



## **ABM Food Former NSF MODELS**

**F2000N – F3000N - F4000N - B1200N – HD3000N  
OPERATION, SERVICE MANUAL &  
PARTS LIST**

### **\* IMPORTANT SAFETY NOTICE \***

This Manual contains important safety instructions which must be strictly followed when using this equipment.

Item No. #356-1-12-3

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# WARRANTY

The installation, the starting, and the operating of the machine must be performed by skilled personnel only, who knows the machine. The personnel assigned to the assistance and maintenance must always follow the instructions contained in the manual. The food forming machine must be used by trained personnel only. If necessary provide for the personnel's training, to learn the usual operations in order to assure the correct use of the machine.

ABM disclaims all responsibility in case of:

- Assembly of the components of the machine and the electric connection not effected according to the established rules;
- Improper use of the machine;
- Tampering the controls or the security protection;
- Use of non-original spare parts;

The warranty does not cover the normal use of the parts.

# RELIABILITY

In case of improper use of the machine, it is possible to have injuries and accidents.

The food forming machine must be used only by the personnel who must know the machine and the content of the manual:

- Make sure that unskilled personnel – and especially children – do not operate the machine;
- Do not modify or remove the safety devices (covers and protections), especially those installed at the meat inlet;
- Never tamper with the electric system;
- Use the machine with concentration avoiding distractions;
- Before cleaning and maintenance, always disconnect the machine from the supply system;
- Periodically check the main supply wire, in case of breaks or bad functioning, provide for the replacement by skilled personnel.
- Never go near the machine with loose hair, clothes, bracelets, chains, rings, ties, etc. to avoid the chance that they become tangled in the moving parts of the machine;
- Stop the machine whenever it makes strange noises during the functioning;
- Always keep the working area clean and dry;
- Do not deal with the repairs if you are not able to eliminate the possible breakdowns, but contact the technical assistance;
- The machine is made of accessories and parts especially designed in order to reduce the maintenance and minimum.

# GENERAL TECHNICAL FEATURES

## Description

- The ABM Food Forming machine is characterized by:
- Compactness and small overall measurements and with special features, able to satisfy the producing requirements of both the great and the small distribution;
- Reliability and safety in the operation and the cleaning processes;
- Hygiene of the parts in contact with the product through the use of innovative materials conformed to the current regulations;
- Precision and compactness of the finished product;
- Strength, easy use, controls and working stationing especially designed to optimize ergonomics.

## Main Features

- The castings are made of anticorrosional thermally treated with innovative material for food, while all the other components have been made of stainless steel. These parts are particularly fit to resist the corrosive agents of the products used and are in conformity with the hygienic regulations for food;
- The moving parts are started by an electronic motor and the movement transmission operates through a chain and mechanism;
- The hopper, the paddle, the conveyor belt, the drum and the accessories are easily disassembled to effect a regular cleaning.
- The thickness of the product is adjustable;
- The quantity of the hamburgers produced per hour can be varied on request in the models with current continue motors;
- The hopper and the moving of the product operate in a continuous way and this allows a homogenous dough;
- The controls are easily identifiable and suitable to prevent accidental starting;
- The transmission parts are located inside the crankcase;
- The machine is equipped with a device which allows the cleaning of the roll during functioning (scraper) and permits the separation of the products;
- Different drums are available, suitable to the forming of products with different shapes;
- On request, the machine can be supplied with electrical motors of different tensions.

## Safety Devices

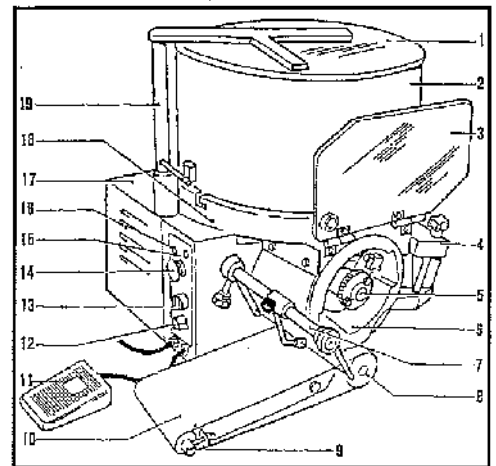
The Food Forming Machine is equipped with the following protection and safety devices:

- Safety micromagnet on the hopper;
- Plastic cover servo-assisted by a micromagnet;
- Protection and front cover of the removable parts;
- Handle of the paddle optimized to avoid crushing and use of keys or particular tools;
- Starting of the machine through reverser for servo-assisted manual or automatic control;
- Emergency button
- Materials in conformity with the food hygienic regulations and fit to guarantee the good resistance to oxidation.

## Components Description

### CONTENTS

1. Cover
2. Hopper
3. Protection
4. Papering attachment
5. Drum stop ring nut
6. Drum
7. Scraper
8. Leading roll
9. Led roll
10. Conveyor belt
11. Footswitch
12. Speed variator for the mod. with current continuous
13. Manual/automatic switch
14. Stop button
15. Feeding signal light
16. Stop signal light
17. Transmission protection crankcase
18. Base
19. Cover shaft



## Overall Measurements

### F2000/4000

Length (A) 620

Width (B) 500

Height (C) 610

Gross Crated Weight – 72 kg.

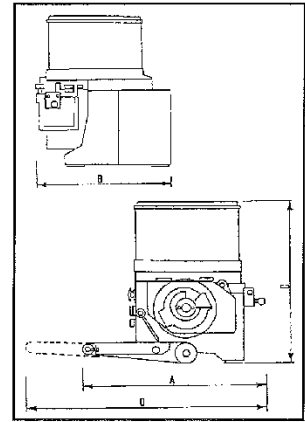
Net Uncrated Weight – 67 kg.

Hopper capacity – 20 kg.

Optional Conveyor Belt – 1850 x 145

Hopper Power – see identification tag

Motor Power – see identification tag



## **INSTALLATION**

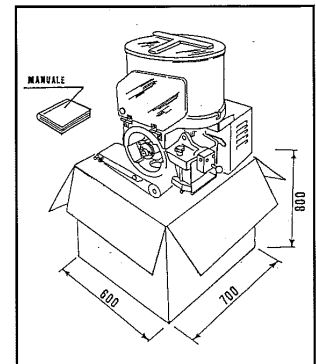
### Packing Check

- At the receipt of the machine, check the package to verify that the machine has not been damaged.

The components of the package can be assimilated to the urban solid rubbish.

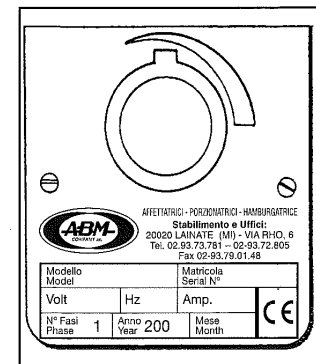
### Placing the Machine

- It is advisable to place the Food Forming Machine on a stable working table positioned on a height of about 800mm from the ground.
- The installation area must allow the use of the machine in an optimal and ergonomic way. It is advisable to place it in a dry, breezy place, far from warmth sources; it can be used without any special arrangement of a normal working place.



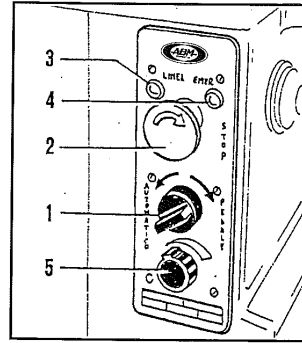
### Electrical Connections

- The machine is equipped with a feeding wire. Before connecting it to the socket, verify the functioning tension showed on the identification tag.
- In case the details do not correspond, contact the distributor for the assistance service.
- The socket for the connection must correspond to the current rules.



## Control Panel

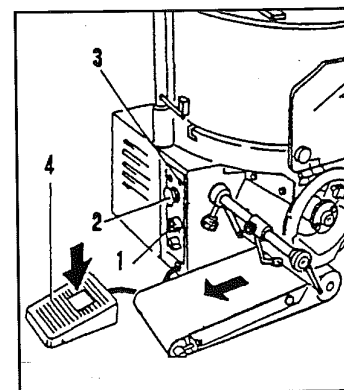
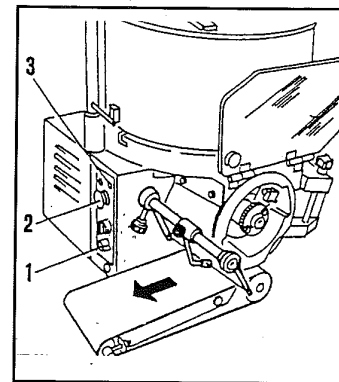
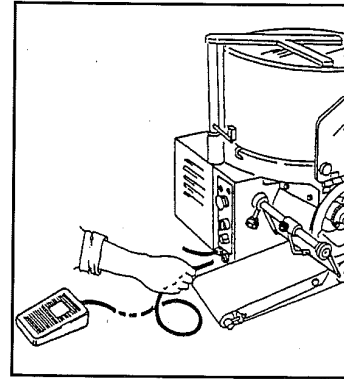
- Starting switch (automatic/manual) (1)
- Red stop button (2)
- Machine operating signal lamp (3)
- Machine stop signal lamp (4)
- Handle for speed regulation (5)  
(only for model at variable speed)



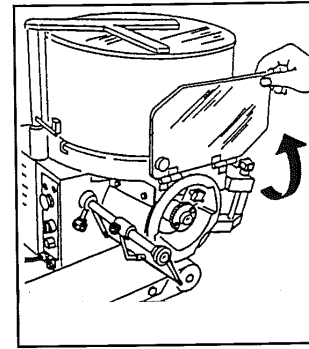
Note – in the Model F4000 the regulation of the speed and the quantity of hamburgers is made by rotating the regulating handle with a quantity of products variable from... to a maximum of 4000 pieces per hour.

## Operating Test

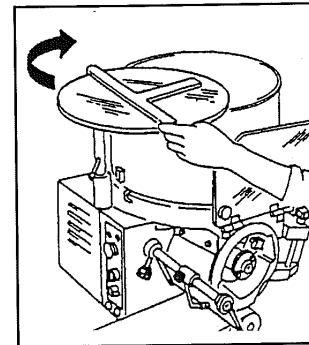
- Before controlling the operation, if you have not already done, you must assemble the hopper, assemble the conveyor belt, close the cover and the front protection.
- Connect the footswitch, inserting the control pipe into the bush on the control panel side.
- Connect the plug to the socket.
- Position the switch handle (1) on automatic.
- Verify the rotation of the drum and the conveyor belt (see the arrow).
- Verify the lighting of the light.
- Push the stop button (2), the machine must stop and the light (3) must light up.
- Position the switch handle (1) on manual.
- Press the footswitch.
- Verify the rotation of the drum and the conveyor belt (see the arrow).
- Verify the lighting of the light.
- Push the stop button (2). The machine must stop and the light (3) must light up.



- During the operation, when lifting the front drum protection, the machine must stop.
- To continue, close drum protection, turn the operating switch again.



- During the operation, when rotating the hopper cover, the machine must stop.
- To continue, close hopper cover, turn the operating switch again.



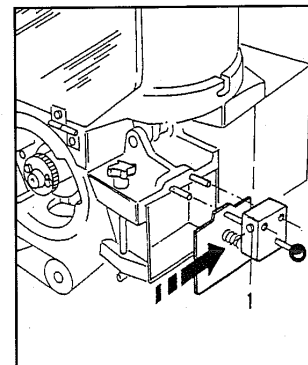
## UTILITY

To obtain good results you must use fitted meats and doughs. Arrange the machine with all the accessories disassembled.

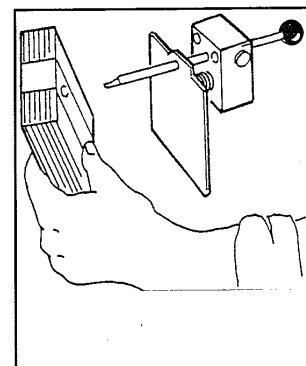
**It is advisable not to use and let the machine function without any product in the hopper.**

### Loading the Automatic Papering Attachment

- Take out the papering attachment by pushing the button (I) and slipping it off from the guide pins.

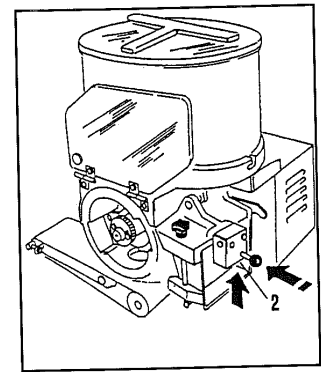


- Replace the pushing spring.
- Insert the paper block and take away the wrapper.

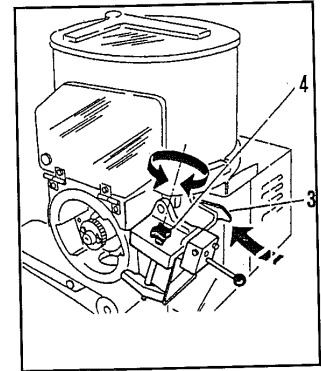




- Reassemble the papering attachment in the guide pins, until the stop click.
- Release the spring using the button placed under the papering attachment (2).



- Position the papering attachment, freeing the locking lever (2).
- Regulate the center of the paper, turning the centering knob (4).



Before cleaning the machine, always make sure that the machine is stopped and disconnected from main supply.



Never use high pressure sprays during cleaning.



Never use solvents, thinners, alcohol, etc. during cleaning.

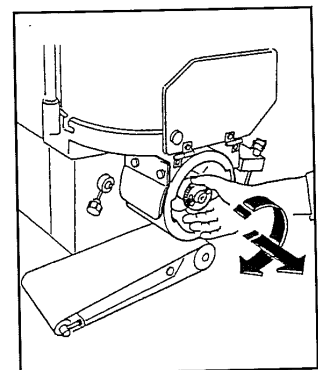


Only use lukewarm water and some neutral detergent.

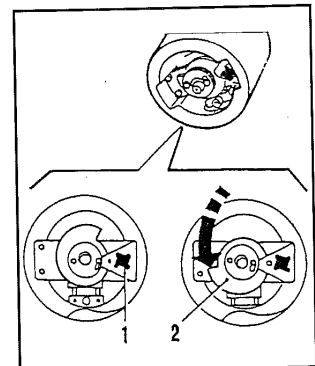
### **Product Thickness Regulation**

The machine is regulated in the factory with a medium thickness; to obtain another thickness, follow the instructions indicated below:

- Take out the regulation drum by operating on the ring nut clockwise and taking out the drum.



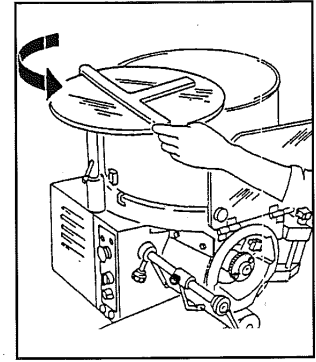
- Loosen the stop knob of the gauging device (1).
- Turn the gauging device, to regulate the thickness (2).
- Lock the stop knob (1).



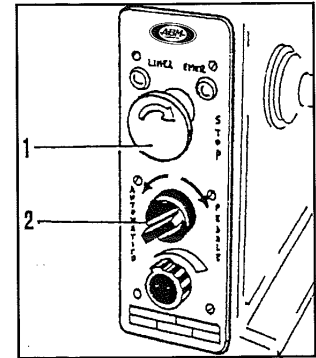
- Reassemble the drum, inserting it in the guide shaft, until the stop click.

## Loading the Product and Use

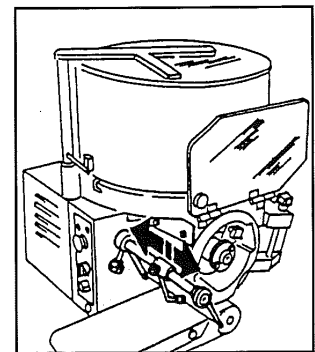
- Open the cover and load the product in the hopper and close the cover again.
- Connect the plug to the socket.



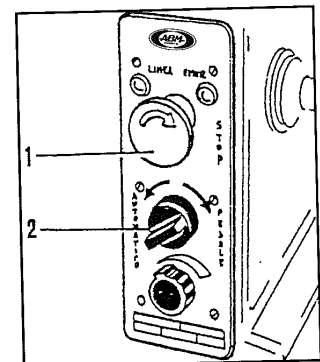
- Start the machine: push the automatic switch (1).
- Regulate the production speed with the regulation handle (2) (only for model with selector).



- During the operation, operate intermittently, in order to clean the drum from residual product.
- The product will come down on the conveyor belt and will be moved to its end.



- To stop the machine, operate on the stop button (I) or open the protections.
- To continue, release the stop button and turn the start switch again (2).



# CLEANING AND HYGIENE

## Complete Cleaning

- It is advisable to clean the machine daily or if necessary more frequently, in case it was very dirty or after long periods of inactivity.
- The cleaning must be carefully made for the parts in contact with the product.
- Clean the structure of the machine with soft cloths, sponges, and rinse with water frequently. Finally dry with soft and dry cloths.

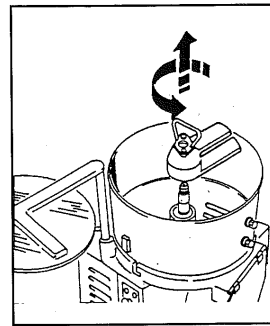
**Attention:** the machine is not protected against steam cleaners, high pressure power washer, or similar systems. In this case there is risk of short circuit or serious damages to the machine.

## Disassembly of the Removable Accessories

- All the cleaning operations of the machine must always be done with the machine not equipped with hopper, taking out the plug from the socket.

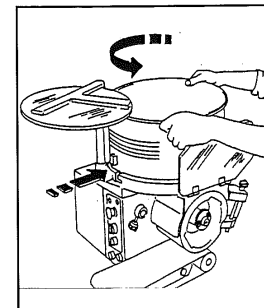
## Disassembly of the Paddle

- Hold the handle, turn anti-clockwise and lift.
- To avoid accidents before disassembling, position the paddle away from the hopper pins.



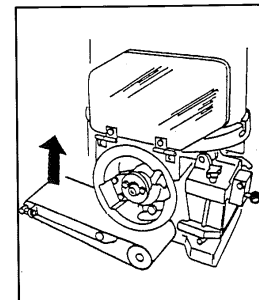
## Disassembly of the Hopper

- Open the cover completely.
- Turn the hopper anti-clockwise, lift it and take it away from the base.

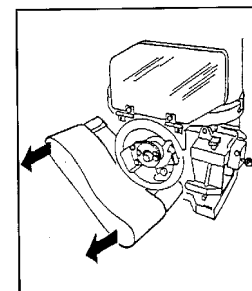


## Disassembly of the Conveyor Belt

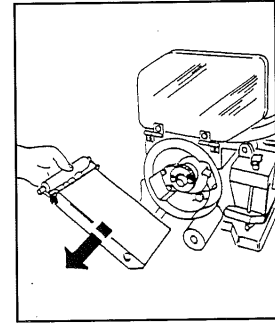
- Lift the belt on the side of the return pulley.



- Take off and disassemble the conveyor belt.



- Disassemble the complete conveyor from the guide pin.



### **Disassembly of the Regulation Drum**

- Turn the stop ring nut anti-clockwise, pull the drum and disassemble it from the control pin.

### **Disassembly of the Scraper**

- Loosen the stop knob of the scraper shaft.
- Take off the complete scraper.

### **Cleaning of the Disassembled Components**

- All the disassembled components must be washed with warm water, neutral detergent, rinsed in water and dried.

### **Assembly of the Accessories**

To effect the reassembly of the accessories, proceed in the inverse way to what previously described in the disassembly. Pay special attention to the assembly of the following accessories:

- **Hopper:** Insert the hopper with the two guide pins in the fusion taking care to position the micro-magnet on the side of the cover shaft and turn it until it hooks the pins.
- **Paddle:** position the inserting shaft of the paddle so that the pins in the hopper do not overlap the paddle, then hold the paddle, put it on the shaft, making the shaft plug coincide with the housing in the drum.
- **Drum:** assembly the drum in the guide pin, making the shaft plug coincide with the housing in the drum.

## **MAINTENANCE**

### **Ordinary Maintenance**

The machine does not require a special maintenance for the regulations or replacements of parts, but only requires a normal maintenance carried out by the operator which consists of the following operations:

- Verify the operation of the micro-switches and of the electric buttons.
- Verify the state of use of the feeding wire.

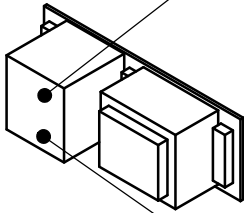
Whenever there was the necessity of repairs or special maintenance, contact the assistance service or a qualified technician.



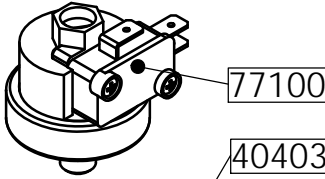
**ABM**  
**F2000N - F3000N - F4000N - B1200N**  
**NSF / ETL VERSION**  
**RECOMMENDED SPARE PARTS**



77700 220V/50Hz.



77800 115V/60Hz.



77100

40403

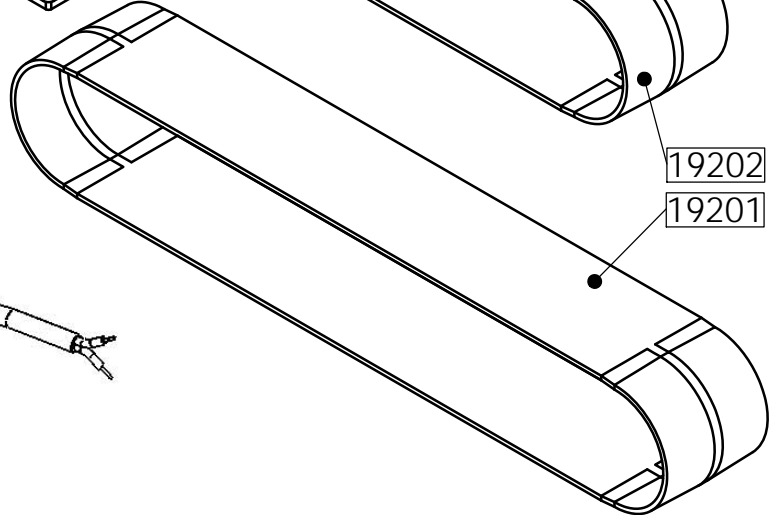
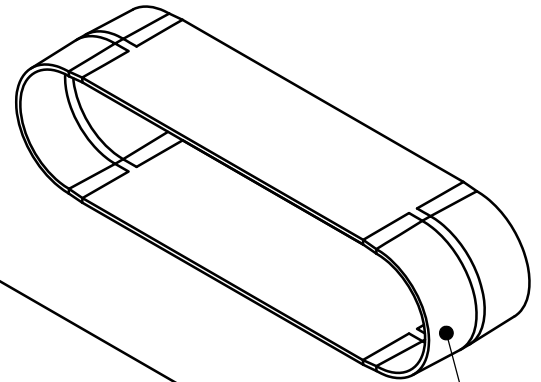
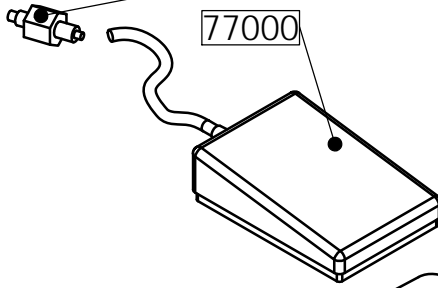
76800

76600

Z9AMR

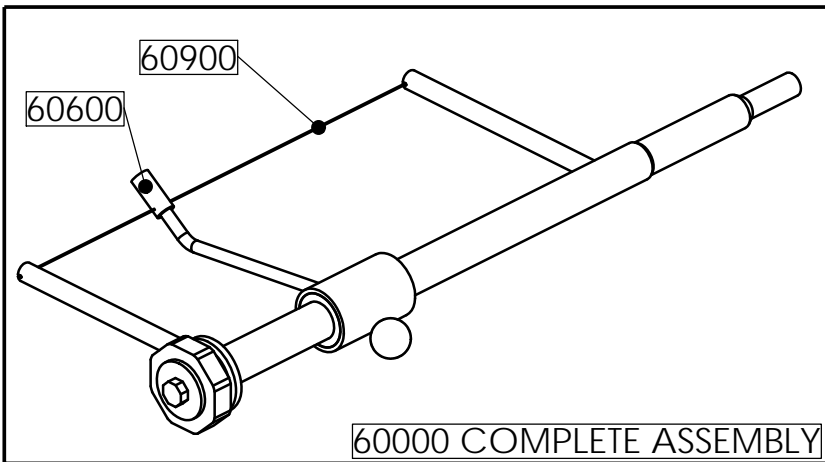
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77000



19202

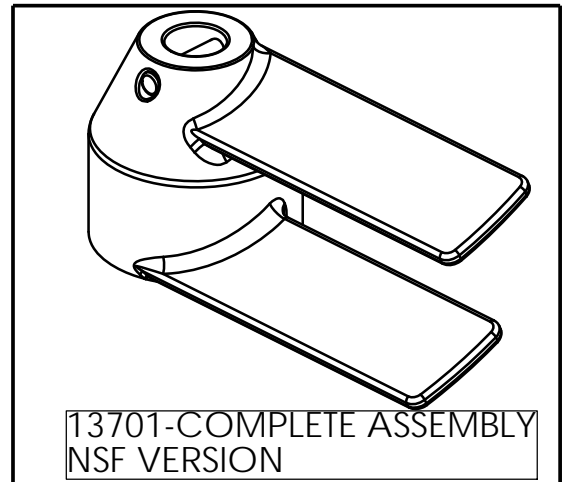
19201



60900

60600

60000 COMPLETE ASSEMBLY

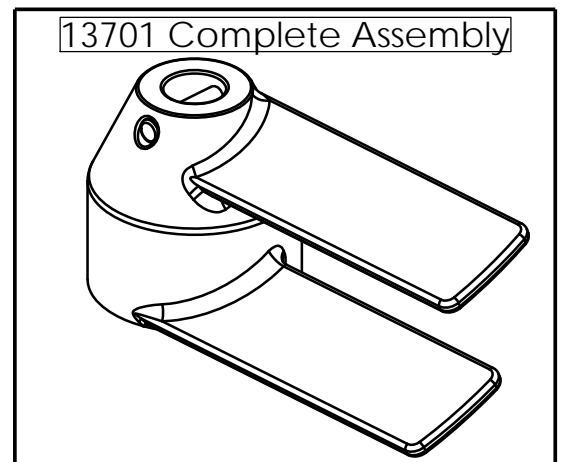
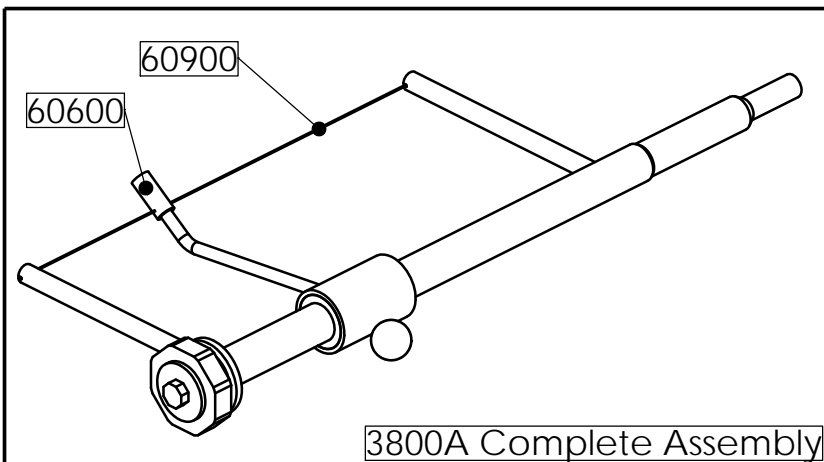
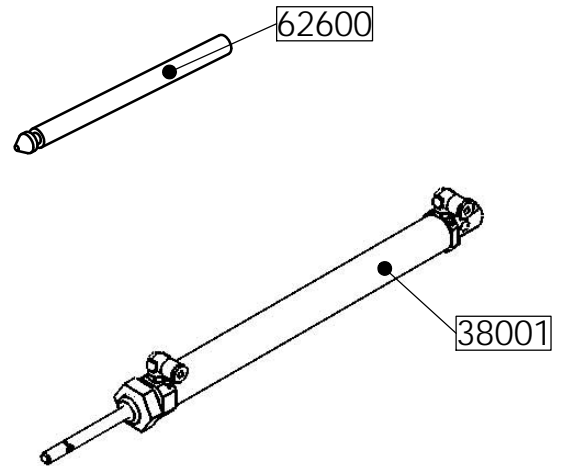
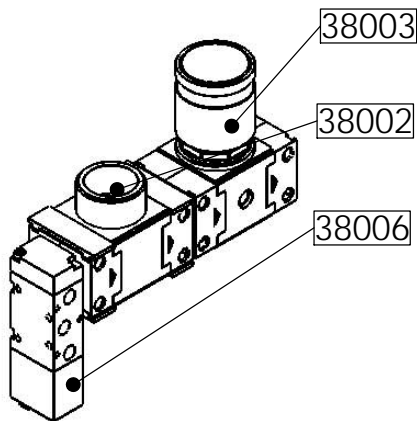


13701-COMPLETE ASSEMBLY  
 NSF VERSION

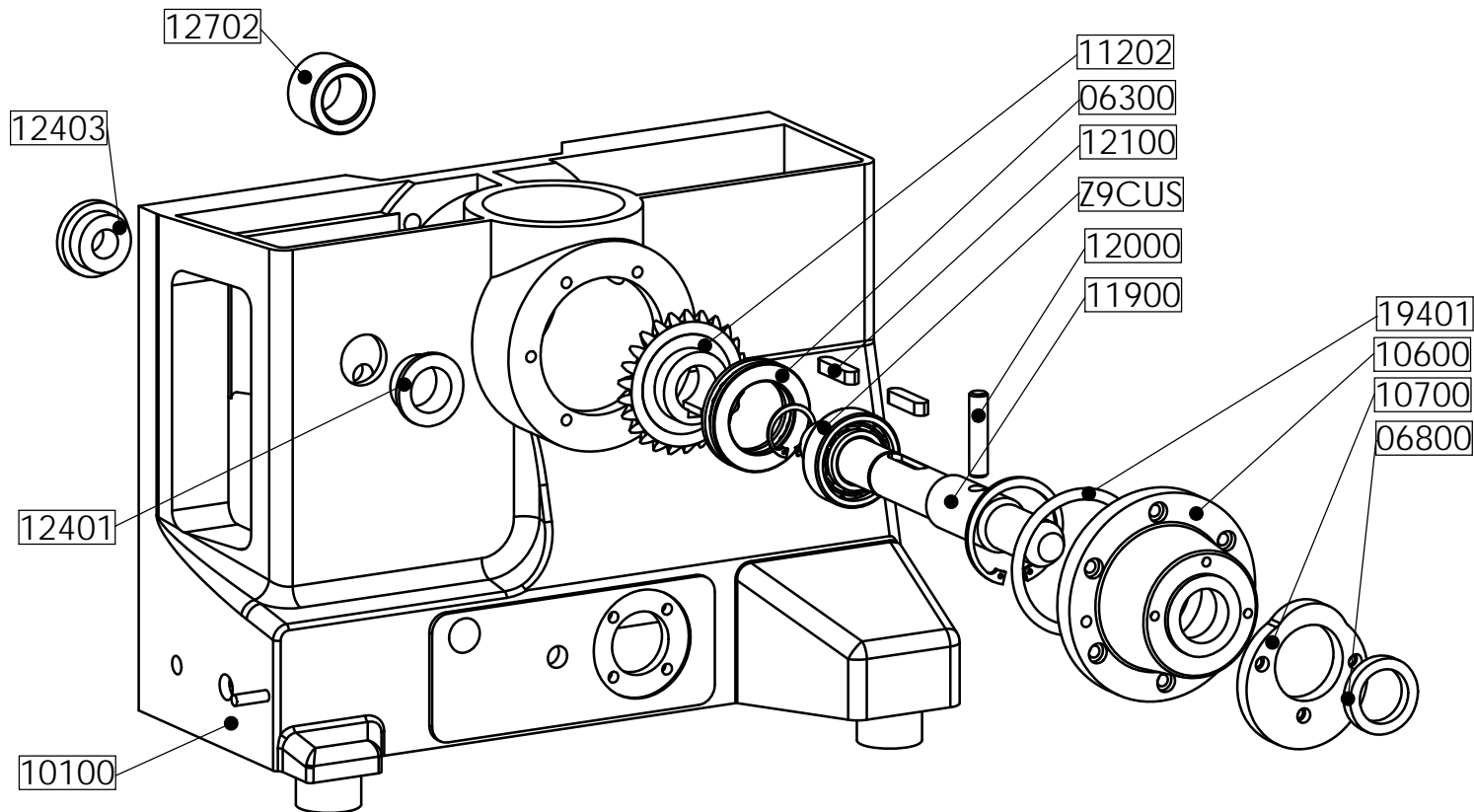
CODE	DESCRIPTION	Q.TY
F9319201	LONG CONVEYOR BELT 145x1850mm	1
F9319202	SHORT CONVEYOR BELT 145x840mm	1
F9340403	CERAMIC MAGNET 16x9, 5x8	1
F9360600	WIRE CLEANER	1
F9360900	S.S. WIRE	1
F9376800	MAGNET	1
F9377000	FOOTSWITCH 6210-OB	1
F9377100	PNEUM. SWITCH MOM.6871-01	1
F9377700	CARD 220/50 HZ START STOP FROM SN. 1710	1
F9377800	CARD 115/60 HZ START STOP FROM SN. 1710	1
F93597100	MALE COUPLING BODY	1
Z9AMR	SAFETY CONTACT	1
CODE	DESCRIPTION	Q.TY
F9360000	CLEANER ASSEMBLY	1
F9313701	PADDLE NSF VERSION	1



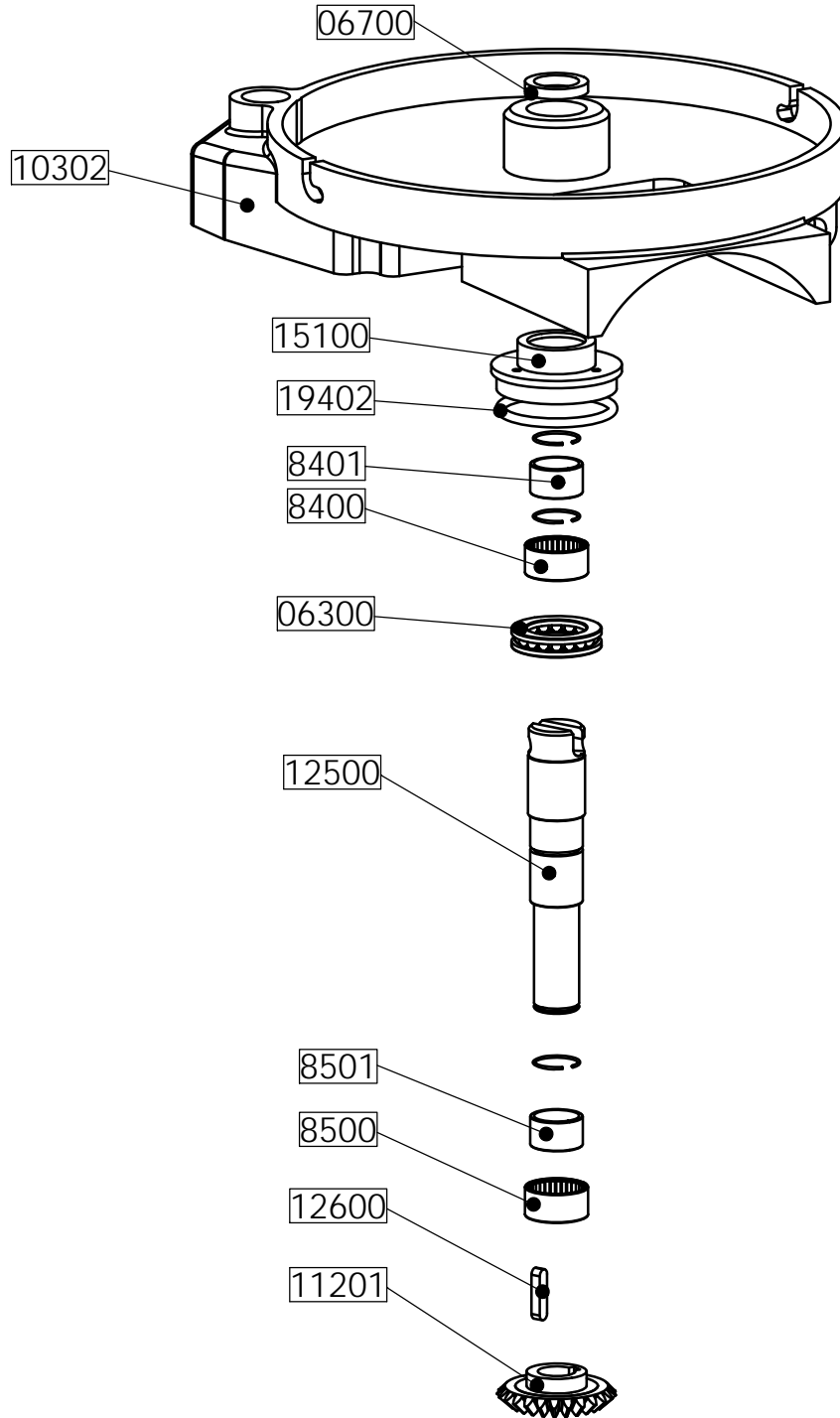
**ABM  
PNEUMATIC VERSION / ALL  
NSF / ETL VERSION  
RECOMMENDED SPARE PARTS**



CODE	DESCRIPTION	Q.TY
F9338001	CILINDER - ISO 6432	1
F9338002	AIR FILTER	1
F9338003	FIL BIT 1/8 20 RMSA	1
F9338006	SWITCH	1
F933800A	COMPLETE PNEUMATIC CLEANER ASSEMBLY	1
F9362600	PNEUMATIC PISTON	1
F9360600	WIRE CLEANER	1
F9360900	S.S.WIRE	1
CODE	DESCRIPTION	Q.TY
F933800A	CLEANER ASSEMBLY	1
F9313701	PADDLE	1

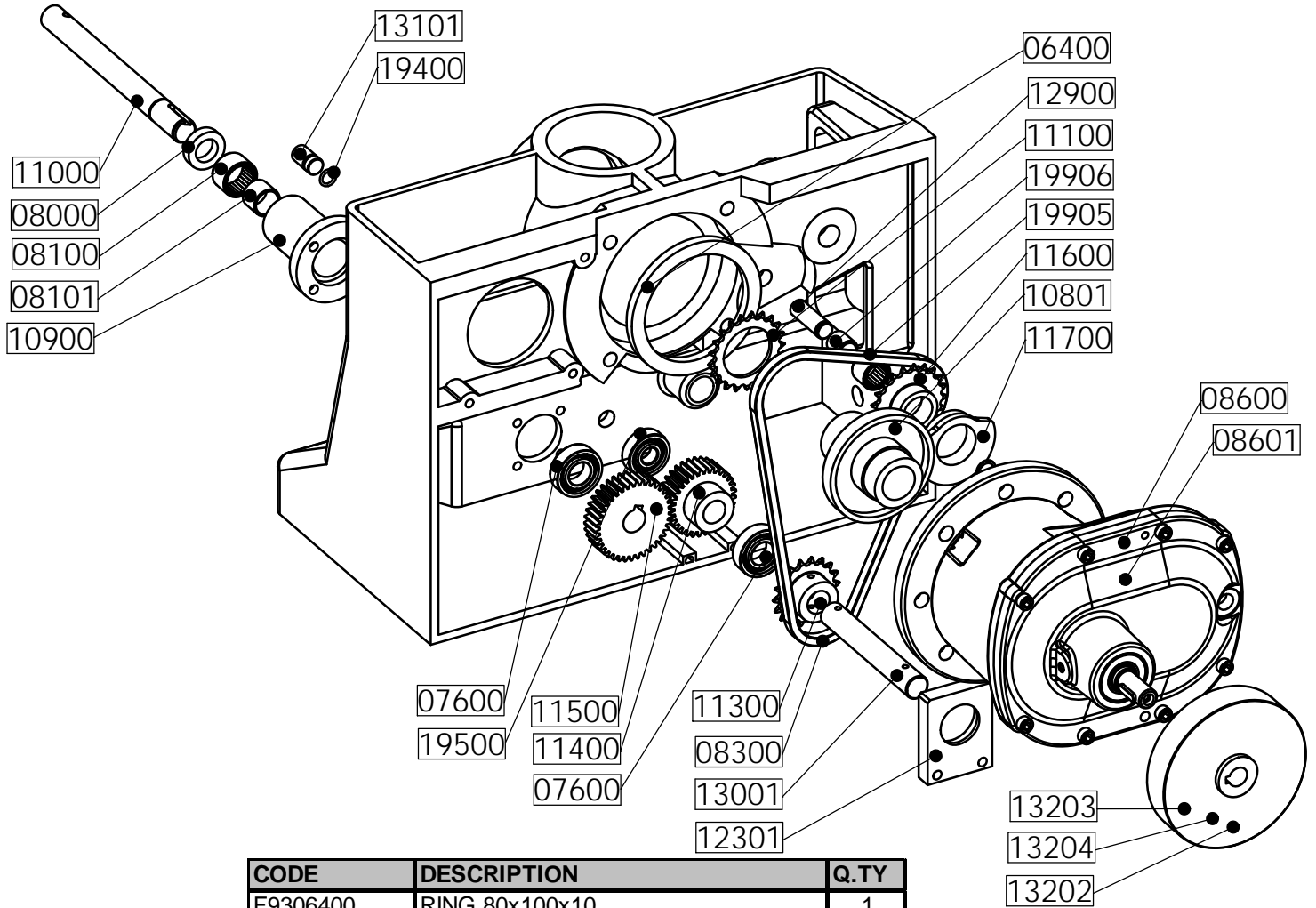


CODE	DESCRIPTION	Q.TY
F9306300	BEARING 51108 40x60x13	1
F9306800	SEAL AS 30x42x7 NBR	1
F9307000	BEARING 6205 2RSH 25x52x15	1
F9310100	FRAME	1
F9310600	SHAFT HOUSING	1
F9310700	CAM	1
F9311202	CONIC GEAR 25x28,2 M3 Z=25	1
F9311900	SHAFT d30x248	1
F9312000	PLUG 10x46 h8	1
F9312100	KEY 8x7x35 UNI 6605 69 A C 40	1
F9312401	BUSHING 40x16 ERTALON	1
F9312403	BUSHING	1
F9312702	BUSHING 26,7x32x39	1
F9319401	O RING 80x3	1



CODE	DESCRIPTION	Q.TY
F9306300	BEARING 51108 40x60x13	1
F9306700	SEAL AS 30x42x7 NBR	1
F9308300	CHAIN P.8 ISO 9001	1
F9308400	BUSHING HK4020	1
F9308401	RING IR 35x40x20.5	1
F9308500	BUSHING 36x42x20 HK3520	1
F9308501	RING IR 30x35x20	1
F9310301	HOPPER PLATE	1
F9311201	CONIC GEAR 30x33,2 M3 Z=25	1
F93125V02	PADDLE SHAFT d30x195	1
F9312600	KEY 8x8x45	1
F9315100	ALU BUSHING 87x33,5	1
F9319402	O RING 69,3x5,7	1





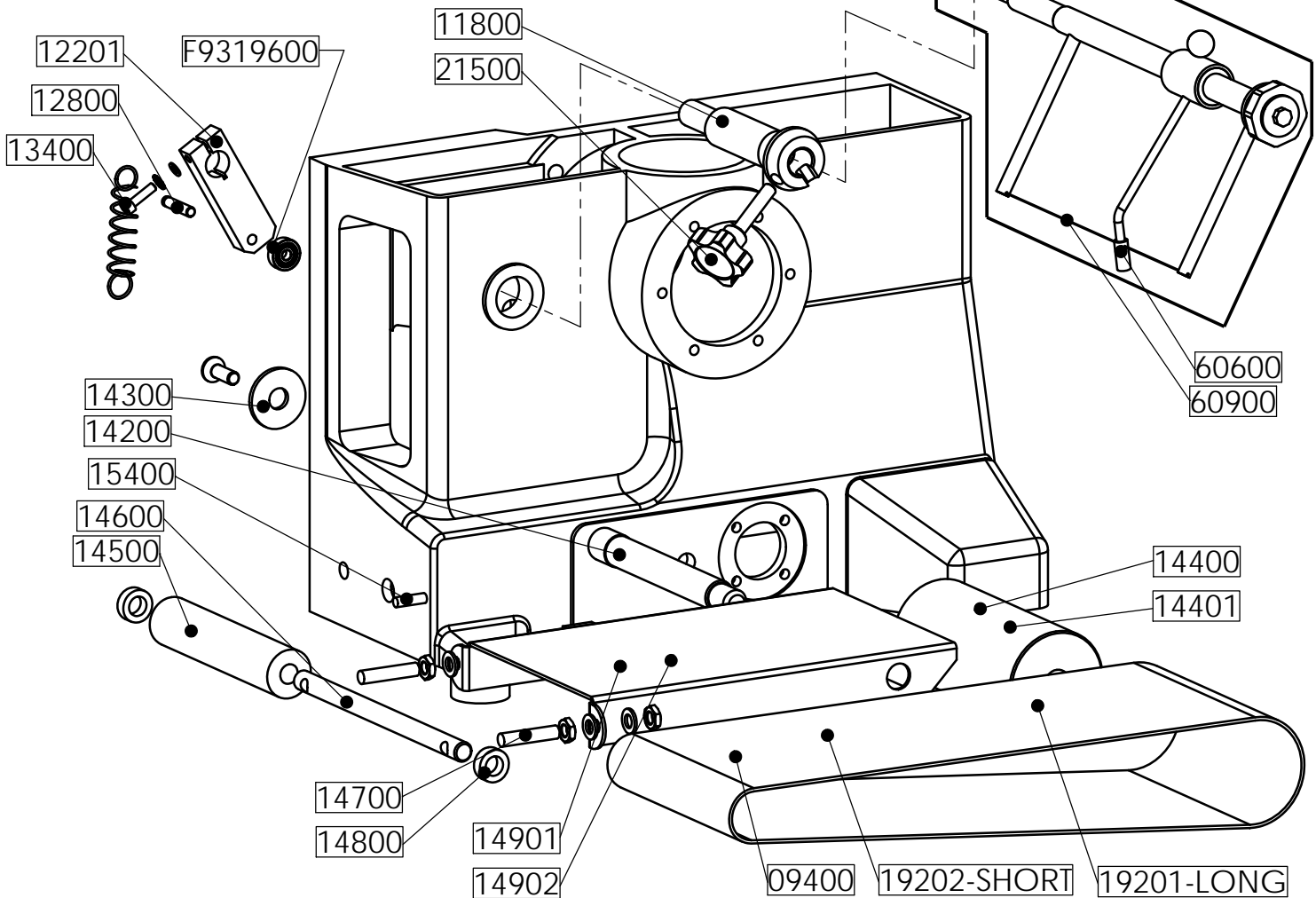
CODE	DESCRIPTION	Q.TY
F9306400	RING 80x100x10	1
F9307600	BEARING 6003 2RS 17x35x10	2
F9308000	SEAL 17x28x7 NBR	1
F9308100	BUSHING 1720x16 NK20/16	1
F9308101	RING 17x20x16	1
F9308300	CHAIN P8 ISO 9001	1
F9308600	GEAR BOX RC 220 B5 1:30	1
F9308601	GEAR BOX RC 220 B5 1:46 - B1200	1
F9310801	GEAR 80x66	1
F9310900	CONVEYOR SHAFT SUPPORT 60x67	1
F9311000	SHAFT 17 x 179	1
F9311100	CHAIN PINION 8x3 Z=21	1
F9311300	CHAIN PINION 8x3 Z=18	1
F9311400	RELEASE GEAR M 1,5 Z=32	1
F9311500	GEAR M 1,5 Z=38	1
F9311600	CAM PINION 8x3 Z=21	1
F9311700	SCRAPER CAM	1
F9312301	RELEASE SUPPORT	1
F9312900	CAM PIN 12x37	1
F9313001	RELEASE SHAFT 17x115	1
F9313101	RELEASE PIN	1
F9313202	GEAR PULLEY 53 x 31 - F 4000	1
F9313203	GEAR PULLEY 53x31 F4000	1
F9313204	GEAR PULLEY 110x31	1
F9319400	O RING 9,25x1,78	1
F9319500	BEARING 6201 2RS 12x32x10	1
F9319905	BUSHING 12x21x16	1
F9319906	RING 12x15x16	1



**ABM**  
**F2000N - F3000N - F4000N - B1200N**  
**NSF / ETL VERSION**



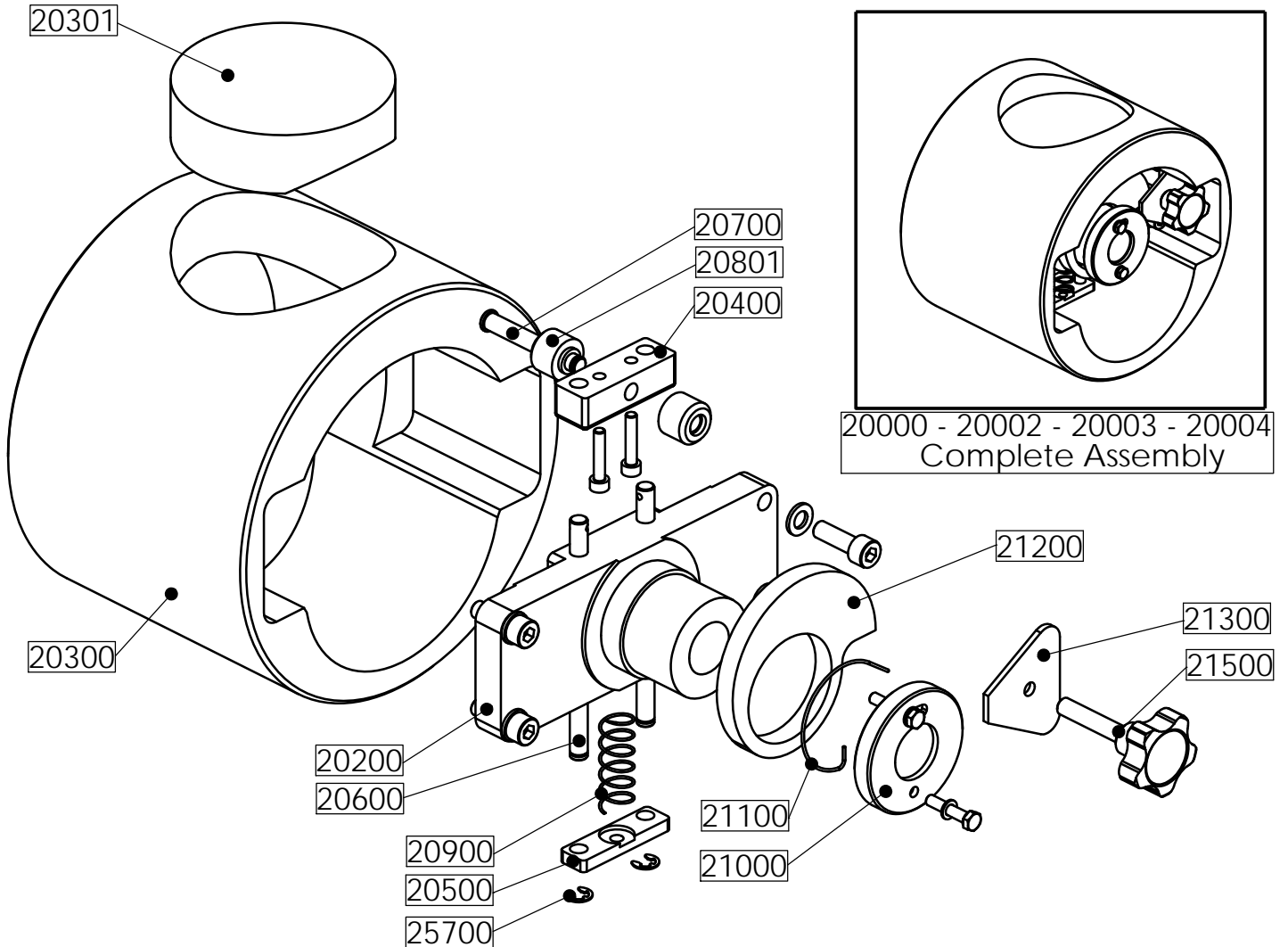
60000  
 Complete Assembly



CODE	DESCRIPTION	Q.TY
F9309400	S.S. LONG BELT	1
F9311800	SLIDING SUPPORT	1
F9312201	SCRAPER CONTROL LEVER	1
F9312800	PULLEY PIN 6x30	1
F9313400	CLEANER SPRING	1
F9314200	ARM ASSY 20x187	1
F9314300	RING	1
F9314400	CONVEYOR ROLL 64x140	1
F9314401	SS BELT DRIVER 64 x 140	1
F9314500	ROLL 28x140	1
F9314600	ROLL PIN 12x193	1
F9314700	LOCKING SCREW M8x38	1
F9314800	ROLL BUSHING	1
F9314901	SHORT CONVEYOR ARM	1
F9314902	LONG CONVEYOR ARM	1
F9315400	CONVEYOR ARM PIN 6x30	1
F9319201	LONG CONVEYOR BELT 145x1850mm	1
F9319202	SHORT CONVEYOR BELT 145x840mm	1
F9319600	BEARING 626-2RSH	1
F9321500	PLASTIC KNOB D5 6G	1
F9360600	WIRE CLEANER	1
F9360900	S.S. WIRE	1
CODE	DESCRIPTION	Q.TY
F9360000	CLEANER ASSEMBLY	1



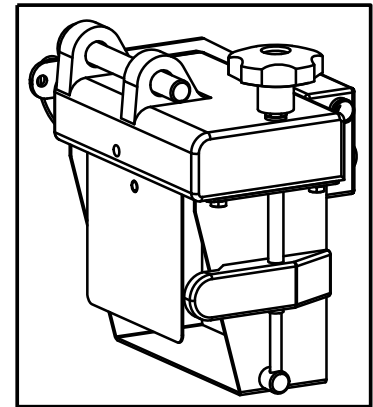
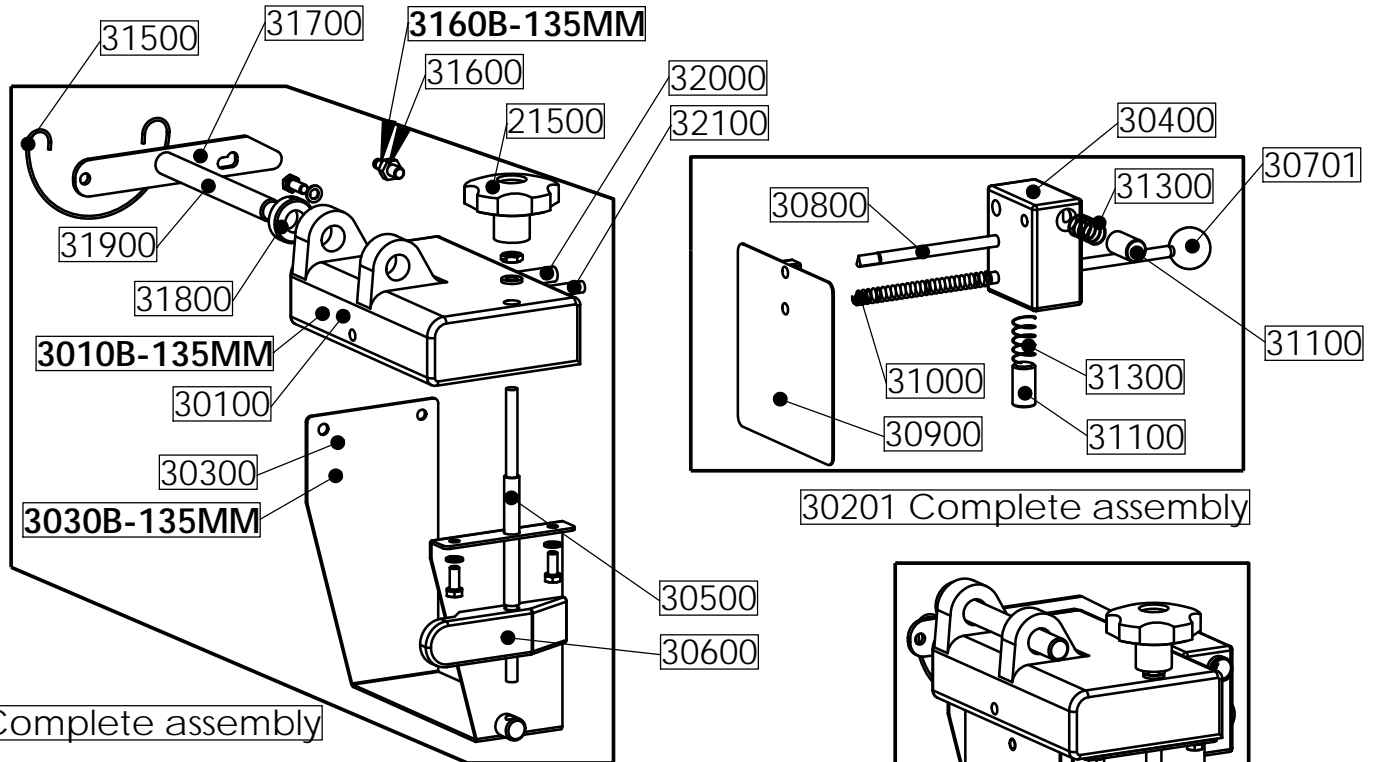
**ABM**  
**F2000N - F3000N - F4000N - B1200N**  
**NSF / ETL VERSION**



CODE	DESCRIPTION	Q.TY
F9320200	ALLUMINIUM FRAME	1
F9320300	PLASTIC DRUM	1
F9320301	PUSHER -	1
F9320400	PLATE SUPPORT	1
F9320500	GUIDE PLATE	1
F9320600	PUSHER SHAFT	2
F9320700	PIN 8X56,5	1
F9320801	PLASTIC BEARING d.14,5	2
F9320900	PUSHER SPRING	1
F9321000	LOCKING MECHANISM	1
F9321100	LOCKING MECHANISM SPRING	1
F9321200	THICKNESS CAM	1
F9321300	LOCKING THICKNESS MECHANISM	1
F9321500	PLASTIC KNOB - D3 6G	1
F9325700	RING . d 8 UNI 7435	2
CODE	COMPLETE ASSEMBLY	Q.TY
F9320000	DRUM SINGLE SHAPE ON REQUEST	1
F9320002	DRUM DOUBLE SHAPE ON REQUEST	1
F9320003	DRUM FOUR SHAPE ON REQUEST	1
F9320004	DRUM COOKIE ALLU - SHAPE ON REQUEST	1



**ABM**  
**F2000N - F3000N - F4000N - B1200N**  
**NSF / ETL VERSION**



30000 Complete assembly

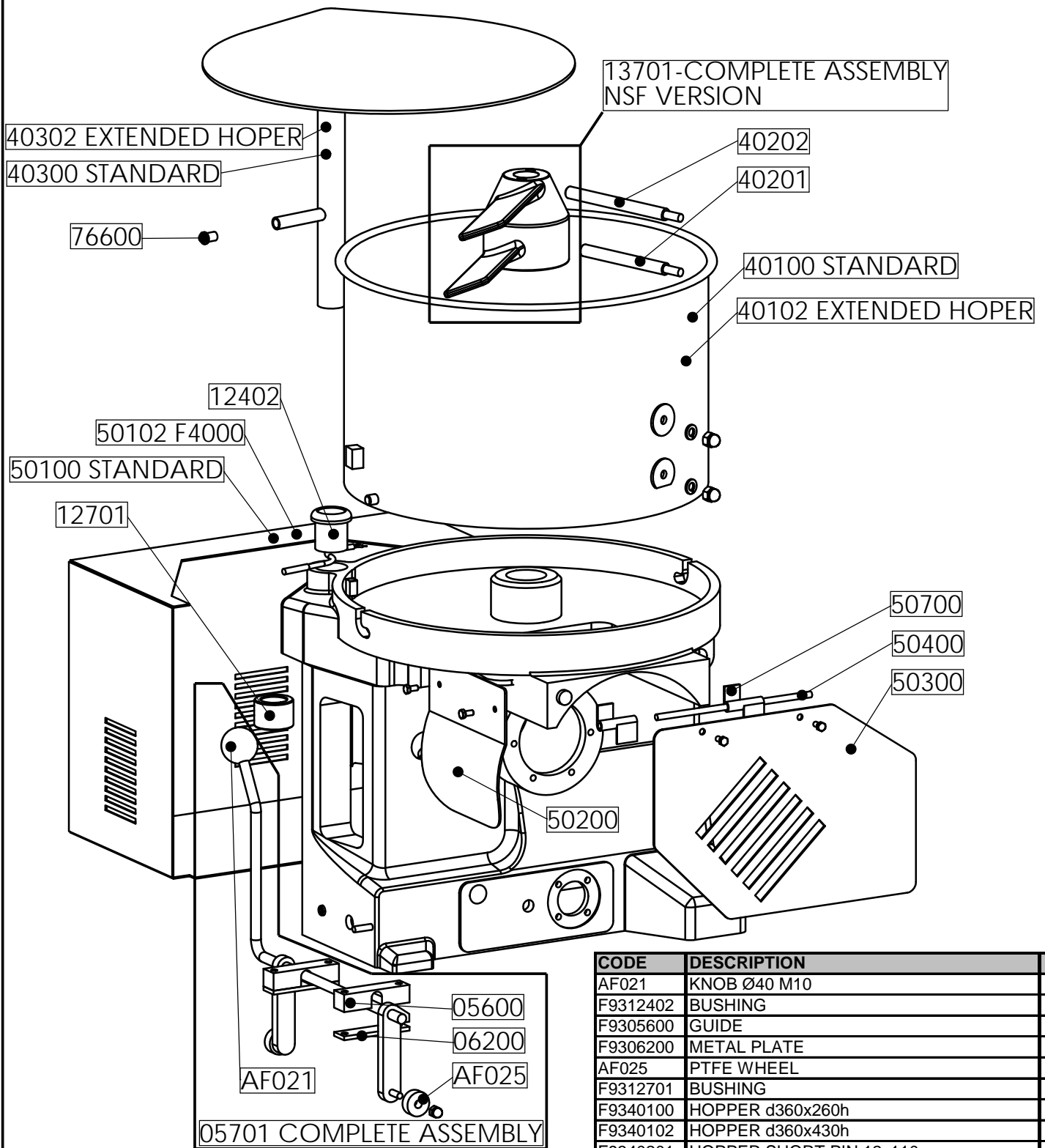
3000B-135MM Complete assembly

CODE	DESCRIPTION	Q.TY
F9330400	PAPER HOUSING	1
F9321500	PLASTIC KNOB - D3 6G	1
F9330100	ALU PAPER ATTACH HOLDER	1
F9330300	PAPER MAGAZINE	1
F9330500	SCREW 6x160	1
F9330600	CAM	1
F9330700	GUIDING PIN 6x117	1
F9330701	KNOB	1
F9330800	PIN	1
F9330900	PAPER PUSHER	1
F9331000	PAPER PUSHER SPRING	1
F9331100	LOCKING PAPER PIN	2
F9331200	PIN 12x7,5	2
F9331300	SPRING 05 DE 11	2
F9331400	BUSHING 8x7,5	1
F9331500	SPRING d 10 L 55	1
F9331600	PIN	1
F9331700	RELEASE LEVER	1
F9331800	STOPPING SEAL	1
F9331900	PAPER ATTACHMENT SUPPORT PIN	1
F9332000	GUIDING PIN 8x55	1
F9332100	GUIDING PIN 6x48	1
F9332200	BUSHING 12x14x15	2
CODE	COMPLETE ASSEMBLY	Q.TY
F9330000	PAPER ATTACHMENT COMPLETE	1
F9330201	PAPER PUSHER ASSEMBLY	1
F9330202	PAPER SUPPORT ASSEMBLY	1

CODE	DESCRIPTION	Q.TY
F933160B	SPRING PIN - 135 mm PAPER ATT.	1
F933010B	ALU PAPER ATTACH HOLDER 135mm	1
F933030B	PAPER MAGAZINE - 135 mm	1
CODE	COMPLETE ASSEMBLY	Q.TY
F933000B	PAPER ATTACH. COMPLETE 135 mm	1



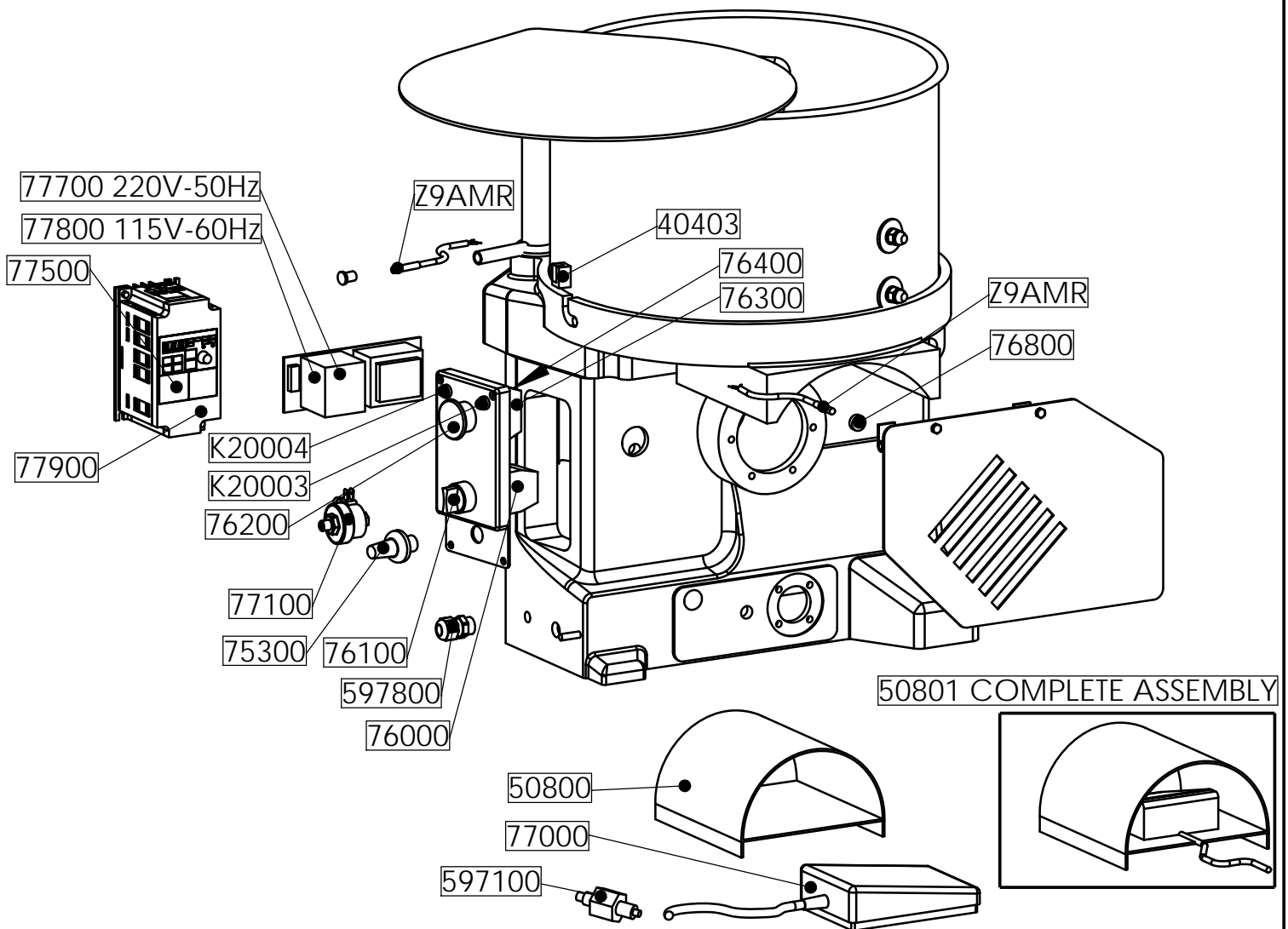
**ABM**  
**F2000N - F3000N - F4000N - B1200N**  
**NSF / ETL VERSION**



CODE	DESCRIPTION	Q,TY
AF021	KNOB Ø40 M10	1
F9312402	BUSHING	1
F9305600	GUIDE	2
F9306200	METAL PLATE	2
AF025	PTFE WHEEL	2
F9312701	BUSHING	1
F9340100	HOPPER d360x260h	1
F9340102	HOPPER d360x430h	1
F9340201	HOPPER SHORT PIN 12x110	1
F9340202	HOPPER LONG PIN 12x130	1
F9340300	HOPPER COVER ARM	1
F9340302	EXT.HOPPER COVER ARM	1
F9376600	MAGNET SUPPORT	1
F9350100	SS REAR PROTECTION	1
F9350102	REAR PROTECTION F4000	1
F9350200	LEFT SIDE PROTECTION	1
F9350300	SS DRUM PROTECTION 205x300	1
F9350400	LOCKING KEY PIN 8x177 M4	1
F9350700	LOCKING LEFT AND RIGHT KEY	1
CODE	DESCRIPTION	Q,TY
F9305701	TILTING DEVICE - COMPLETE ASSEMBL	1
F9313701	PADDLE - COMPLETE ASSEMBL	1



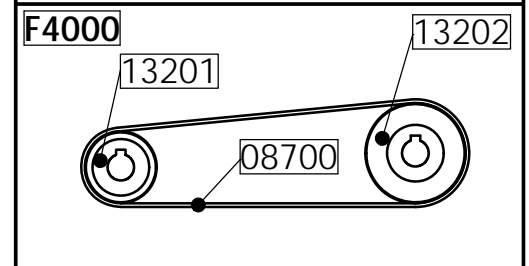
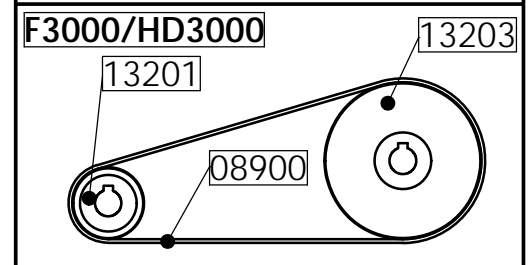
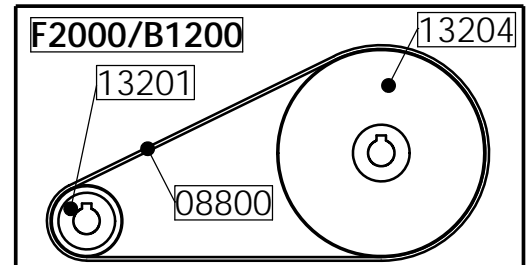
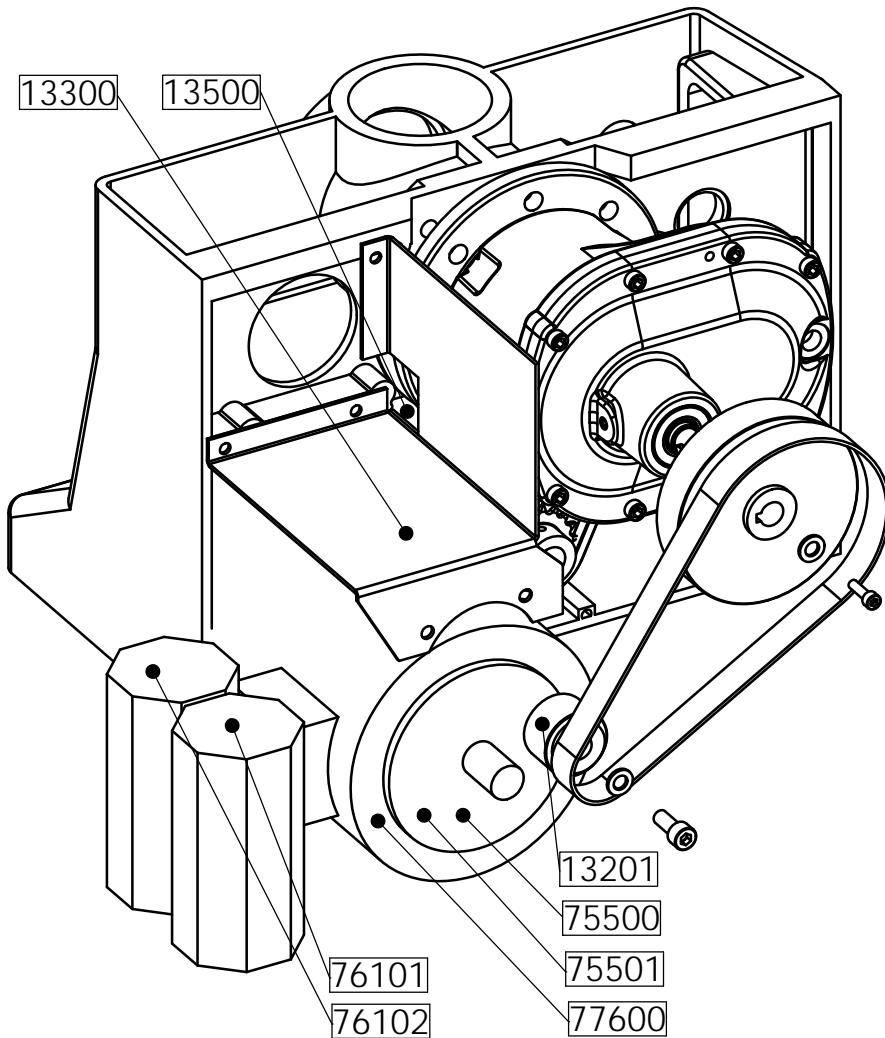
**ABM**  
**F2000N - F3000N - F4000N - B1200N**  
**NSF / ETL VERSION**



CODE	DESCRIPTION	Q.TY
F9340403	CERAMIC MAGNET 16x9, 5x8	1
F9350800	PNEUM. FOOTSWITCH SUP. PROTEC.	1
F9375300	POTENTIOMETER F4000 R10K1 M22 MOELLER	1
F9376000	DOUBLE SWITCH	1
F9376100	HAND/FOOT SWITCH	1
F9376200	STOP BUTTON	1
F93763	SWITCH 1 NC SCREW	1
F93764	SWITCH 1 NO SCREW	1
F9376800	MAGNET	1
F9377000	FOOTSWITCH 6210-OB	1
F9377100	PNEUM. SWITCH MOM.6871-01	1
F93597100	MALE COUPLING BODY	1
F93597800	FEMALE COUPLING BODY	1
F9377500	INVERTER SYN10 S 220 05 AF IP65 S 50/60H Kw. 0,75 220V	1
F9377900	INVERTER SYN10 S 220 05 AF IP65 S 50/60H Kw. 0,75 115V	1
K20003	RED LAMP	1
K20004	GREEN LAMP	1
F9377700	CARD 220/50 HZ START STOP FROM SN. 1710	1
F9377800	CARD 115/60 HZ START STOP FROM SN. 1710	1
Z9AMR	SAFETY CONTACT	1
CODE	DESCRIPTION	Q.TY
F9350801	FOOT SWITCH - COMPLETE ASSEMBL	1



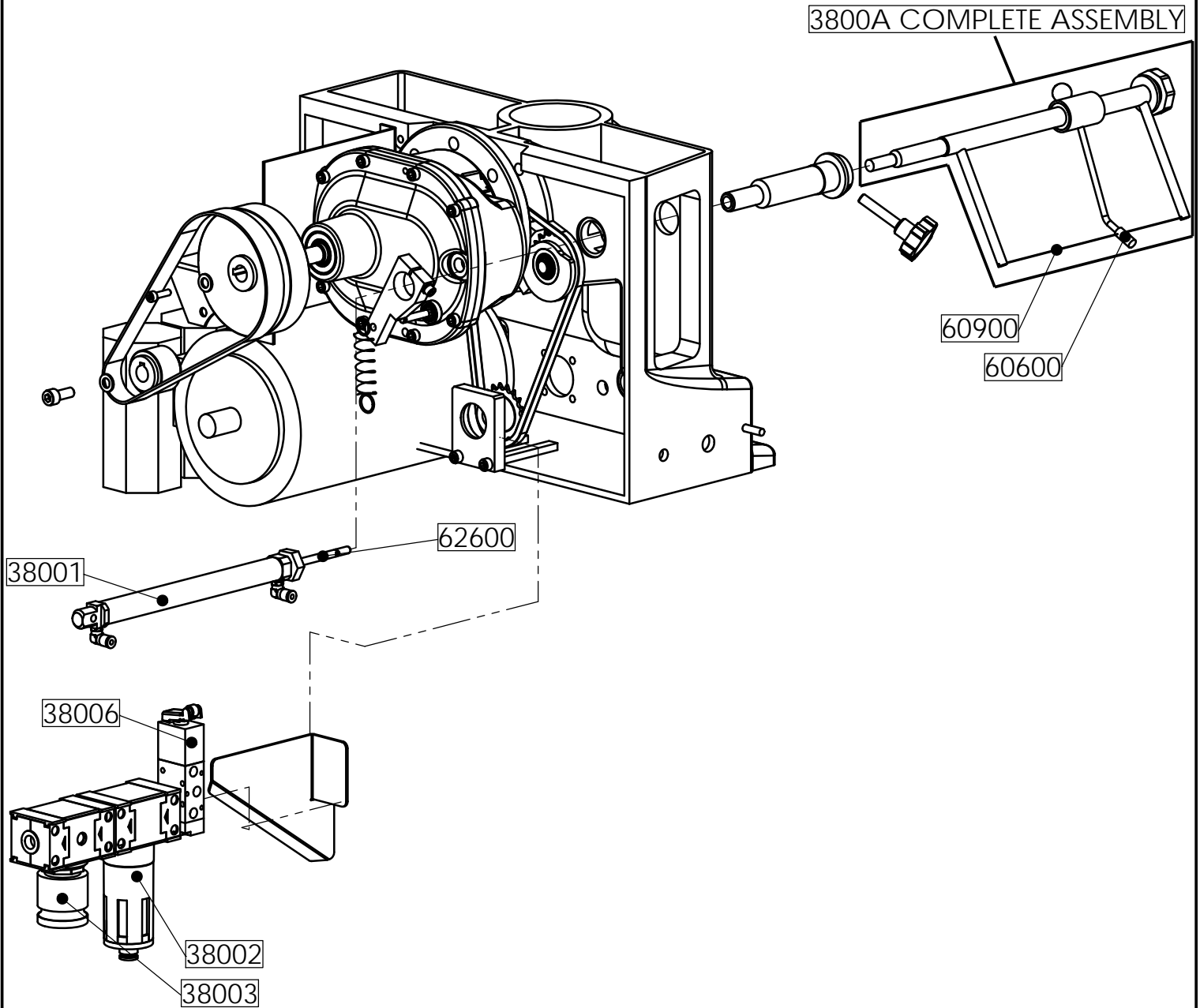
**ABM**  
**F2000N - F3000N - F4000N - B1200N**  
**NSF / ETL VERSION**



CODE	DESCRIPTION	Q.TY
F9308700	BELT - F 4000 PJ 457 J8	1
F9308800	BELT - F 2000 B 1200 PJ 559 J8 220 mm	1
F9308900	BELT - F3000 HD 3000 - PJ508	1
F9313201	MOTOR PULLEY 38 x 31- ALL	1
F9313202	GEAR PULLEY 53 x 31 - F 4000	1
F9313203	GEAR PULLEY - F 3000 HD 3000 83 x 31	1
F9313204	GEAR PULLEY - F 2000 110 x 31	1
F9313300	MOTOR SUPPORT	1
F9313500	MOTOR SPRING TENS	1
F9375500	MOTOR - LMR 71 230 V. 50 Hz F 2 - 3 - HD 3000 - B 1200	1
F9375501	MOTOR - LMR 71 115 V. 60 Hz F 2 - 3 - HD 3000 - B 1200	1
F9376101	MOTOR CAPACITOR BLACK 31,5 - 40 mf VLCA 280 40 : 60	1
F9376102	MOTOR F 2-3- B 1200 CAPACITOR WHITE	1
F9377600	MOTOR THREE PHASE F 4000 only 0,55 Kw 230/400 V 50Hz B14	1



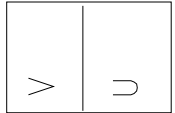
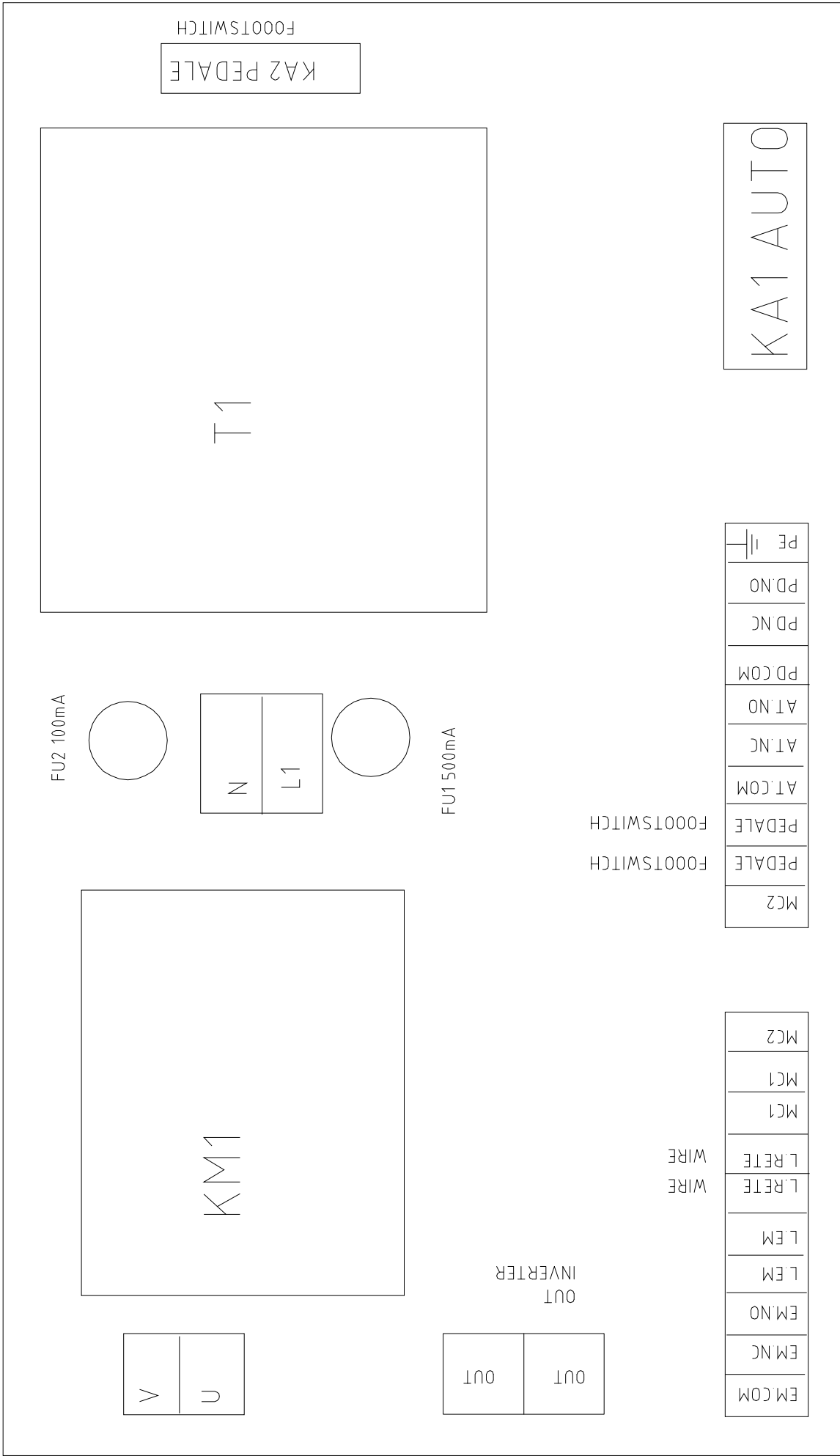
**ABM**  
**F2000N - F3000N - F4000N - B1200N**  
**NSF / ETL**  
**PNEUMATIC VERSION**



CODE	DESCRIPTION	Q.TY
F9338001	CILINDER - ISO 6432	1
F9338002	AIR FILTER	1
F9338003	FIL BIT 1/8 20 RMSA	1
F9338006	SWITCH -	1
F9362600	PNEUMATIC PISTON	1
F9360600	WIRE CLEANER	1
F9360900	S.S.WIRE	1
CODE	DESCRIPTION	Q.TY
<b>F933800A</b>	<b>COMPLETE PNEUMATIC CLEANER ASSEMBLY</b>	<b>1</b>

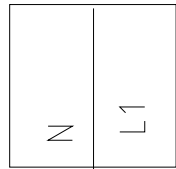
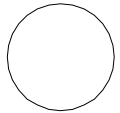


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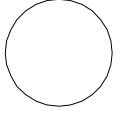


KM1

FU2 100mA



FU1 500mA



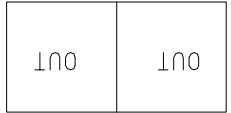
T1

KAZ PEDALE  
F000T SWITCH

EM.COM	EM.NC	EM.NO	L.EM	L.RETE	L.RETE	MC2
MC1	MC1	MC1	MC2			

WIRE  
WIRE

OUT  
INVERTER

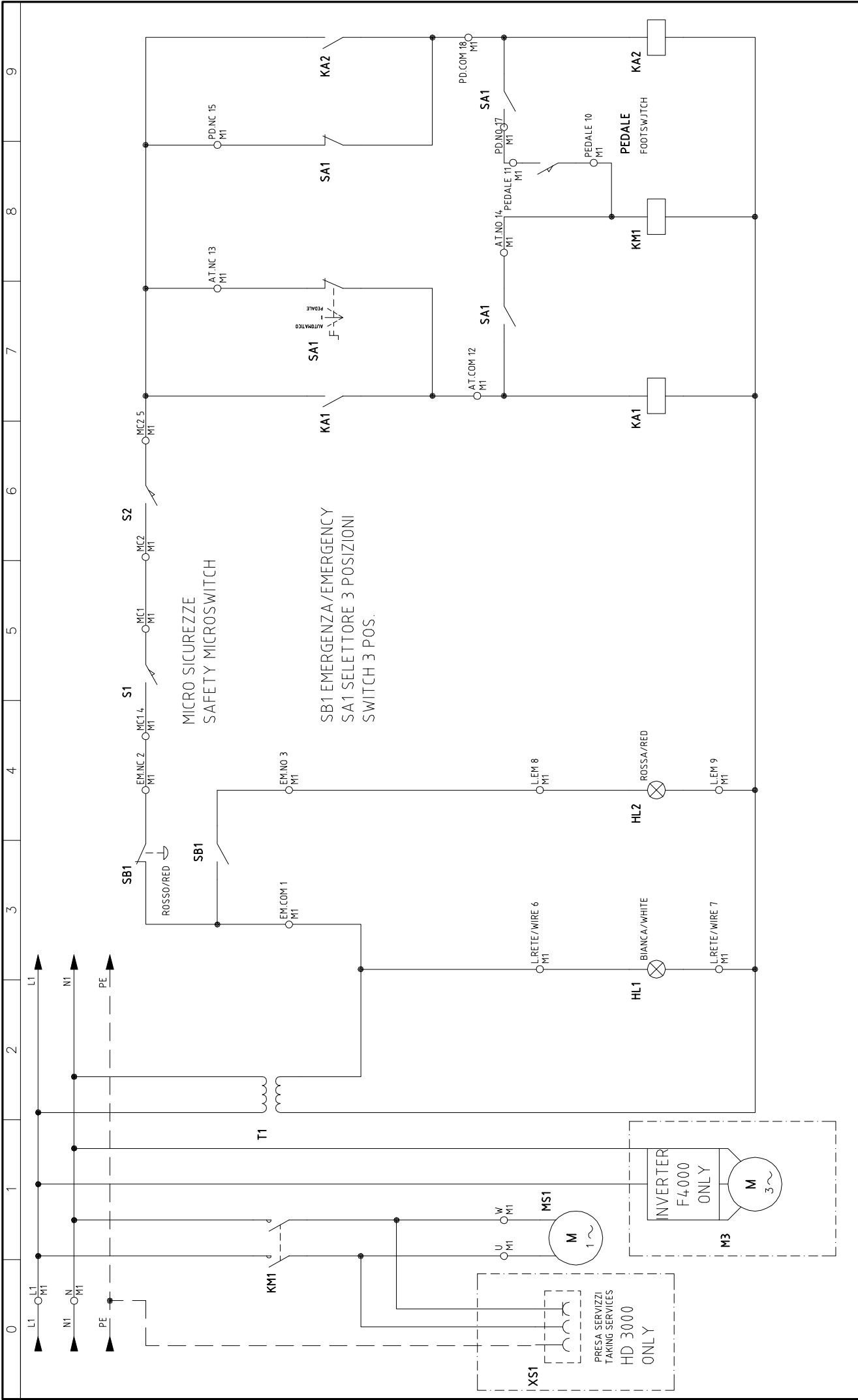



MC2	PEDALE	PEDALE	AT.COM	AT.NC	AT.NO	PD.COM	PD.NC	PD.NO	PE
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KA1 AUTO

# ABM COMPANYSrl

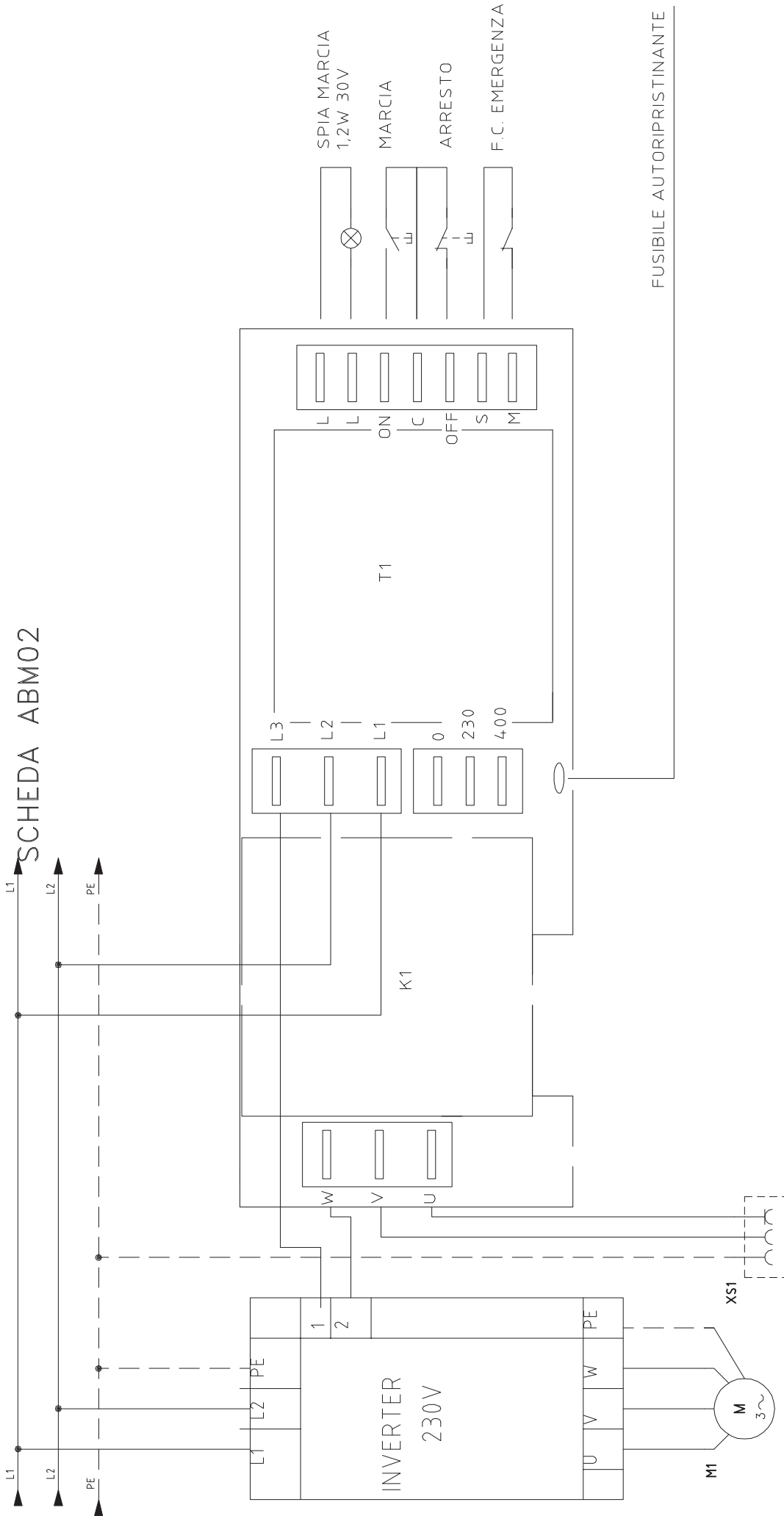
Dis. N.	<b>ABM03</b>	Impianto	SCHEDA AMBURGATRICE. CON SICUREZZE CONTROL SCHEMATIC		Ordine	ABM		FOGLIO	<b>2</b>
CAD	SPAC	Denominazione	TOPOGRAFICO	Commissa	ABM03	SEGUE		<b>3</b>	
Nome File	ABM03	Data	19/03/2009	Esecutore	AM				



<b>Dis. N.</b> <b>ABM03</b> <b>CAD</b> <b>SPAC</b> <b>Nome File</b> <b>ABM03</b> <b>Data</b> <b>19/03/2009</b>		<b>Impianto</b> <b>SCHEDA AMBURGATRICE.CON SICUREZZE</b> <b>CONTROL SCHEMATIC</b>		<b>Ordine</b> ABM <b>Commissa</b> ABM03 <b>Esecutore</b> AM		<b>FOGLIO</b> <b>3</b> <b>SEGUE</b> <b>4</b>	
		<b>Denominazione</b> AUSILIARI					
<h1>ABM COMPANY S.r.l.</h1>							

0	1	2	3	4	5	6	7	8	9
<p>EM.COM COMUNE EMERGENZA</p> <p>EM.NC CONTATTO NORMALMENTE CHIUSO EMERGENZA</p> <p>EM.NO CONTATTO NORMALMENTE APERTO</p> <p>L.EM LAMPADA EMERGENZA</p> <p>L.EM LAMPADA EMERGENZA</p> <p>L.RETE LAMPADA RETE</p> <p>L.RETE LAMPADA RETE</p> <p>MC 1 FINECORS A 1</p> <p>MC1 FINECORS A 1</p> <p>MC2 FINECORS A 2</p> <p>MC2 FINECORS A 2</p> <p>PEDALE PEDALE</p> <p>PEDALE PEDALE</p> <p>AT COM SELETTORE AUTOMATICO COMUNE</p> <p>AT, NC SELETTORE AUTOMATICO CONTATTO CHIUSO</p> <p>AT, NO SELETTORE AUTOMATICO CONTATTO APERTO</p> <p>PD.COM SELETTORE PEDALE COMUNE</p> <p>PD.NC SELETTORE PEDALE CONTATTO CHIUSO</p> <p>PD.NO SELETTORE PEDALE CONTATTO APERTO</p>									
<p>EMERGENCY</p> <p>CLOSED CONTACT FOR EMERGENCY</p> <p>OPENED CONTACT FOR EMERGENCY</p> <p>EMERGENCY LAMP</p> <p>EMERGENCY LAMP</p> <p>WIRE LAMP</p> <p>WIRE LAMP</p> <p>LIMIT SWITCH</p> <p>LIMIT SWITCH</p> <p>LIMIT SWITCH</p> <p>LIMIT SWITCH</p> <p>FOOTSWITCH</p> <p>FOOTSWITCH</p> <p>AUTOMATIC SWITCH</p> <p>AUTOMATIC SWITCH FOR CLOSED CONTACT</p> <p>AUTOMATIC SWITCH FOR OPENED CONTACT</p> <p>FOODSWITCH</p> <p>FOOTSWITCH FOR CLOSED CONTACT</p> <p>FOOTSWITCH FOR OPENED CONTACT</p>									
									
<b>ABM COMPANY SRI</b>									
Dis. N. <b>ABM03</b>				Impianto <b>SCHEDA AMBURGATRICE.CON SICUREZZE CONTROL SCHEMATIC</b>			Ordine ABM		FOGLIO <b>4</b>
CAD <b>SPAC</b>				Denominazione _____ LEGGENDA			Commessa ABM03		SEGUE /
Nome File <b>ABM03</b>				Data <b>19/03/2009</b>			Esecutore AM		

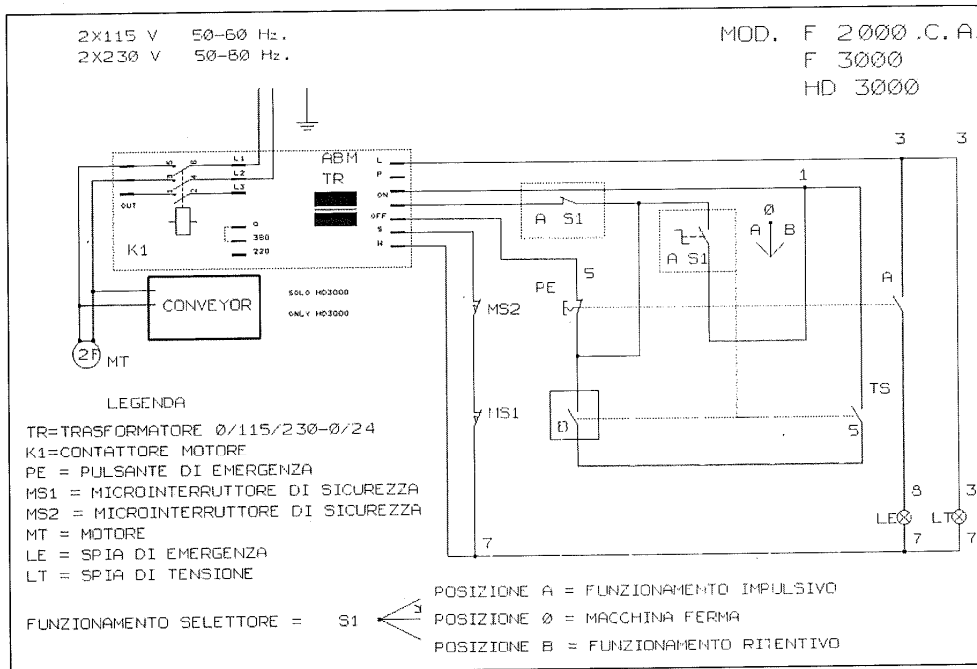
# SCHEDA ABM02



<b>ABM MODEL F4000 INVERTER</b>		Impianto		Ordine		FOGLIO	
		Dis. N. <b>ABM02INV</b>	<b>SCHEDA ABM 02 CON INVERTER</b>		Commessa	SEGUE	
Cliente		Denominazione		Esecutore			
Nome File <b>ABM02INV</b>		Schema di collegamento		ABM			
Data <b>11/03/2008</b>				AM			

# WIRING DIAGRAM

## Models F2000 / F3000 / HD3000



Contents: TR = Transformer 0/115/230 – 0/24

K1 = Motor Contactor

PE = Emergency Button

MS1= Security Microswitch

MS2= Security Microswitch

MT = Motor

LE= Emergency Signal Lamp

LT= Tension Signal Lamp

TS= Signal Transection

Selector Functions: S1

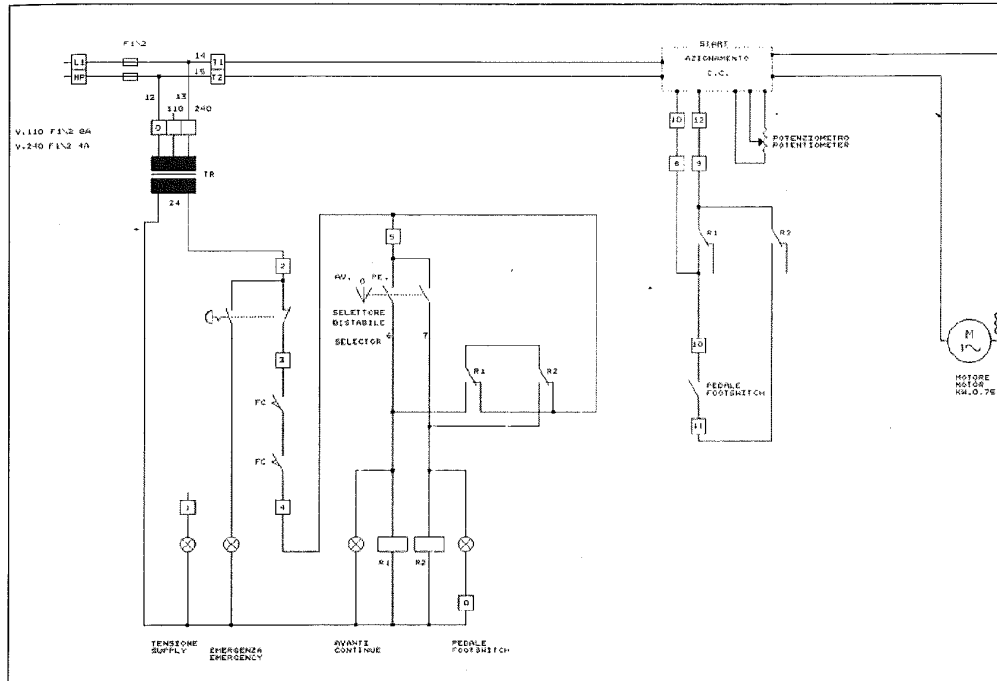
Position A = Impulsive Function

Position Ø = Stopped Machine

Position B = Retentive Function

# WIRING DIAGRAM

Model F4000



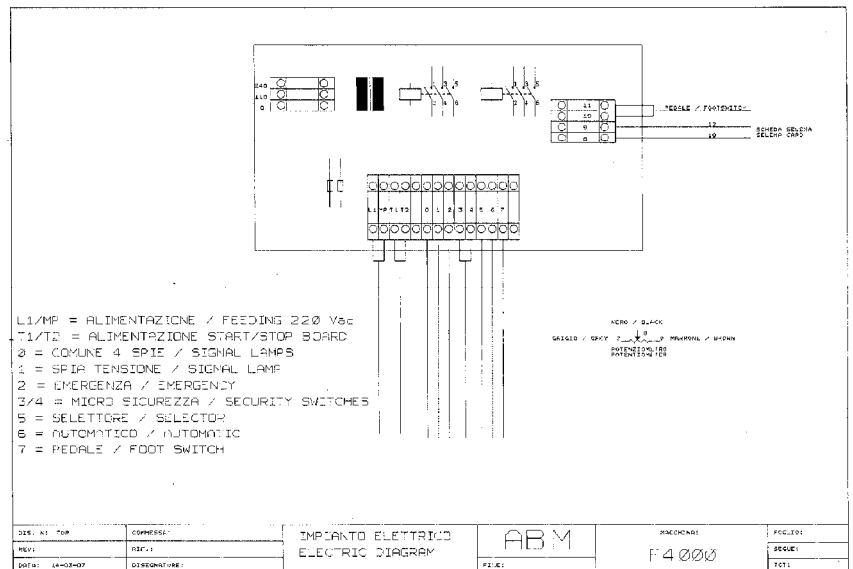
Contents: TR = Transformer 0/115/230 – 0/24  
 K1 = Motor Contactor  
 PE = Emergency Button  
 MS1 = Security Microswitch  
 MS2 = Security Microswitch

MT = Motor  
 LE = Emergency Signal Lamp  
 LT = Tension Signal Lamp  
 TS = Signal Transection

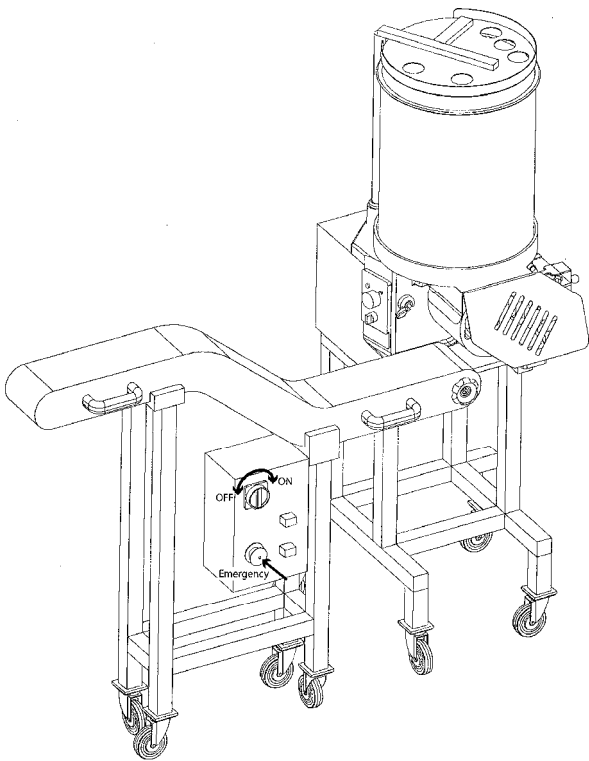
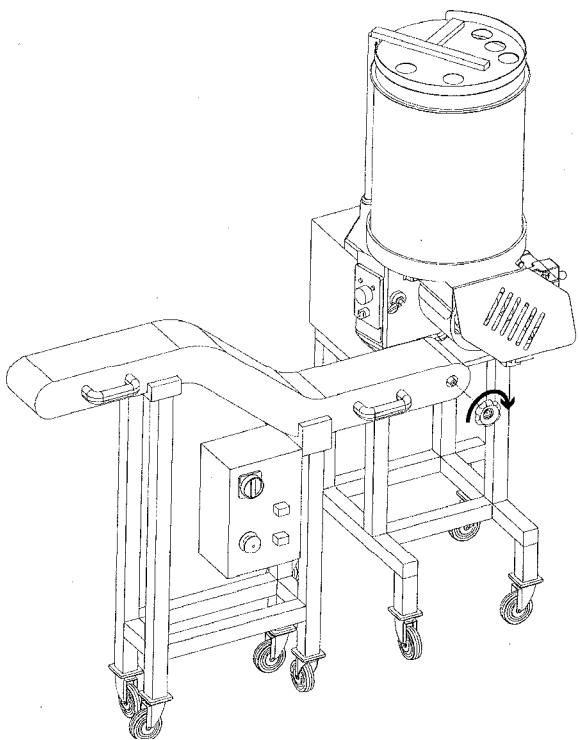
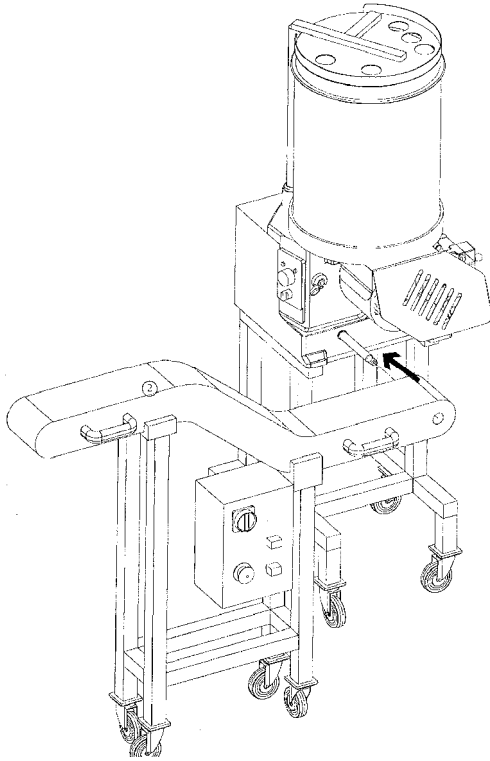
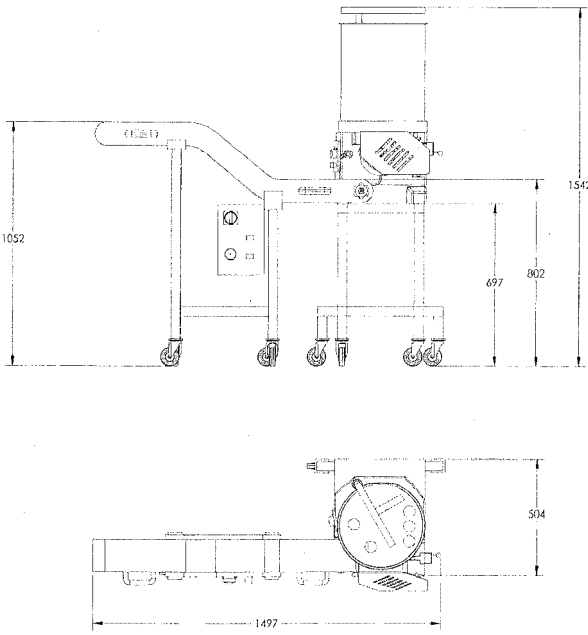
Selector Functions: S1

Position A = Impulsive Function  
 Position Ø = Stopped Machine  
 Position B = Retentive Function

L1/MP = Feeding 220 Vac  
 T1/T2 = Start/Stop Board  
 Ø = Signal Lamps  
 1 = Emergency  
 3/4 = Security Switches  
 5 = Selector  
 6 = Automatic  
 7 = Foot Switch



HD3000  
**CONVEYOR ASSEMBLY**



THE BIRO MANUFACTURING COMPANY  
1114 W. Main Street  
Marblehead, OH 43440 USA  
Ph. 419-798-4451 Fax 419-798-9106  
Email: [service@birosaw.com](mailto:service@birosaw.com)