

SH-260DM

Semi-automatic Hinge Type Bandsaw

(CE Model)

Instruction Manual

*!!! We **saw** the future !!!*

1. INTRODUCTION

This instruction manual has been produced in accordance with the requirements of the Machinery Directive 2006/42/EEC and its subsequent amendments. In this context, particular attention has been paid to safety aspects and the prevention of accidents at work during the various phases of the machine's "life", highlighting the information that is particularly useful for the user. **The "Instructions for use" must be an integral part of the machine, to be consulted before and after the machine is put into service, whenever the need arises, respecting its contents in all its parts.** Only in this way will it be possible to achieve the two fundamental objectives that have been laid down in this manual:

- **Optimize machine performance**
- **Prevent damage to the machine and risk of injury to the user**

The index of chapters and the index of drawings, diagrams and tables, reported in chapter 3, will certainly facilitate the search for specific topics.

WARNING: READ THE OPERATING INSTRUCTIONS CAREFULLY BEFORE INSTALLING THE MACHINE.

2. INFORMATION ON MAINTENANCE ASSISTANCE

2.1 WARRANTY

- Cosen EDC guarantees its products against defects in materials and manufacturing for a period of 12 months from the date of delivery or, in case of installation by Cosen EDC personnel, from the date of commissioning.
- The purchaser shall only be entitled to the replacement of parts recognised as defective: transport and packaging costs shall be borne by the purchaser. In this case, the following must be specified:
 1. Date and number of the purchase document
 2. Machine model
 3. Serial number
 4. Code of any drawings concerned
- No claims for damages caused by any period of inactivity of the machine will be recognized.
- The warranty does not cover damage due to use not in accordance with these Operating Instructions, which are an integral part of the machine, including maintenance, if not in accordance with the instructions provided.
- The warranty will not be recognized for machines on which unauthorized modifications have been made.
- Modification or tampering with safety devices is strictly prohibited.

3. INDEXES

3.1 INDEX OF CHAPTERS

Chap 1	Introduction
Chap 2	Information on maintenance support
Chap 3	Index of chapters, drawings, diagrams, tables
Chap 4	Description of the machine Safety standards applied in design and construction Description of the machine and its components Intended and unintended use of the machine
Chap 5	Significant technical data
Chap 6	Handling and transport
Chap 7	Machine installation
Chap 8	Putting into service and operation of the machine Devices and their location Tools supplied Commissioning Specific safety checks General rules of conduct for safety purposes Adoption of measures to prevent residual risks Warning, obligation, prohibition labels on the machine
Chap 9	Maintenance and repair General safety measures Periodic checks and maintenance Description of periodic maintenance
Chap 10	Airborne noise information
Chap 11	Decommissioning - Dismantling

3.2 INDEX OF DRAWINGS , DIAGRAMS , TABLES

TYPE OF ANN.	DESCRIPTION	ANN. NO.
Table	Cutting capacity - Choice of blade - Cutting speed	1-2
Drawings	Handling and transport - Installation plan	3-4
Drawings	Arc - Fixed and mobile blade guide	5-6
Drawings	Arc support	7
Drawings	Bench and turntable	8
Drawings	Clamp - Base	9-10
Drawings	Control panel	11
Scheme	Hydraulic scheme (Sp.335-MS)	12
Drawings	Control unit (Sp.335-MS)	13
Scheme	Wiring diagram	

4. DESCRIPTION OF THE MACHINE

4.1 SAFETY STANDARDS APPLIED IN DESIGN AND CONSTRUCTION

The machine complies with:

- **Machinery Directive 2006/42/EEC.**

The following standards have been applied:

- EN ISO 12100 2010 Safety of machinery. Basic concepts, general design principles terminology , basic methodology.
- EN ISO 16093 2017 Safety of machinery. Basic concepts, general design principles specifications and technical principles.
- EN ISO 13850 2015 Safety of machinery. Emergency stop devices, functional aspects principles for design
- EN ISO 4413-14 2012 Safety requirements for hydraulic and pneumatic transmission systems and their components.
- EN 1037 2008 Energy isolation and dissipation - unexpected start-up.
- EN 14119 2013 Design criteria for interlocking devices.
- EN 60204-1 2016 Safety of machinery. Electrical equipment of the machines part 1 general rules.
- EN 13857 2008 Safety distances to prevent danger zones being reached with the upper limbs .

- **Directive 2014/30/EU (Electromagnetic compatibility).**

Standards have been applied:

- EN 55014-1 2017 Electromagnetic compatibility - Specifications for household appliances, power tools and similar appliances.
- EN 61000-3-2 2018 Electromagnetic compatibility - Limits for harmonic current emissions.
- EN 61000-3-11 2017 Electromagnetic compatibility - Limitation of voltage variations, voltage fluctuations and flicker in public low-voltage power systems.
- EN 55032 2015 Electromagnetic compatibility of multimedia equipment - Emission requirements.
- EN 61000-4-2 2008 Electromagnetic compatibility (EMC) Part 4-2: Test and measurement techniques Section 2: Electrostatic discharge immunity tests. EMC Basic Publication.
- EN 61000-4-4 2015 Electromagnetic compatibility (EMC) Part 4-4: Test and measurement techniques Immunity test to transient/fast electrical trains.
- EN 61000-4-6 2013 Electromagnetic compatibility (EMC) Part 4-6: Test and measurement techniques Section 6: Immunity to conducted disturbances induced by radio frequency fields.

- **Directive 2014/35/EU (Low voltage).**

Directive 2003/11/EC Restrictions on the marketing and use of certain dangerous substances and preparations (pentabromodiphenyl ether, octabromodiphenyl ether).
 Directive 2002/44/EC of the European Parliament and of the Council of 25 June 2002 on the minimum health and safety requirements regarding the exposure of workers to risks arising from physical agents (vibration) (sixteenth individual Directive pursuant to Article 16(1) of Directive 89/391/EEC).

4.2 DESCRIPTION OF THE MACHINE AND ITS COMPONENTS

The COSEN SH-260DM band saw machine produced by COSEN EDC consists of a robust welded and painted steel sheet structure. The upper surface is designed to facilitate the complete flow of the cutting fluid. The band holder arc is made of a cast iron casting, widely dimensioned to give the necessary rigidity and precision to the cutting unit. The vice unit, also made of cast iron, allows the material to be securely clamped. The bar stop device allows to set the desired length and a remarkable constancy in repetitive cuts. The blade holder arc is rigidly connected to a gearbox integral to the motor, and to the base by means of a joint that allows a rotation of 60° to the right and 45° to the left. The descent of the arc during the cutting manoeuvre will be performed manual or semi-automatic (a hydraulic cylinder accompanies the ascent and descent) for the SH-260DM. The coolant pump is mounted on the base of the machine. A manual handwheel for the band tension, with consent microswitch, prevents the belt from moving forward in case of insufficient tension applied and also allows to restore at any time the optimal operating conditions, confirmed by an indicator light. The main switch is located on a front panel together with the emergency stop button.

The choice of one of the two motor rotation speeds and therefore the cutting speed is made by means of a switch, located on the front panel. By choosing the optional INVERTER, the potentiometer adjusting the speed will be controlled by a regulator that will replace the two-speed switch.

The operating lever, equipped with an ergonomic handle and a hold-to-run button, allows you to operate with minimum fatigue.

The blade is protected by an interlocking guard that covers the upper area and the flywheels and by two adjustable lower guards that protect the operator from the projection of chips and coolant. The machine is completed with service keys.

4.3 INTENDED AND UNINTENDED USE OF THE MACHINE

The band saw **COSEN SH-260DM** has been designed and manufactured exclusively for cutting bars, profiles and pipes of ferrous metals according to the instructions contained in this manual. The cutting of other materials is therefore not permitted: failure to comply with the above may result in damage to the machine and risks to the safety and health of the operator. Cutting is not allowed unless the bar has been clamped in the vice beforehand.

5. SIGNIFICANT TECHNICAL DATA

The following data must not be altered for any reason whatsoever in order not to compromise the correct operation of the machine and not to create dangerous conditions for the operators.

Three-phase power supply Motor cod.122/80_400V-50/60Hz 4/8P Gearbox cod.021/38_1:20	
Main engine power	0.75 - 1.1 kW
Engine revs	700 - 1420 rpm
Cutting speed	38 - 78 m/1'
Three-phase INVERTER power supply (optional) Motor cod.222/80_230/400V-50/60Hz 4P Gearbox cod.021-A/38_1:30	
Main engine power	1.5 kW
Engine revs	1400 rpm
Cutting speed	0-90 m/1'
Single-phase power supply (optional) Motor cod.125/80_230V-50Hz 4P Gearbox cod.021/38_1:20	
Main engine power	1.1 kW
Engine revs	1380 rpm
Cutting speed	75 m/1'
Electric pump power	0.06 kW
Belt dimensions (length x width x thickness)	3010 x 27 x 0.9 mm
Cutting thickness	1.2 mm
Cutting angle	60° rh – 45°lh
Maximum workpiece clamping vice opening	330 mm
Quick clamping displacement	5 mm
Jaw height	130 mm
Jaw length	240 mm
Worktop height	965 mm
Cooling tank capacity	12 litres ~
Weight of the SH-260DM	~3580 N (365 kg)

6. HANDLING AND TRANSPORT

For safe handling and transport use an internal transport trolley as indicated in ANN.3. Keep the machine in the normal position, avoiding tipping it over.

All handling and transport operations must be carried out by trained personnel

7. MACHINE INSTALLATION

A. INTEGRITY CHECK

It is necessary to check that the machine has not been damaged during transport and handling. If any anomalies are detected, notify COSEN EDC immediately. Mount all the available accessories on the machine such as the bar stop cod.077/32 and the roller arm cod.075/35 (ANN. 4-8-10).

B. FIXING THE MACHINE

The machine will be able to operate according to the technical parameters provided by COSEN EDC if it is correctly positioned and fixed to the floor of the workshop in a stable manner and such as to limit vibrations during its operation. See ANNEX 4.

C. BAND ASSEMBLY

Remove the arc guard 128-A/38 by removing the two screws (ANN. 5) mount the band by inserting it first between the blade-guide head bearings and then on the two pulleys, tension the blade a little bit by means of the handwheel 058/35 and put back the arc guard. Check that the band is mounted with the exact direction of the teeth, as indicated in ANN. 5. Make sure that the band (dimensions 3010x27x0.9) is of the right type and pitch for the material to be cut.

D. ELECTRICAL CONNECTION TO THE MAINS

Install a residual current device with suitable characteristics for the power supply line before the socket.

Make sure that the supply voltage corresponds to the voltage indicated on the motor's nameplate. Connect the cable to the line according to the colour code of the individual cables, with particular attention to the earthing cable. Once the machine is connected, check that the rotation of the band complies with the direction of the arrow on the guard.

E. CUTTING COOLANT

To cool the disc, fill the tank with emulsifiable oil obtained from a mixture of water and AGIP AQUAMET 700 EP oil in a percentage of 5-7%.

8. PUTTING INTO SERVICE AND USE OF THE MACHINE

8.1 DEVICES AND THEIR LOCATION

(The location of the described devices is illustrated in the various ANNEXES).

Code 002/90 (ANN.11)	COMMUTATOR
Code 090/90 (ANN.10)	ELECTRIC PUMP
Code 005/38 (ANN.9)	CLAMP
Code 077/32 (ANN.8)	STOP BAR
Code 222/38 (ANN.8)	TURNTABLE WITH CUTTING ANGLE DEVICE: to check that the cutting angle is the desired one.

8.2 TOOLS SUPPLIED

- 1 3" hexagonal bar spanner
- 1 5" hexagonal bar spanner
- 1 6" hexagonal bar spanner
- 1 8" hexagonal bar spanner
- 1 10" hexagonal bar spanner

8.3 COMMISSIONING

CHECKS TO BE PERFORMED BEFORE EACH CUT

- A. Tension the band by turning the handwheel 058/35 until the end of the stroke (ANN.5). Always remember at the end of the work to loosen the handwheel to avoid the yield of the band.
- B. Check that the index corresponds to the fixed cutting angle (vice graduation).
- C. Check that the arc and vice are locked with lever 062/32 (ANN.8).
- D. With the motor switched off, lower the arc and check that at the end of the stroke the band does not come into contact with the turntable 222/38; if not, adjust by acting on the screw located on the arc support 128-A/38 (ANN.5). By adjusting the screw you can also determine the working stroke width.
- E. Make sure that the workpiece is securely clamped in the vice.
- F. Check that the coolant circulates in the machine.
- G. Make sure that when starting the motor the band rotates according to the arrow indicated in ANN.5.
- H. To achieve maximum cutting precision, the sliding blade guide unit must be placed as close to the workpiece as possible. Secure the workpiece with the vice, unlock the blade guide arm 023/35 (ANN.6) using the handle 037/32 (ANN.5) and bring it close to the jaw of the vice so that it does not touch it during cutting, then secure it again.
- I. Check that the pressure gauge placed on the hydraulic control unit 074/90 (ANN.13) indicates a pressure of about 30 bar, otherwise position it at this value through the regulator of the control unit itself.

CUTTING

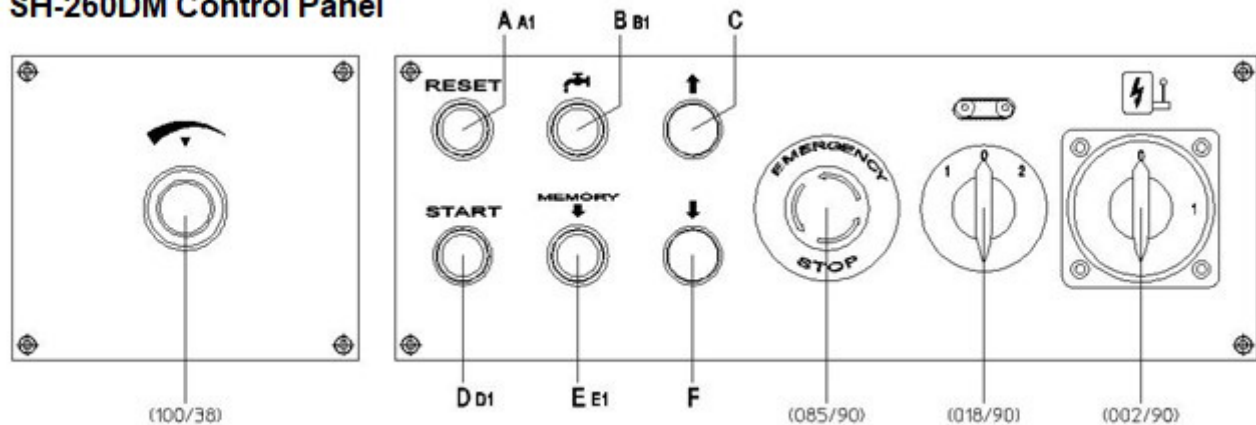
SH-260DM

- A. Before starting to cut, if the cutting angle is not the desired one, correct it or change it by loosening the table lever 062/32 (ANN.4) and, after correcting, fix the lever with force.
- B. Clamp the material to be cut by approaching the vice at 3-4mm from the workpiece by means of the handwheel 058/35 then fix it definitively by turning the lever 023/38 (ANN.9). Turn main switch 002/90 to "1", turn speed switch 018/90 (or potentiometer regulator 098/90 in case of INVERTER) to the desired position.
With the selector 100/90 oriented on "CSO", the start of the cycle is obtained by pressing the START button 086/90, the blade starts to turn, while through the cylinder regulator 080/38 placed on the panel 053-C/38 (ANN.10), it is possible to vary the speed of descent of the arc. Once the cut is completed the machine switches off. Hold the handle 146/05 at the end of the head lever to return the arc to the start cutting position. Position yourself with the blade on the workpiece very carefully, then increase the pressure to accelerate the cut without ever forcing.
With selector 100/90 oriented to "M", hold the handle at the end of the arc lever and press the button. At this point the blade starts to turn, position yourself with the blade on the workpiece with great caution, then increase the pressure to accelerate cutting without ever straining, once cutting is complete release the button and return the arc to the start position.
- C. For cutting lengths in series, position the bar stop 077/32 on the desired size by fixing it with the handwheel 077/25 (ANN.8).
- D. To cut to the left, loosen lever 023/38 and move the vice assembly to the right and secure lever 023/38 (ANN.8).
- E. To replace the band, perform the same operations as described in the band assembly (Chapter 7C).
- F. For the choice of the most suitable blade see table ANN.1.

It is recommended not to use blades with damaged or insufficiently sharpened cutting edges.

Attention!!!! With the selector switch in CSO cycle it is strictly forbidden to cut by hand with force on the arc , because the machine is designed only to make drop cuts . Acting manually can cause serious damage to the machine.

SH-260DM Control Panel



A.	RESET button
B.	ON-OFF electric cooling pump button
C.	arc ascent button
D.	START button
E.	arc low limit storage button
F.	arc descent button
A1.	RESET button light
B1.	coolant pump button light
D1.	START button light
E1.	low arc limit storage button light
100/38	arc descent speed regulator
018/90	switch 1-0-2 blade motor (098/90 potentiometer regulator for OPTIONAL INVERTER)
085/90	emergency button
002/90	ON-OFF main switch

8.4 SPECIFIC SAFETY CHECKS

A. Before using the machine, carefully check the efficiency and perfect functioning of the safety devices, that the moving parts are not blocked, that there are no damaged parts and that all the components are mounted correctly and function correctly.

B. Make sure before working with the machine that the casing screws or other guards are tightened properly, especially the screws of the band guard.

C. Check the correct operation of the safety microswitches and the emergency stop button, testing them during a no-load cycle of the machine.

D. Pay attention to environmental conditions. Do not expose the machine to rain; do not use it in humid environments; place it on a clean, dry floor free of oil and grease stains.

E. Before using the machine, the operator must ensure that tools or service wrenches used for maintenance or adjustments of the machine have been removed.

8.5 GENERAL RULES OF CONDUCT FOR SAFETY PURPOSES

A. Dress appropriately. The operator must never wear clothing that is too loose and free of fluttering parts and handholds. Sleeves must be fitted with elastic.

No belts, rings or chains should be worn. Hold any long hair with a special net.

B. Avoid unstable positions. Stand in a safe and balanced position while using the machine.

C. Keeping the workplace tidy, clutter leads to the danger of accidents.

D. Do not use the power cord to unplug the plug from the outlet. Protect the cable from high temperatures, oil and sharp edges. Outdoors use the machine only with standard extension cables.

8.6 ADOPTION OF MEASURES TO PREVENT RESIDUAL RISKS

A. It is absolutely forbidden to tamper with the safety devices. Prohibited to remove the guards.

B. The use of gloves and goggles is mandatory.

C. It is mandatory to wear regulatory work clothing, to be kept closed and without loose parts.

D. It is forbidden to clean the machine with liquids under pressure.

E. In case of fire, it is forbidden to use fire extinguishers other than the powder type. In this case, the machine must be disconnected immediately.

F. Avoid introducing foreign bodies into the motor cover and do not energise the machine by tampering with the safety microswitches or the main switch.

G. Take the necessary measures so that the machine is not started by others during loading, adjusting, changing parts and cleaning.

Warning, obligation, prohibition labels on the machine

MODEL: _____ SERIAL NO: _____
 ELECTRIC SUPPLY: _____ / _____ Hz RATED POWER: _____ kW
 FULL LOAD CURRENT: _____ A SHORT-CIRCUIT CURRENT: _____ kA
 COOLANT: _____ kW _____ HP
 HYDRAULIC: _____ kW _____ HP _____ Mpa
 BLADE SIZE (mm): _____ W _____ L _____ T
 MAX WORKPIECE SIZE (mm): _____
 MACHINE WEIGHT (kg): _____ MFG. DATE: _____

COSEN we saw the future **CE**
 EUROPEAN DISTRIBUTION CENTRE
 WILLEM BARENTZSWEG 20 | 5928 LM VENLO | THE NETHERLANDS
 +31 77 760 0280 | info@cosenedc.com | www.cosenedc.com



9. MAINTENANCE AND REPAIR

9.1 GENERAL SAFETY MEASURES

- A. Padlockable main switch. Apply the padlock in case of a faulty machine or disc replacement. The key to the lock must be kept by a person in charge.
- B. Before any intervention on the electrical equipment, unplug the panel (disconnect power).
- C. For the power supply, use only cables with a cross-section suitable for the power of the machine.
- D. Opening key. The machine keys must be in the possession of authorised persons. Keys that allow access to hydraulic or electrical parts or those of padlockable switches must not be left within the reach of the outsiders.
- E. Repairs may only be carried out by authorised personnel using original spare parts, otherwise damage to the user may result.

9.2 PERIODIC CHECKS AND MAINTENANCE

FREQUENCY (hours of work)	OPERATION
100 hours	Blade-guide bearing registration.
1000	Lubrication of workpiece clamping moving parts. (GREASE AGIP MU 2)
50	Clean the coolant tray and check the coolant filter.
if necessary	Bench lever operation control.

9.3 DESCRIPTION OF PERIODIC MAINTENANCE

A. Registration of blade guide bearings

Unlock the screws, turn the eccentric bushes 027/35, so that the blade guide bearings position the band vertically (ANN.6). Tighten the grub screws until the band locks and then unscrew them about 1/10 of a turn. The front guide shoe must be positioned as close to the workpiece as possible. Check the tolerance between the blade guide shoes at least every 3 months, making sure that it does not exceed the thickness of the blade by more than a tenth, in order to avoid inaccuracies in the squaring of the cut. Check periodically with the blade removed that the blade guide bearings rotate freely.

B. Lubrication of workpiece clamping moving parts

Remove the jaw 007/39 (ANN.9), remove the vice 005/38 completely by lowering the lever 023/38. Clean and grease the machined parts of the counter-clamp 223/38 - 224/38 and vice 005/38 - 028-A/42. If there is a decrease in smoothness or play of the vice guides, perform the following operations: loosen the gib fixing nuts, adjust the grub screws and re-fix the nuts.

C. Cleaning the coolant tray.

The coolant tank can be cleaned by simply removing the 201/38 swarf tank (ANN.10). Empty the base tank of coolant pouring it into a container for subsequent disposal. Remove chips and metal dust, taking care not to disperse them on parts of the machine and in particular in the area of the motor and the box containing the electrical equipment. Fill the tank with the quantity and the product indicated above.

D. Bench lever operation control

Check the efficiency of the rotation locking-unlocking lever periodically. In case of ineffective tightening, loosen the grub screw of nut 027/04 (ANN.8), tighten the nut and re-tighten the grub screw. Make sure that with the bench lever loose, turntable 222/38 and arc support 027/42, which supports the arc, rotate freely.

10. AIRBORNE NOISE INFORMATION

The analysis of airborne noise, performed on a band sawing machine COSEN SH-260DM, identical to the machine to which the operating instructions refer, has given the following results:

SOUND PRESSURE LEVEL

1. $L_{Aeq} = 83,2$ dB (A).
2. $L_{peak} = 90,6$ dB (the maximum permissible value is 140 dB).
3. The background noise level was completely irrelevant = 48.5-54.2 dB (A).

The relevant data are derived from tests carried out on the basis of DL gs 277/1991 in implementation of the directives n. 80/1107/EEC,

no. 82/605/EEC, no. 84/477/EEC, no. 88/642/EEC.

11. DECOMMISSIONING - DISMANTLING

11.1 DECOMMISSIONING

In the event of prolonged inactivity or shutdown of the machine, the following operations must be carried out:

1. Disconnect the machine from the power supply line.
2. Drain the oil completely from the gearbox and the cooling emulsion in order to avoid corrosion.
3. Thoroughly clean the machine by removing traces of grease especially on the machined parts and protect them with antioxidant products.
4. Cover the machine with a cloth, avoiding plastic sheets if possible in order not to favour oxidation phenomena due to moisture condensation.
5. Store the machine in a closed environment, not dusty.

11.2 DISMANTLING




During the final dismantling of the machine, for the possible reuse of materials, or disposal and environmental protection, it is necessary to make a subdivision, indicatively exemplified in the following terms:

Steels	Electrical and electronic components	Light alloys	Cast iron castings	Copper Bronzes	Plastic and rubber	Miscellaneous
Rollers	Motor winding	Engine casing	Structure		Seals	
Springs		Cylinder				
Flanges and pins					Flywheels	
Base						
Tank						
Electrical components plate	Buttons and control systems (relays, transformers, etc.)				Handle with button	
Guards						

The disposal of waste oils must be carried out in accordance with Directives 87\101\CEE.

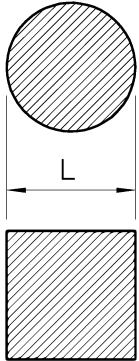
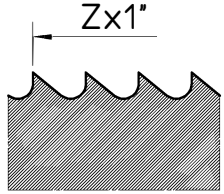
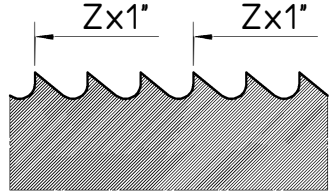
The disposal of electrical components is provided for according to the European Directives 2011\65\EU.

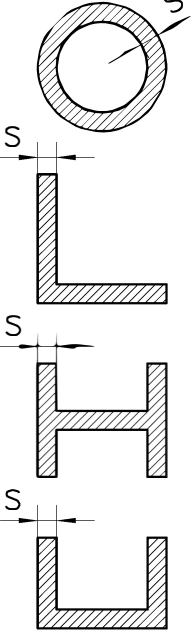
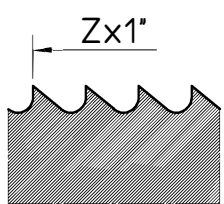
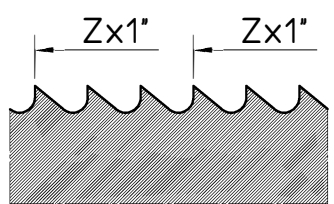
Blade capacity - SH-260DM

CAPACITA' DI TAGLIO CUTTING CAPACITY - CAPACITE DE COUPE SCHNITTKAPAZITAET - CAPACIDAD DE CORTE			
90°	260	250	220 x 330
45° Sinistra - left - links - gauche	225	210	160 x 225
45° Destra - right - droite - rechts	215	200	160 x 210
60° Destra - right - droite - rechts	130	130	130 x 140

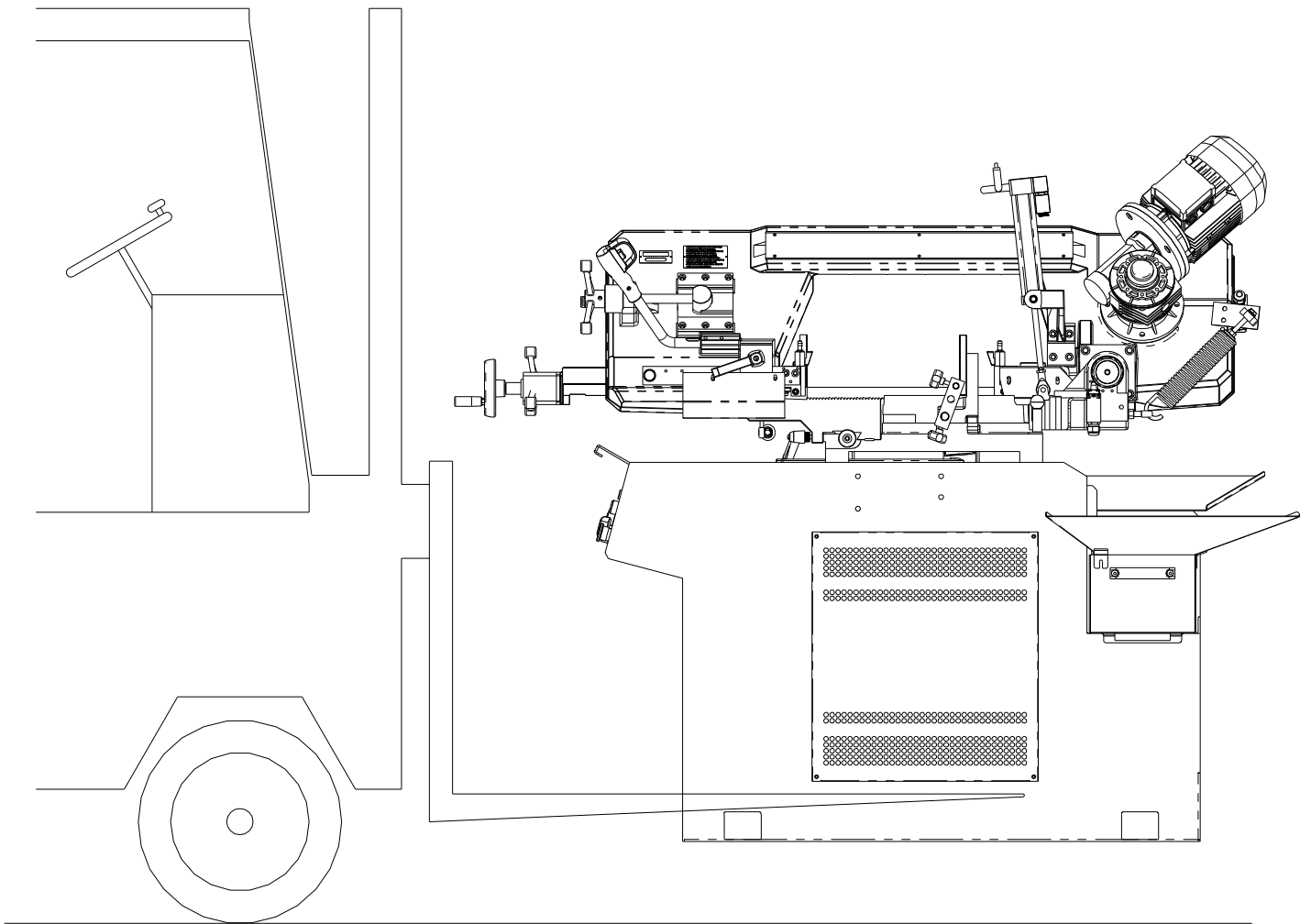
Selection of blade

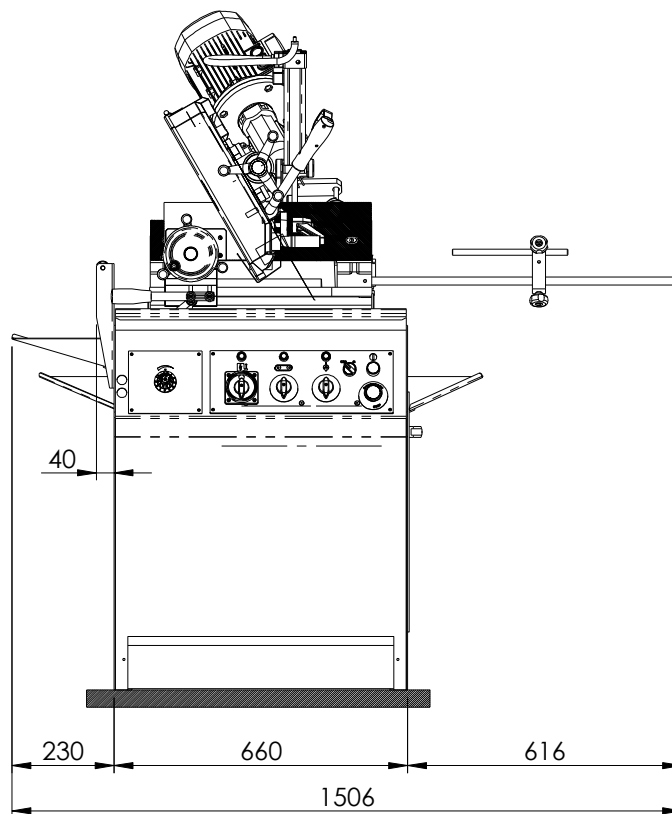
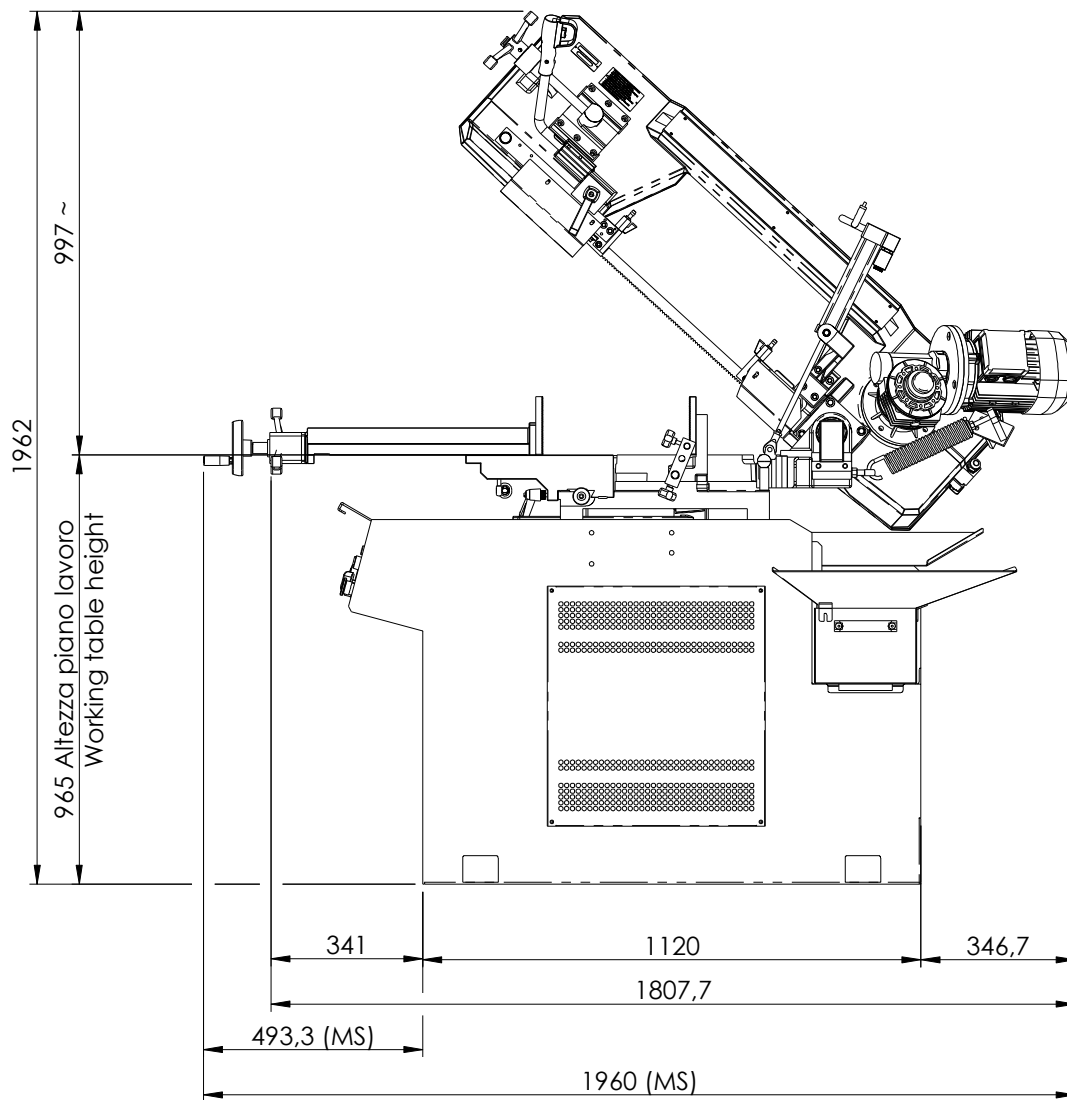
SCELTA DELLA LAMA
SELECTION OF BLADE
CHOIX DE LA LAME
WAHL DES SAEGEBLATTES
SELECCION DE LA HOJA

	L mm		
	≤40	8	6/10
	>30<80	6	5/8
	>60<90	4	4/6
	≤100	3	3/4

	S mm		
	≤1,5	14	-
	>1<2	10	10/14
	>2<4	8	8/12
	>4<8	6	6/10
	>6<12	6	5/8
	≤12	4	4/6

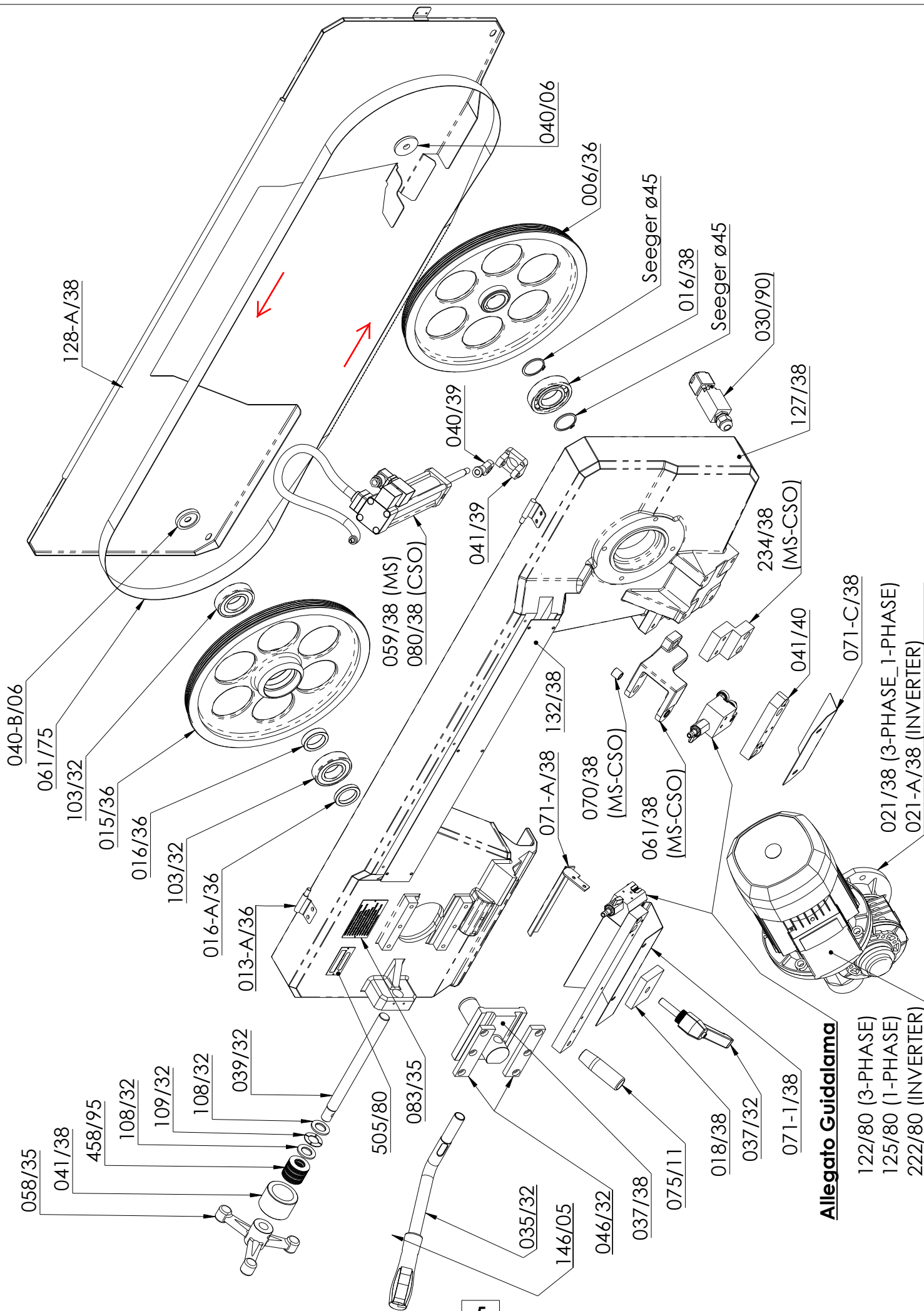
Velocità di taglio La macchina è dotata di due velocità di taglio		38-78 m/1'
Cutting machine The machine is equipped with two cutting speeds		38-78 m/1'
Vitesse de coupe La machine est dotée de deux vitesses de coupe		38-78 m/1'
Schnittgeschwindigkeit Die Maschine ist mit zwei Schnittgeschwindigkeiten ausgestattet		38-78 m/1'
Velocidad de corte La máquina esta dotada de dos velocidades de corte		38-78 m/1'
Materiale Material Materiel Material Material		Velocità di taglio m/1' Cutting machine m/1' Vitesse de coupe m/1' Schnittgeschwindigkeit m/1' Velocidad de corte m/1'
Acciai da costruzione Fe37+Fe42 Structural steel Fe37+Fe42 Aciers de construction Fe37+Fe42 Baustahl Fe37+Fe42 Acero de construcción Fe37+Fe42		Pieni Solid Pleins Volles Material Pies 78 Profilati Structural steel Profilés Profile Perfiles 78
Acciai da costruzione Fe50+Fe70 Structural steel Fe50+Fe70 Aciers de construction Fe50+Fe70 Baustahl Fe50+Fe70 Acero de construcción Fe50+Fe70		78
Acciai al carbonio C40+C60 Carbon steel C40+C60 Aciers au carbone C40+C60 Kohlenstoffstahl C40+C60 Acero de carbono C40+C60		78
Acciai legati Alloyed steel Aciers alliés Legierter Stahl Acero aleado		38
Acciai inox Stainless steel Aciers inoxydables Rostfreier Stahl Acero inoxidable		38
Ghisa grigia Grey cast iron Fonte grise Grauguß Fundición gris		78
Leghe d'alluminio Aluminium alloys Alliages d'aluminium Legierungen aus Aluminium Aleación de Aluminio		78
Bronzi Bronze Bronze Bronze Bronces		78





4

DIMENSIONI D'INGOMBRO ED INSTALLAZIONE	OVERALL DIMENSION AND INSTALLATION	DIMENSIONS HORS-TOUT ET INSTALLATION	AUSSENABMESSUNGEN UND INSTALLATION	DIMENSIONES MÁXIMAS EXTREMAS E INSTALACIÓN
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ARCO	BOW	ARC	BOGEN	ARCO
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Allegato Guidalama

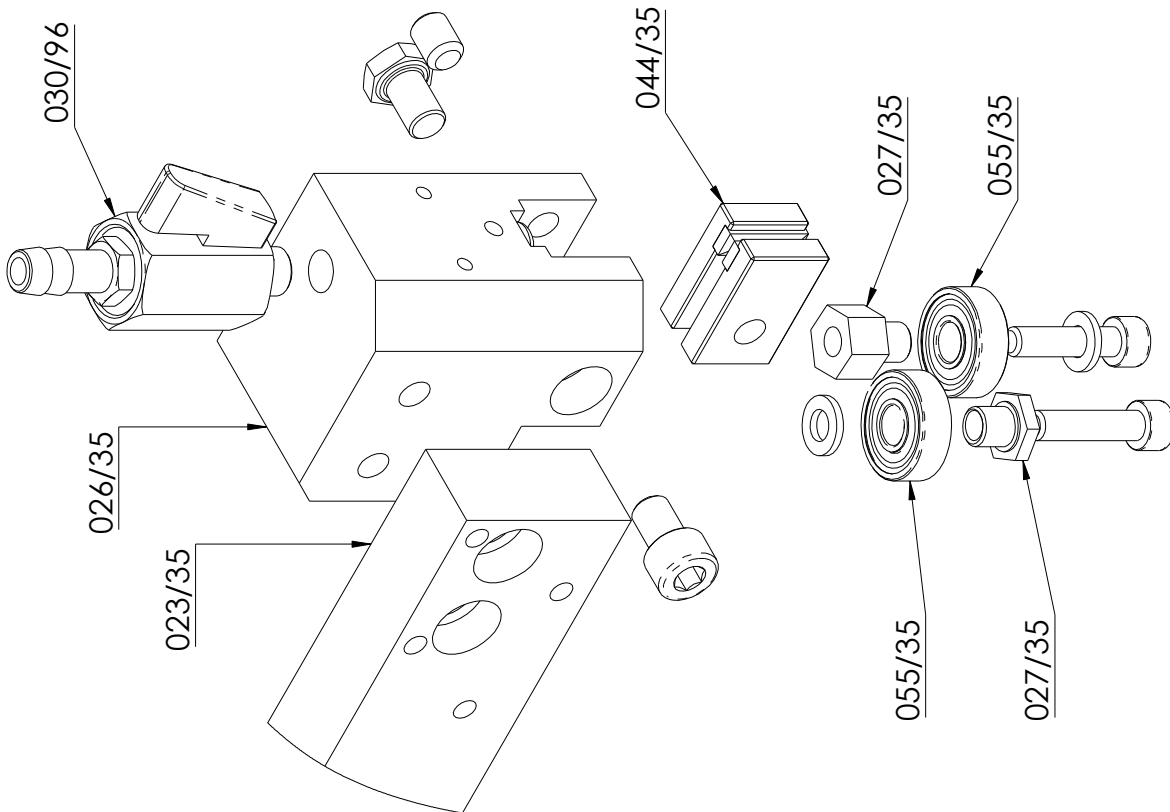
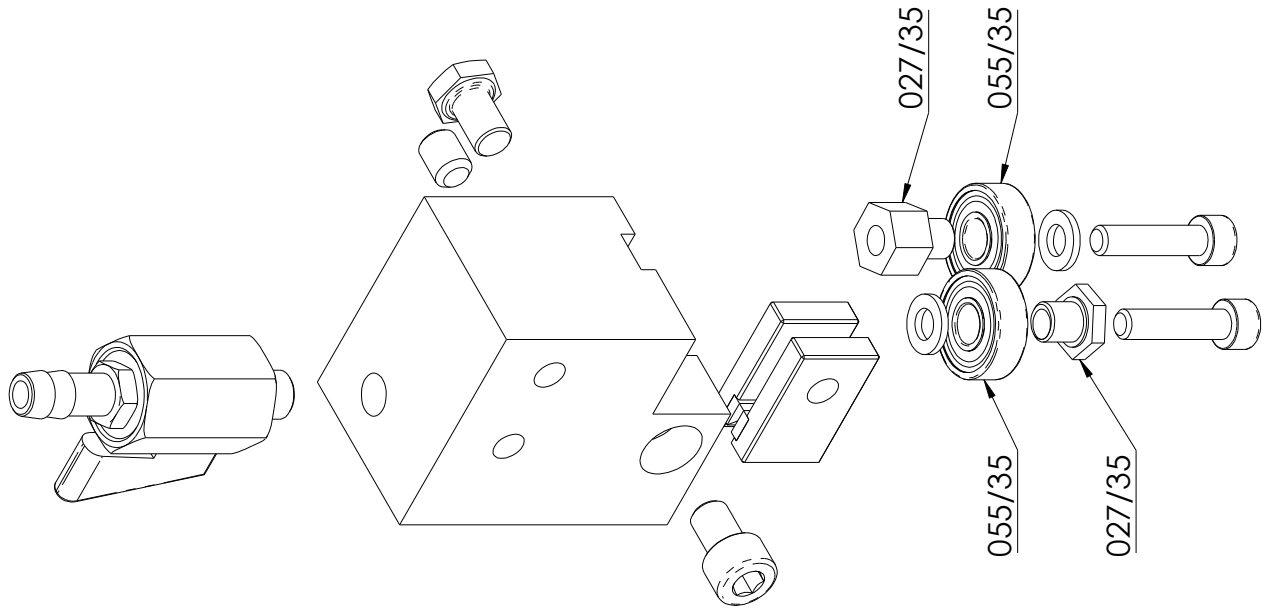
GUIDALAMA
FISSO

FIXED BLADE
GUIDE

GUIDE-LAME
FIXE

FEST.
SÄGEBLATTFÜHRUNG

GUÍA-HOJA
FIJO



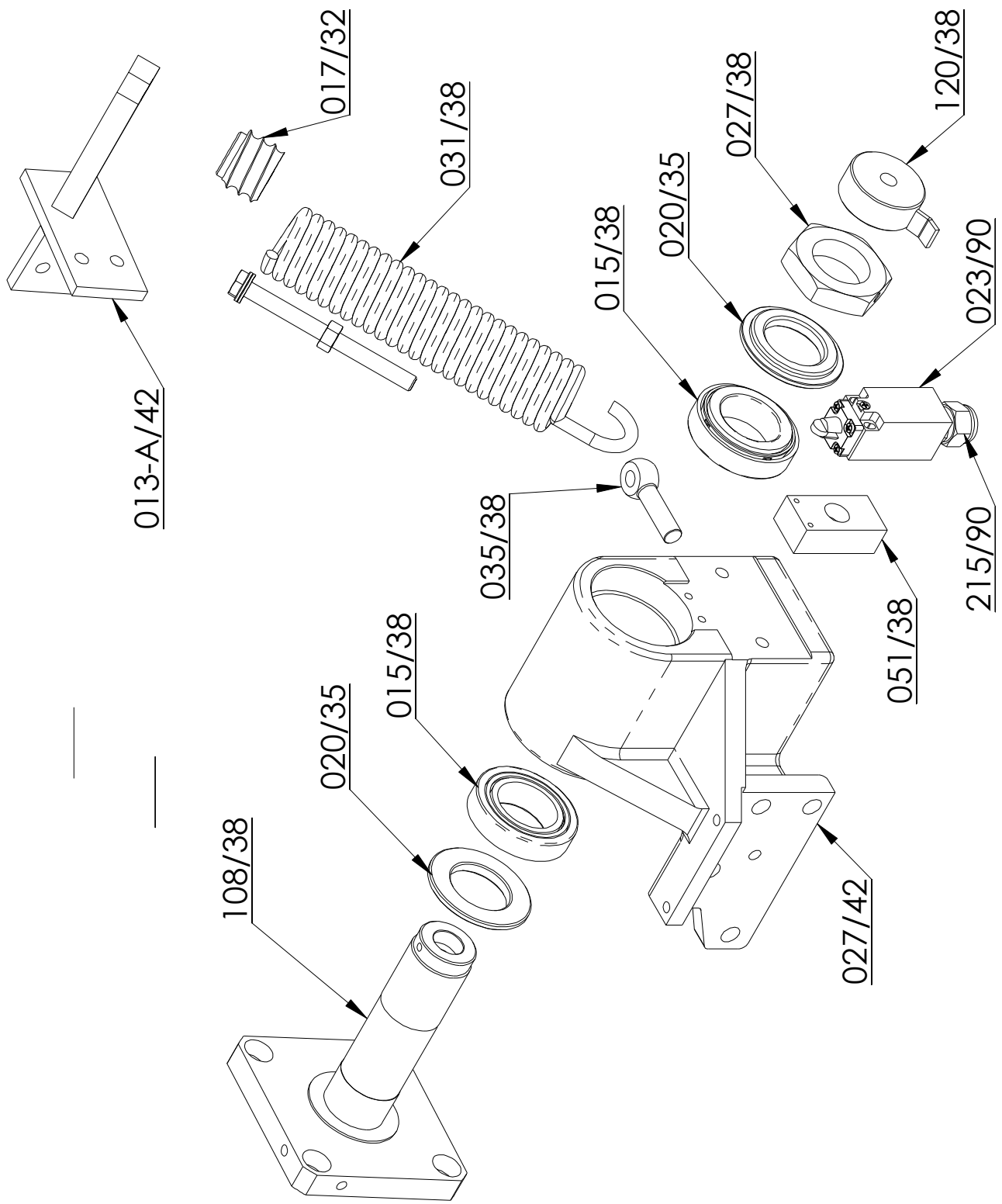
GUIDALAMA
MOBILE

MOBILE BLADE
GUIDE

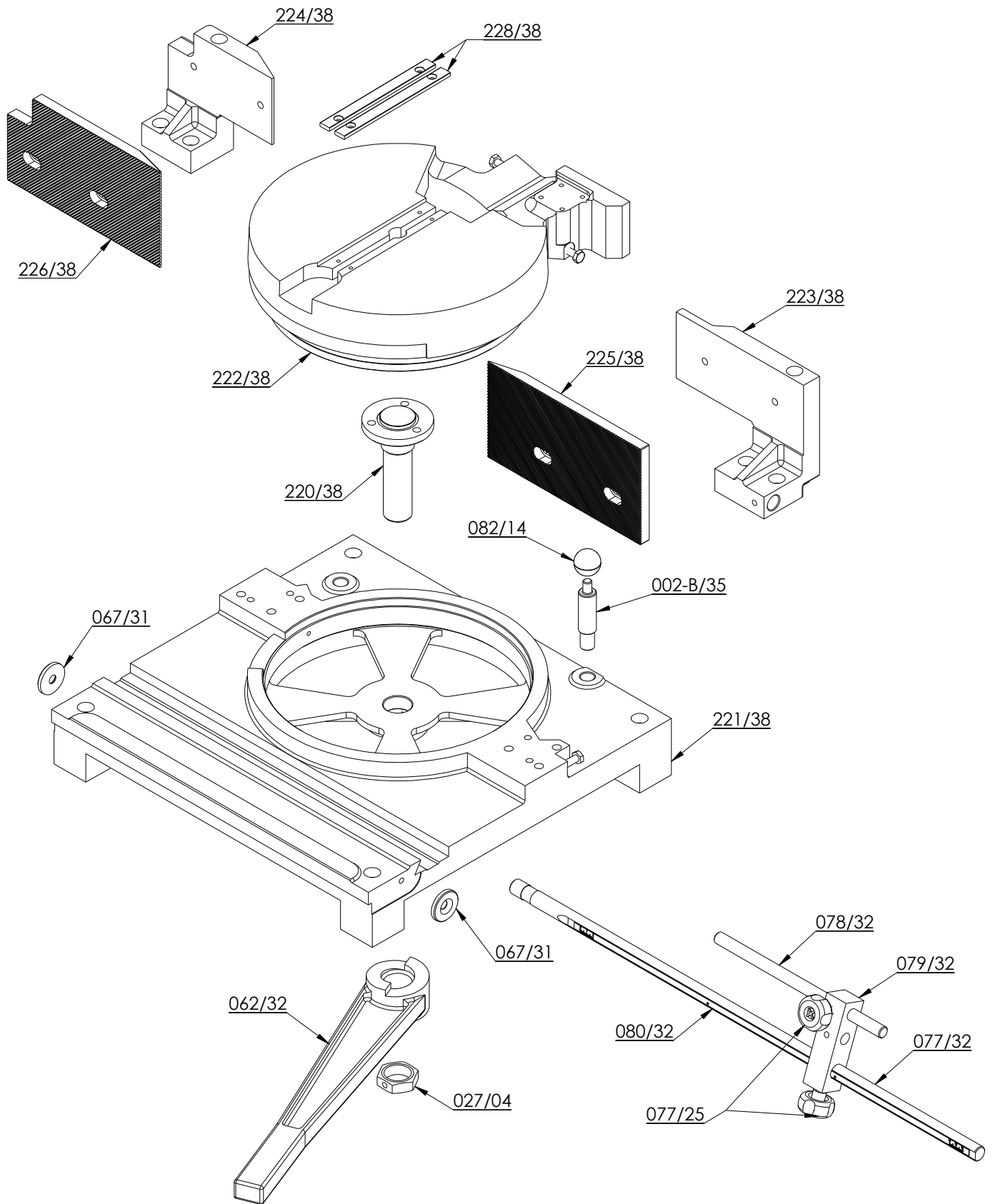
GUIDE-LAME
MOBILE

BEW.
SÄGEBLATTFÜHRUNG

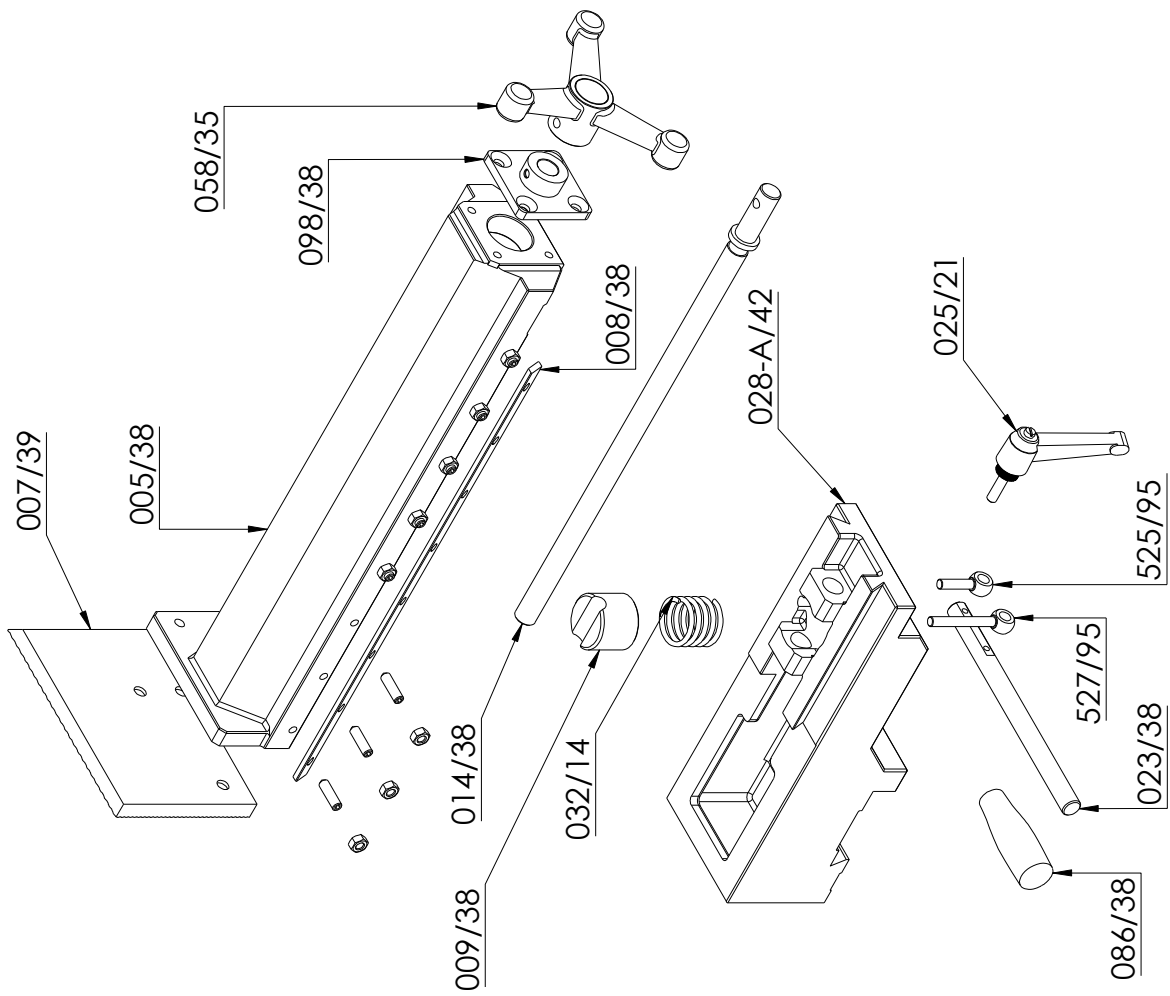
GUÍA-HOJA
MÓVIL

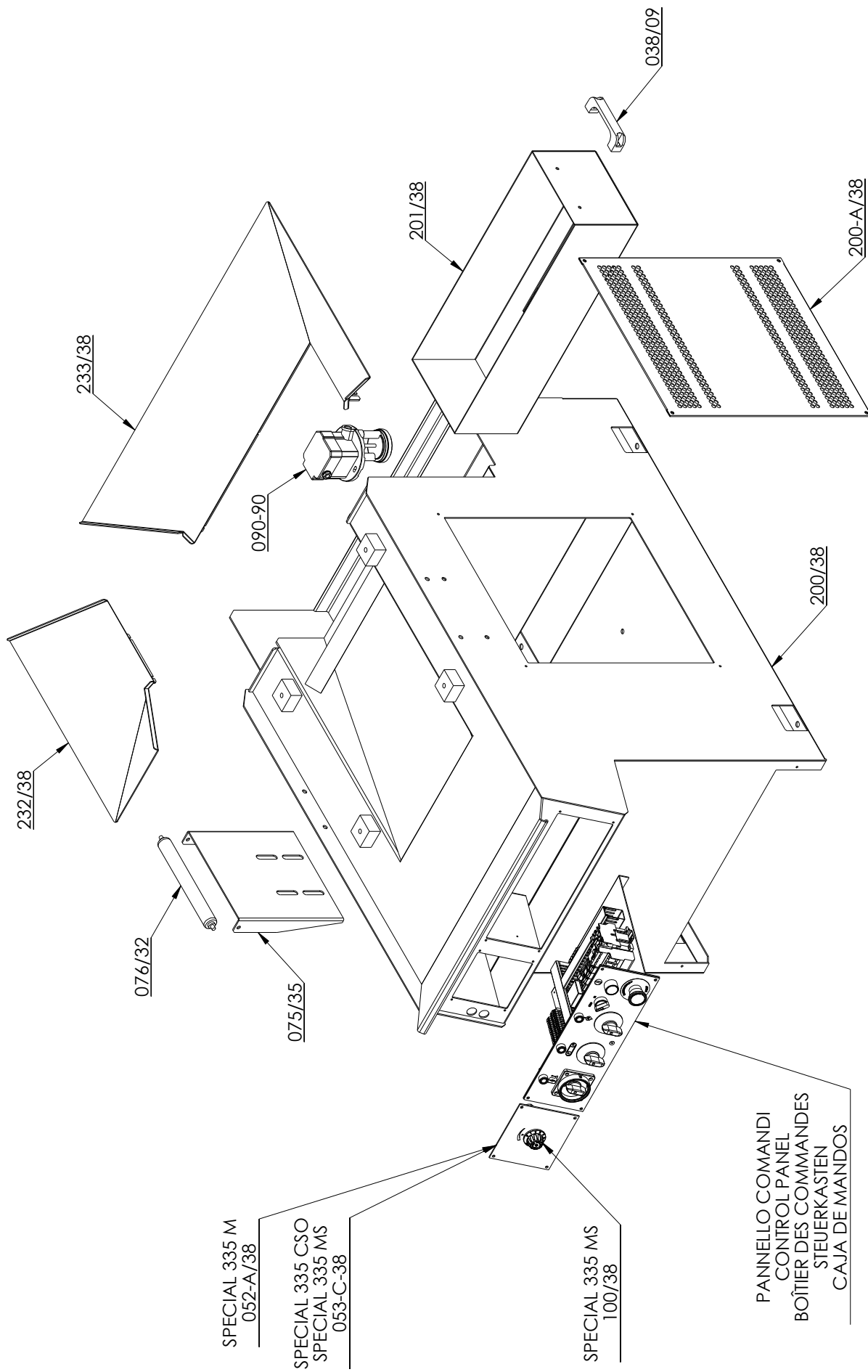


SH-260DM

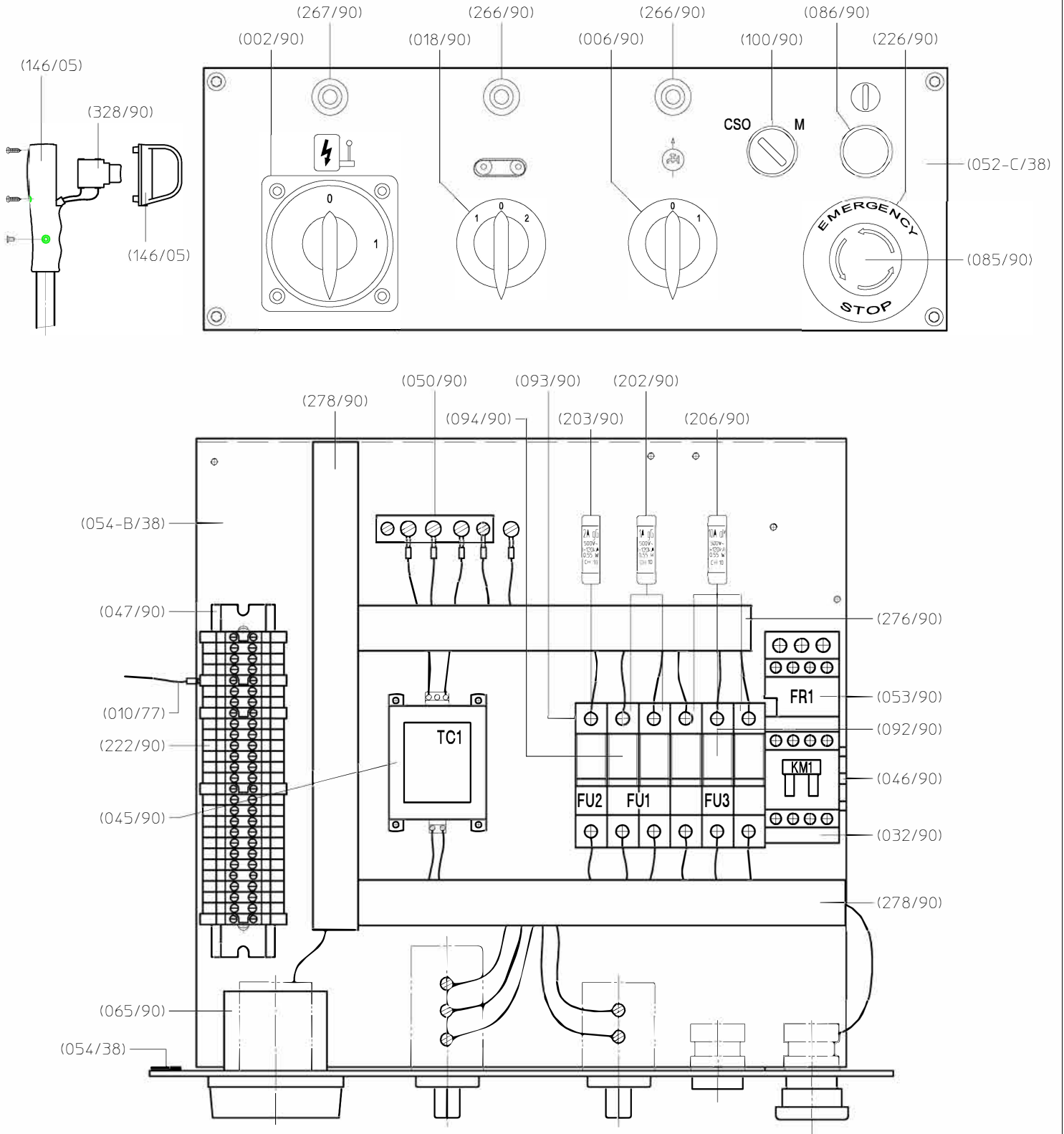


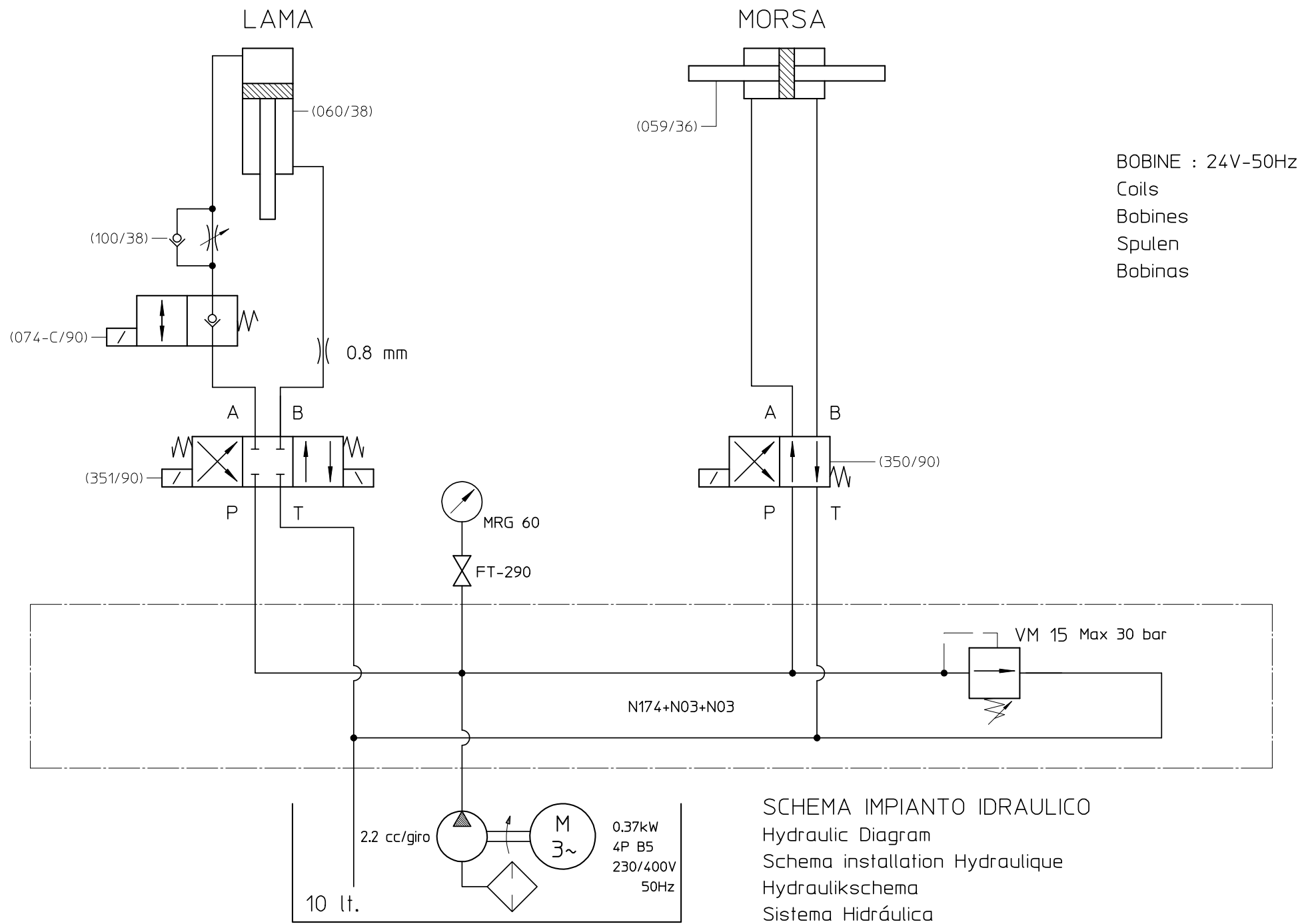
<p>BANCO E PIATTO GIREVOLE</p>	<p>BENCH AND ROTATING PLATE</p>	<p>BANC ET PLAQUE PIVOTANT</p>	<p>BANK UND WERKSTÜCKAUFLAGEPLATTE</p>	<p>BANCO Y PLATO GIRATORIO</p>
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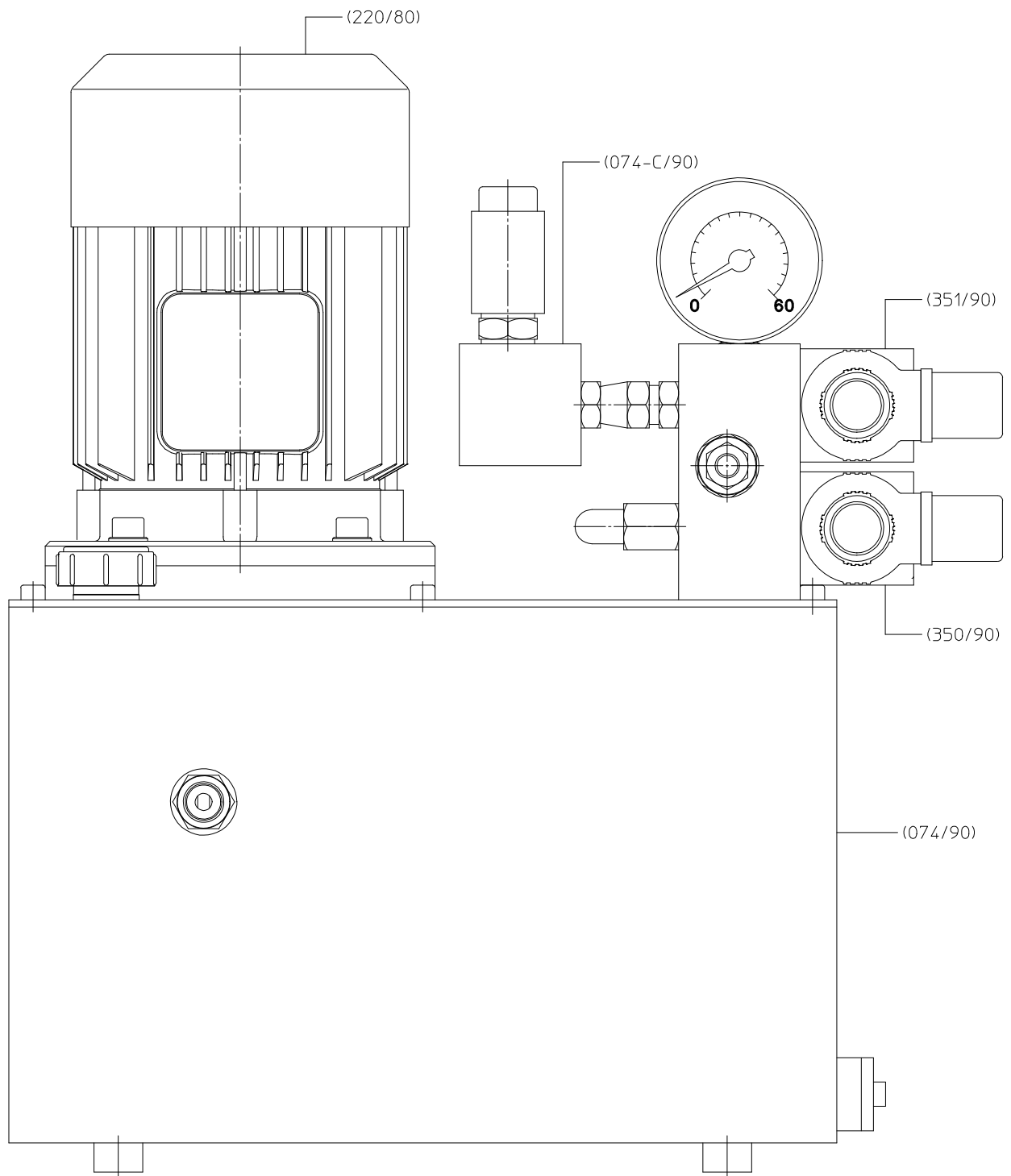
CONTROL PANEL





BOBINE : 24V-50Hz
 Coils
 Bobines
 Spulen
 Bobinas

SCHEMA IMPIANTO IDRAULICO
 Hydraulic Diagram
 Schema installation Hydraulique
 Hydraulikschema
 Sistema Hidráulica



	ITALIANO	ENGLISH	DEUTSCH
FR1	RELE' TERMICO MOTORE POMPA OLIO	THERMAL RELAY OIL PUMP MOTOR	THERMISCHES RELAIS OIL PUMPE MOTOR
FR2	RELE' TERMICO MOTORE LAMA	THERMAL RELAY BLADE MOTOR	THERMISCHES RELAIS SÄGEBLATTMOTOR
FR3	RELE' TERMICO MOTORE REFRIGERANTE	THERMAL RELAY COOLANT MOTOR	THERMISCHES RELAIS ÜHLMITTEL MOTOR
FR4	RELE' TERMICO MOTORE ESTRATTORE TRUCIOLI	RELAY THERMAL CHIPS EXTRACTOR MOTOR	THERMISCHES RELAIS CHIP EXTRACTORMOTOR
FR5	RELE' TERMICO MOTORE GUIDA PEZZO	THERMAL RELAY GUIDA-PIECE MOTOR	THERMISCHES RELAIS Motor Führungsstück
FTC	FOTOCELLULA PRESENZA MATERIALE	MATERIAL PRESENCE PHOTOELECTRIC CELL	Photozelle Werkstoff Anwesenheit.
FU1	FUSIBILI PROTEZIONE TRASFORMATORE	FUSE TRANSFORMER PROTECTION	SICHERUNG TRAF0 SCHUTZ
FU2	FUSIBILI PROTEZIONE MOTORI	FUSE MOTOR PROTECTION	SICHERUNG MOTOR SCHUTZ
FU3	FUSIBILI PROTEZIONE POMPA REFRIGERANTE	FUSE COOLANT PUMP PROTECTION	SICHERUNG KÜHLMITTELPOMPE SCHUTZ
FU4	FUSIBILI PROTEZIONE ALIMENTATORE	FUSE FEEDER PROTECTION	SICHERUNG ZUFÜHRER SCHUTZ
FU5	FUSIBILI PROTEZIONE 24 V dc	FUSE 24 V dc PROTECTION	SICHERUNG 24 V dc SCHUTZ
FU6	FUSIBILI PROTEZIONE 24 V ac	FUSE 24 V ac PROTECTION	SICHERUNG 24 V ac SCHUTZ
FU7	FUSIBILE PROTEZIONE MOTORE INVERTER	FUSE INVERTER PROTECTION	GESCHWINDIGKEITUMRICHTER SICHERUNGSDRAHT
G	GALLEGGIANTE	FLOAT	SCHWIMMER
H1	SPIA PRESENZA LINEA	SPY LINE PRESENCE	LINE PRÄSENZ LAMPE
H2	SPIA LAMA IN TENSIONE	SPY BLADE IN TENSION	BLATT TENSION LAMPE
H3	SPIA START CICLO	SPY CYCLE START	ZYKLUS START LAMPE
K	TELERUTTORE TERMORESISTENZA	THERMO-RESISTANCE CONTROL SWITCH	KONTAKTGEBER WIDERSTANDSTHERMOMETER
KM0	TELERUTTORE ALIMENT. INVERTER	INVERTER FEEDING CONTROL SWITCH	Fernschalter Frequenzumrichter Versorgung
KM1	TELERUTTORE MOTORE POMPA OLIO	OIL PUMP MOTOR REMOTE CONTROL SWITCH	KONTAKTGEBER ZENTRALHYDRAULIK MOTOR
KM2	TELERUTTORE MOTORE LAMA	BLADE MOTOR REMOTE CONTROL SWITCH	KONTAKTGEBER SÄGEBLATTMOTOR
KM3	TELERUTTORE POMPA REFRIGERANTE	COOLANT PUMP REMOTE CONTROL SWITCH	KONTAKTGEBER KÜHLMITTELPUMPE
KM4	TELERUTTORE ESTRATTORE TRUCIOLI (COCLEA)	CHIP EXTRACTOR CONTROL SWITCH	KONTAKTGEBER SPÄNE AUSZIEHER
KM5	TELERUTTORE MOTORE GUIDA PEZZO	THERMAL RELAY GUIDA-PIECE MOTOR CONTROL SWITCH	KONTAKTGEBER Motor Führungsstück
KM6	TELERUTTORE POMPA RECUPERO REFRIGERANTE	COOLANT RECYCLE PUMP THERMAL RELAY	KONTAKTGEBER KUEHLMITTELPUMPE
M1	MOTORE POMPA OLIO	OIL PUMP MOTOR	ZENTRALHYDRAULIKMOTOR
M2	MOTORE LAMA	BLADE MOTOR	SÄGEBLATTMOTOR
M3	MOTORE POMPA REFRIGERANTE	COOLANT PUMP MOTOR	KÜHLMITTELPUMPE MOTOR
M4	MOTORE ESTRATTORE TRUCIOLI	CHIP EXTRACTOR MOTOR	SPAENEAUSLASSVORRICHTUNG MOTOR
M5	MOTORE ROTAZIONE TESTA	SAWHEAD ROTATION MOTOR	DREHUNGS KOPF MOTOR
M50	MOTORE GUIDA PEZZO	GUIDA-PIECE MOTOR	FÜHRUNGSSTÜCK MOTOR



EUROPEAN DISTRIBUTION CENTRE

M6	MOTORE AVANZAMENTO MATERIALE	MATERIAL FEEDING OTOR	VORSCHUBMATERIAL MOTOR
P1	POTENZIOMETRO POSIZIONAMENTO LAMA	BLADE POSITIONING POTENTIOMETER	SÄGEBLATT-STENUNG POTENZIOMETER
P2	POTENZIOMETRO VELOCITA' LAMA	BLADE SPEED POTENTIOMETER	SÄGEBLATT-GESCHWINDIGKEIT POTENZIOMETER
PX1	SENSORE ROTAZIONE LAMA	BLADE ROTATION SENSOR	BLATT UMDREHUNGSSENSOR
QS1	INTERRUPTORE GENERALE	MAIN ON / OFF SWITCH	HAUPTSCHALTER
QS2	INTERRUPTORE / COMMUTATORE DI VELOCITA'	SWITCH / SPEED CHANGE OVERSWITCH	SCHALTER / GESCHWINDIGKEIT UMSCHALTER
QS3	INTERRUPTORE POMPA REFRIGERANTE	COOLANT PUMP SWITCH	KÜHLMITTELpumpe SCHALTER
R	RELE' COMANDO MARCIA ROTAZIONE LAMA	ROTATING BLADE COMMAND RELAY	SÄGEBLATT UMDREHUNG POTENZIOMETER
R1	RELE' COMANDO TELERUTTORE POMPA OLIO	OIL PUMP REMOTE CONTROL SWITCH COMMAND RELAY	RELAIS OIL PUMPE FERNSCHALTER
R10	RELE' PRESSINO ON	VERTICAL VICE RELAY	SENKRECHT SCHRAUBSTOCK RELE
R2	RELE' COMANDO TELERUTTORE LAMA	BLADE REMOTE CONTROL SWITCH COMMAND RELAY	RELAIS BLATT FERNSCHALTER
R5	RELE' COMANDO MICROLUBRIFICAZIONE	MICROLUBRICATION COMMAND RELAY	MIKROSPRÜHEINRICHTUNGSTEUER RELAIS
RT	RELE' TEMPORIZZATORE	TIMER RELAY	ZEITGEBER RELE
RX	RELE' COMANDO TERMOSTATO	THERMOSTAT COMMAND RELAY	THERMOSTATSTEUER RELAIS
RYV5	RELE' DISCESA LAMA	BADE DESCENT RELAY	SAEGEBLATT ABSTIG RELE
S	SELETTTORE FUNZIONE	FUNCTION SELECTOR	FUNKTION WÄHLER
S10	SELETTTORE PRESSINO ON	VERTICAL VICE ON CHANGEOVER SWITCH	GESCHWINDIGKEITUMRICHTER WAEHLER ON
S4	SELETTTORE CAMBIO LAMA	BLADE RELACEMENT CHANGEOVER SWITCH	SAEGEBLATT WAEHLSCHALTER
SB1	PULSANTE DI ARRESTO EMERGENZA	EMERGENCY PUSH BUTTON	NOT AUS TASTER
SB11	PULSANTE DETENSIONAMENTO LAMA	BLADE DETENSIONING BUTTON	SAEGEBLATT ENSPANNNSCHALTER
SB12	PULSANTE TENSIONAMENTO LAMA	BLADE TENSIONING BUTTON	SAEGEBLAT SPANNNSCHALTER
SB2	PULSANTE START CICLO	CYCLE START BUTTON	ZYKLUS START TASTER
SB3	PUSANTE DI RESET	RESET BUTTON	RESETTASTER
SB4	PULSANTE CHIUSURA MORSA	LOCK VICE BUTTON	SPANNSOCH SCHLIEß TASTER
SB5	PULSANTE APERTURA MORSA	OPEN VICE BUTTON	SPANNSTOCK ÖFFNUNG TASTER
SB6	PULSANTE DI SALITA	BUTTON UP	OBEN TASTER
SB7	PULSANTE DI DISCESA	BUTTON DOWN	HINTEN TASTER
SB8	PULSANTE REFRIGERANTE "ON"	REFRIGERANTE BUTTON "ON"	KÜHLUNG EIN TASTER
SB9	PULSANTE MEMORY	MEMORY BUTTON	MEMORY TASTER
SB90	PULSANTE DI SBLOCCO	RELEASE BUTTON	AUSLOESER TASTE
SQ02	MICROINTERUTTORE CARTER APERTO SX	COVER OPEN MICROSWITCH	SCHUTZ GEÖFFNET ENDSCHALTER
SQ1	MICROINTERUTTORE ROTTURA LAMA	MICROSWITCH BLADE FAILURE	ENDSCHALTER BLATT GEBROCHEN

SQ10	MICROINTERRUTTORE START A PEDALE	PEDAL MICROSWITCH START	PEDALS MIKROSCHALTER
SQ11	MICROINTERRUTTORE CHIUSURA MORSA A PEDALE	PEDAL VICE CLOSING MICROSWITCH	FußSCHALTER SPENNSTOCK SCHLIEßEN MIKROSCHALTER
SQ15	FINECORSА GUIDA PEZZO AVANTI	MICROSWITCH GUIDE-PIECE FORWARD	ENDSCHALTER FÜHRUNGSSTÜCK NACH VORNE
SQ16	FINECORSА GUIDA PEZZO INDIETRO	MICROSWITCH GUIDE-PIECE BACKWARD	ENDSCHALTER FÜHRUNGSSTÜCK NACH HINTEN
SQ18	FINECORSА SOLLEVATORE ALTO	MICROSWITCH LIFT UP POSITION	HEBEWERK NACH OBEN ENDSCHALTER
SQ2	MICROINTERRUTTORE CARTER APERTO	MICROSWITCH PROTECTION CASE	ENDSCHALTER SCHUTZGEHÄUSE
SQ20	PRESSOSTATO CHIUSURA MORSA	VICE PRESSURE SWITCH	SPANNDRUCK TASTE
SQ3	FINECORSА CARRO AVANTI	MICROSWITCH CARRIAGE FORWARD	ENDSCHALTER WAGEN VORNE
SQ30	FINECORSА ROTAZIONE -45°	MICROSWITCH -45° ROTATION	-45° UMDREHUNG ENDSCHALTER
SQ4	FINECORSА CARRO INDIETRO	MICROSWITCH CARRIAGE BACK	ENDSCHALTER WAGEN ZURÜCK
SQ5	FINECORSА TESTA ALTA	MICROSWITCH HEAD / BOW UP	ENDSCHALTER BÜGEL NACH OBEN
SQ6	FINECORSА TESTA BASSA	MICROSWITCH HEAD / BOW DOWN	ENDSCHALTER BÜGEL NACH UNTEN
SQ7	MICROINTERRUTTORE FINE MATERIALE	MICROSWITCH BAR END	ENDSCHALTER STANGENENDE
SQ70	PROSSIMITI PRESENZA PEZZO	MICROSWITCH PIECE PRESENCE	STÜCKANWESENDEHEIT ENDSCHALTER
SQ8	MICROINTERRUTTORE MANIGLIONE	MICROSWITCH HANDLE	ENDSCHALTER GRIFF
SQ9	MICROINTERRUTTORE START MANUALE	MICROSWITCH MANUAL START	ENDSCHALTER MANUELL START
T	TEMPORIZZATORE	TIMER	ZEITGEBER
TC1	TRASFORMATORE	TRANSFORMER	TRANSFORMATOR
TR	TERMOSTATO	THERMOSTAT	THERMOSTAT
TR	TERMORESISTENZA	THERMO-RESISTANCE	THERMO-WIDERSTAND
YV1	ELETTROVALVOLA CARRO AVANTI LENTO	CARRIAGE SLOW FORWARD MOTION SOLENOID VALVE	ELEKTROVENTIL WAGEN LANGSAM VORNE
YV10	ELETTROVALVOLA SBLOCCAGGIO MANUALE	MANUAL UNLOCKING SOLENOID VALVE	ELEKTROVENTIL MANUELL AUFHEBUNG
YV11	ELETTROVALVOLA DETENSIONAMENTO LAMA	UNTIGHTNING BLADE SOLENOID VALVE	SAEGBLATT ENTSPANNUNG MAGNETVENTIL
YV11	ELETTROVALVOLA DETENSIONAMENTO LAMA	BLADE DETENSIONING SOLENOID VALVE	ELETRISCHESVETIL SAEGBLATT ENSPANNUNG
YV12	ELETTROVALVOLA TENSIONAMENTO LAMA	TIGHTNING BLADE SOLENOID VALVE	SAEGBLATT SPANNUNG MAGNETVENTIL
YV12	ELETTROVALVOLA TENSIONAMENTO LAMA	BLADE TENSIONING SOLENOID VALVE	ELETRISCHESVENTIL SAEGBLATT SPANNUNG
YV15	ELETTROVALVOLA SOLLEVATORE CARICATORE	LOADER LIFT SOLENOID VALVE	LADEMAGAZIN HEBEWERK ELEKTROVENTIL
YV16	ELETTROVALVOLA MORSA CARICATORE	LOADER VICE SOLENOID VALVE	LADEMAGAZINSPANNSTOCK ELEKTROVENTIL
YV18	ELETTROVALVOLA GIUDA PEZZO AVANTI	GUIDE-PIECE FORWARD VALVE	ELEKTROVENTIL ZAUN NACH VORNE
YV19	ELETTROVALVOLA GUIDA PEZZO INDIETRO	GUIDE-PIECE BACKWARD VALVE	ELEKTROVENTIL HINTEREN ZAUN
YV2	ELETTROVALVOLA CARRO INDIETRO LENTO	CARRIAGE SLOW BACK MOTION SOLENOID VALVE	ELEKTROVENTIL WAGEN LANGSAM ZURÜCK
YV20	SBLOCCAGGIO ROTAZIONE	ROTATION UNLOCK	UMDREHUNG LOSMACHEN



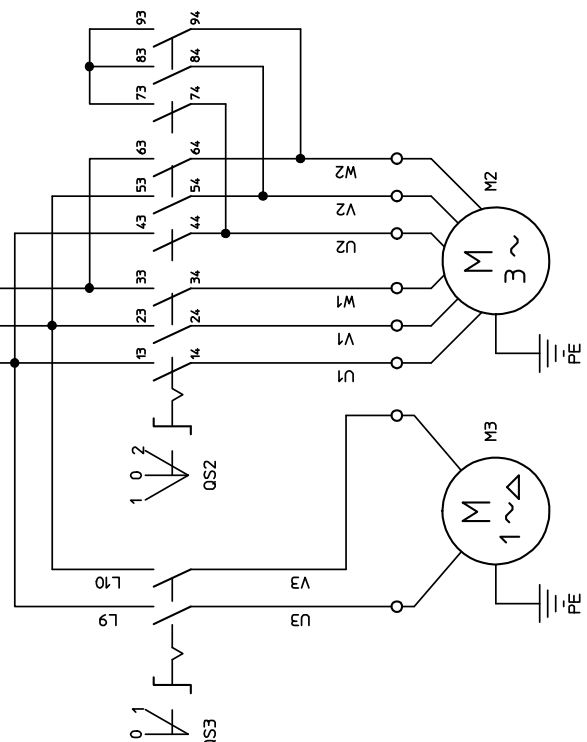
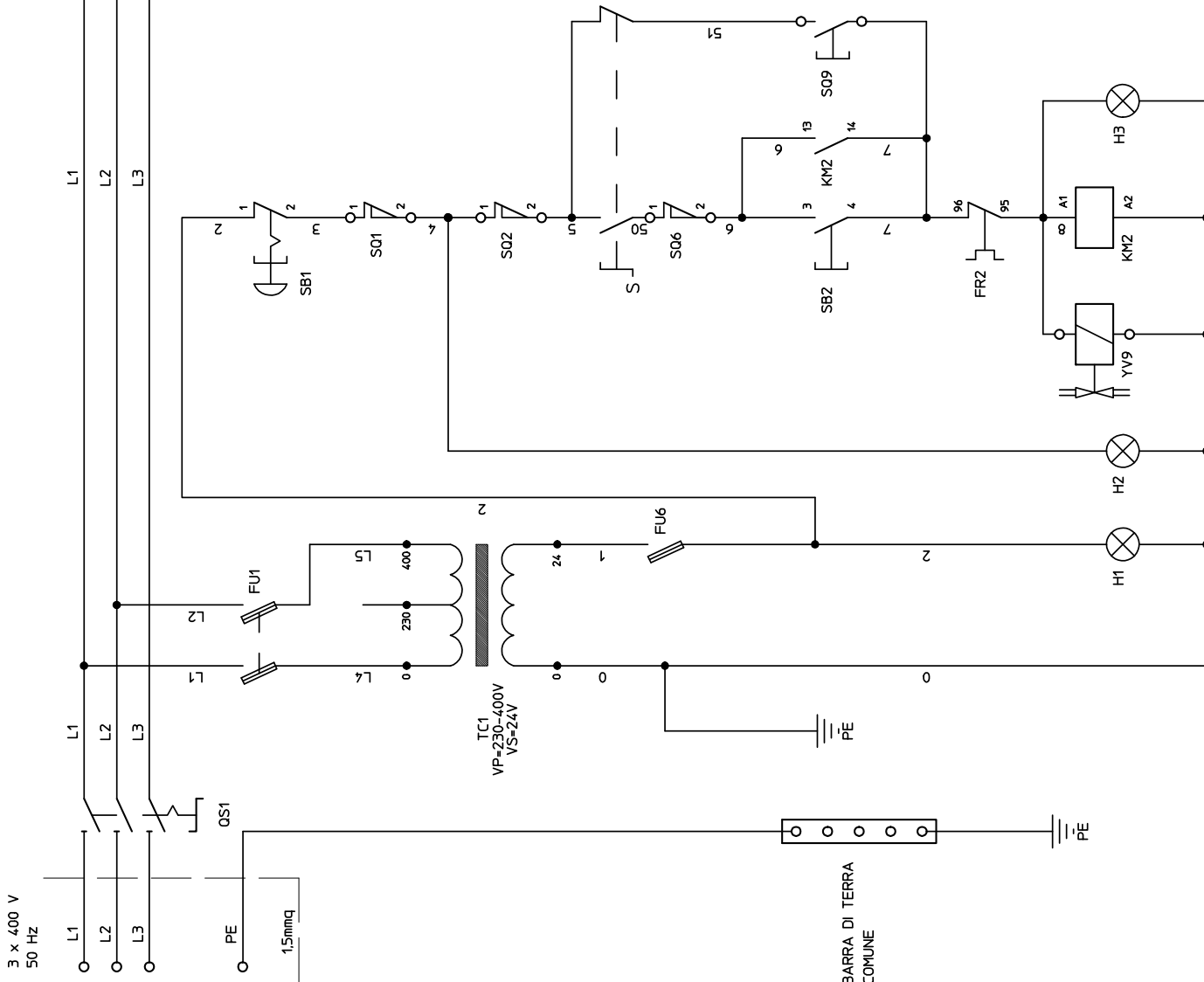
EUROPEAN DISTRIBUTION CENTRE

YV3	ELETTROVALVOLA MORSA MOBILE	MOVABLE VICE SOLENOID VALVE	ELEKTROVENTIL BEWEGLICHER SPANNSTOCK
YV30	ELETTROVALVOLA MORSA MOBILE CHIUDE	CLOSE MOVABLE VICE VALVE	BEW. SPANNSTOCK SCHLIEß ELEKTROVENTIL
YV30P	ELETTROVALVOLA PRESSINO CARRO	CARRIAGE VICE SOLENOID VALVE	ELETRISCHESVENTIL SCHRAUBSTOCK VORSCHUBWAGEN
YV31	ELETTROVALVOLA RUOTA ARCO LENTO	SLOW BOW ROTATION SOLENOID VALVE	LANGSAM SÄGEARMUMDREHUNG ELEKTROVENTIL
YV37	ELETTROVALVOLA RUOTA DX	ROTATION LEFTWARDS SOLENOID VALVE	UMDREHUNG LINKS ELEKTROVENTIL
YV38	ELETTROVALVOLA RUOTA SX	ROTATION RIGHTWARDS SOLENOID VALVE	UMDREHUNG RECHTS ELEKTROVENTIL
YV4	ELETTROVALVOLA SALITA	UP STROKE SOLENOID VALVE	ELEKTROVENTIL ANSTIEG
YV5	ELETTROVALVOLA DISCESA	DOWN STROKE SOLENOID VALVE	ELEKTROVENTIL ABSTIEG
YV50	ELETTROVALVOLA DISCESA LAMA RAPIDA	QUICK LOWERING SOLENOID VALVE	SCHNELL ELEKTROVENTIL ABSTIEG
YV6	ELETTROVALVOLA APERTURA MORSA FISSA	FIXED VICE OPENING SOLENOID VALVE	ELEKTROVENTIL FESTER SPANNSTOCK ÖFFNUNG
YV60	ELETTROVALVOLA CHIUSURA MORSA FISSA	FIXED VICE CLOSING SOLENOID VALVE	ELEKTROVENTIL FESTER SPANNSTOCK SCHLIESSEN
YV60P	ELETTROVALVOLA PRESSINO FISSO	FIXED VICESOLENOID VALVE	ELETRISCHESVENTIL FESTSCHRAUBSTOCK
YV61	ELETTROVALVOLA SPAZZOLA	BRUSH VALVE	BÜRSTE ELEKTROVENTIL
YV62	ELETTROVALVOLA ATTIVAZIONE 2a POMPA OLIO	SECOND OIL PUMP	ZWEITE ÖLPUMPE EIN ELEKTROVENTIL
YV7	ELETTROVALVOLA CARRO AVANTI	CARRIAGE FORWARD SOLENOID VALVE	ELEKTROVENTIL WAGEN VORNE
YV70	ELETTROVALVOLA SPAZZOLA	BRUSH SOLENOID VALVE	BUERSTE MAGNETVENTIL
YV8	ELETTROVALVOLA CARRO INDIETRO	CARRIAGE BACK SOLENOID VALVE	ELEKTROVENTIL WAGEN ZURÜCK
YV9	ELETTROVALVOLA BLOCCO	MANUAL LOCKING SOLENOID VALVE	ELEKTROVENTIL BLOCK
YV90	ELETTROVALVOLA MICROLUBRIFICAZIONE	MICROLUBRICATION SOLENOID	MIKROSPRÜHEINRICHTUNG ELEKTROVENTIL

3 x 400 V
50 Hz

L1
L2
L3
PE

1,5mm²



Rev./Modificato	C./Appr.	Data	Descrizione
			Schema Elettrico
DENOMINAZIONE: Schema Elettrico			
Modello: /			
Macchina: SEGATRICI CSO/M			
N° Schema 071/S			
Data 15/04/2011		Revisione	
Firma Paolo Mandin		Foglio	
Contr./Appr.		1 di 1	

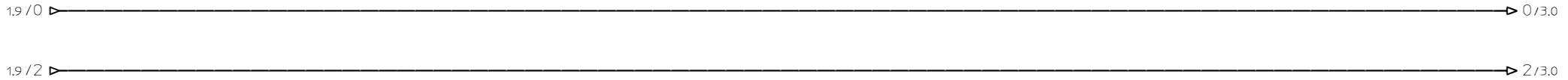
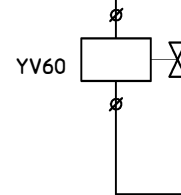
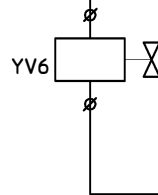
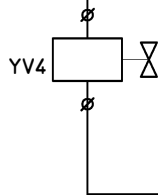
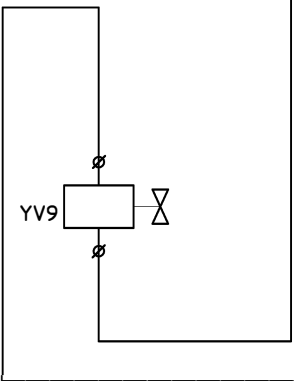
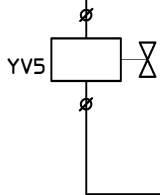
SH-260DM Electrical drawing



OUTPUT

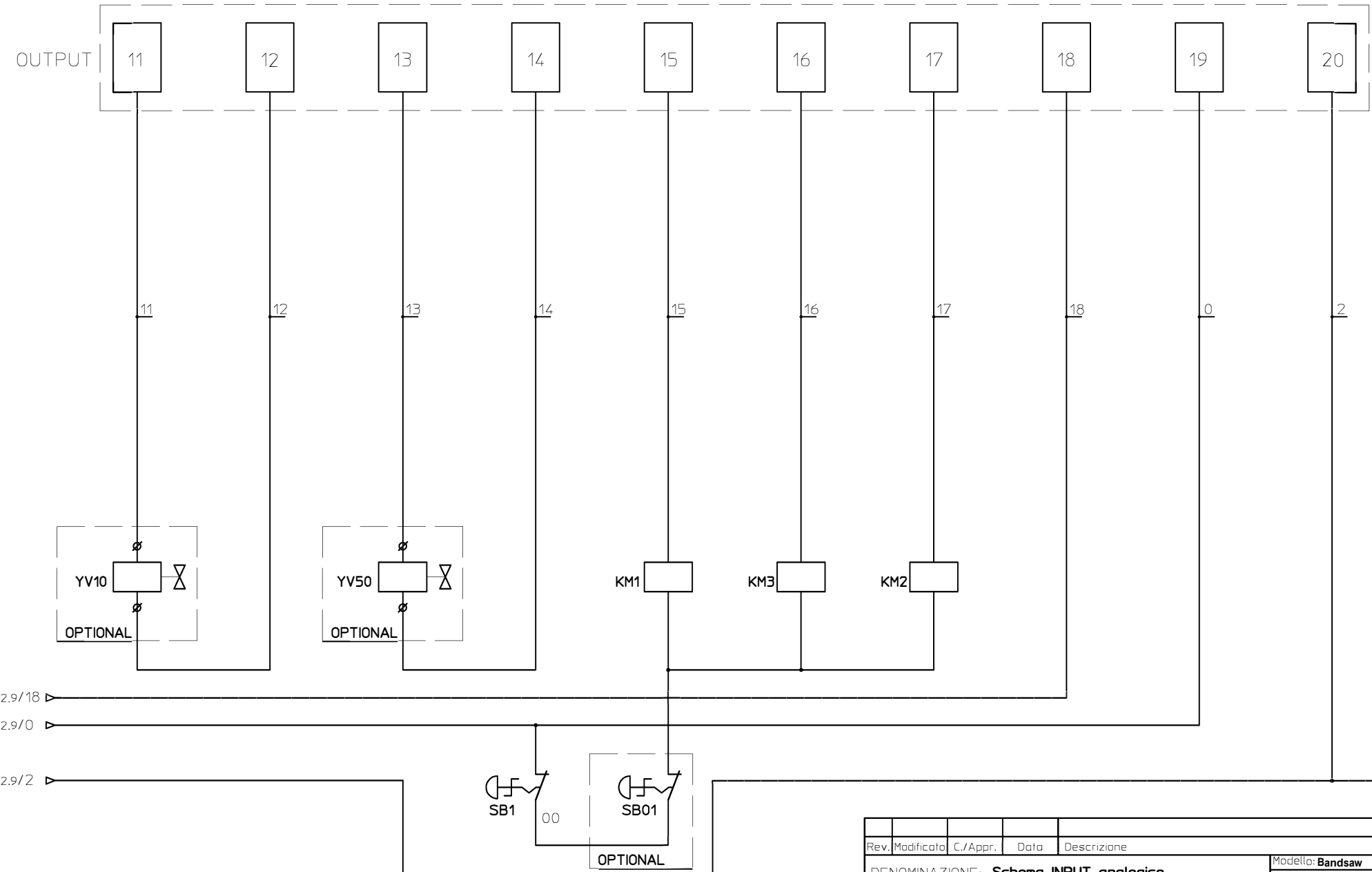


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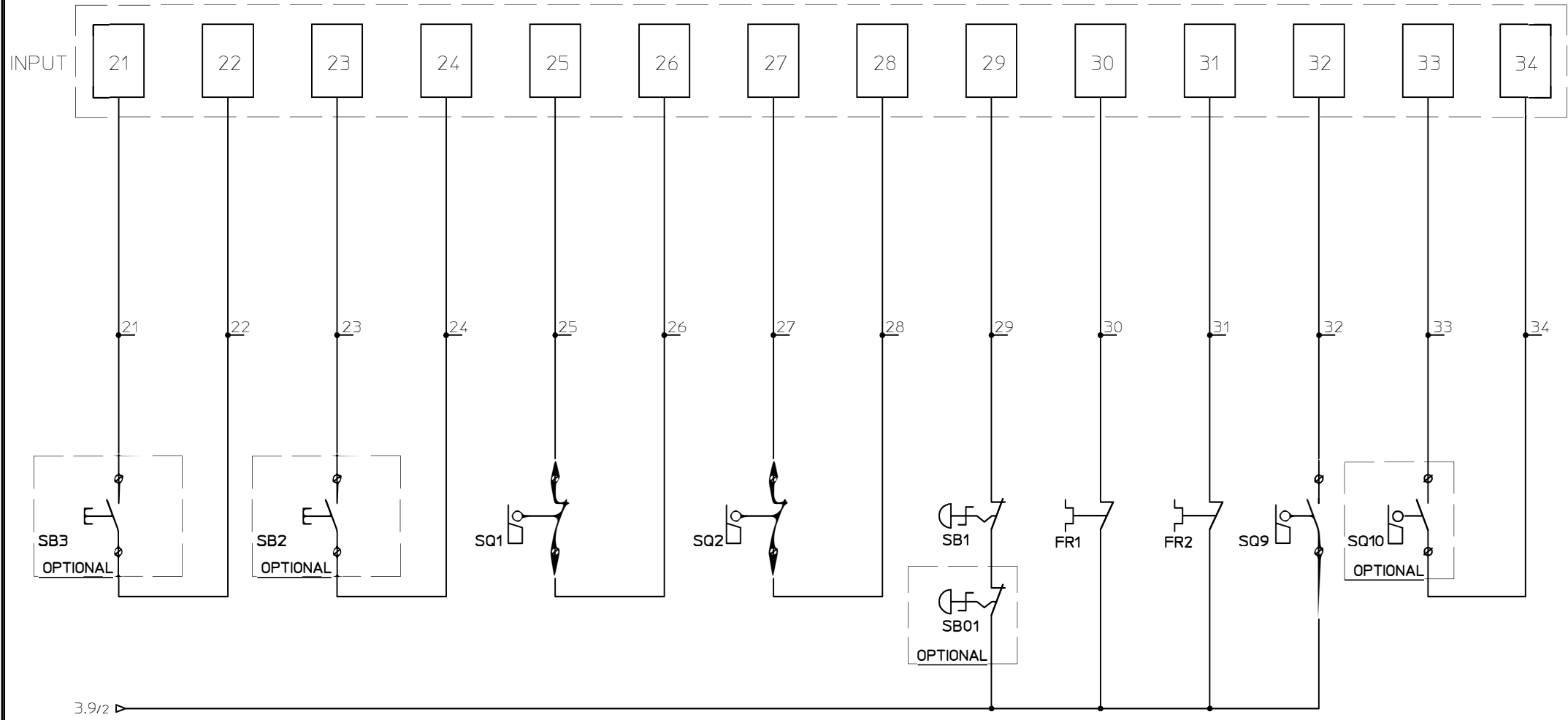


Rev.	Modificato	C./Appr.	Data	Descrizione
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Data: 11/07/2019				Macchina: SH-260DM
Firma: Andrea Scremin				N° Schema: /
Contr./Appr.				Revisione
				Foglio
				2 di 7



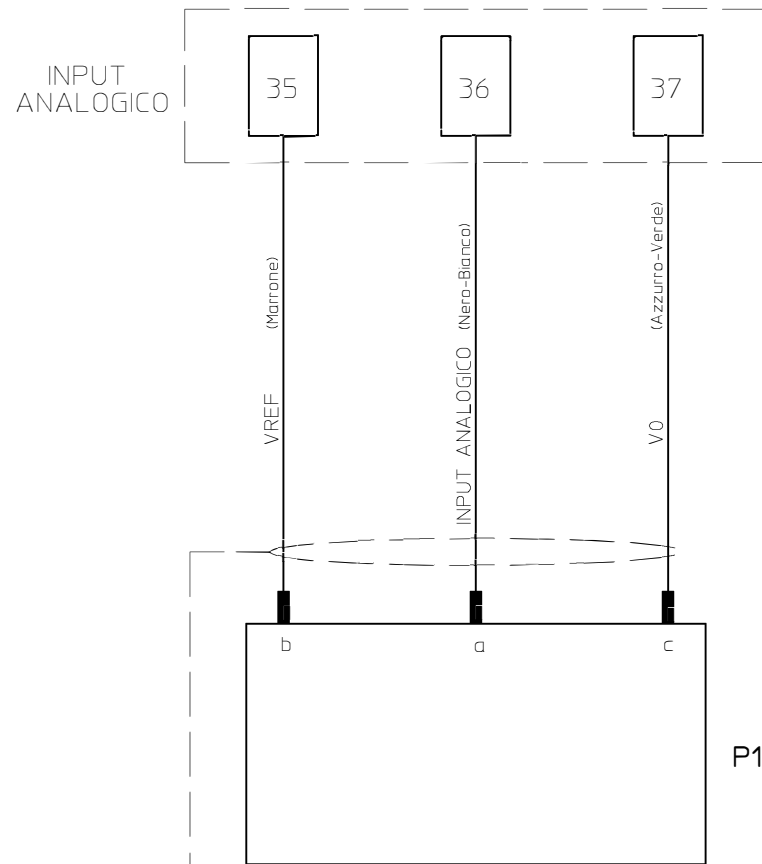


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DENOMINAZIONE: Schema INPUT analogico				Modello: Bandsaw
Data	11/07/2019			Macchina: SH-260DM
Firma	Andrea Scremin			N° Schema
				Revisone
				Foglio
Contr./Appr.				3 di 7



Rev.	Modificata	C./Appr.	Data	Descrizione
DENOMINAZIONE: Schema INPUT analogico				Modello: Bandsaw
Data	11/07/2019			Macchina: SH-260DM
Firma	Andrea Scremin			N° Schema /
Contr./Appr.				Revisione
				Foglio 4 di 7



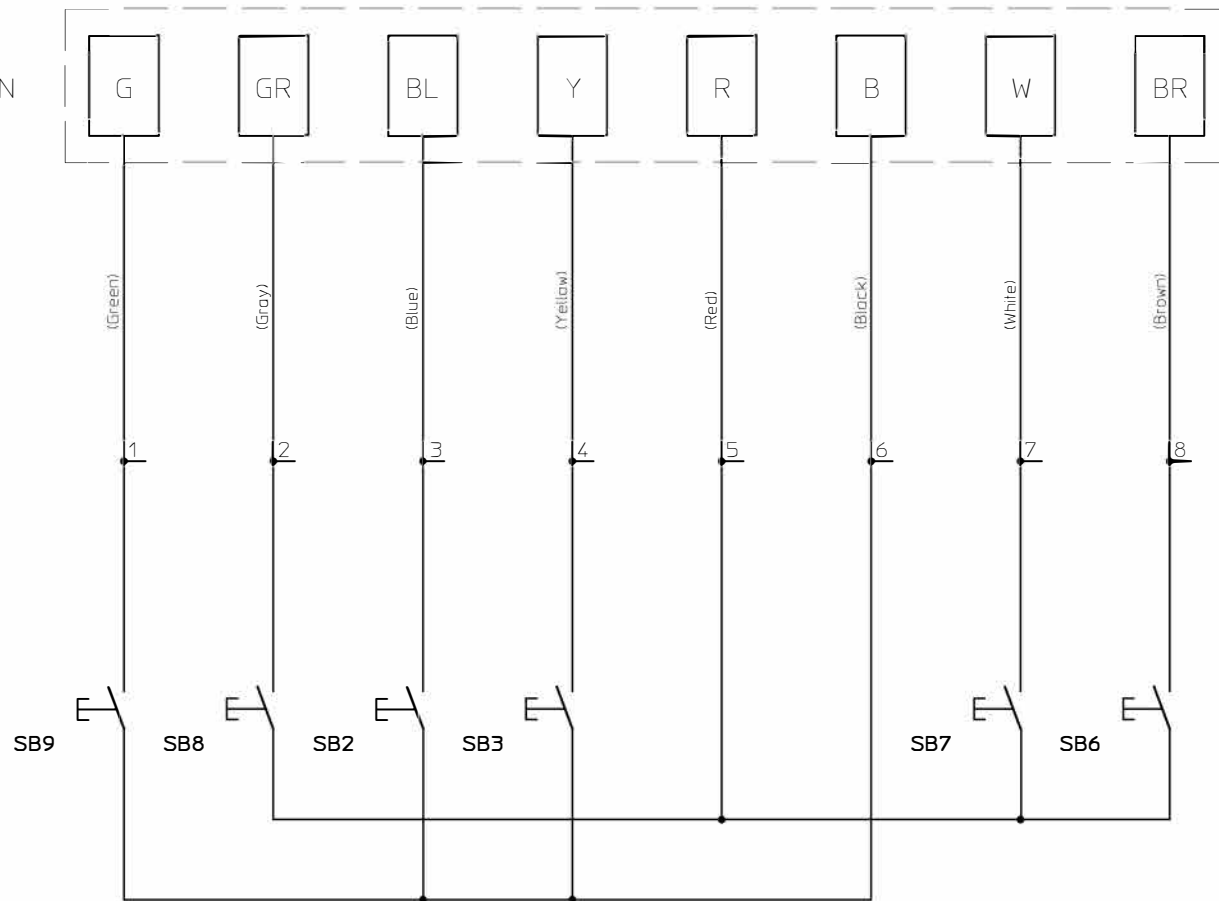


1.9/ PE ▸

Rev.	Modificato	C./Appr.	Data	Descrizione
DENOMINAZIONE: Schema INPUT analogico				Modello: Bandsaw
Data	11/07/2019			Macchina: SH-260DM
Firma	Andrea Scremin			N° Sche /
Contr./Appr.				Revisione
				Foglio 5 di 7



PUSH-BUTTON

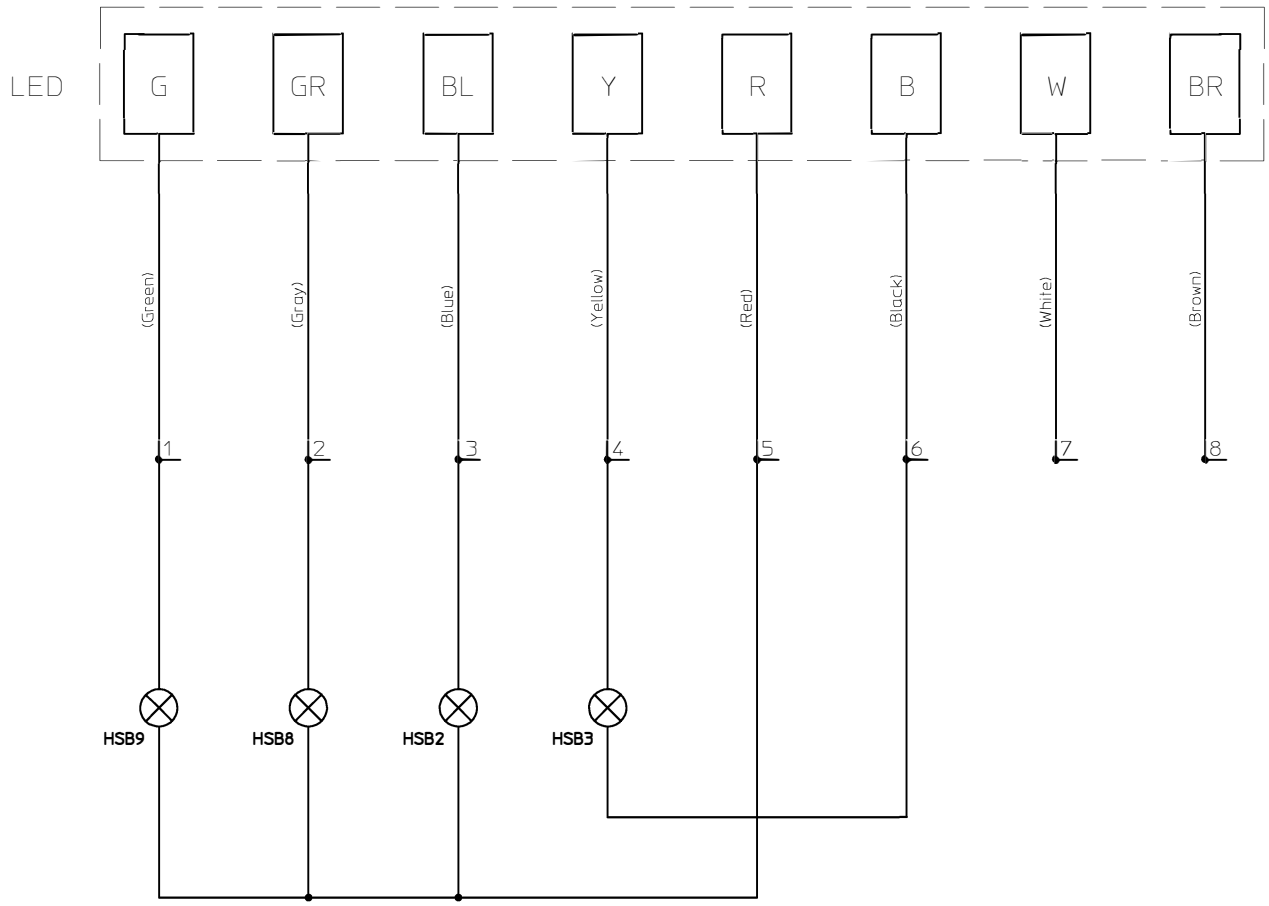


LEGENDA COLORI	
RED	R
GREEN	G
BLACK	B
GRAY	GR
WHITE	W
BLUE	BL
BROWN	BR
YELLOW	Y

CAVETTI SEZIONE 0,25mm²

Rev.	Modificato	C./Appr.	Data	Descrizione
DENOMINAZIONE: Schema INPUT analogico				Modello: Bandsaw
Data: 11/07/2019				Macchina: SH-260DM
Firma: Andrea Scremin				N° Schema: /
Contr./Appr.				Revisione
				Foglio
				6 di 7






LEGENDA COLORI	
RED	R
GREEN	G
BLACK	B
GRAY	GR
WHITE	W
BLUE	BL
BROWN	BR
YELLOW	Y

CAVETTI SEZIONE 0.25mm²

Rev.	Modificata	C./Appr.	Data	Descrizione	
DENOMINAZIONE: Schema INPUT analogico					Modello: Bandsaw
Data: 11/07/2019					Macchina: SH-260DM
Firma: Andrea Scremin					N° Schema: /
Contr./Appr.					Revisione
					Foglio: 7 di 7



CHECKED ON:	28/11/2019
SIGNATURE:	Bruno de Bock 
REV.:	0



Automatic bandsawing machines
Semi-automatic bandsawing machines
Miter bandsawing machines
Workshop machines
Vertical bandsaws
Projects on measurement
Roller tables
Measuring & positioning systems
Bandsaw blades en circular blades
Lubricants for sawing
Cleaning products

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