POWDER COATING EQUIPMENT USER'S MANUAL

E-FEED+3 MS

SERIES



Check our product online

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Electron

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1. Safety Regulations

This section sets out the fundamental safety regulations that must be followed by the user and third parties using the E-FEED+3 Mobile Sieve. These safety regulations must be read and understood before the E-FEED+3 Mobile Sieve is used.

1-1 Safety Symbols

The following warnings with their meanings can be found in the Sistem Teknik Makina operating instructions. The general safety precautions must also be followed as well as the regulations in the operating instructions.



DANGER!
Live electricity or moving parts are dangerous.
Possible Consequences: Death or serious injury.



WARNING!
Improper use of the equipment could damage the machine or cause it to malfunction.
Possible consequences: Minor injuries or damage to equipment.

1-2 Conformity of use

1. E-FEED+3 Mobile Sieve is built to the latest specification and conforms to the recognized technical safety regulations. It is designed to sieve powder paint.
2. Any other use is considered as non-conform. The manufacturer is not responsible for damage resulting from improper use of this equipment; the end-user alone is responsible. If the E-FEED+3 Mobile Sieve is to be used for other purposes or other substances outside of our guidelines then Sistem Teknik Makina A.Ş. should be consulted.
3. Observance of the operating, service and maintenance instructions specified by the manufacturer is also part of conformity of use. The E-FEED+3 Mobile Sieve should only be used, maintained and started up by trained personnel, who are informed about and are familiar with the possible hazards involved.

1-3 Special Types of Hazard

1. Power: All the high voltage equipment should be unplugged before opened. This is a huge life risk thus it has to be taken under great care.

2. Powder: Powder/air mixtures could be ignited by sparks. Sufficient ventilation is a must while using powder spraying equipment. Powder, which is not swept from the floor creates risky environment.

3. Static Charges: These could result in the following: Charges to people, electric shocks, sparks. Charging of objects has to be avoided.

4. Grounding: All electricity conducting parts and machinery in the workplace must be earthed 1.5 mt on either side and 2.5 mt around each booth opening. The grounding resistance must amount to a maximum of 1 M Ohm. Resistance has to be tested regularly. The appropriate devices must be kept in the workplace for regular grounding checks.

5. Compressed Air: Compressed air could be created after long pauses of the equipment and this creates risk of pneumatic hose damage or uncontrolled release and improper use of compressed air. Compressed air should be drained properly.

1-4 Safety Requirements for E-FEED+3 Mobile Sieve

1. All the equipment used for powder coating is dangerous unless the instructions are not conformed.

2. Every electrostatic conductive part must be earthed within the 5 meter radius from the equipment.

3. The floor of the coating area should conduct electricity (Concrete is generally a conductive surface, check with your building project for more info)

4. The users should wear electricity conducting footwear.

5. If gloves are going to be used, make sure that they conduct electricity.

6. Grounding cable must be connected to the grounding screw of the mobile sieve appliance. It should have a good connection with the booth, hopper and conveyor chain (if used).

7. E-FEED+3 Mobile Sieve Device must be switched off while the it is being cleaned.

8. The grounding must be checked every week. Remember that the grounding resistance must be 1 M Ohm at a maximum.

2. E-FEED+3 Mobile Sieve General Information

This operating manual contains all the important information which you require for the working with the sieve machine. It will safely guide you through the start-up process and give you references and tips for the optimal use of your new powder coating system.

2-1 Field of Application

E-FEED+3 mobile sieve is a new mobile system that sieves the paint that is owned by the user or that has been conveyed by the recovery system. Any other usage is non-conform. Electron is not responsible for the non-conform usage.



E-FEED+3 Mobile Sieve

Explosion Protection

CE Ex

Note:

The mobile sieve has an adjustable height and is suitable for use in different sizes of boxes and hoppers. The sieve micron range can be adjusted and can work in several different modules according to user demand. The user can move the product to the desired point.

Common User Mistakes

- Trying to sieve without grounding the part
- Using high pressure air during cleaning
- Incorrect placement of the sieve

Conformity Between Products

Electron E-FEED+3 Mobile Sieve can be used with the products below:

- Monocyclone
- PM1 / PM2 / PM3 Series
- Hoppers and Recovery Functions

2-2 Technical Data

E-FEED+3 Mobile Sieve	
Input Voltage (Nominal)	110-220 Volt
Frequency	50 Hz
Power	Ultrasonic: 100 W / Vibration Motor: 40-50 W
Sieves	Ø 400 mm 250 µm / 400 µm
Working Temperature	0 °C - +40 °C (32 °F - +104 °F)
Ingress Protection	IP 54
Explosion Protection	CE Ex

Weight

E-FEED+3 Mobile Sieve	
Weight	45 kg
Weight with Recovery Function	**55** kg

Usable Powders

E-FEED+3 Mobile Sieve	
Plastic Coating Powder	Conform
Metallic Coating Powder	Conform
Enamel Coating Powder	Conform

2-3 Mobile Sieve Variants

- Standard Mobile Sieve (Without Recovery Function)
- Ultrasonic Mobile Sieve (Without Recovery Function)
- Standard Mobile Sieve with Recovery Function
- Ultrasonic Mobile Sieve with Recovery Function

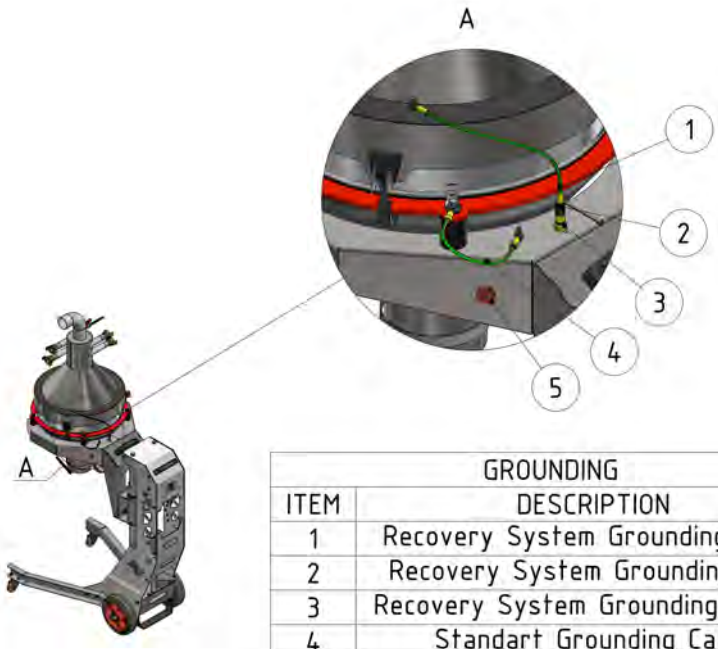
* For more information please check the Spare Parts Selection Guide.

2-4 Technical Spesifications

- Static Current Control
- Operating capability from 100 volts to 220 volts
- The recovery module works together with the cyclone and paint management center.
- Mobile
- Adjustable sieve height
- It allows easy filling of boxes and hoppers of different sizes.
- Adjustable sieve height at minimum and maximum level
- Compatible form with ultrasonic sieving
- Fast cleaning through the practical form of the sieve and recovery head
- Different types of sieving sizes (mesh)

	Standard Mobile Sieve (Without Recovery Function)	Standard Ultrasonic Mobile Sieve (Without Recovery Function)	Conventional Mobile Sieve with Recovery Function	Ultrasonic Mobile Sieve with Recovery Function
250/400 Micron Sieve	✓	✓	✓	✓
Vibration Motor	✓	x	✓	x
Recovery Function	x	x	✓	✓
Ultrasonic Function	x	✓	x	✓

2-5 Grounding



GROUNDING	
ITEM	DESCRIPTION
1	Recovery System Grounding Cable
2	Recovery System Grounding Plug
3	Recovery System Grounding Socket
4	Standart Grounding Cable
5	Grounding Nut

Strictly follow the instructions below for grounding:

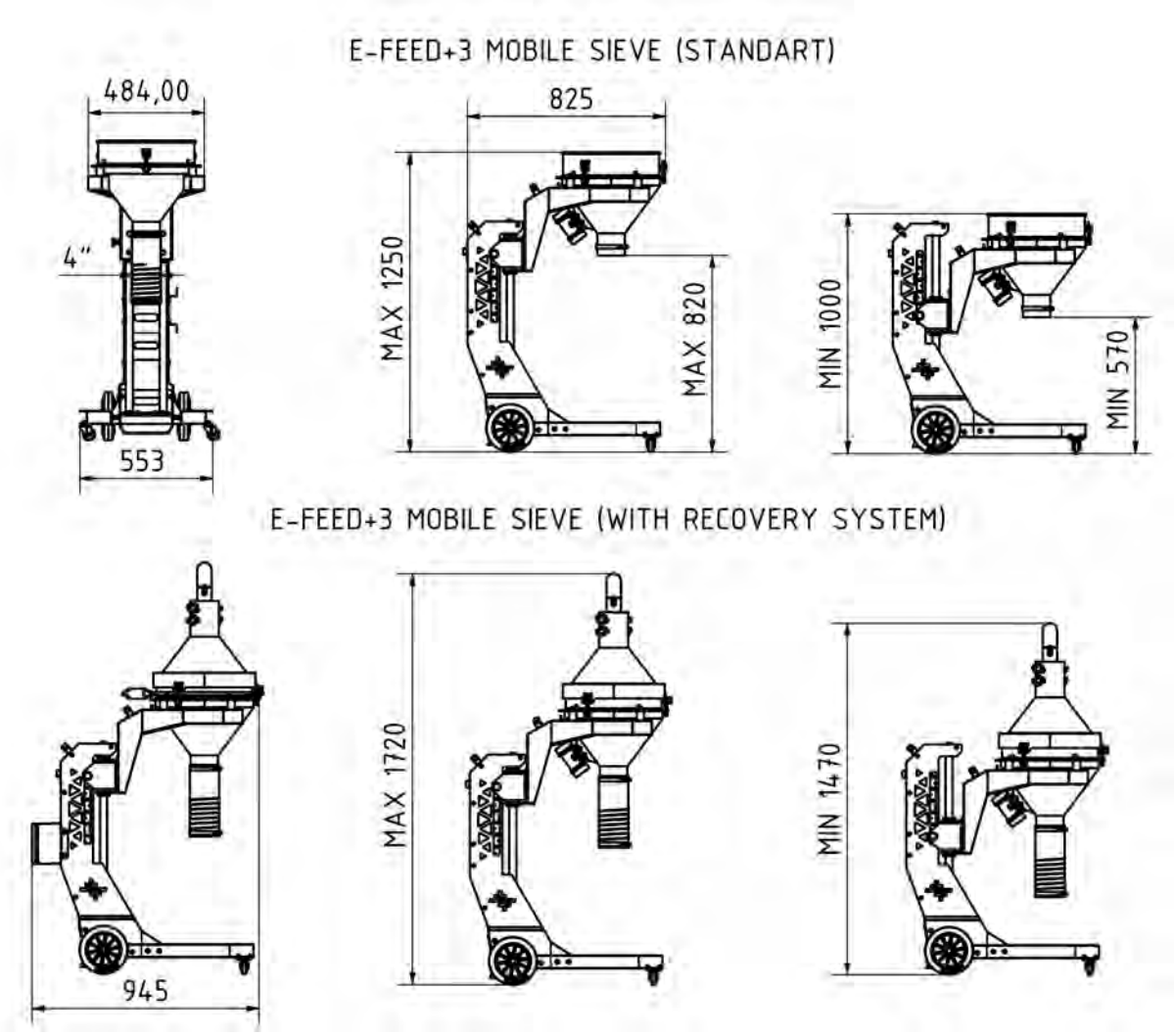
Before operating, make sure that all ground wires of the machine are connected.

In cases where the recovery module is used, make sure that the ground wire is connected.

While placing the sieve assembly, make sure that the grounding springs are in contact with the sieve body.

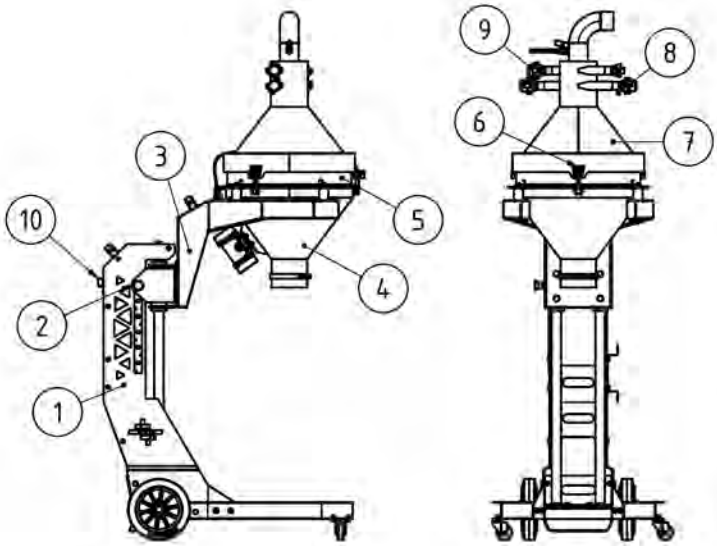
Check the grounding of the powder booth, powder center and cyclone.

2-6 Space Requirements



2-7 Installation

The sieve machine must be placed on firm ground.
The sieve assembly should be placed in the chamber with rubber fastener.
Main dust hopper height should be adjusted according to the equipment to be used. If a recovery module is used, the module and the main dust hopper hopper must be fixed directly with rubber fastener (the sieve assembly is not connected with rubber fastener when recovery module is used).
The sieve machine must placed as close as possible to the booth or the filter unit/ multicyclone, in order to lay out the venting hoses as straight and short as possible.
A curvature or a bend can cause powder deposits or degrade the air flow in such a manner, that powder will be deposit in the inside of the hose.



MAIN PARTS	
ITEM	DESCRIPTION
1	Mobil Sieve Frame
2	Lock Mechanism
3	Lineer Motion Module
4	Main Dust Hopper
5	Sieve Assembly
6	Rubber Fastener
7	Recovery System Module
8	Air Claw Coupling
9	Blind Cap
10	ON-OFF Button

3. Start Up

3-1 Operation

Standard Mobile Sieve

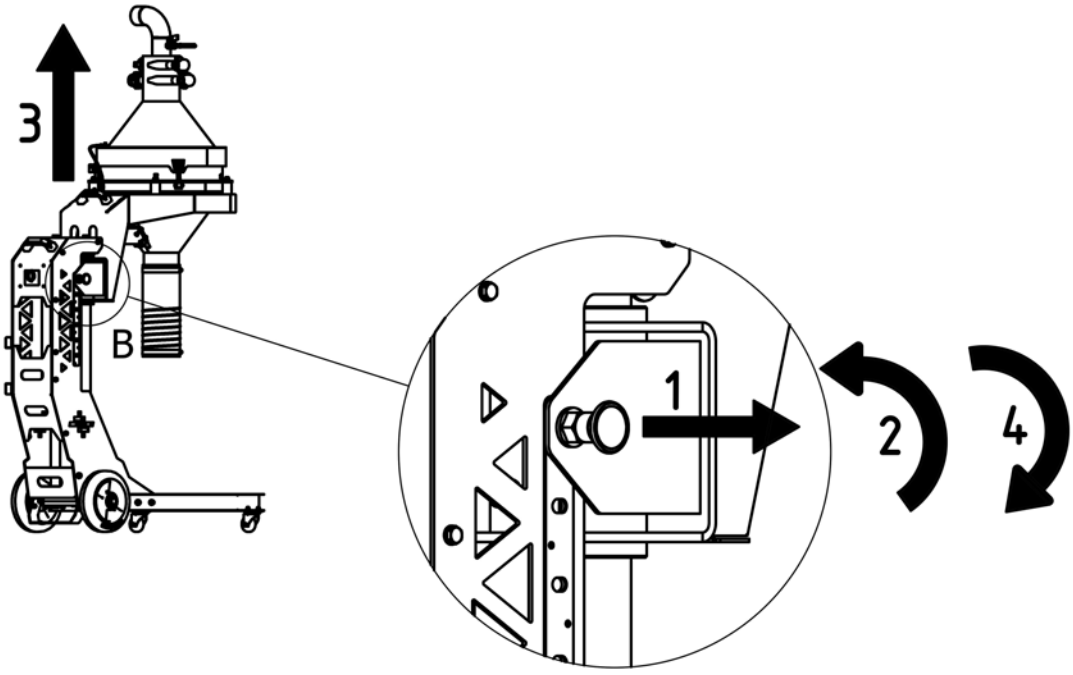
Make sure the ground wires are connected before operating. Adjust the height of the main dust hopper according to the hopper, powder box etc. Make sure that the locking mechanism is correctly placed. Plug in. Set the mobile sieve operating button to the ON position. Slowly pour the paint into the sieve. After the elimination process is completed, set the mobile sieve operating button to the OFF position.

Ultrasonic Mobile Sieve

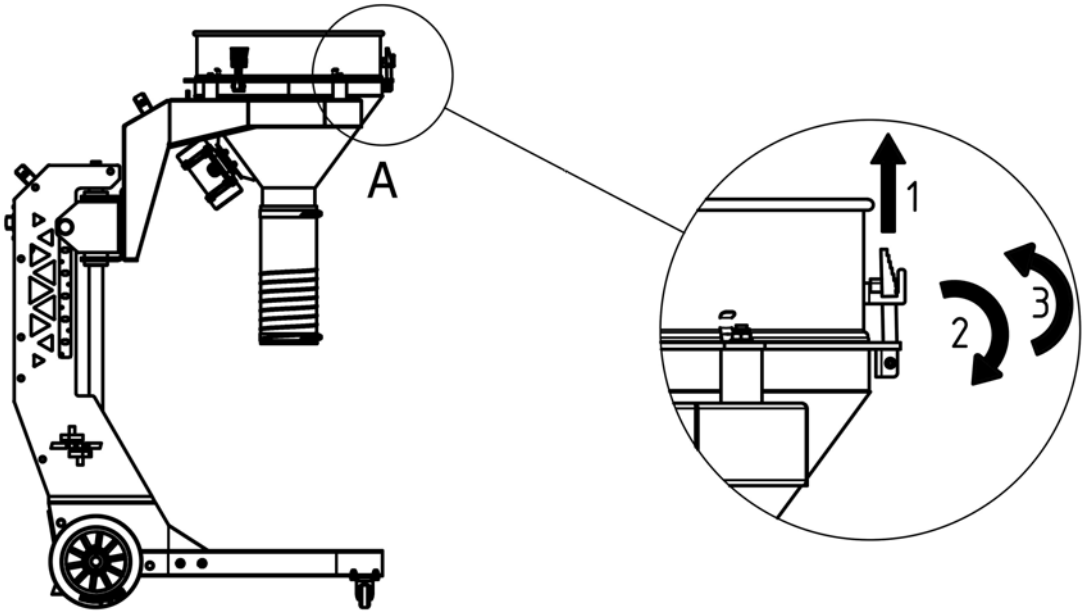
Detailed guide will be sent with the product. The operating instruction is the same as the above explanations, except for the ultrasonic sieving method.

Recovery Function

When using the recovery module, make sure that all ground wires of the machine are connected. Do not operate the device without connecting the grounding plug. After the hose connections, close the unconnected air claw couplings with blind caps.



Operation of The Locking Mechanism



Fixing the Sieve Assembly

4. Cleaning and Maintenance

4-1 Cleaning

Daily:

- Disconnect the device from electricity. Remove the rubber fastener on the sieve from their sockets.
- Check the sieve for damage. Small holes can be filled with adhesive (i.e. Araldite). Let the adhesive harden before to reinsert the sieve.
- Clean the sieve with air or industrial vacuum cleaner. If air is to be used, its pressure must be low, otherwise it may damage the sieve.
- Clean the sieve chamber and body with low pressure air or industrial vacuum cleaner.

4-2 Maintenance

Vibration Motor

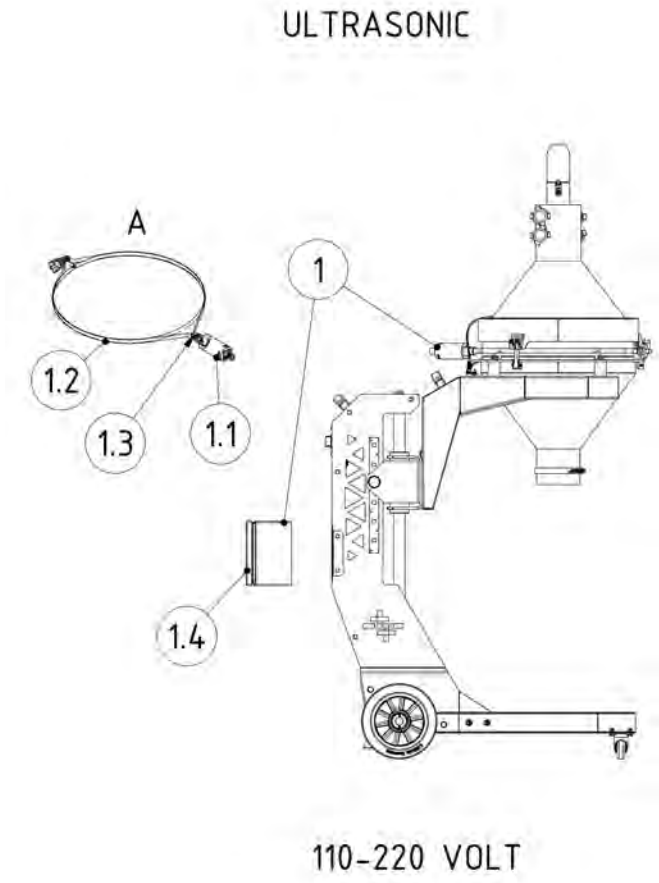
The vibration motor does not require a special maintenance. If the vibration motor must be replaced, make sure that the specifications (mains voltage, mains frequency etc.) are correctly.

Ultrasonic Module

If there is any problem with ultrasonic system, contact with the Sistem Teknik Makina A.Ş.

5. Spare Parts List

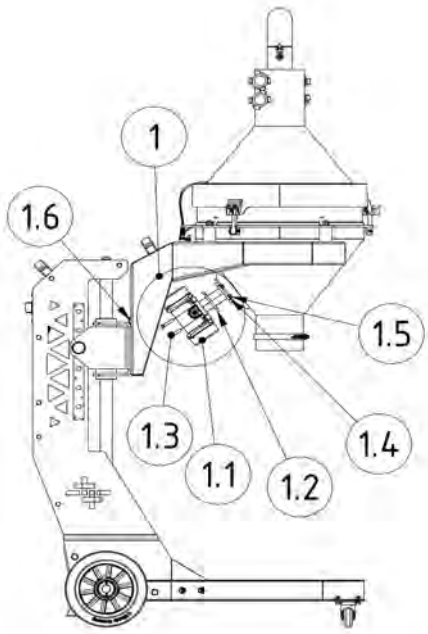
5-1 Power Type Spare Part List



Ultrasonic Module

PART #	ORDER CODE	PART NAME	RECOMMENDED STOCK PARTS
1	B07EM10008	E-FEED+3 MOBILE SIEVE ULTRASONIC SIEVE MODULE	N/A
1.1	ELSN11029	ULTRASONIC SIEVE CONVERTOR	N/A
1.2	ELSN11034	ULTRASONIC SIEVE Ø400 CLAMP	✓
1.3	ELSN11030	ULTRASONIC SIEVE TITANIUM ROD M10/M8 REDUCTION 25mm	✓
1.4	ELSN11027	ULTRASONIC SIEVE GENERATOR	✓

VIBRATION MOTOR



110-220 VOLT

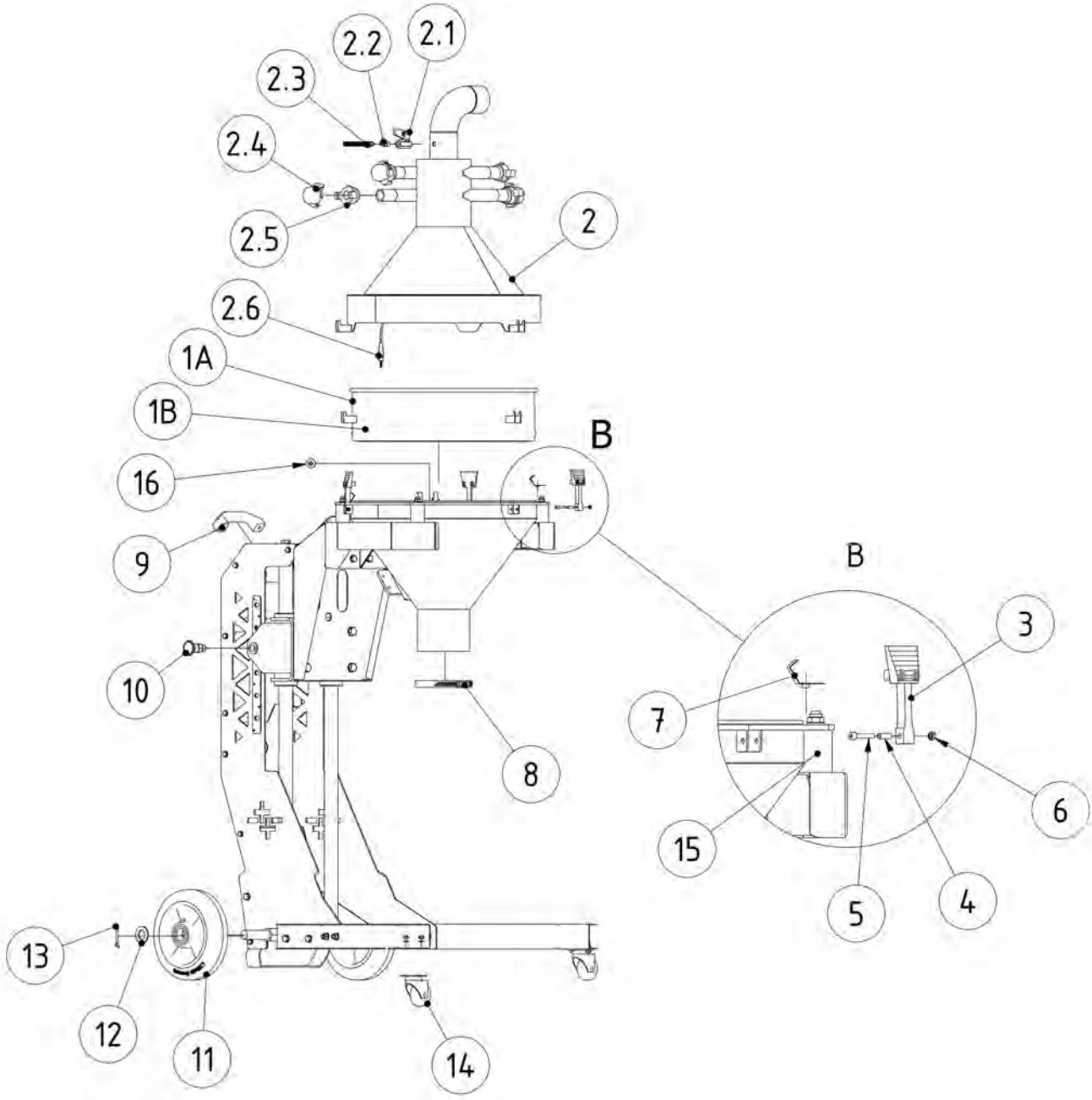
220 Volt Conventional Module

PART #	ORDER CODE	PART NAME	RECOMMENDED STOCK PARTS
1	B07EM10010	E-FEED+3 MOBILE SIEVE 220 V CONVENTIONAL MODULE	N/A
1.1	MPMT03001	VIBRATION MOTOR 220V ATEX DUST22	✓
1.2	TRTM03037	VIBRATION MOTOR FLANGE	N/A
1.3	BECV06006	BOLT M6X30	✓
1.4	BEPL03004	WASHER M6	✓
1.5	BESM02003	FIBER NUT M6	✓
1.6	ELKA03003	CABLE GLAND M16X1,5	✓

110 Volt Conventional Module

PART #	ORDER CODE	PART NAME	RECOMMENDED STOCK PARTS
1	B07EM10009	E-FEED+3 MOBILE SIEVE 110 V CONVENTIONAL MODULE	N/A
1.1	MPMT03061	VIBRATION MOTOR 110V/0,04KW	✓
1.2	TRTM03037	VIBRATION MOTOR FLANGE	N/A
1.3	BECV06006	BOLT M6X30	✓
1.4	BEPL03004	WASHER M6	✓
1.5	BESM02003	FIBER NUT M6	✓
1.6	ELKA03003	CABLE GLAND M16X1,5	✓

5-2 Common Spare Part List



PART #	ORDER CODE	PART NAME	RECOMMENDED STOCK PARTS
1A	B07EA0040	SIEVE ASSEMBLY AISI304 Ø400mm 250 MICRON	✓
1B	B07EA0041	SIEVE ASSEMBLY AISI304 Ø400mm 400 MICRON	✓
2	B07GKS001	E-FEED+3 MOBILE SIEVE RECOVERY MODULE	N/A
2.1	HDHE01001	BALL VALVE 1/8"	✓
2.2	PNBE01002	QUICK COUPLING 1/8" MALE	✓
2.3	PNBE01005	QUICK COUPLING BODY	N/A
2.4	PNBE02004	BLIND CAP	N/A
2.5	PNBE02001	AIR CLAW COUPLING 3/4"	✓
2.6	*	RECOVERY MODULE GROUNDING ASSEMBLY	N/A
3	ENEM04005	RUBBER FASTENER	✓
4	ELKA07021	RUBBER FASTENER FERRULE	N/A
5	BECV03004	SOCKET BOLT M4X25	N/A
6	BESM02001	FIBER NUT M4	✓
7	BEDH09014	GROUNDING SPRING	N/A
8	BEDH04005	4" HOSE CLAMP	✓
9	AKUA02003	HANDLE	✓
10	AKUA03122	INDEXING MECHANISM	✓
11	AKUA08005	WHEEL Ø200X50	N/A
12	BEPL03009	WASHER M20	✓
13	BEDH15001	COTTER PIN	N/A
14	AKUA08006	WHEEL Ø50X20	✓
15	AKUA03025	VIBRATION ISOLATOR	✓
16	TRTM05017	GROUNDING NUT	✓

6. Service and Maintenance Table

DATE	MAINT.TYPE --Weekly --Yearly --Service	MAINT. OR SERVICE PERSONNEL	PROCEDURE CHANGED PARTS NOTES	CONTROL SUPERVISOR

7. Product Life and Warranty

1. Product Life

- The economic life of the gun is approximately 10 years.
- This product life is highly dependent on the periodic maintenances and spare part changes in a timely manner. Improper maintenance will lead to lower product life.
- SİSTEM TEKNİK A.Ş. warrants supplying the needed service and the spare parts for the entire product life.

2. Warranty and Warranty Conditions

- The gun is warranted for production and parts failure for 2 (two) years.
- Spare parts that are changed from the warranty are free-of-charge.
- The parts that are supplied in the system which are not produced by SİSTEM TEKNİK A.Ş. are warranted with their own manufacturers and their own conditions.
- SİSTEM TEKNİK A.Ş. will not be held responsible for the improper usage of the machine or any unauthorized usage. These are not in the warranty.

3. Operating Conditions

- Read the user manual before using the gun.
- Only legally allowed people can operate the gun.
- Only trained and authorized people can operate the gun.
- SİSTEM TEKNİK A.Ş.'s suggested spare parts should be used at all times.
- Proper maintenance has to be done and the spare parts has to be changed in a timely manner
- The operational safety has to be assured by the customer; the operators who are not capable of working under safety rules shouldn't be operating the Control Unit.
- All the suggestions and warnings in this manual have to be carefully considered and applied.

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