESCRIPTION | QTY | NOTES |
|-----|------------|-------------|-----|-------|
| 36 | RS4N312000 | Shaft | 1 | |
| 37 | RS4N311000 | Rod brake | 1 | |
| 38 | 2728308 | BM0810 | 2 | |
| 39 | RS4N310000 | Brake mount | 1 | |
| 40 | 2728304 | BM1010 | 2 | |
| 41 | RS4N313000 | Brake block | 1 | |
| 42 | 2927648 | Cylinder | 1 | |
| 43 | RS4N314000 | Shaft | 1 | |
| 44 | 2709041 | Key 8x7x38 | 1 | |
| 45 | 2709201 | Key 6x6x22 | 1 | |
| 46 | 2850123 | Sensor | 1 | |
| 47 | 2927653 | Cylinder | 1 | |
| 48 | RS4N305000 | Key | 1 | |
| | | | | |



J - PRS Film Guide Rollers Assembly

J - FILM GUIDE ROLLER ASSEMBLY



J - PRS Film Guide Roller Parts

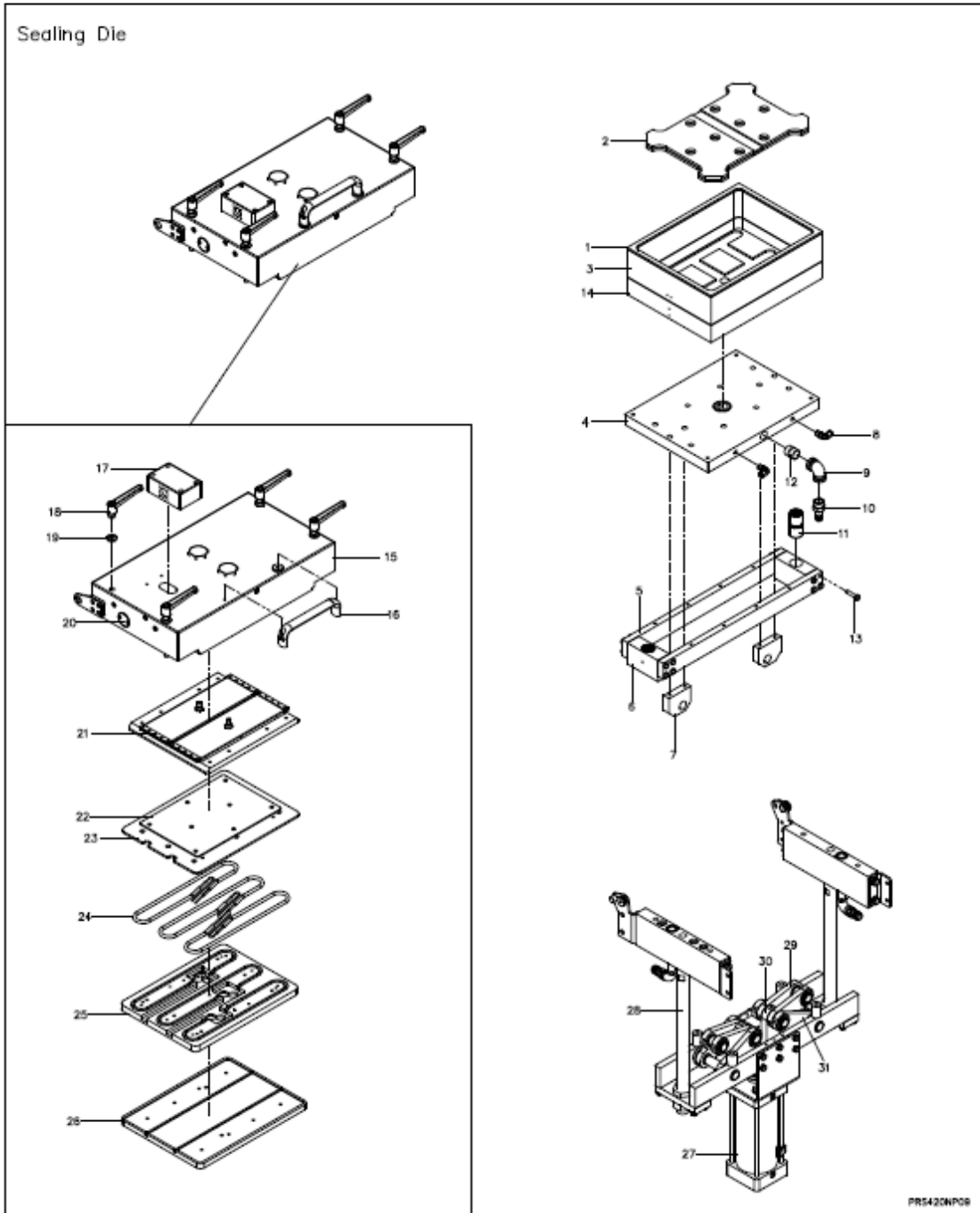
6.1-PRS420NP03

| NO. | PART NO. | DESCRIPTION | QTY | NOTES |
|-----|------------|------------------------------|-----|-------|
| 1 | RS4N115020 | Roller | 1 | |
| 2 | RS4N115010 | Shaft | 1 | |
| 3 | RS4A154000 | Vacuum pump mounting bracket | 2 | |
| 4 | 2728078 | Bearing | 2 | |
| 5 | 2706006 | Ring S17 | 2 | |
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K - PRS Sealing Die System

K - PRS SEALING DIE SYSTEM



K - PRS SEALING DIE SYSTEM

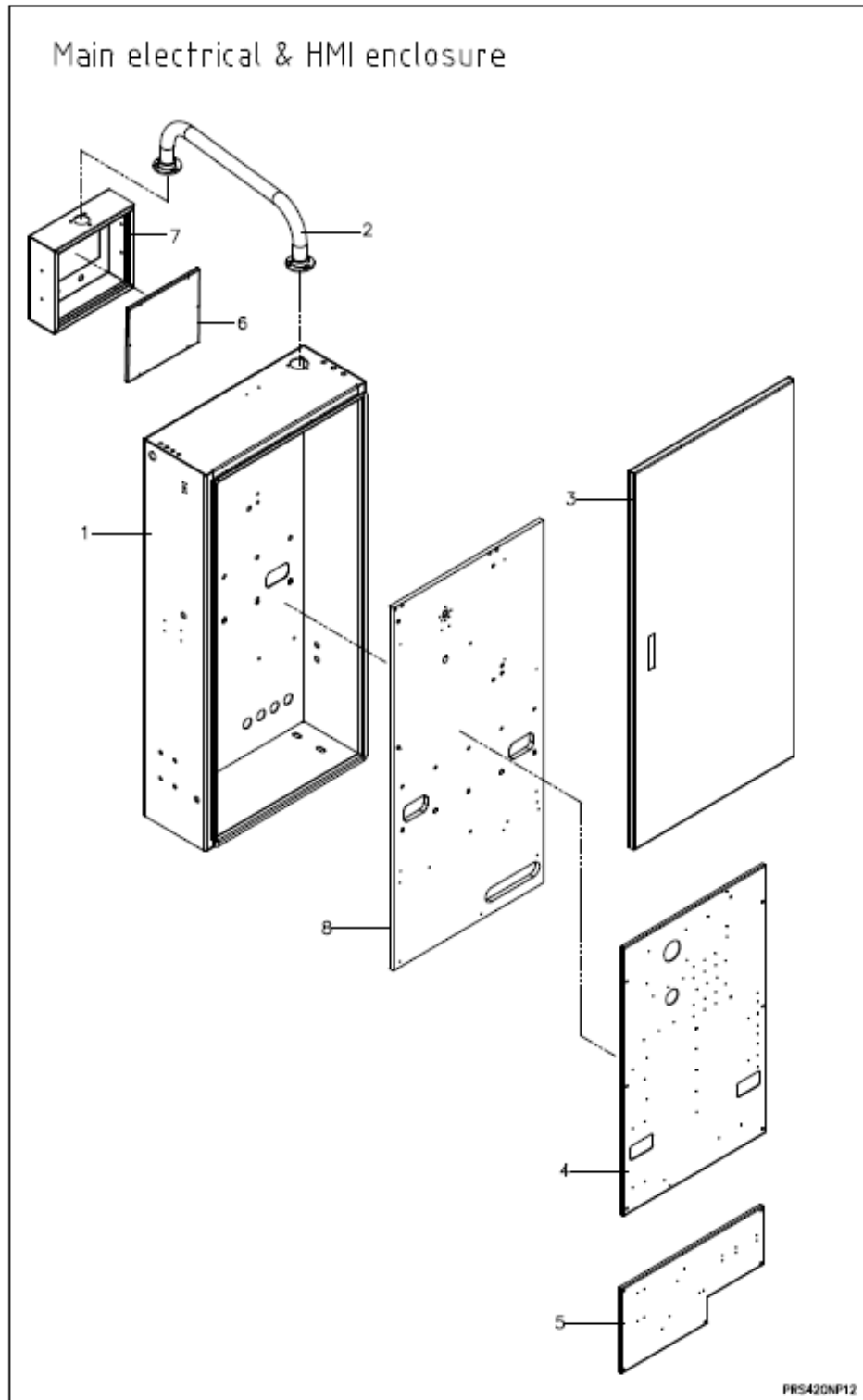
6.1-PRS420NP09

| NO. | PART NO. | DESCRIPTION | QTY | NOTES |
|-----|------------|---------------------------|-----|-------|
| 1 | RS4N504040 | Silicone gray | 1 | |
| 2 | RS4N404120 | Die plate one pocket | 3 | |
| 3 | RS4N404011 | Bottom die | 1 | |
| 4 | RS4N504080 | Plate fixed bottom die | 1 | |
| 5 | RS4N404030 | Support plate | 2 | |
| 6 | RS39404110 | Fixed plate | 2 | |
| 7 | RS39404120 | Push plate | 2 | |
| 8 | 2909345 | Fitting SPL 802 | 2 | |
| 9 | 2740006A1 | Fitting | 1 | |
| 10 | 2909250 | Fitting | 1 | |
| 11 | 27281066 | JUM-01-30 | 2 | |
| 12 | 29092183 | Nipple 3/4"x30mm | 1 | |
| 13 | 2700441 | Hex head screw M8 x 35 | 16 | |
| 14 | RS4N504010 | Bottom die | 1 | |
| 15 | RS4N502010 | Plug | 1 | |
| 16 | 2740244 | Handle | 1 | |
| 17 | RS39403060 | Box wiring | 1 | |
| 18 | RS4N533000 | Handle | 4 | |
| 19 | RS42577003 | Washer | 4 | |
| 20 | RS4N403080 | Plug | 2 | |
| 21 | RS39503000 | Bag assembly | 1 | |
| 22 | RS4N502030 | Plate insulation | 1 | |
| 23 | RS4N502060 | Plate | 1 | |
| 24 | RS42468000 | Heater | 3 | |
| 25 | RS4N502050 | Heating plate | 1 | |
| 26 | RS4N502070 | Plate | 1 | |
| 27 | 2920689 | Cylinder MCQA-11-100-175M | 1 | |
| 28 | RS66413001 | Rail slide | 2 | |
| 29 | RS4N509000 | Connecting rod | 4 | |
| 30 | RS4N511000 | Connecting rod | 1 | |
| 31 | RS4N510000 | Connecting rod | 4 | |



L - PRS Main Electrical & HMI Enclosure

L-PRS Main Electrical & HMI Enclosure



L-PRS Main Electrical & HMI Enclosure Parts

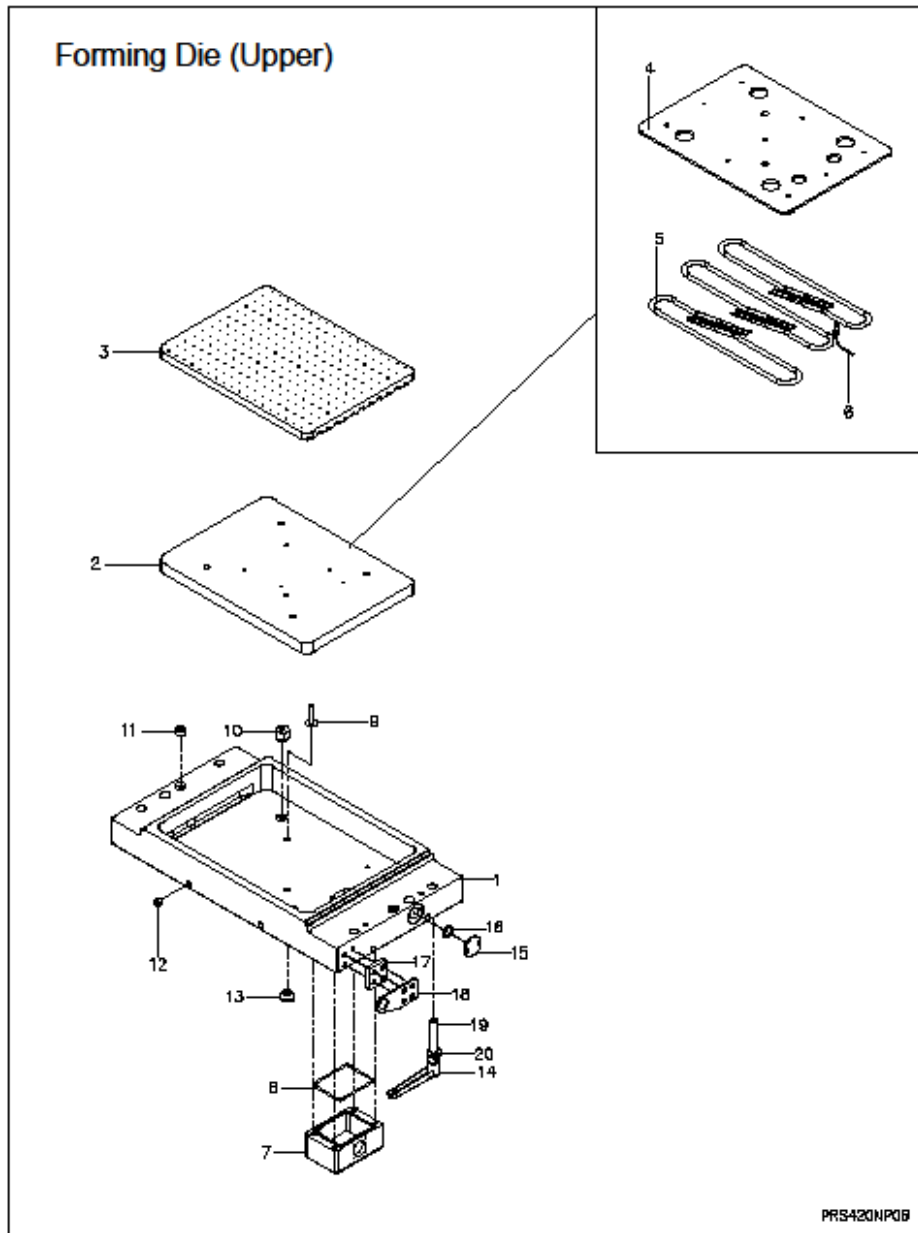
6.1-PRS420NP12

| NO. | PART NO. | DESCRIPTION | QTY | NOTES |
|-----|------------|---|-----|-------|
| 1 | RS4L701000 | Electrical box | 1 | |
| 2 | RS4L706000 | Arm connection electrical box and control box | 1 | |
| 3 | RS42802000 | Door | 1 | |
| 4 | RS4L703000 | Pad | 1 | |
| 5 | RS4N739000 | Pad | 1 | |
| 6 | RS42816001 | Cover control box | 1 | |
| 7 | RS4L704000 | Control box | 1 | |
| 8 | RS4L702000 | Electrical box support | 1 | |

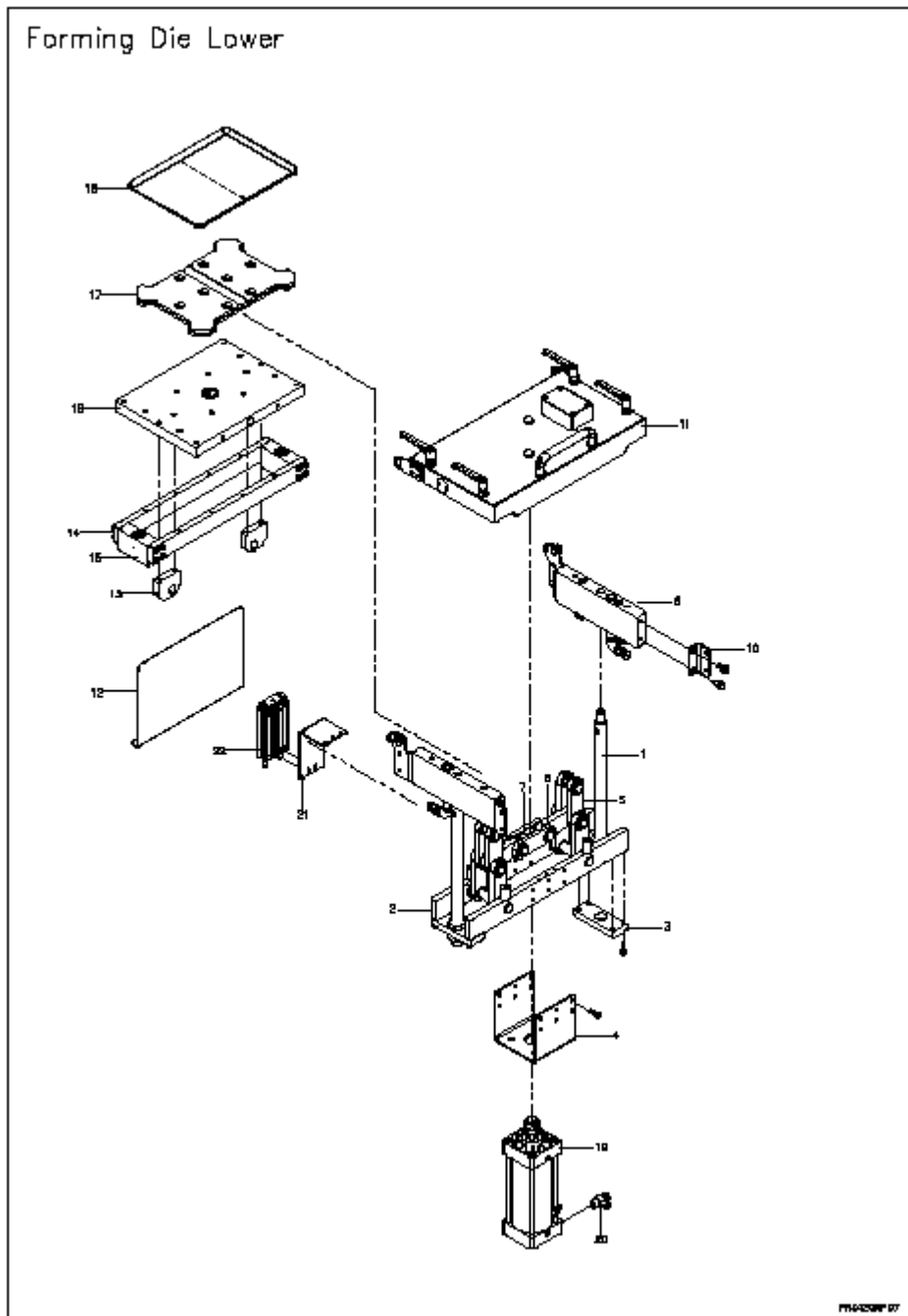


M - PRS Forming Die System

M - PRS FORMING DIE SYSTEM-A



M - PRS FORMING DIE SYSTEM - B



M - PRS FORMING DIE SYSTEM PARTS LIST - B

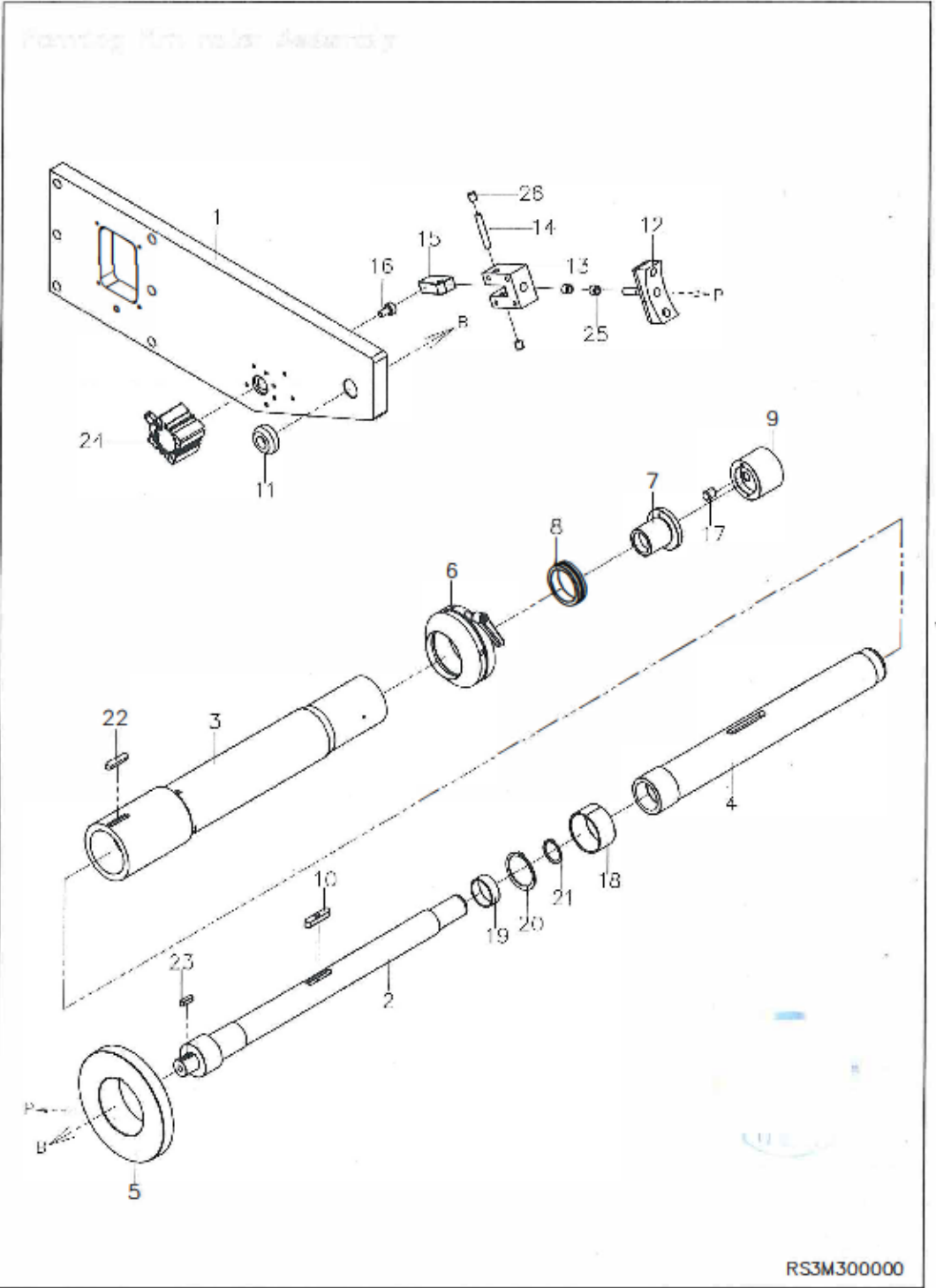
6.1-PRS420NP09

| NO. | PART NO. | DESCRIPTION | QTY | NOTES |
|-----|------------|---------------------------|-----|-------|
| 1 | RS4N504040 | Silicone gray | 1 | |
| 2 | RS4N404120 | Die plate one pocket | 3 | |
| 3 | RS4N404011 | Bottom die | 1 | |
| 4 | RS4N504080 | Plate fixed bottom die | 1 | |
| 5 | RS4N404030 | Support plate | 2 | |
| 6 | RS39404110 | Fixed plate | 2 | |
| 7 | RS39404120 | Push plate | 2 | |
| 8 | 2909345 | Fitting SPL 802 | 2 | |
| 9 | 2740006A1 | Fitting | 1 | |
| 10 | 2909250 | Fitting | 1 | |
| 11 | 27281066 | JUM-01-30 | 2 | |
| 12 | 29092183 | Nipple 3/4"x30mm | 1 | |
| 13 | 2700441 | Hex head screw M8 x 35 | 16 | |
| 14 | RS4N504010 | Bottom die | 1 | |
| 15 | RS4N502010 | Plug | 1 | |
| 16 | 2740244 | Handle | 1 | |
| 17 | RS39403060 | Box wiring | 1 | |
| 18 | RS4N533000 | Handle | 4 | |
| 19 | RS42577003 | Washer | 4 | |
| 20 | RS4N403080 | Plug | 2 | |
| 21 | RS39503000 | Bag assembly | 1 | |
| 22 | RS4N502030 | Plate insulation | 1 | |
| 23 | RS4N502060 | Plate | 1 | |
| 24 | RS42468000 | Heater | 3 | |
| 25 | RS4N502050 | Heating plate | 1 | |
| 26 | RS4N502070 | Plate | 1 | |
| 27 | 2920689 | Cylinder MCQA-11-100-175M | 1 | |
| 28 | RS66413001 | Rail slide | 2 | |
| 29 | RS4N509000 | Connecting rod | 4 | |
| 30 | RS4N511000 | Connecting rod | 1 | |
| 31 | RS4N510000 | Connecting rod | 4 | |
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N & O - PRS FORMING FILM ROLLER & ROLLER WALL

N & O - PRS FORMING FILM ROLLER & ROLLER WALL



N & O - PRS FORMING FILM ROLLER & ROLLER WALL PARTS

6.1-PRS3M30000

| NO. | PART NO. | DESCRIPTION | QTY | NOTES |
|-----|------------|----------------------|-----|-------|
| 1 | RS32301001 | Fixed plate | 1 | |
| 2 | RS32712000 | Shaft | 1 | |
| 3 | RS32713000 | Film roller | 1 | |
| 4 | RS32714000 | Bushing | 1 | |
| 5 | RS4N306000 | Disk brake | 1 | |
| 6 | RS4N315000 | Film | 1 | |
| 7 | RS4N722000 | Adjust nut | 1 | |
| 8 | RS4N316001 | Bushing | 1 | |
| 9 | RS4N308000 | Adjust | 1 | |
| 10 | RS4N305000 | Key | 1 | |
| 11 | RS4N309000 | Washer | 1 | |
| 12 | RS4N313000 | Brake block | 1 | |
| 13 | RS4N310000 | Brake mount | 1 | |
| 14 | RS4N312000 | Shaft | 1 | |
| 15 | RS4N311000 | Rod brake | 1 | |
| 16 | RS4N314000 | Shaft | 1 | |
| 17 | 2701804 | Ball bolt | 1 | |
| 18 | 27283426 | Dried bearing BM5530 | 1 | |
| 19 | 27283427 | Dried bearing BM3815 | 1 | |
| 20 | 2706037 | Ring S48 | 1 | |
| 21 | 27060091 | Ring S30 | 1 | |
| 22 | 2709041 | Key 8x7x38 | 1 | |
| 23 | 2709201 | Key 6x6x22 | 1 | |
| 24 | 2927642 | Cylinder | 1 | |
| 25 | 2728304 | Dried bearing BM1010 | 2 | |
| 26 | 2728308 | Dried bearing BM0810 | 2 | |

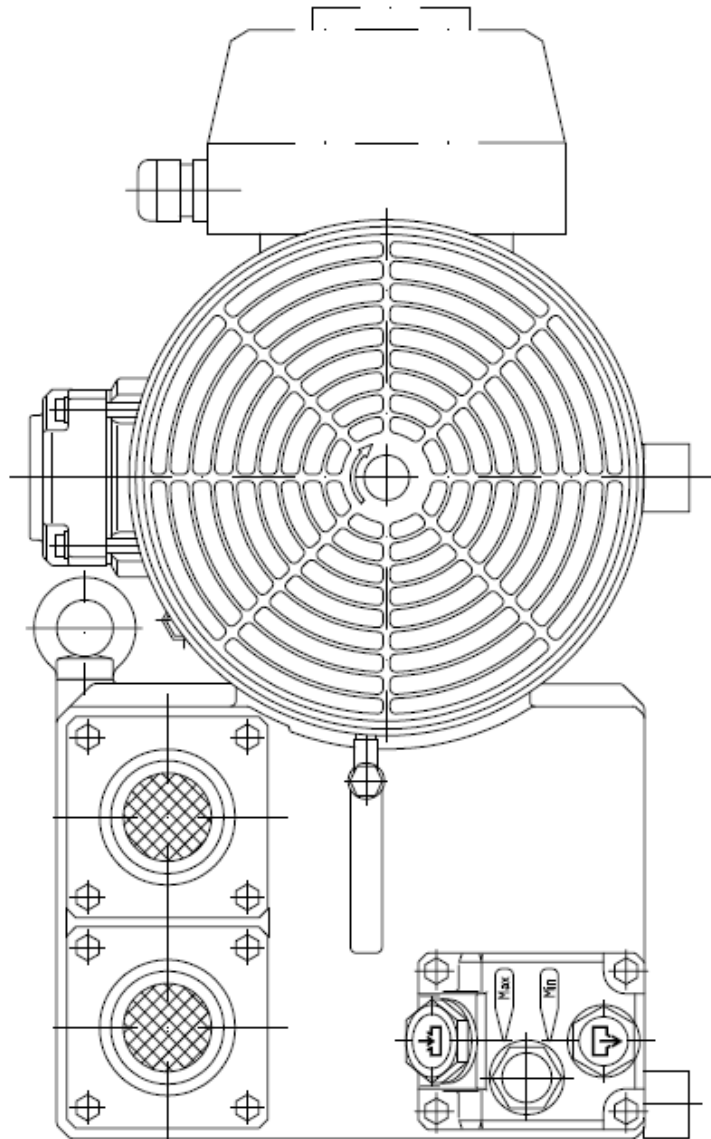


P - PRS FORMING FILM TENSIONER



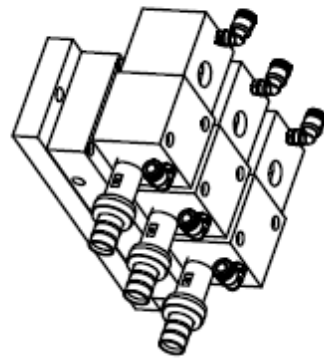
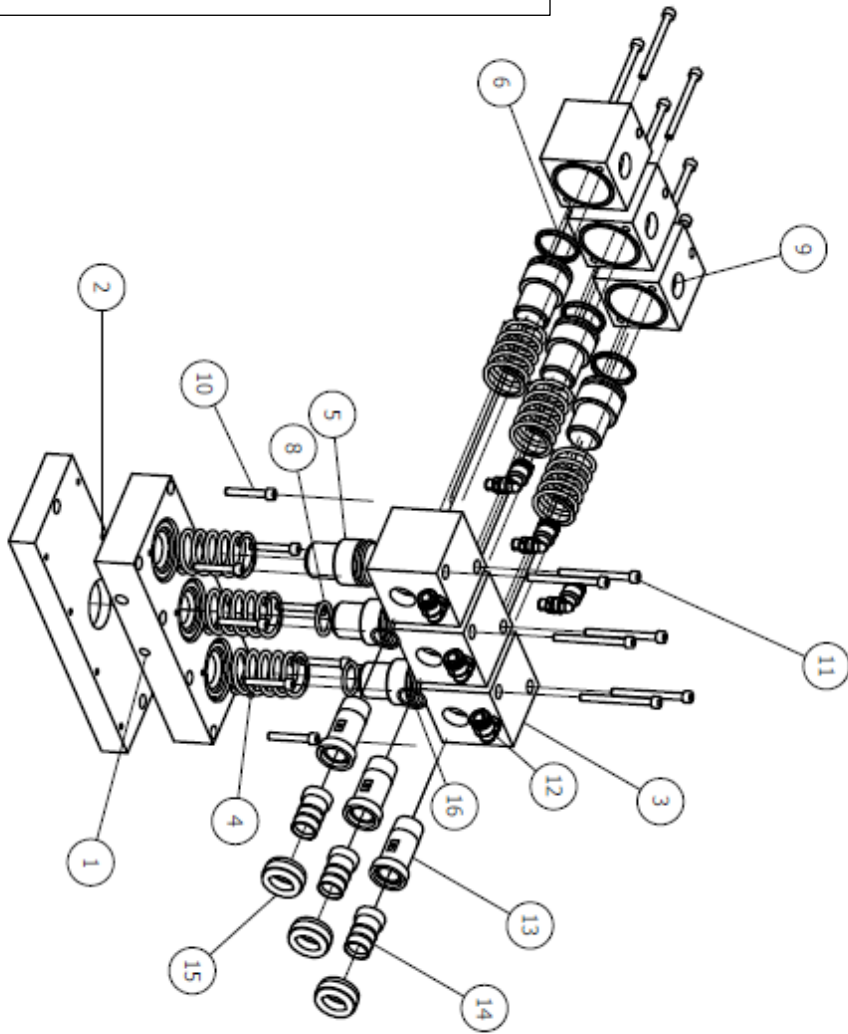


Q - PRS VACUUM PUMP



R - PRS Vacuum Valves

R – PRS VACUUM VALVES



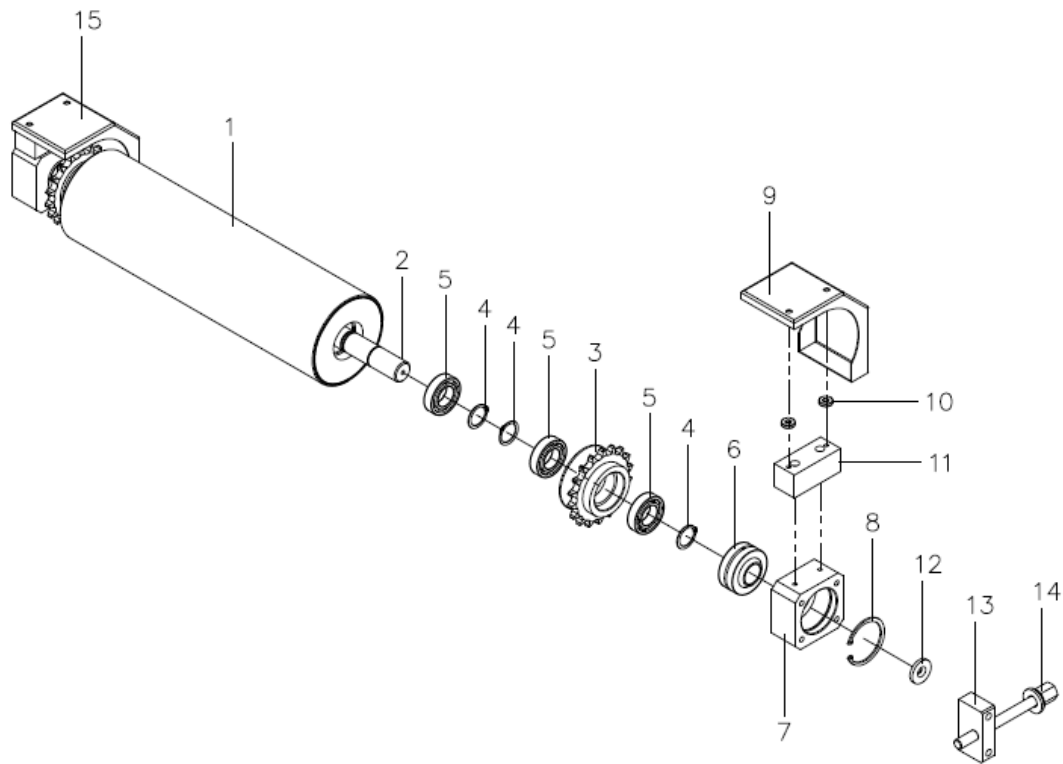
R – PRS VACUUM VALVES PARTS LIST

| R - PRS VACUUM VALVES PARTS LIST | | |
|----------------------------------|-------------|--|
| NO | PART NUMBER | |
| 1 | RSV1502000 | |
| 2 | RSV1501000 | |
| 3 | RSV1503000 | |
| 4 | RSV1505000 | |
| 5 | RSV1504000 | |
| 6 | 274005250 | |
| 7 | 2740252 | |
| 8 | 27401587 | |
| 9 | RSV1506000 | |
| 10 | 2701180 | |
| 11 | 2701325 | |
| 12 | 2909338 | |
| 13 | RSV1512000 | |
| 14 | RSV1510000 | |
| 15 | RSV1511000 | |
| 16 | 2740261 | |



S - PRS FORMING FILM INFEED SYSTEM

PRS FORMING FILM INFEED SYSTEM



PRS420NP01



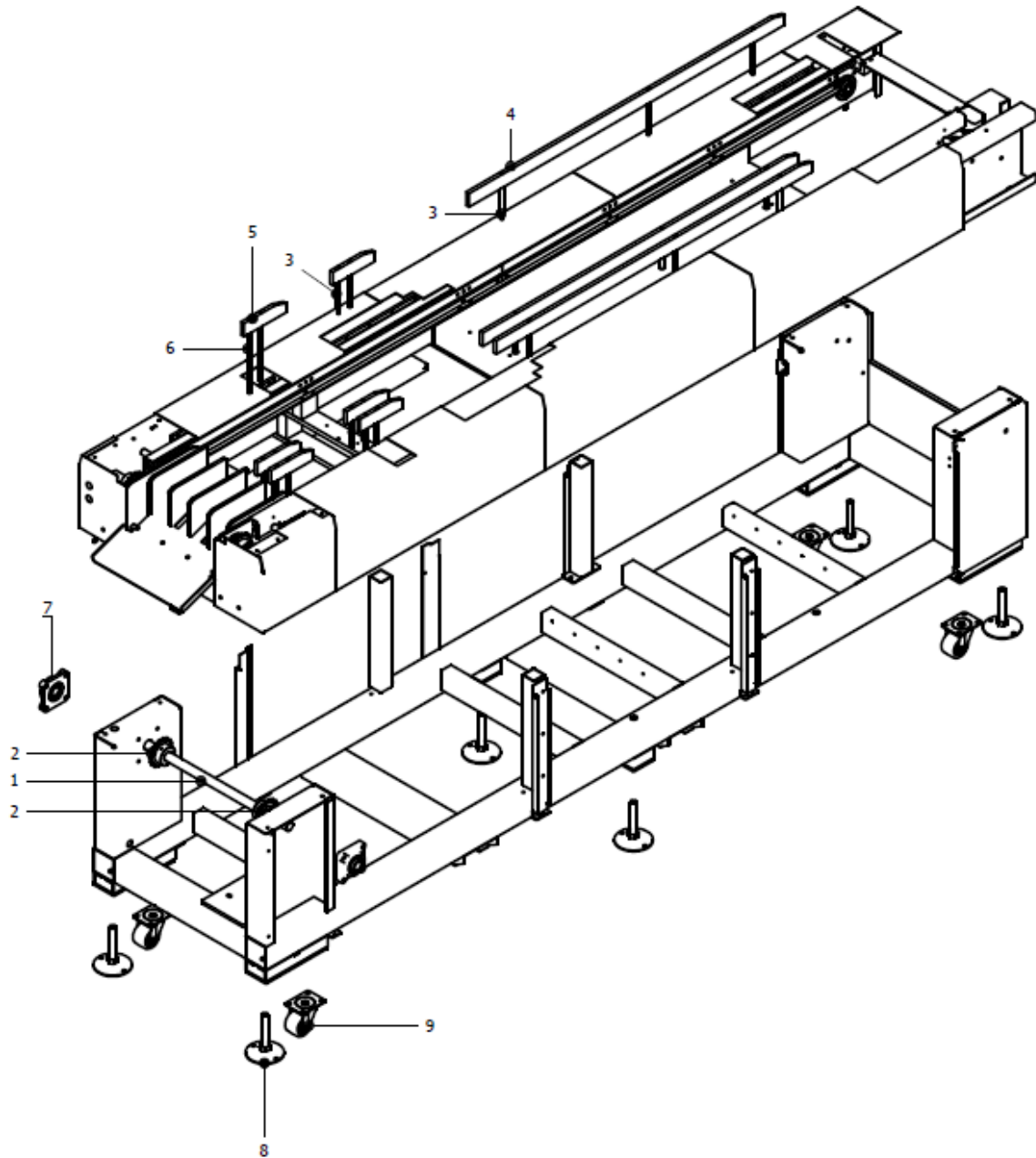
PRS FORMING FILM INFEED SYSTEM PARTS LIST

6.1-PRS420NP01

| NO. | PART NO. | DESCRIPTION | QTY | NOTES |
|-----|------------|--------------------------|-----|-------|
| 1 | RS4N118000 | Roller | 1 | |
| 2 | RS4N117010 | Shaft | 2 | |
| 3 | RS4N147000 | Film opening and closing | 2 | |
| 4 | 27060171 | Ring S25 | 6 | |
| 5 | 27280454 | Bearing 6005 | 6 | |
| 6 | 27284342 | Bearing PB25 | 2 | |
| 7 | RS39117020 | House Bearing | 2 | |
| 8 | 27062201 | Ring R56 | 2 | |
| 9 | RS39117040 | Cover | 1 | |
| 10 | RS4N148000 | Washer | 4 | |
| 11 | RS66164000 | Block | 2 | |
| 12 | RS4A143000 | Washer | 2 | |
| 13 | RS4A144000 | Fixed base | 2 | |
| 14 | RS4A128000 | Adjustable screw | 2 | |
| 15 | RS39117030 | Cover | 1 | |



T - Frame V.1

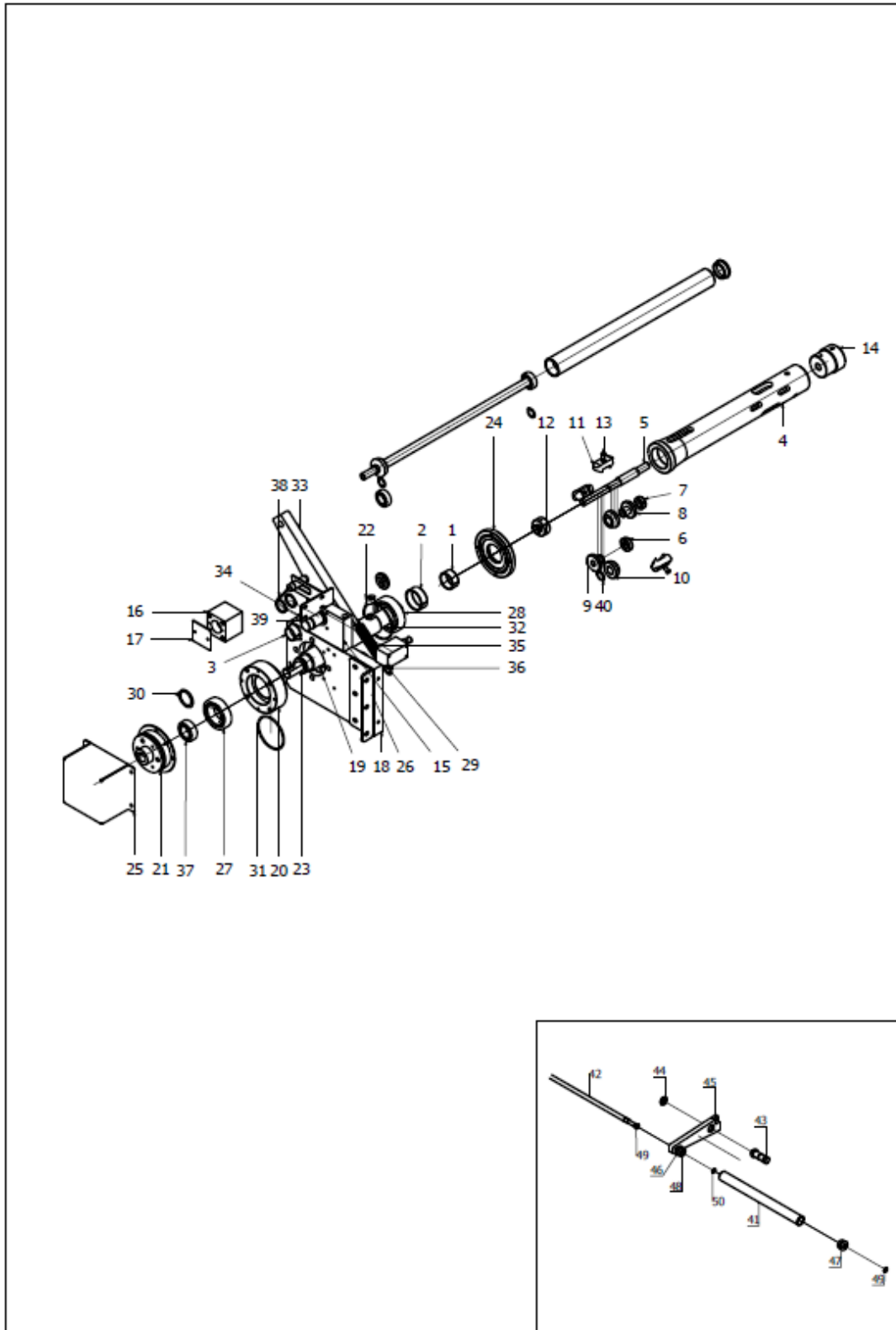


Frame Parts List V.1

| ITEM | PART NO. | DESCRIPTION | QTY |
|------|------------|------------------------------|-----|
| 1 | RS42136000 | SHAFT, SPROCKET, CHAIN | 1 |
| 2 | RS42135000 | SPROCKET, CHAIN | 2 |
| 3 | RS42154000 | ROD, SUPPORT | 20 |
| 4 | RS42155000 | PLATE, SUPPORT | 4 |
| 5 | RS42156000 | PLATE, SUPPORT | 8 |
| 6 | RS42157000 | ROD, SUPPORT | 8 |
| 7 | 2728513 | BEARING, PILLOW BLOCK UCF206 | 2 |
| 8 | RS42103000 | LEG, ADJUSTABLE | 6 |
| 9 | 2712180 | CASTER | 4 |
| 10 | RS42127000 | GUIDE CHANNEL | 2 |



U - Top Tension Arm V.1



Top Tension Arm Parts List-a V.1

6.1.9 Forming Film Roller Assembly Parts List

| ITEM | PART NO. | DESCRIPTION | QTY |
|------|------------|--|-----|
| 1 | 27283402 | BEARING, OILLESS BM4020 | 1 |
| 2 | 272831516 | BEARING, OILLESS BM5020F65 | 1 |
| 3 | 27283225 | BEARING, OILLESS BM3015F42 | 3 |
| 4 | RS42207000 | ROLLER, BOTTOM FILM | 1 |
| 5 | RS42208000 | THREADED ROD, BOTTOM FILM ROLLER | 1 |
| 6 | RS42213000 | HOLDER, CLAMP, FILM | 1 |
| 7 | RS42209000 | SPACER | 1 |
| 8 | RS42210000 | BUSHING, CONE WEDGE | 1 |
| 9 | RS42216000 | BUSHING, CONE WEDGE | 1 |
| 10 | RS42211000 | CONE WEDGE | 2 |
| 11 | RS42214000 | CLAMP, FILM ROLLER, BOTTOM | 3 |
| 12 | RS42212000 | SET NUT | 1 |
| 13 | RS42215000 | SCREW, FILM ROLLER CLAMP | 3 |
| 14 | RS42217000 | HANDGRIP, FILM ROLLER ADJUSTMENT, BOTTOM | 1 |
| 15 | RS42224000 | HOLDER, ROD, BRAKE | 1 |
| 16 | RS42228000 | HOLDER, BEARING, ROD, BRAKE | 1 |
| 17 | RS42229000 | COVER, BEARING HOLDER | 1 |
| 18 | RS42201000 | PLATE, SUPPORT, FILM ROLLER, BOTTOM | 1 |
| 19 | RS42202000 | HOUSING, BEARING | 1 |
| 20 | RS42203000 | HOUSING, BEARING | 1 |
| 21 | 2814918 | POWER BRAKE | 1 |
| 22 | RS42206000 | KEY, SLIDE | 1 |
| 23 | RS42205000 | SHAFT, ARM, TENSION | 1 |
| 24 | RS42204000 | COVER, BEARING | 1 |
| 25 | RS42218000 | COVER | 1 |
| 26 | RS42219000 | PLATE, SUPPORT | 1 |
| 27 | 27280086 | BEARING, BALL 6208ZZ | 1 |
| 28 | 27280087 | BEARING, BALL 6210ZZ | 1 |
| 29 | 2706008 | RING S50 | 1 |
| 30 | 27060131 | SNAP RING S40 | 1 |
| 31 | 27401513 | O RING G85 | 2 |
| 32 | 27401511 | O RING G95 | 1 |
| 33 | RS42232A00 | ARM, TENSION, ASSEMBLY | 1 |
| 34 | 27060091 | RING S30 SUS | 2 |
| 35 | RS42235000 | TENSION SPRING | 1 |
| 36 | 2853051 | LIMIT SWITCH OMRON WLD38-N | 1 |
| 37 | 27280226 | BEARING, 6205ZZ, STAINLESS STEEL, WHEEL | 1 |
| 38 | 2851118 | SWITCH, PROXIMITY, FOTEK PM18-08N | 1 |
| 39 | RS42251000 | MOUNTING PLATE | 1 |
| 40 | 27060151 | SNAP RING S20 | 2 |
| 41 | RS42232000 | ROLLER | 1 |
| 42 | RS42231000 | SHAFT, BRAKE | 1 |
| 43 | RS42225000 | SHAFT, ARM, BRAKE | 1 |
| 44 | RS42227000 | SPACER, LOCK | 1 |
| 45 | RS42230000 | ARM, BRAKE | 1 |



Top Tension Arm Part List-b V.1

6.1.9 Cont.

| | | | |
|----|------------|----------------------|---|
| 46 | RS42234000 | PLUG, ROLLER | 1 |
| 47 | RS42233000 | PLUG, ROLLER | 1 |
| 48 | 2728044 | BEARING, BALL 6004ZZ | 1 |
| 49 | 27060151 | SNAP RING S20 | 1 |
| 50 | 2740164 | O RING P-20 | 1 |









