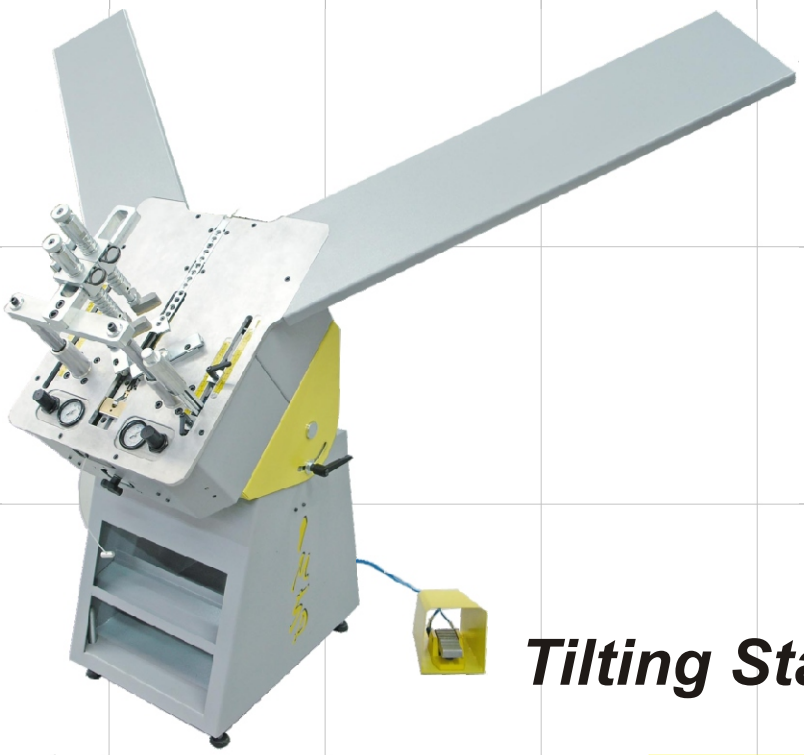
OPERATIONS MANUAL

# IM-5P
# UNDERPINNER



*Tilting Stand*

INMES

SAP: 98

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# INDEX

## 1.GENERAL INFORMATION

### 1.1 INTRODUCTION

Congratulations on your purchase of the IM-5P! It benefits from our long of experience acquired during years of designing frame assembly machines for the picture framing industry.

The IM-5P developed by Inmes is a pneumatic frame assembly machine which is designed to be operated on a work table or a tilting stand, in front of the machine or behind it. This versatile underpinner can be supplied with double mechanical clamps or double hydraulic clamps allowing you to provide proper support for wide frames with complex profiles.

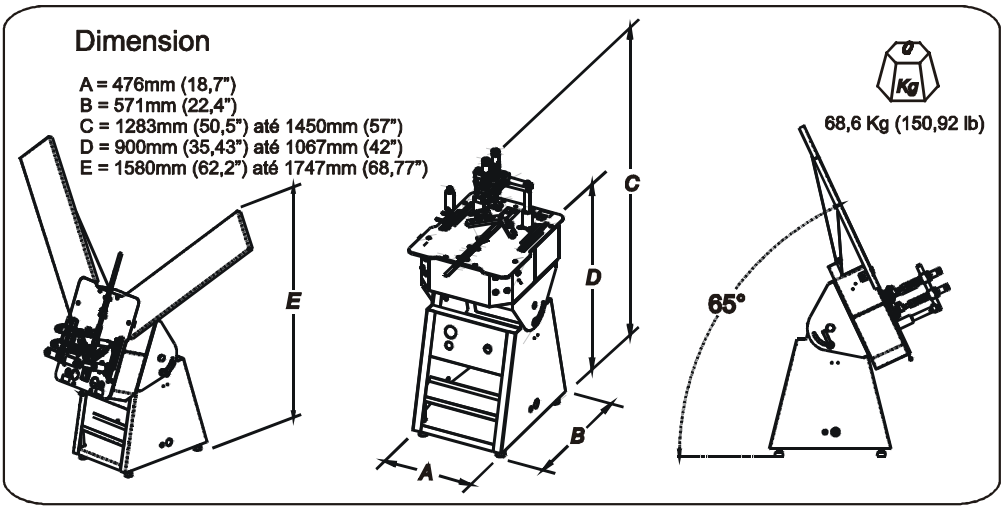
### 1.2 MAIN COMPONENTS

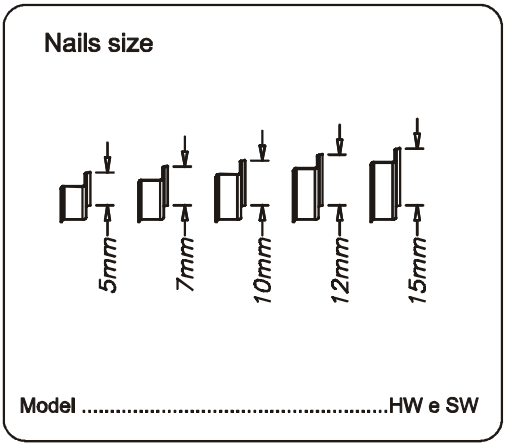
The main components including with the machine are:
Front Clamp
Allen Wrenches
Tilting Stand
Instructions Manual
Counterweight Balancer
Leveling Bolts

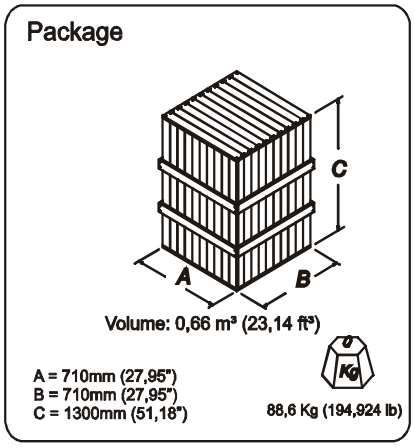
### 1.3 OPTIONAL ACCESSORIES

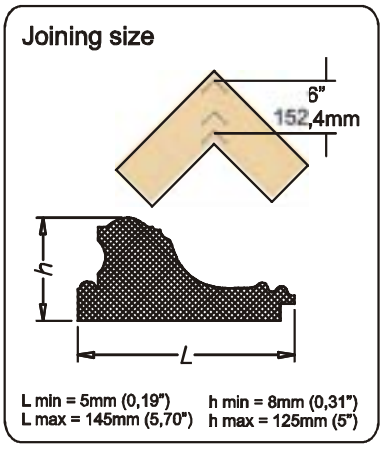
| | |
|---|---|
| Double Mechanical Clamps | Part No. INM01010334 |
| Double Hydraulic Clamps | Part No. INM01010335 |
| Extension Wings | Part No. INM01010133 |

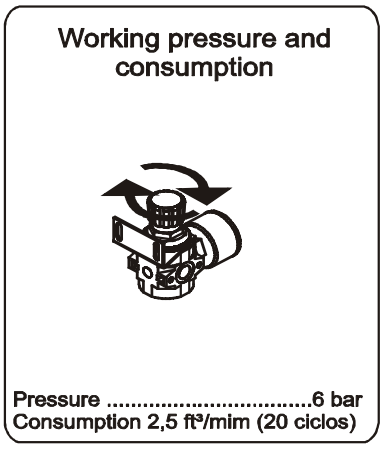
## 1.4 TECHNICAL SPECIFICATIONS



## 1.5 WARRANTY

INMES products are built to have long durability and are tested one by one before leaving the factory. The IM-5P is covered by one (1) year warranty to be free from defects in parts and manufacturing defects only, providing the machine has been under normal use. Labor is not included with the warranty, the return of the equipment is fully at the purchaser's expenses. The repair will be effected where you have bought the machine and the freight of the shipment will be entirely charged to the customer.

The warranty does not cover damages caused by inappropriate use of the machine, or by use not in conformity with the terms of this instructions described in this owner's manual.

The warranty is not valid in case of unauthorized modifications or because of accidental damages effected by unqualified personnel.

## 1.6 AUTHORIZED SERVICES

INMES is represented by numerous and prepared organizations in every country that we sell. Please feel free to contact us at +55 (48) 3658-2064 export dept@inmes.com.br to be informed concerning the Closest Authorized Dealer Service.

## 2. SAFETY

Always remember that careless fraction of a second is enough to cause a severe injury.

## 2.1 GENERAL WARNINGS

For the operator's safety and durability of your equipment the instruction manual must be followed with great care when installing and operating your machine, staying alert and learn how to use the IM-5P.


If the safety instruction is not followed the operator will be seriously injured.


It means if the safety instruction is not followed the operator could be seriously injured.


Safety instruction if not carried out with care might injury the operator.


- Read the Instruction Manual before operating the equipment;
- Do not remove or change the warning adhesive signs;
- Wear adequate clothing to avoid clothes that could get stuck in the moving parts;
- Long hair has to be tied up;
- Keep hands away from the working area;
- Disconnect air pressure supplying during any maintenance intervention;
- Keep the feet away from the foot pedal during machine regulation;
- The machine must be mounted on a flat surface in an appropriate work area, well lighted;
- The user guarantee the machine is operated only by trained operators;
- The user must prevent access to the machine by non-authorized people;
- In order to obtain high performance of the machine, make sure that you read the instruction manual;
- Keep children and visitors away

## 2.2 TO REDUCE THE RISK OF INJURY

- Never place your hands under the vertical clamps;
- Never place your hands in front of the front clamp;
- Hold the profile firmly against to the fence with your hands outside of the clamping area;
- Before using the machine be sure that no objects have been left on the working table
- If any part is missing, bent or broken in anyway, do not use the equipment;
- Never use your machine if you observe something which can cause an accident or damage the equipment;
- Keep work area around the machine clean;
- Keep visitors and children away when using;

**Note:** Always remember that a careless fraction of a second is enough to cause a severe injury.

## 3. HANDLING AND STORAGE

### 3.1 HANDLING

Two people are required to locate the machine. The machine has to be shipped in a safe way to avoid any damage. Mount it securely on a proper floor. The machine has to be shipped like positioned for installation.

### 3.2 STORAGE

The machine must be stored with cautions, as per information below:

- Store the machine indoors;
- Protect the machines from accidental impacts;
- Protect the machine from humidity;
- Avoid the machine to come in contact with corrosive materials;

## 4. UNPACKING

Unpack the machine and verify all components to make sure the following parts are included:

c) IM-5P Underpinner
d) Front clamp
e) Wrenches
f) Instructions Manual

g) Optional Accessories:
h) Double upper Hydraulic clamps or Mechanical clamps
i) Extension Arms

## 5. MACHINE DESCRIPTIONS AND ADJUSTMENTS

Before using the machine it is necessary to make some adjustments according to the profile moulding to join.

### 5.1 WORKING PRINCIPLE

The Inmes frame assembling machine IM-5P is versatile and extremely easy to use.It can be supplied with double mechanical clamps or double hydraulic clamps allowing the operator to provide proper support for wide frames. It can join with absolute precision any kind of moulding by means of special steel v-nails. The machine can be supplied in either tilting or closet stand model.

## 5.2 NAILING HEAD

The nailing head is moved from one position to the next position by sliding the joystick, while the moulding remains clamped and locked in one position.

## 5.3 USING THE CLAMPS

Use the foot pedal to immediately activate the front clamp followed by the upper clamps, while the Joystick activates the nail pusher to insert the nail.

## 5.4 SELECTING THE V-NAIL

The Inmes nails are specially designed to hold the frames pieces firmly together creating a tight joint. There are 5 different sizes of 5-7-10-12-15mm, as shown in fig 1. Each nail size is available for either hardwood or softwood. For maximum strength, place two or more nails along the frame.

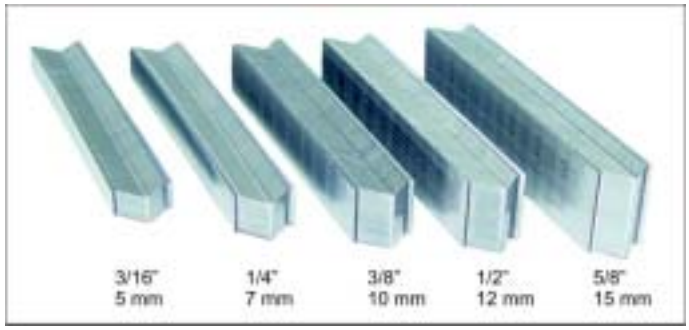



**Fig. 1**

## 5.5 LOADING AND CHANGING V-NAIL INTO THE MAGAZINE

There is a quick change nail device located at the rear of the machine for changing the nail, just rotate the knob clockwise and choose the nail size showed by the know arrow fig. 2. And then pull on the spring loaded cable as show in fig. 3 arrow “B” and insert one v-nail stick into the magazine fig. 4 arrow “C”, make sure the “V” of the v-nail is pointing in the direction indicated by the arrow “A” in fig. 3. Finally release the spring loaded cable.

**Fig. 2**

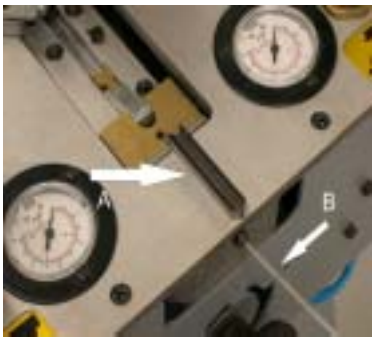



**Fig. 3**


**Fig. 4**

## 5.6 AIR PRESSURE REGULATOR FOR FRONT AND UPPER CLAMPS

The working pressure must be adjusted to the hardness of the moulding to be assembled. The pressure regulation allows changing the clamping pressure of moulding to be assembled. When the working pressure is too high this may cause a poor joining and the moulding crushing. When the working pressure is too low this may cause incomplete insertion of V-nail into the frame.

Both the front and upper clamps have independent air pressure regulator, as shown fig. 5 while the nail insertion pressure is adjusted by the main air pressure regulator, fig. 6. Attach the compressed air source to the machine with appropriate "quick disconnect fitting". The source should be filtered and lubricated and not exceed 6 BAR (85 PSI). Then, first set the main air pressure regulator fig 6 at 6 BAR by turning it clockwise to increase the pressure and counterclockwise to decrease the pressure and follow the same procedure to set the front and upper clamps air pressure regulator as shown fig. 6 at 6 BAR.

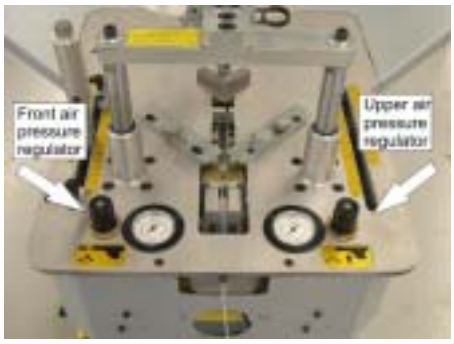



Fig. 5


Fig. 6

## 5.7 HEIGHT ADJUSTMENTS FOR THE MECHANICAL UPPER CLAMPS

To perform this adjustment remove each quick pins fig 7 "J", and raise both cylinders, and then place two pieces of moulding against the fences, now push up the quick locks fig. 8 "D" and slide both cylinders so they are positioned above the frame corner as suggested in fig 7, be sure the quick locks are tightened to prevent slippage. Set the pads at 3/8" (10mm) above the frame.


**Fig.7**

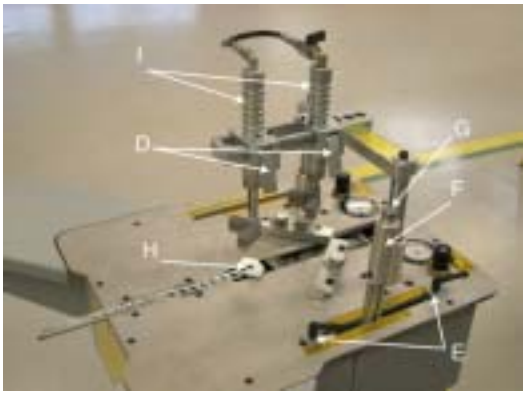



**Fig. 8**

IMPORTANT

If a small frame is being joined, remove the “quick pin” and take one of the clamps out.

## 5.8 SLIGHTLY ADJUSTMENT FOR THE MECHANICAL CLAMPS


In case you need to slightly adjust the height of the cylinders above the frame, the mechanical clamps offer a device that you can move the pads down till about ¾” (19mm) to the top of the moulding, by turning anticlockwise the knobs of each pad as shown in fig 9.

**Fig. 9**

## 5.9 VERTICAL HYDRAULIC CLAMPS ADJUSTMENT

Instead of using the two mechanical clamps a double hydraulic clamps can be mounted on the IM-5P. The Hydraulic clamps can be useful when changing frequently the profiles or joining profiles that have complicated shapes. In fact thanks to the oil circuit the hydraulic clamps descend and clamp the top of the moulding self-adjusting their vertical position. In order to adjust the hydraulic clamps use the same procedure describe above on item **5.7**

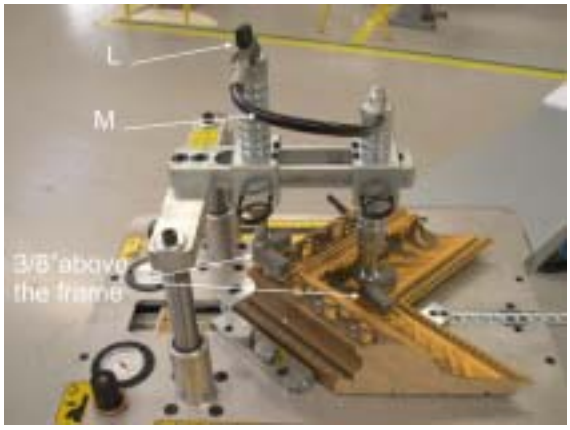



**Fig.10**

If a small frame is being joined, slide the rear clamp out of position and close the valve fig 10 (L) on top of the rear cylinder. Position the other cylinder pad over the corner of the frame.

### 5.9.1 ADJUSTMENT FOR THE FRONT CLAMP

The front clamp has a series of holes in the flat bar fig 11. Lift the bar to take it out of its initial position and make it move forward and backward. To lock the bar it is sufficient to insert it into the proper peg located in the middle of the guide channel. Proceed as follow to position the front clamp properly:

a. Remove the bar from the peg (lifting it by about 10-15mm) and move it forward up to reach the moulding to be assembled, as shown in fig. 12.
b. Lower the bar to allow the insertion of tracking screw and the locking in the next position.
c. Place the front clamp at 3/8" (10mm) in front of the frame rabbet.

**Fig. 11**

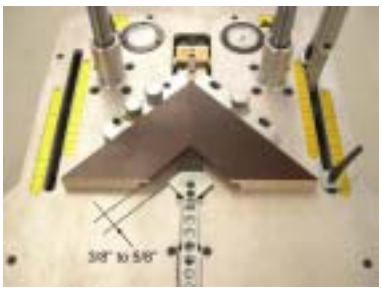



**Fig. 12**

### 5.9.2 FIXED FENCE POSITION

The IM-5P is equipped with a fixed fence at 90°. The fence and the moulding remains clamped and the “nailing head” is moved from one position to the next position by sliding the joy-stick.

### 5.9.3 FENCE ADJUSTMENT

The IM-5P underpinner is equipped with adjustable fences in order to obtain always the best results, even with twist mouldings.

### 5.9.4 PERPENDICULARITY ADJUSTMENT

This operation can be performed by turning clockwise or anticlockwise the proper knobs, as show in fig 13, knobs “A” and “B” it is very useful in those cases when the base of the moulding is not perfectly perpendicular compared with the part of the moulding that leans against the fence. The adjustable fence can be tilted +/- 2°.

Before joining the moulding follow this procedure:

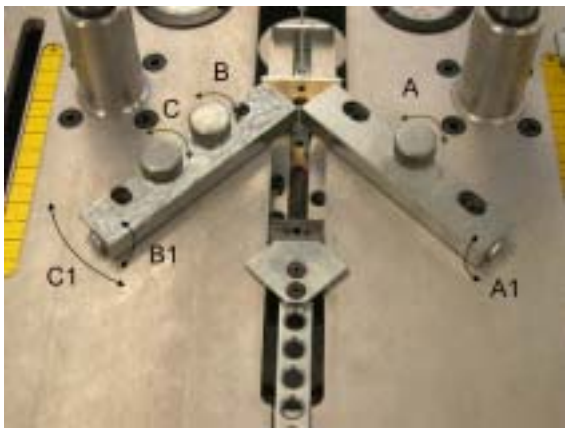



**Fig. 13**

a. Place the two legs of the moulding against the adjustable fence and set the vertical clamp so that, when pedal is depressed, they can hold the moulding properly.
b. Press the pedal and check the quality of the joint. In case the joint is not good, release the pedal and adjust the perpendicularity of each fence by turning the knobs “A” and “B” and repeat the operation over described joint.

### 5.9.5 FENCE ANGLE ADJUSTMENT

If during the test above, the corner of the frame remains open forward or backward, it is possible to adjust the fence angle of about 1°. Rotate clockwise or anticlockwise the knob of the left fence in fig 13 “C” till the right adjustment is founded. Adjust only left fence. Do not move right fence, it is possible to loose the exact position.

## 6. IM-5P OPERATION

### 6.1 POSITIONING THE JOYSTICK

To perform the joining process follows here under procedure:

a. Place one of the two moulding legs in position against the fence and position the joy stick **F** so the first nail will be inserted about 3/16" (5mm) from the rabbet. Loosen stops E slide it against the joy stick and tighten. This becomes the hear stop. Slide the joy stick F toward the front to locate the second nail about 3/16" (5mm) from the frame corner. Loosen and slide the stop **E** against the joy stick **F** and tighten the stops, this becomes the front stop;
b. Slide the joy stick **F** to the rear stop for the insertion of the first nail. Place both frame pieces against the fence.
c. Set the front clamp **H** in place about 3/8" (10mm) from the rabbet of the frame;

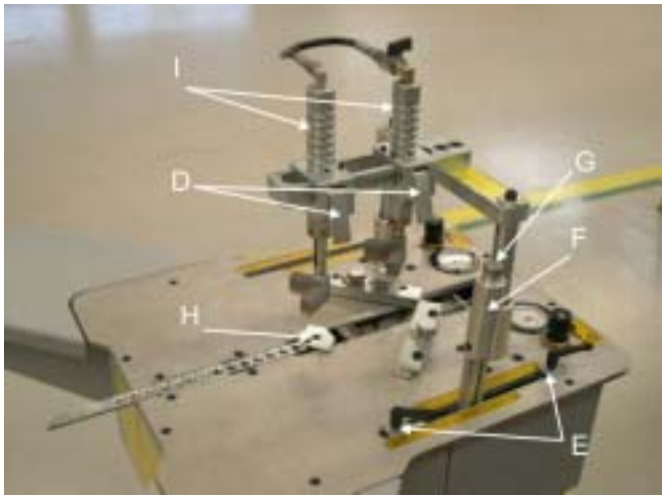



Fig.14

d. Adjust the vertical clamps height and position **I**;
e. Depress the foot pedal full down and the front clamp will operate immediately followed by the upper clamps, continue to hold the foot pedal down and push the fire button G and the first nail will be inserted. Slide the joy stick **F** to the front against its stop and push the fire button **G** to insert the second nail. Since the frame is higher near the corner, you can insert another v-nail at this same location which stacks two nails one on top of the other. If the frame is wide you can move the joy stick **F** to ONE or more intermediary positions, push the fire button **G just half way down** which will lock the joy stick **F** in place and then push the fire button **G** full down to insert the nail in the third position

## 7. MAINTENANCE

**ATTENTION**

**In order to avoid danger before performing any of the operations described below the machine must be absolutely disconnected from air pressure source!**

This machine will provide years of quality performance if maintained carefully. For operator safety before cleaning, lubricating and maintenance remove the plug from air source to avoid unexpected start-up.

Cleanliness and care guarantee not only a longer life time of the machine, but also less risks to operators. So we advise to keep the machine clean and lubricate weekly.

The most important maintenance requirement is cleanliness. Use a brush or clean cloth to wipe the table surface, shafts and pads.

If glue accumulates on the nailing head fig (xx), wipe it off before it dries, otherwise, it will have to be scraped off or removed with the solvent recommended by the glue manufacturer. Be sure glue does not dry on the upper clamp pads because it will damage the top of a frame.

### 7.1 EVERY 10 WORKING HOURS:

a. Check compressed air condensation in the filter glass;
b. Blow air pressure to eliminate pieces of staples or wood dust that can go inside the movable parts of the machine;

### 7.2 EVERY WEEK:

**Fig. 15**

a. Check oil level inside the filter lubricator fig 15;
b. In case oil is needed add for pneumatic circuits low density;

## 7.3 HOW TO REMOVE THE NAILING HEAD AND CLEAN IT

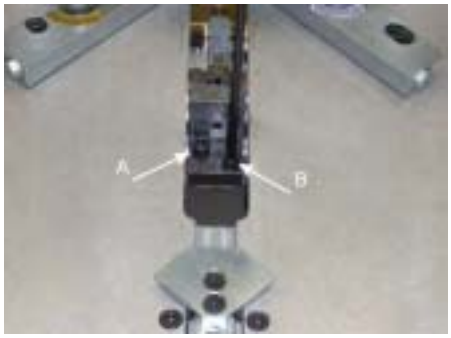



**Fig. 16**


**Fig. 17**

For operator safety, always disconnect the air source before cleaning, lubricating or performing any maintenance.

a) Using the 5mm Allen key, loosen the locking screws A and B of the nailing head, fig 16. Then loosen the locking screws C and D of the magazine, fig 17.

b) Then using your hands pull back the magazine a little bit fig 18. Now you are able to remove the nailing head and accomplish your regular maintenance, as show in fig 19.

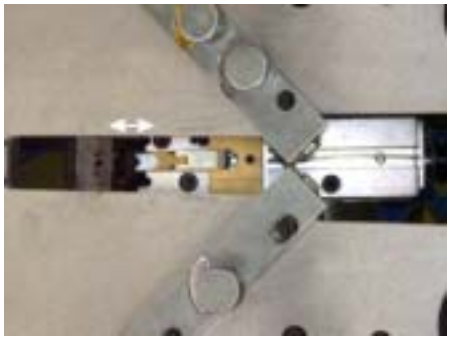


**Fig. 18**

**Fig. 19**

c) Once you have the nailing head out of the machine, place it on a flat surface with a 4mm Allen wrench, loosen and remove the four screws, as shown in figs. 20/21

**Fig. 20**

**Fig. 21**

d) Clean the inside of the nailing head using a cloth and a drop or two of pneumatic oil. After cleaning, wipe down the nailing head with a dry cloth. Then put one drop of pneumatic oil on the inside of the nailing head.

e) Before mounting the nailing head, we suggest you use a flat surface (like a mirror) in order to give a precise alignment of the two parts. If the top and sides are not in precise alignment, it will not work properly, as shown in fig 22.

f) When attaching the nailing head over the drive pin make sure to place it according to fig 23

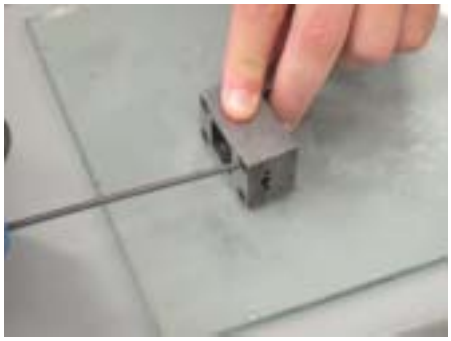


**Fig.22**

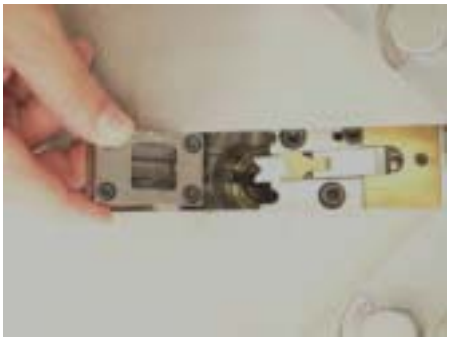


**Fig. 23**

g) Place the nailing head on its original position and using the 5mm Allen key tighten the locking screws A and B of the nailing head, fig 16. Then place the magazine on its original position fixed to the nailing head and tighten the locking screws C and D of the magazine, fig 17;

## 7.4 HOW TO ASSEMBLE THE COUNTERWEIGHT BALANCER

For operator safety, always disconnect the air source before cleaning, lubricating or performing any maintenance.

The IM-5P underpinner is designed to be operated on a closet stand or a tilting stand. The counterweight balancer spring is provide with the machine for using just with the tilting stand in order to set the weight of the hammer block assembly when the machine is tilted. Proceed as follow to attach the counterweight balance on the machine. See fig 24 how to assemble the spring.

**Fig.24**

Tilt the working table by loosen the knobs on the left and right sides of the stand ;

Then attach one end of the spring over the bolt as shown in fig. 24 and the other end of the spring attaches to another bolt located beside the cylinder.

## 7.5 HOW TO CHANGE THE NAIL PUSHER

For operator safety, always disconnect the air source before cleaning, lubricating or performing any maintenance.

In order to remove the nail pusher, follow these procedures:

- Tilt the working table
- Disconnect the air hose source fig. 25 arrow "A" and loosen the two locking screws B;
- Now using a 6mm Allen key, loosen the (4) four locking screws and remove the cylinder lid, as show in fig 26/27 ;
- Then using a pair of pliers remove the complete device for the nail pusher cylinder, as show in fig 28;
- Once you have the nail pusher out, add a small amount of pneumatic oil around the new rubber gasket;
- Carefully place the new one back inside the cylinder fig 28, making sure the top edge of the rubber gasket is inside the cylinder before pushing, if not, damage may occur to the rubber gasket. Also, make sure the nail pusher is in the nailing head;
- Once you have the complete nail pusher device into the cylinder, reassemble the cylinder lid with the 6mm Allen key and tighten the (4) four screws as shown in fig 26. Then tighten the other two screws B and C as shown in fig 25;
- Finally attach the air hose to the cylinder, and with the nails out, make a few tests before you start production.


**Fig. 25**

**Fig. 26**

**Fig. 27**

**Fig. 28**

## 7.6 HOW TO CHANGE THE JOYSTICK FROM THE RIGHT TO THE LEFT.

**CAUTION**

For operator safety, always disconnect the air source before cleaning, lubricating or performing any maintenance. In order to change position for the joy stick, follow these procedures:

- Disconnect the air source;
- There are 4 hoses connected to two valves, disconnect and mark them before changing the side of the joy stick
- Using the 3mm Allen key loosen the locking screws of the joystick handle fig 29 and take the housing out as shown in fig 30, then pull up and rotate the joystick arm in order to take it out;
- Then under the working table there is a support bracket attached to the cylinder, using the 5mm Allen key loosen the two locking screws; as shown in fig. 31;
- Once you have done this procedure you are ready to move the joystick to the opposite side.
- Pull bracket down, and then rotate to the other side.
- Unscrew and move locking levers to other side.
- Reassemble

**Fig.29**

**Fig.30**

**Fig.31**

## 7.7 AIR FILTER LUBRICATOR AND OIL LUBRICATOR

CAUTION

For operator safety, always disconnect the air source before cleaning, lubricating or performing any maintenance.

## 7.8 OIL LEVEL ON LOWER EDGE OF OIL GLASS

INMES products are constructed to have a long duration and are tested one by one. However, we ship the machines without oil inside the lubricator glass and it is necessary to fill the lubricator glass to obtain good performance of the equipment. The number of drops of pneumatic oil is adjusted at the factory. It is usually not necessary to adjust afterwards. We recommend that the customer verify that after every 25to30 actions of the foot pedal, ONE drop should fall. In order to refill the lubricator glass, proceed as follow:

- Shut air supply, fig 32 “A”
- Unscrew the lubricator glass by turning clockwise direction, fig 32 “B”, fig.33.
- Fill the lubricator glass with pneumatic oil, a little more than half glass
- Screw the lubricator glass back on making sure the O-ring is sitting correctly in the housing

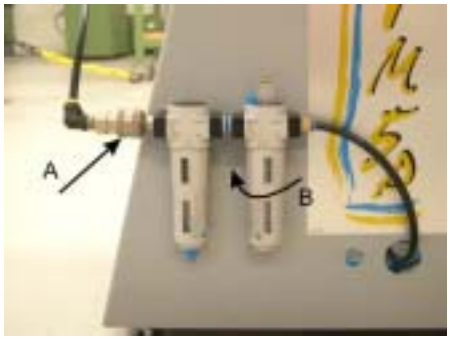



**Fig. 32**

**Fig. 33**

## 7.9 AIR FILTER LUBRICATOR

CAUTION

**For operator safety, always disconnect the air source before cleaning, lubricating or performing any maintenance.**

When the compressed air leaves the air source it comes with water, impurity and dust, so the function of the filter lubricator is to filter the compressed air eliminating water and collecting dust and other impurities inside the filter glass. Every source of compressed air differs from one another, so consecutively, quantity of water and impurities are collected. That is why we strongly recommend that the customer verify daily, the oil level and water inside the air filter lubricator. When it is necessary to empty the water inside the filter glass, (it is not necessary to shut air supply) just loosen the drain located under the bottom of the filter, as shown in fig 34 "A". However, we recommend cleaning the filter lubricator located inside the filter glass at least once a week. In order to clean it up, proceed as follow:

- Shut air supply,
- Unscrew the filter glass by turning clockwise direction,
- Unscrew the filter (black piece) as shown in fig 35;
- Then unscrew the black piece showed in fig 35, inside this part you will find a white piece fig 36, then clean inside both parts using air
- Once these procedures are done then screw filter back to its original position;
- Screw the lubricator glass back on making sure the O-ring is sitting correctly in the housing

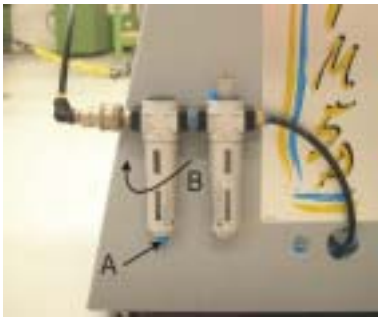



**Fig. 34**

**Fig. 35**

**Fig. 36**

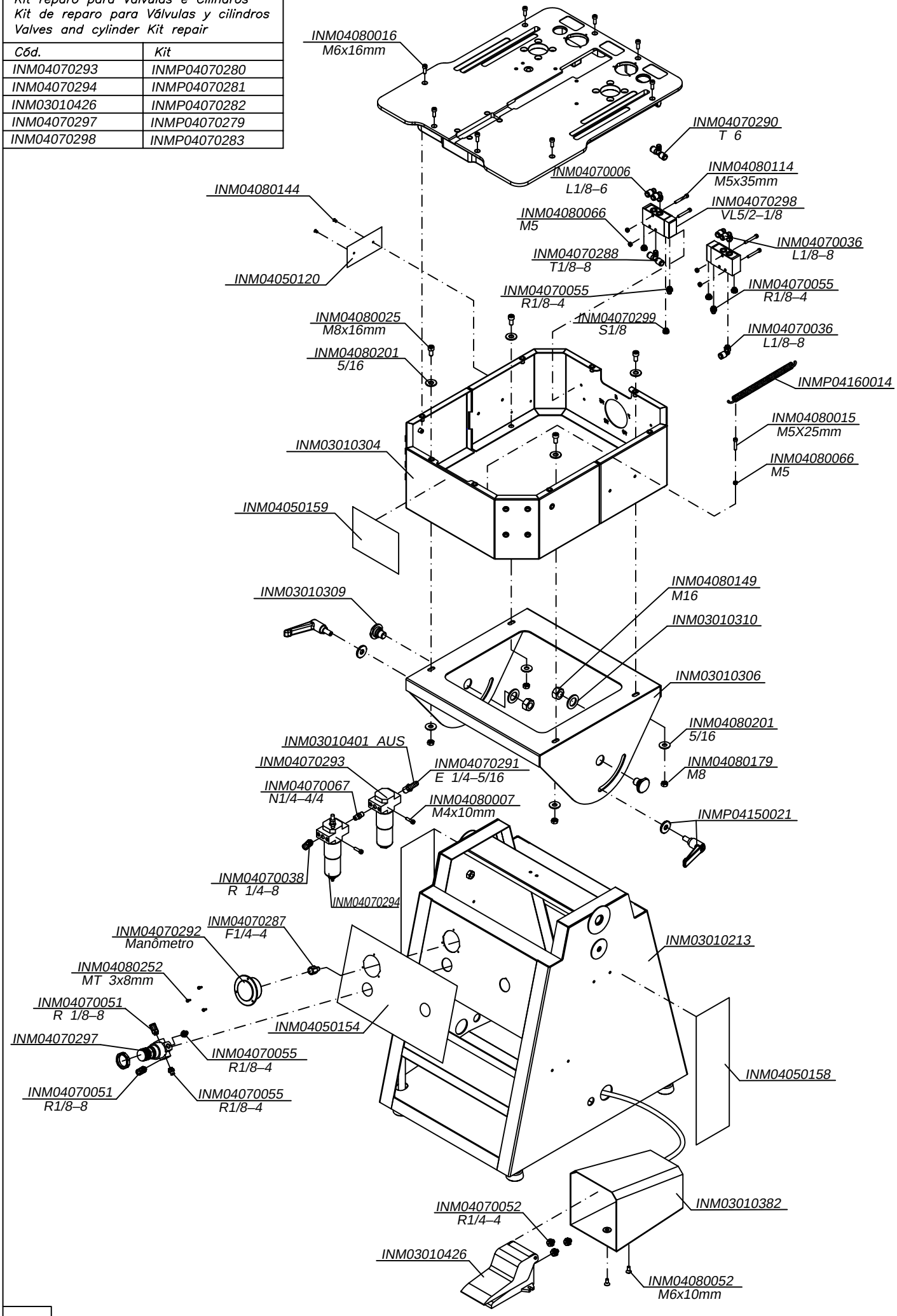
# 8–PART LIST IM-5P

| Code | Descriptions | Code | Descriptions |
|---|---|---|---|
| INM01010334 | Mechanical clamps IM-5P | INM04070290 | Connection 6MM |
| INM01010335 | Hydraulic clamps IM-5P | INM04070291 | Male connector 1/4POLX5/16MM |
| INM03010038 | Allen screw M5 (Z) | INM04070292 | Manometer FMA 50-1/4 |
| INM03010213 | Tilting stand IM-5P | INM04070293 | Air filter lubricator MINI 1/4" |
| INM03010225 | Support counterweight balancer IM-5 (Z) | INM04070294 | Oil lubricator LOE-D-MINI 1/4" |
| INM03010229 | Longer guide shaft IM-5 | INM04070295 | Activator R-3-M5 |
| INM03010230 | Shorter guide shaft IM-5 | INM04070297 | Air pressure regulator LR-1/8-F |
| INM03010232 | Support for the guide shaft IM-5P | INM04070298 | Valve VL-5/2 VIAS-1/8 |
| INM03010238 | Magazine base IM-5P (Z) | INM04070299 | Muffler 1/8POL |
| INM03010240 | Pin IM-5P (Z) | INM04080004 | Allen screw Internal M3x10MM DIN 912 |
| INM03010242 | Nail definer IM-5P (Z) | INM04080007 | Allen screw Internal M4X10MM DIN 912 |
| INM03010245 | Shaft IM-5 | INM04080009 | Allen screw Internal M4X20MM DIN 912 |
| INM03010247 | Washer (Z) | INM04080012 | Allen screw Internal M5x8MM |
| INM03010249 | Washer for the knob IM-5P (Z) | INM04080015 | Allen screw Internal M5X25MM DIN 912 |
| INM03010259 | Cylinder support IM-5P (Z) | INM04080016 | Allen screw Internal M6X16MM DIN 912 |
| INM03010261 | Guide IM-5P (Z) | INM04080019 | Allen screw Internal M6X25MM DIN 912 |
| INM03010263 | Guide peg IM-5P (Z) | INM04080020 | Allen screw Internal M6X30MM DIN 912 |
| INM03010265 | Movement bar IM-5P (Z) | INM04080021 | Allen screw Internal M6X35MM DIN 912 |
| INM03010266 | Activator for the valve IM-5 | INM04080025 | Allen screw Internal M8X16MM DIN 912 |
| INM03010270 | Shaft Housing IM-5 | INM04080026 | Allen screw Internal M8X20MM DIN 912 |
| INM03010274 | Support for the activator SU IM-5P (Z) | INM04080029 | Allen screw Internal M8x35MM |
| INM03010283 | Upper support IM-5P (Z) | INM04080031 | Allen screw Internal M8X45MM DIN 912 |
| INM03010285 | Washer IM-5P (Z) | INM04080038 | Allen screw Internal M10X30MM DIN 912 |
| INM03010287 | Clamps support IM-5P (Z) | INM04080052 | Allen screw Internal M6X10MM |
| INM03010292 | IM-5P Working table | INM04080053 | Allen screw Internal M6X16MM |
| INM03010297 | Right stop washer IM-5P (Z) | INM04080054 | Allen screw Internal M8X16MM |
| INM03010304 | Base for the working table IM-5 | INM04080066 | Nut MA M5 ZINC |
| INM03010306 | Tilting plate IM-5P | INM04080089 | Allen screw Internal M6X10MM DIN 912 |
| INM03010309 | Tilting axle IM-5 (Z) | INM04080114 | Allen screw Internal M5X35MM DIN 912 |
| INM03010310 | Washer IM-5 (Z) | INM04080143 | Allen screw Internal M5X10MM DIN 912 |
| INM03010318 | Cylinder vertical clamps D50MM IM-5P | INM04080144 | Rivet 3,2X10,2MM |
| INM03010319 | Housing for the vertical clamps | INM04080149 | Nut MA 16MM ZINC. DIN 934 |
| INM03010333 | Closet Stand IM-5 | INM04080177 | Nut MA 6MM ZINC.DIN 934 |
| INM03010346 | Right arm extension IM-5P | INM04080179 | Nut MA 8MM ZINC |
| INM03010348 | Nail Size Indicator IM-5 (Z) | INM04080200 | Washer ¼" zinc steel |
| INM03010350 | Left arm extension. IM-5P | INM04080201 | Washer 5/16" zinc steel |
| INM03010352 | Vertical bar IM-5 (Z) | INM04080219 | Washer 3/8" zinc steel |
| INM03010354 | Spring support IM-5 (Z) | INM04080250 | Allen screw Internal M5X10MM DIN 7991 |
| INM03010357 | Stop for the nails strip pusher IM-5 (Z) | INM04080252 | Phillips screw MT M3X8MM PAN ZINC |
| INM03010360 | Cylinder IM-5P D63MM | INM04080256 | Allen screw Internal M5X05MM |
| INM03010371 | Nails guide complete with bushing IM-5 | INM04080257 | Allen screw Internal M6X45MM |
| INM03010372 | Housing with bushing IM-5 | INM04080259 | Allen screw Internal M6X16MM |
| INM03010375 | Cylinder for the front clamp D40MM IM-5P | INM04150020 | Knob M8 |
| INM03010378 | Tracking screw IM-5 (Z) | INM04160053 | Spring IM-5 |
| INM03010380 | Support for the cylinder IM-5 (Z) | INM04160056 | Spring IM-5 |
| INM03010382 | Foot pedal guard IM-5P | INM04160059 | Spring IM-5P |
| INM03010387 | Longer support IM-5P with bushing and cilinder | INM04170070 | Cotter 5X5X12MM T-A |
| INM03010388 | Shorter support IM-5P | INM04170074 | Flexible Ring 20MM |
| INM03010399 | Left stop washer IM-5P (Z) | INM04190100 | Table measure in inches (6") IM-5P |
| INM03010406 | Shaft IM-5P COMPLETE | INM04190102 | Table measure in millimeter 152MM IM-5P |

| | | | |
|---|---|---|---|
| INM03010411 | Spring stop IM-5P (Z) | INM05040085 | Operator's Manual IM-5P |
| INM03010426 | Foot pedal F-5-1/4-B | INMP03010223 | Complete nail pusher IM-5P |
| INM04050031 | Caution label 28,0X72,0MM | INMP03010253 | Nail strip pusher IM-5P |
| INM04050120 | Serial number label | INMP03010291 | Front clamp IM-5P COMPLETE |
| INM04050128 | LATERAL label IM-5P closet stand | INMP03010299 | Right moulding fence IM-5P COMPELTE |
| INM04050154 | Main pressure regulator label IM-5P tilting stand | INMP03010313 | Single hydraulic clamps IM-5P |
| INM04050155 | Vertical clamps label IM-5P | 7109 | Pad IM-5P |
| INM04050156 | Front clamp label IM-5P | INMP03010362 | Left moulding fence IM-5P COMPLETE |
| INM04050157 | Label IM-5P | INMP03010369 | Nut IM-5P COMPLETE |
| INM04050158 | Lateral Label IM-5P tilting stand | INMP03010373 | Complete Nailing head IM-5P |
| INM04050159 | Safety Label IM-5P | INMP03010390 | Loaded cable IM-5P |
| INM04070005 | Hose 6MM | INMP03010408 | Washer IM-5P (Z) |
| INM04070006 | Connection 1/8POLX6MM | INMP03010413 | Kit gasket cylinder D50MM IM-5P |
| INM04070008 | Hose 4MM | INMP03010414 | Kit gasket cylinder D40MM IM-5P |
| INM04070027 | Hose 8MM | INMP03010415 | Kit gasket cylinder D63MM IM-5P |
| INM04070036 | Connection 1/8POLX8MM | INMP03020045 | Aluminum handle M6X19MM |
| INM04070038 | Connection 1/4POLX8MM | INMP04070276 | Kit hydraulic oil hose IM-5P |
| INM04070049 | Connection 1/8POLX6MM | INMP04070279 | Kit gasket air pressure regulator LR 1/8POL |
| INM04070051 | Connection 1/8POLX8MM | INMP04070280 | Kit gasket filter LF 1/4POL D MINI FESTO |
| INM04070052 | Connection 1/4POLX4MM | INMP04070281 | Kit gasket lubricator 1/4 D MINI FESTO |
| INM04070055 | Connection 1/8POLX4MM | INMP04070282 | Kit gasket foot pedal valve F 5-1/4 FESTO |
| INM04070067 | Jointer 1/4" | INMP04070283 | Kit gasket valve VL 5/2-1/8 FESTO |
| INM04070254 | Connection L. 1/8-4 | INMP04150003 | Butterfly handle M6X20MM |
| INM04070286 | Connection M5X4MM | INMP04150021 | Locking handle with washer M10X25MM |
| INM04070287 | Connection FEMEA 1/4POLX4MM | INMP04160014 | Spring |
| INM04070288 | Connection 1/8POLX8MM | INMP04160055 | Locking pin IM-5P |
| INM04070289 | Connection 4MM | INMP04160057 | Spring IM-5 |

*Kit reparo para Válvulas e Cilindros*
*Kit de reparo para Válvulas y cilindros*
*Valves and cylinder Kit repair*

| Cód. | Kit |
|---|---|
| INM04070293 | INMP04070280 |
| INM04070294 | INMP04070281 |
| INM03010426 | INMP04070282 |
| INM04070297 | INMP04070279 |
| INM04070298 | INMP04070283 |






01

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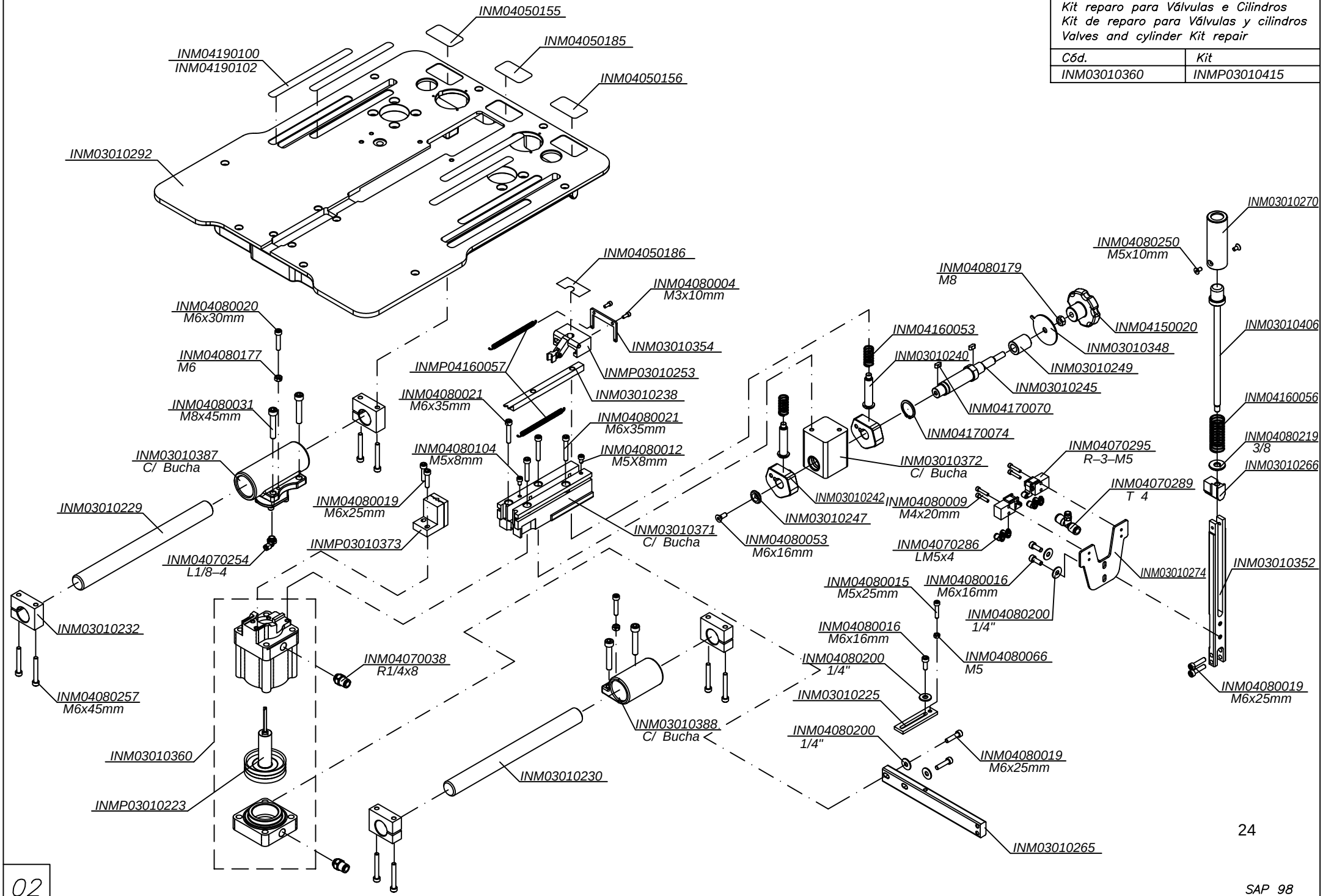
Kit reparo para Válvulas e Cilindros
Kit de reparo para Válvulas y cilindros
Valves and cylinder Kit repair

| Cód. | Kit |
|---|---|
| INM03010360 | INMP03010415 |

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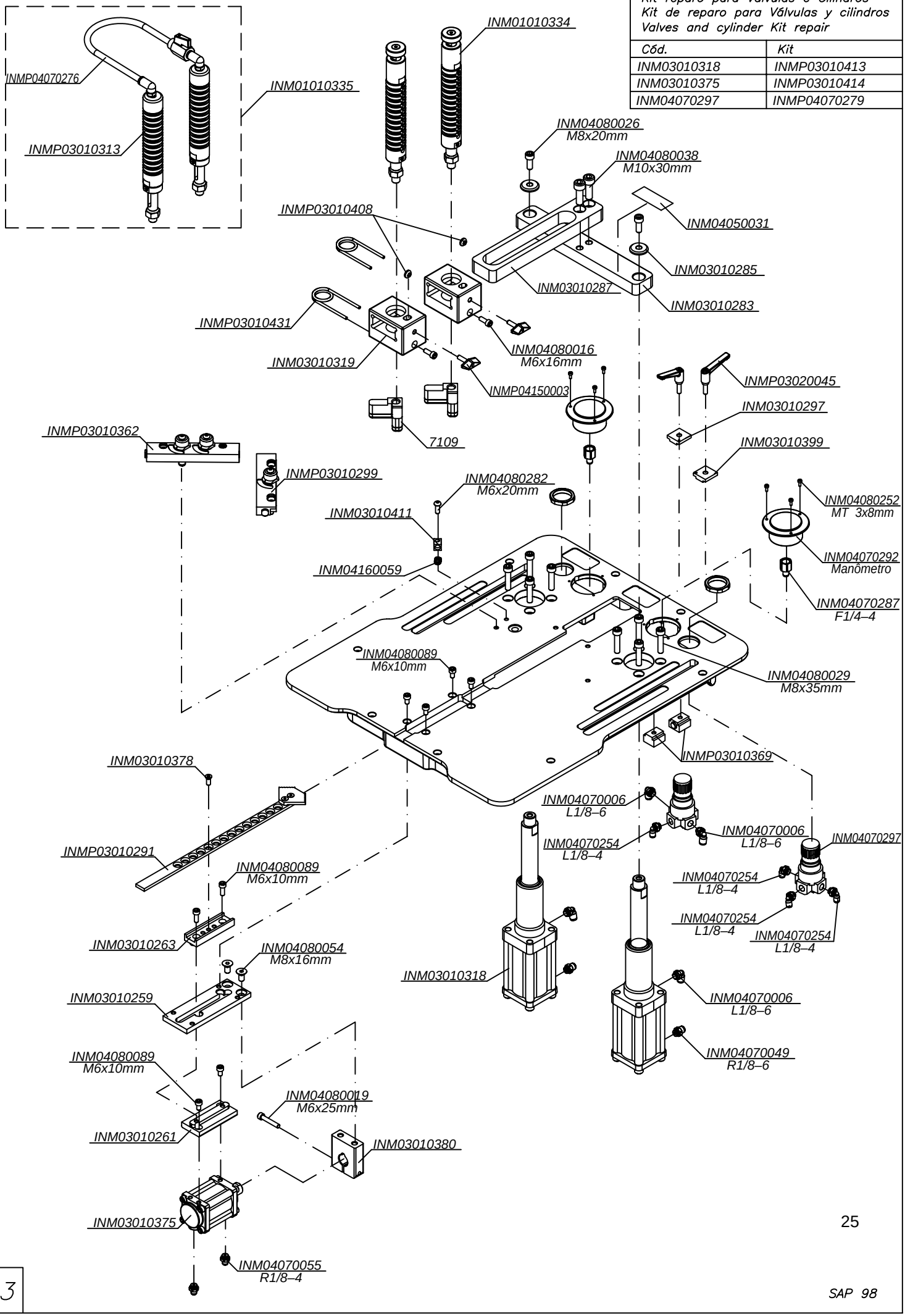
02

SAP 98

*Kit reparo para Válvulas e Cilindros*
*Kit de reparo para Válvulas y cilindros*
*Valves and cylinder Kit repair*

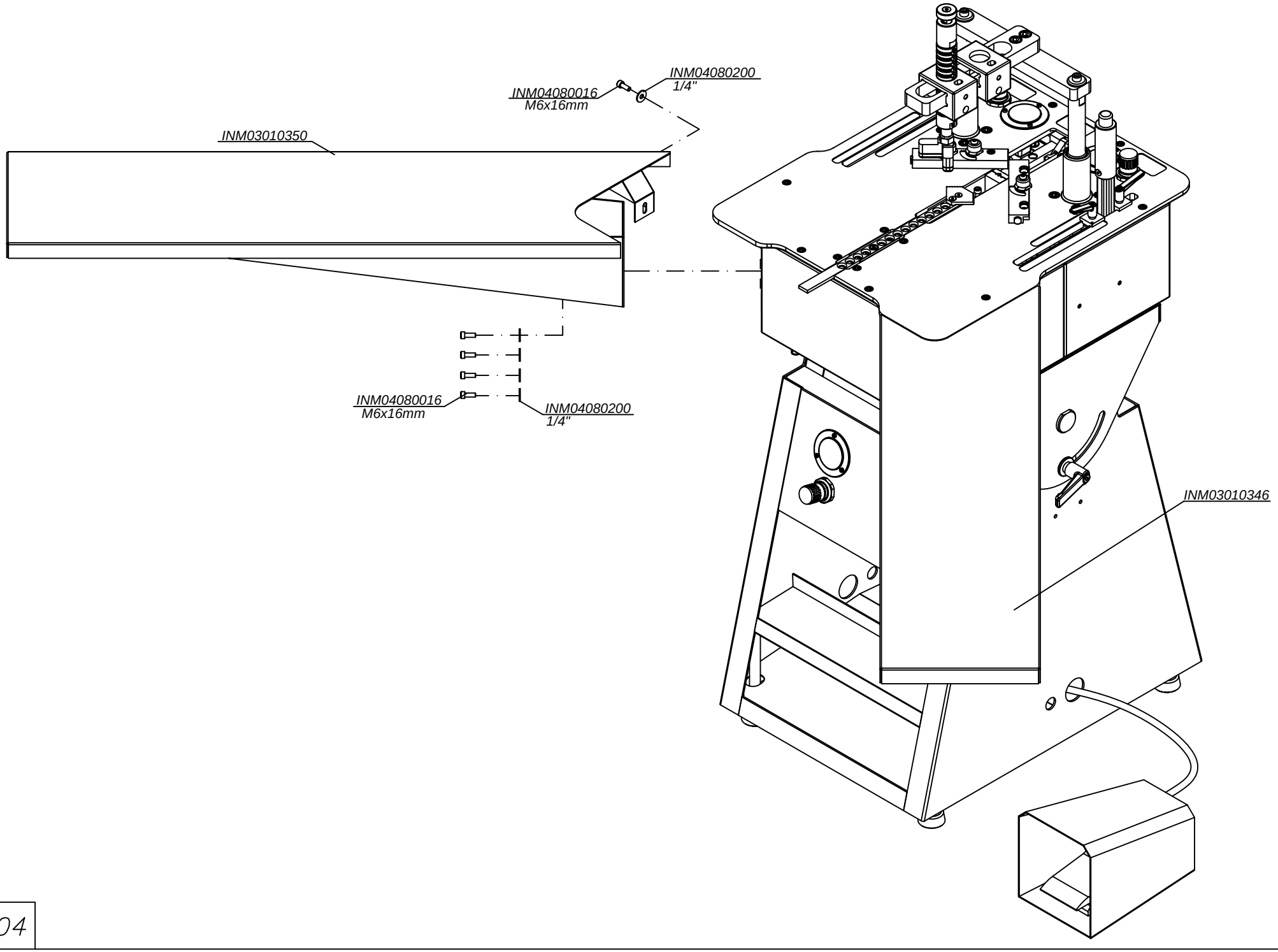
| Cód. | Kit |
|---|---|
| INM03010318 | INMP03010413 |
| INM03010375 | INMP03010414 |
| INM04070297 | INMP04070279 |






03

SAP 98


INM04080200
1/4"
INM04080016
M6x16mm
INM03010350
INM04080016
M6x16mm
INM04080200
1/4"
INM03010346

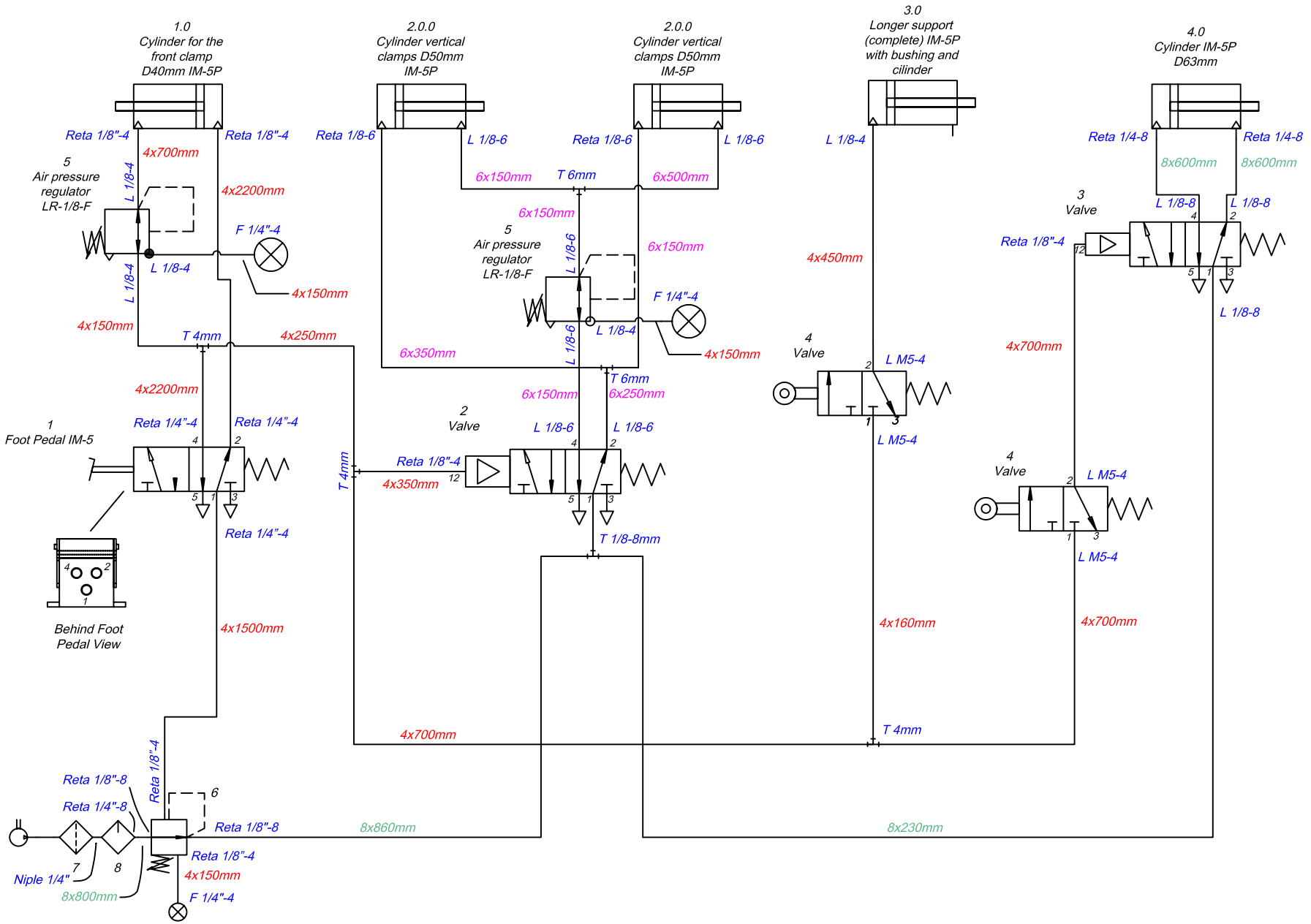


04

SAP 98

# Pneumatic IM-5 Underpinner – INMES

| Mangueiras Pneumáticas<br>Pneumatic hose<br>Manguera Neumática | |
|---|---|
| INM04070005 | ø 6mm |
| INM04070008 | ø 4mm |
| INM04070027 | ø 8mm |



# TERMO DE GARANTIA

*Os equipamentos da INMES Industrial Ltda, são garantidos por um período de 365 dias a partir da emissão da nota fiscal.*

*A obrigação da Assistência Técnica INMES, nos termos desta garantia, consiste no conserto do equipamento defeituoso.*

*Eventuais despesas de adaptação do local para a instalação dos equipamentos são de responsabilidade do cliente proprietário.*

*A garantia cobre qualquer tipo de defeito de fabricação, materiais, peças e a devida mão-de-obra para o conserto, quando devidamente comprovada pela INMES, ou um de seus Assistentes Técnicos Autorizados (ATI's).*

*Os equipamentos de fabricação de terceiros, que compõem os equipamentos INMES (Ex: motores, componentes pneumáticos, componentes elétricos, etc.) estão sujeitos as condições de garantia de seus respectivos fabricantes.*

*Não estão inclusas nesta garantia eventuais visitas solicitadas para limpeza ou reajuste do equipamento, devido ao desgaste decorrente do uso normal.*

*O cliente (comprador), será responsável pela locomoção do técnico até o local a ser efetuada a manutenção, alimentação e estadia se forem necessárias, bem como despesas com frete para encaminhamento e retorno do equipamento ao ATI's mais próximo, ou à fábrica.*

*Caso o cliente solicite alteração das características originais do equipamento, estas são de sua inteira responsabilidade.*

*Esta garantia será imediatamente cancelada se o equipamento sofrer acidente no decorrer do transporte, se for instalado em condições impróprias, como exposto a intempéries umidade, maresia, etc, se para o seu conserto forem utilizadas peças não originais INMES, ou se forem executados reparos por pessoas não autorizadas pela INMES Industrial Ltda.*

*No caso das máquinas de grampear, a garantia será cancelada no caso da utilização de grampos não originais INMES.*

*Esta garantia não cobre os problemas ocasionados por maus tratos, descuidos e mau uso do equipamento (operação do equipamento por pessoas não capacitadas para tal), em desacordo com o manual de instruções do mesmo.*

*' Em nenhum caso a INMES Industrial Ltda, poderá ser responsabilizada por perda de produtividade, danos diretos ou indiretos, reclamações de terceiros, paralisações ou ainda quaisquer outras perdas ou despesas, incluindo lucros cessantes.*

*É imprescindível a apresentação do Termo de Garantia, devidamente preenchido para fazer uso da garantia, este sempre acompanhado da nota fiscal de compra do equipamento.*

*Ao solicitar o atendimento da garantia, tenha em mãos o Termo de Garantia.*

*Evite chamadas desnecessárias, caso ocorra algum problema com seu equipamento INMES, certifique-se do problema antes de chamar a assistência técnica.*

*Dados do Cliente e do Equipamento:*

*Nome/Razão Social do Cliente:* _____

*Endereço:* _____

*Equipamento/Modelo:* _____ *N de Série:*_____

*Nota Fiscal N :* _____ *Data:* _____/_____/_____

*Revendedor:* _____

*Local:* _____ *Data:* _____/_____/_____

**Relação Assistentes Autorizados**

**Atualização - 14/04/2008**

| Código | Nome do ATI | Endereço | Bairro | Cidade | Estado | CEP | Telefone | Contato | E-mail |
|---|---|---|---|---|---|---|---|---|---|
| 2468 | LEANDRO BEZERRA SILVA ME | RUA MANOEL DE FARIAS 118 | CENTRO | BATALHA | AL | 57420-000 | (82) 35311-100 | Leandro | leandrochorao@ig.com.br |
| 2825 | MARCELO CAMARA PONTES ME | RUA JOAQUIM NABUCO 1353 | ALDEOTA | FORTALEZA | CE | 60125-120 | (85) 3212-1313 | Alison | marcelo@moldufort.com.br |
| 1485 | MOLDUSSOLY COM.DE ACESSÓRIOS E MAQ. LTDA | RUA JOAQUIN NABUCO, 363 | NUCLEO COLONIAL | PINHAIS | PR | 83321-120 | (41) 3667 1111 | Acioli | moldussoly@moldussoly.com.br |
| 2376 | COSCRATO & COSCRATO LTDA | RUA LOURENCO DA VEIGA 600 | JARDIM SABARÁ | LONDRINA | PR | 86066-120 | (43) 3028-9779 | Denilson | irmac@onda.com.br |
| 3236 | ARTEMASSA PRODUTOS VIDRACARIA LTDA | AV COLOMBO, 8168 | ZONA 06 | MARINGÁ | PR | 87080-190 | (44) 3031-0991 | Marcos | artemassamga@hotmail.com |
| 2862 | GGE- GRAMPEADORES E GRAMPOS ESPECIAIS | RUA DA REGENERAÇÃO 331 | BOM SUCESSO | RIO DE JANEIRO | RJ | 21040-170 | (21) 3977 5277 | Francisco | ggegrampeadores@hotmail.com |
| 2868 | ARTE FUTURA IND. E COM. DE MOLDURAS LTDA | RUA JOSE DOMIGUES, 331 | ENCANTADO | RIO DE JANEIRO | RJ | 20756130 | (21) 2595-3157 | Demerval | afutura@terra.com.br |
| 2995 | TECNOAR COMÉRCIO E ASSISTENCIA LTDA | ROD.BR 116 KM 3197 | RIO BRANCO | NOVO HAMBURGO | RS | 93336-290 | (51) 3594 1060 | Luiz | tecnoar@brturbo.com |
| 3146 | ELETRO ROCEL LTDA | RUA SÃO PAULO 898 | BORGO | BENTO GONÇALVES | RS | 95700-000 | (54) 3454 1060 | Ronaldo | erocel@brturbo.com |
| 4879 | BOSSARDI COMÉRCIO E IND. MECÂNICA LTDA | RS 115 Km 37 nr 150 Sala 01 | VARZEA GRANDE | GRAMADO | RS | 95670-000 | (54) 3288 1776 | Alfeu | bossardi@gramadosite.com.br |
| 881 | PEREIRA COM.DE MOLDURAS LTDA | TRAV. JOSE CHAGAS SEIXAS, 97 | PATRONATO | SANTA MARIA | RS | 97020-450 | (55) 3027-2602 | João | pmoldura@terra.com.br |
| 729 | ELO MANUTENÇÃO E COM. DE MÁQUINAS LTDA | RUA VICE PREF. LUIZ CARLOS GARCIA 827 | COSTA E SILVA | JOINVILLE | SC | 89218-340 | (47) 3435 5050 | Pedro | elomaq@brturbo.com.br |
| 3684 | CSG AUTOMAÇÃO INDUSTRIAL LTDA | RUA CARLOS PSCHEIDT 395 | COLONIAL | SÃO BENTO DO SUL | SC | 89290-000 | (47) 3634 0372 | Valdecir | csg.automacao@terra.com.br |
| 3653 | ELETRO PANSERA LTDA ME | AV. BRASILIA, 1887 | CENTRO | PINHALZINHO | SC | 89870-000 | (49) 33366 1656 | Gelton | eletropansera@yahoo.com.br |
| 5667 | ELF AUTOMAÇÃO INDUSTRIAL LTDA. | RUA PREFEITO DIB CHEREN, 2965 | CAPOEIRAS | FLORIANÓPOLIS | SC | 88090-001 | (48) 3248 6240 | Felippe | elf@intergate.com.br |
| 2701 | J.F. MEDEIROS ME | RUA JOSÉ EMIDIO DE FARIAS 2335 | CENTRO | MIRASSOL | SP | 15130-000 | (17) 3242 7088 | Kiko | jmgrampeadores@terra.com.br |
| 3576 | EDSON SOUZA ALVES | RUA GONÇALO BARROS, 665 | CAPÃO REDONDO | SÃO PAULO | SP | 05881-000 | (11) 5874 5138 | Edson | edsonsouzaalves@ig.com.br |
| 5039 | VERSATIL AUTOMAÇÃO PNEUMÁTICA LTDA | AV. DUQUE DE CAXIAS 26-102 | PARQUE SÃO JORGE | BAURU | SP | 17030-520 | (14) 3281-5999 | Tiago | tiago.versatil@hotmail.com |
| 5201 | OLIVEIRA FERRAMENTAS SERVIÇOS E PEÇAS | AV. GOV. PEDRO DE TOLEDO, 1150 | BOMFIM | CAMPINAS | SP | 13070-150 | (19) 3212 0446 | Andréia | oliveirafercal@terra.com.br |

**SAC INMES - 0300 788 2022**

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