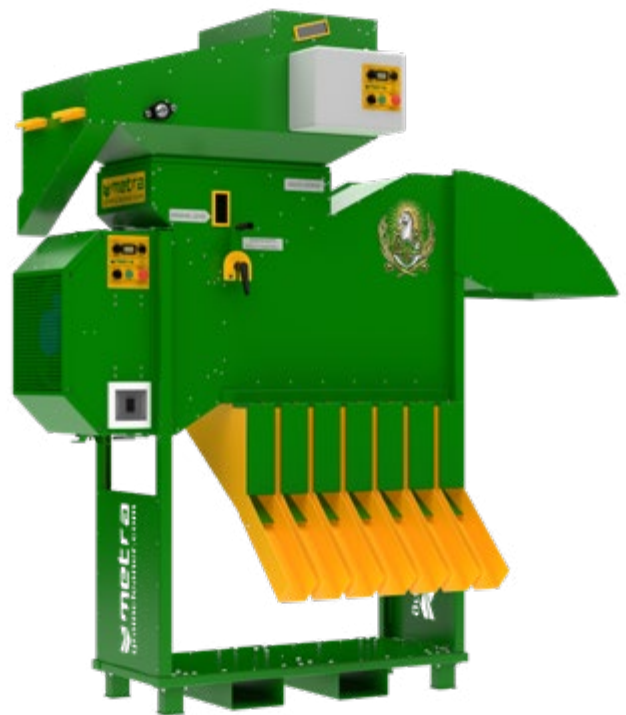
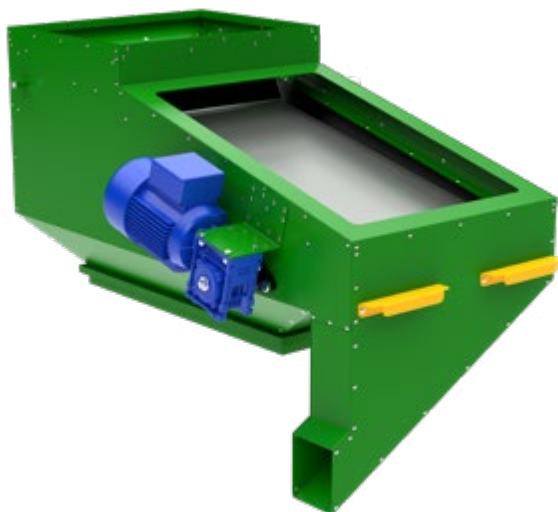




OPERATING MANUAL

SCALPER GRAIN CLEANER

METRA SGC



CONTENTS

Introduction 3

General information about the device 3

1. Purpose and installation 4

2. Main technical characteristics 5

3. Configuration of SGC 5

4. Characteristic features 5

5. Work of SGC 6

6. Marking 7

7. Safety technique 8

8. Installation of SGC 9

9. Switching on and setting up of SGC 10

10. Replacing the frame with a mesh 12

11.Maintenance 13

12.Transportation 14

13.Manufacturer’s warranty 14

14.Certificate on admission 16

Storage 17

Repair 17

INTRODUCTION

This operating manual is a unified operating document and is issued to each Pre-Cleaning Unit (hereinafter SGC).

This document is intended for studying the device, its safe operation, as well as for gaining experience working with it.

The manual includes information about the configuration, the appliance of the device, its technical characteristics, as well as safety instructions, information about the manufacturer and warranty conditions.

The manufacturer reserves the right to make changes to the design in order to improve the device. These changes may not be reflected in the manual.

GENERAL INFORMATION ABOUT THE DEVICE

Device name:

Manufacturing company:

Serial number:

Production date:

1. PURPOSE AND INSTALLATION

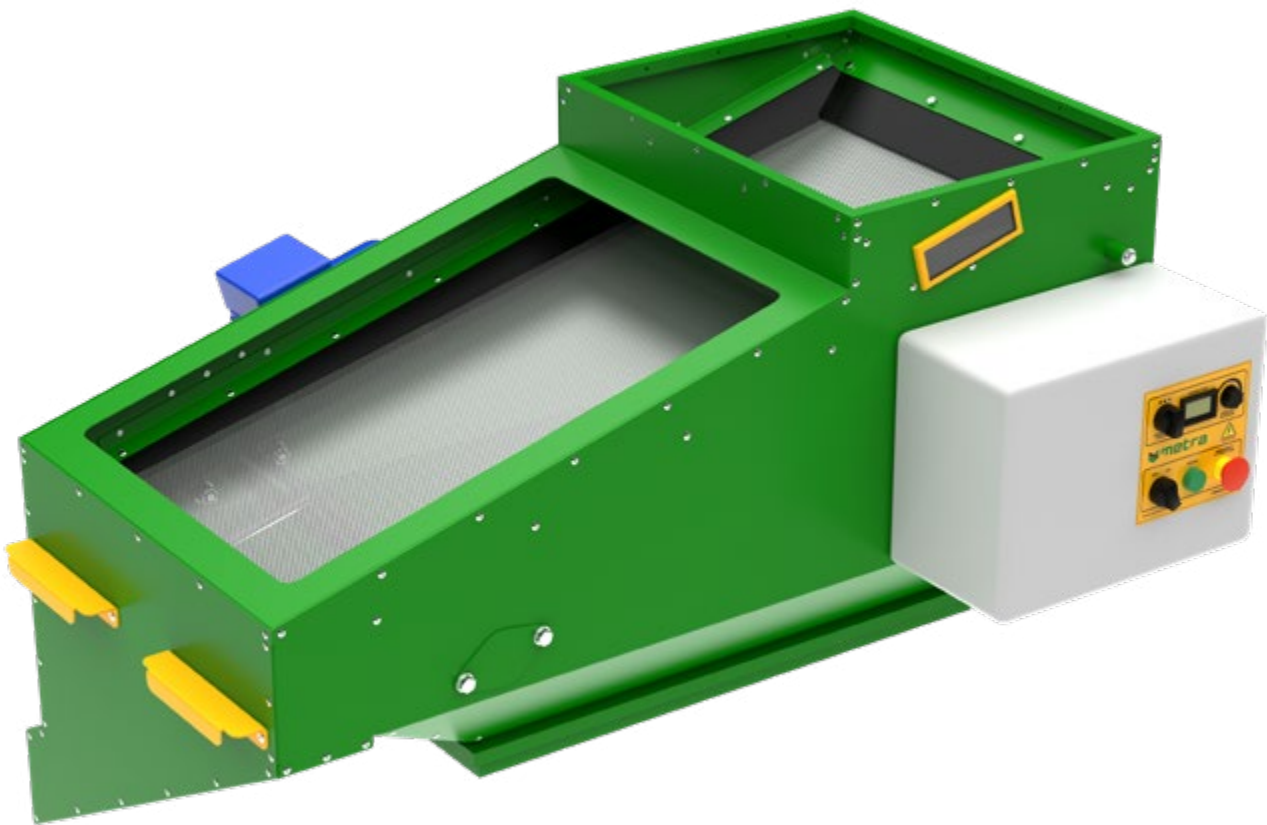
PURPOSE:

The SGC is designed for pre-cleaning of seed and commercial material: grain, leguminous, vegetable, melon, fodder, as well as any bulk mixtures.

INTALLATION:

Installation of SGC is possible both as an additional unit for a series of ADS grain cleaners, and as a separate unit as well.

It allows operation in closed areas, granaries, in the conditions of elevators, as well as in factories where processing of agricultural products takes place.



2. MAIN TECHNICAL CHARACTERISTICS

Table 1

Product name	Capacity / hour	Energy consumption	Weight
SGC-400	400 bushels in hour 10 tons in hour	0.5 HP 0.37 kW 220/380V, 50 Hz	133 lbs 60 kg

3. CONFIGURATION OF SGC

SGC is supplied to the consumer in a standard configuration. On the request of the customer, the configuration of the SGC can be changed, at the same time a corresponding contract is concluded.

The standard configuration includes:

- * SGC - 1 pc.
- * Operating manual - 1 pc.
- * Calibration frame with mesh - 1 pc.

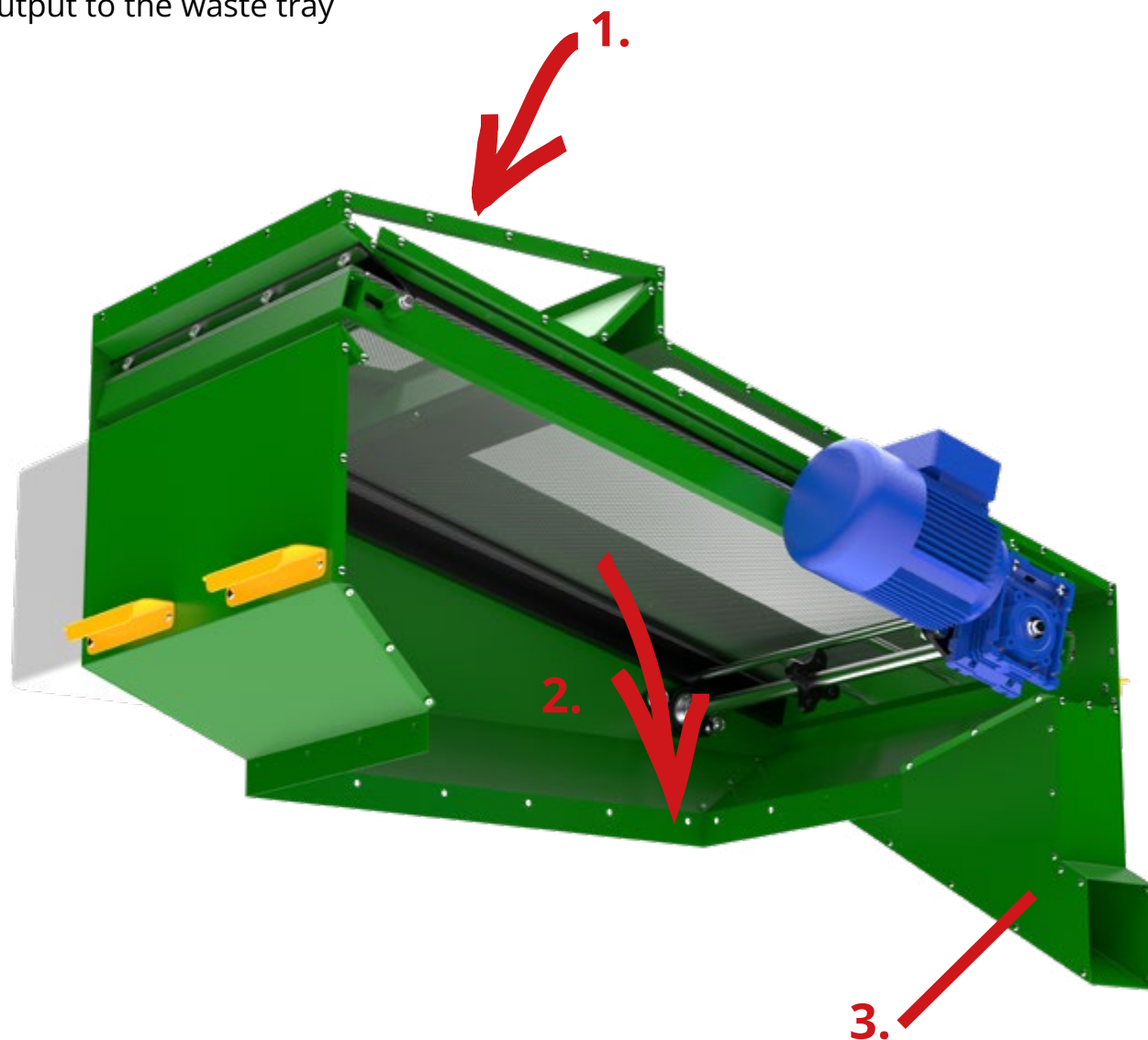
4. CHARACTERISTIC FEATURES

SGC is an auxiliary pre-cleaning device for aerodynamic grain cleaners, ADS-200, ADS-400 with a frame and a calibration mesh installed in it. The mesh is fixed on a removable frame, the mesh moves with the help of a gear motor and a crank mechanism. At the same time, performing back and forward movement of the frame with the mesh. The speed of rotation is controlled by a frequency converter.

5. WORK OF SGC

The operation of the unit consists in separating the grain from the rest according to the given size during its passage through the calibration mesh. At first, the grain is fed to the upper part of the mesh, which moves with a small amplitude of oscillation, but with a high speed, during the reciprocating movement of the mesh, the calibrated material is spilled. Large particles of garbage that did not pass through the mesh fall into the receiving funnel for transfer to the waste hopper. The calibrated material enters the receiving hopper of the ADS grain cleaner or other equipment for further processing or transportation.

1. Downloading of primary material
2. Output of calibrated material
3. Output to the waste tray



6. MARKING

A plate is attached to the outer surface of each SGC:

Name of the device: Pre-Cleaning Unit

Manufacturing company: Metra Group

Serial number:

Production date:



7. SAFETY TECHNIQUE

- The operator must have 1 group of admission for non-electrical personnel.
- Before starting work with the machine, the operator must comply with the following safety requirements:
- Check the reliability of connection to the equipment of visible grounding (zero protective) conductors, the presence and reliability of fastening of grounding (zero protective) contacts, plugs and sockets, plug connectors;
- The total resistance of the grounding devices of all repeated groundings of the neutral wire of the power supply line must be no more than 10 Ohms. (According to clause 1.7.103 of the Rules for the use of electrical devices).
- Connection plugs must be made in such a way that it is impossible to insert them into sockets with a higher rated voltage than that indicated on the plugs. Before connecting, it is necessary to make sure that the voltage supplied corresponds to the socket of the connection. When connecting the equipment, do not allow cables, power supply wires to be stretched and tangled, and do not allow them to be loaded with things and cargo. Do not allow direct contact of wires and cables with hot, wet and oil-treated surfaces and objects.
- When working with treated seeds, it is necessary to conduct a timely medical examination and provide personnel with personal protective equipment.
- During the operation of the SGC without aspiration suction of waste, the operator must work with goggles that protect him from dust and in a respirator

Installation (disassembly) of SGC is carried out only after disconnecting the equipment from the electric current. Installation (disassembly) of SGC is carried out only on a flat, immovable surface in compliance with all standards and requirements of the PTB for installation work. Installation and adjustment of equipment is performed only by certified specialists!

ATTENTION! IT IS FORBIDDEN!

- **To operate SGC without learning this operation manual;**
- **To operate SGC without grounding;**
- **To operate SGC if the voltage in the network does not meet the requirements, namely, for a voltage of 220V +- 10%, for a voltage of 380V +- 10%;**
- **To operate SGC if protective elements of moving parts are removed;**
- **To open nodes and blocks that are under voltage;**
- **To make changes to the program of the frequency converter;**
- **To operate SGC for the personal who doesn't not have 1 group of admission for non-electrical personnel;**
- **To operate SGC in places where atmospheric precipitation may fall on it (rain, snow, fog, dew, and the like).**

8. INSTALLATION OF SGC

Installation is carried out using a lift or forklift or by personnel trained by the manufacturer.

Recommendations for installing SGC

During the installation of SGC in hangars, access from all sides should be at least 1200 mm for ease of maintenance. The technological gap above the SGC should be at least 1500 mm.

SGC installation procedure before operation:

- Install SGC at the place of further operation.
- During the installation of SGC on ADS grain cleaners, SGC is installed on top of the receiving hopper, using loops depending on the model of the separator.
- During the installation of SGC as a separate unit, SGC is installed in a specially prepared place or bunker.

9. SWITCHING ON AND SETTING UP OF SGC

If necessary, install a loading and discharge conveyor so as to ensure a continuous process of separation.

1. Switching on of SGC

- Reset the «Emergency stop» button by turning it.
- Turn the «Network» knob to the «On» position, and when the power starts, the «Network» indicator will light up.
- There is a speed control knob on the frequency converter, set it to the minimum position.
- Turn on the frequency converter by pressing the RUN/STOP button.
- When the mesh starts moving, by selecting, choose the required speed of the mesh movement.
- If necessary, reverse mode can be used by pressing the FWD/REV button on the frequency converter.
- To switch off the mesh movement, press the RUN/STOP button.
- SGC is switched off by turning the ignition switch to the «OFF» position.
- Emergency shutdown of SGC occurs by pressing the «Emergency stop» button.

2. Setting up of SGC for working modes.

- Switch on SGC as above.
- Ensure uninterrupted supply of material. During the operation of the grain cleaner, the operator must monitor the uniformity of the material to be separated.
- With the help of the speed controller, select the speed of the mesh in such a way as to ensure the maximum separation of large and small fractions. It should be remembered that increasing the speed of the mesh movement improves the selection of large fractions, but at it is necessary to ensure that the pick-up and release of grain material into the waste funnel does not occur.
- In this mode, with the correct configuration, the SGC can discard up to 60% of waste from the source material, depending on the quality of the material being fed. The operation of the SGC in this mode allows the cleaned material to be fed into the tray for the removal of calibrated material. When installing SGC as an additional unit on ADS separators, the calibrated material will be fed directly to the receiving hopper of the separator for further cleaning or calibration. This combination of machines is the most effective during the selection of seed material and allows you to increase the productivity of the separator, while maintaining the high quality of calibration.

- In order to obtain the highest quality pre-cleaning, it is necessary to make sure that the eye of the calibration grid on the frame corresponds to the size of the sampled material and, if necessary, replace the frame with the mesh.

It is necessary to remember:

An increase in the productivity of SGC is possible until the quality of the preliminary cleaning of the material deteriorates, or until the release of the material together with the garbage begins. For different cultures, the threshold of deterioration of pre-cleaning is different, and therefore the operator determines it himself

10. REPLACING THE FRAME WITH A MESH

Replacing the frame with a mesh is as follows:

- Disconnect SGC from the electricity network;
- Carry out cleaning of SGC;
- Disassemble SGC from the grain cleaner;
- Put SGC on the side where the electric motor is located;
- Unscrew the fastening from below that connects the frame with the mesh with the crank mechanism (Picture 1);
- Disconnect the carabiner connections located on the edges of the frame with the mesh (Picture 2);
- Unscrew the fasteners connecting the frame with the mesh to the rubber damper cloth (Picture 3);
- Dismantle the frame with the calibration mesh by pulling it out from under the rubber sheet;
- Install a mesh with a frame of the required caliber;
- Check the correct installation of the frame with the mesh and the reliability of fastening the mechanisms;
- Switch on SGC without feeding grain. Make sure that the movement of the frame with the mesh occurs smoothly without obstacles.



Picture 1



Picture 2



Picture 3

11. MAINTENANCE

SGC CLEANING:

During operation, it is necessary to clean the SGC, monitor the condition of the calibration mesh, preventing its excessive sagging, check and timely replace lubricating materials, monitor the condition of the frame with the mesh, crank mechanism and bearings.

ATTENTION! All cleaning works must be performed only after SGC is switched off from the electricity network!

SGC cleaning should be carried out regularly, depending on its clogging, but not less often than once every three working days.

- Disconnect the SGC from the electricity network.
- Remove dust and dirt from the body of the unit.
- Remove all remaining material from the mesh.
- Make sure that the movement of the frame with the mesh is smooth and without obstacles.
- Before sending the SGC for storage or preservation, it is necessary to clean the SGC, check the reliability of the fastening of the moving parts and mechanisms of the SGC, and, if necessary, tighten the fasteners.
- After SGC storage or preservation, it is necessary to remove dust and mud deposits with a soft cloth, check the smoothness of the calibration frame with a mesh, and, if necessary, perform maintenance on the electric motor.

12. TRANSPORTATION

SGC is transported by road or rail transport in accordance with the rules of cargo transportation.

Placement and securing of cargo takes place in accordance with the current technical conditions for loading and securing cargo.

Loading and unloading of SGC could be done in the following ways:

By forklift or with the help of lifts or trained personnel.

During the transportation of SGC in covered vehicles, transportation is allowed without packaging or with partial packaging that protects against mechanical damage.

13. MANUFACTURER'S WARRANTY

Product name:

Manufacturing company:

Serial number:

Date of sale:

Signature:

The manufacturer guarantees the compliance of the machines with the stated requirements, subject to compliance with the transportation rules, storage, installation and operation specified in this manual.

The warranty period of the machine is 12 months from the date of sale.

Warranty conditions:

Warranty repair refers to the replacement or repair of parts with a manufacturing defect that manifested itself in work, which led to a malfunction. The decision to accept a defective product for repair is made by a service employee of the manufacturer's plant after getting acquainted with it during the maintenance of this product.

The buyer has the right to a free repair during the entire warranty period in the event of a malfunction due to the manufacturer's shortcomings.

1. Warranty repair of the equipment takes place after the customer provides a fully filled in warranty card.
2. Equipment subject to warranty repair must be provided by the customer to the service department. Departure and repair of the equipment at its location by the repair team is possible, but this must be agreed in additional written documents. The cost of travel and accommodation of repair service specialists is paid for by the client.
3. Warranty obligations do not extend to materials and parts that wear out during operation, namely: wheels of carts, tires, gaskets for sealing, protective covers, mesh, and the like.

Warranty obligations do not extend to the following cases:

1. The serial number of the equipment submitted for warranty service does not match the serial number specified in the warranty card and/or other written documents.
2. Unauthorized penetration into machine nodes.
3. Changes in the software setting of the frequency converter.
4. Improper storage and deconservation of the machine.
5. Present or hidden mechanical damage to the equipment, which occurs due to violations of the rules of transportation, storage or operation.
6. A violation of the «Rules and conditions of operation» concerning this type of equipment was detected during the repair process.
7. The presence of foreign objects in the middle of the equipment body, regardless of their nature, if the possibility of this is not recorded in the technical documentation or passport for this machine.
8. Connecting the equipment to the electrical network with a higher nominal electrical voltage than the one declared by the manufacturer.
9. Failure of the equipment due to unstable parameters of the voltage in the electricity network.
10. Any unauthorized design changes and repair work.
11. Failure of the equipment due to force majeure factors and/or the influence of third parties.
12. Installation, adjustment, training carried out by non-certified specialists.

The manufacturing company is not liable to the client for direct or indirect damages, lost profit or other damage suffered by the client due to the failure of the purchased equipment.

The manufacturing company is not responsible for the correct and safe operation of the machine, if the rules of operation and storage of the machine have been violated.
For all issues of warranty and post-warranty service, please contact:

14. CERTIFICATE ON ADMISSION

SGC

No _____ « » 2023

Manufactured in accordance with the mandatory requirements of the technical documentation, and recognized as suitable for operation.

(Signature) (Stamp)

Date:

STORAGE

SGC should be stored in a dry, ventilated room. It is impossible to allow atmospheric precipitation and foreign objects to enter.

Date		Conditions of storage	Type of storage	Note
Accepted for storage	Remove from storage			

REPAIR

Date	Operating time from the work start / hours	Operating time after the last repair / hours	Reason for repair	Information about repair



graincleaner.com



+1(402)942-6692



info@graincleaner.com