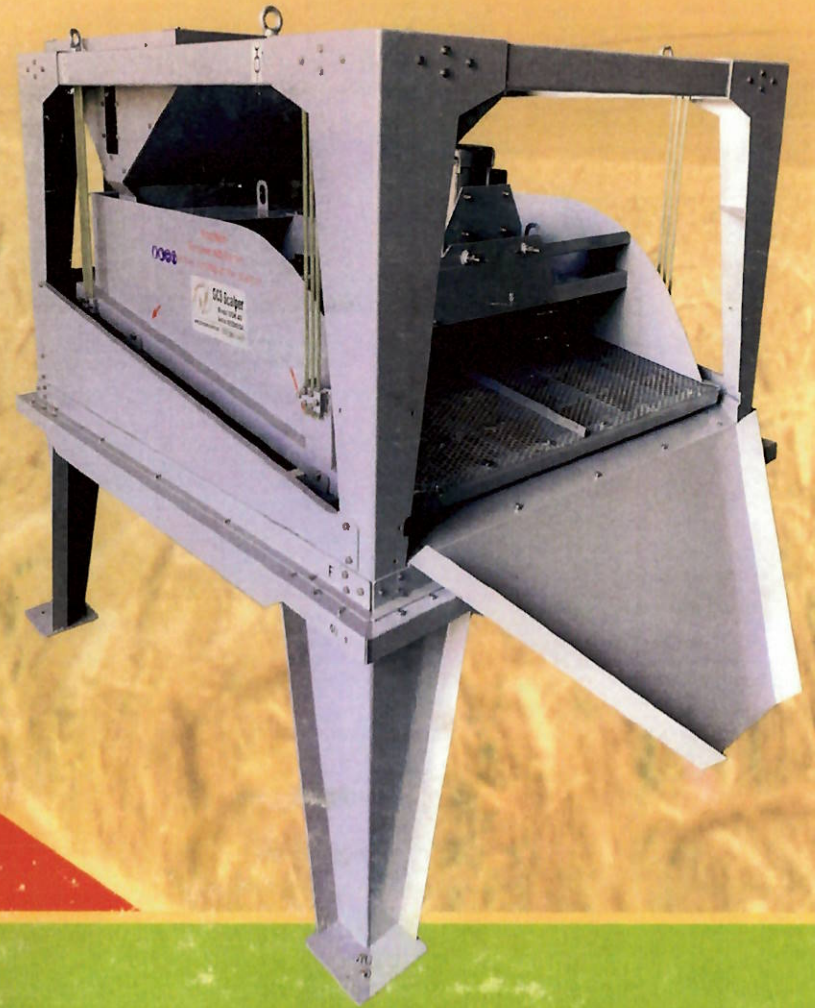


"GCS" Scalpers



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Grain Cleaning, LLC

Owner's Manual

"GCS" SCALPER

GRAIN CLEANING, LLC

NORTH AMERICAN AND AUSTRALIAN DISTRIBUTOR

OPERATIONS MANUAL

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INTRODUCTION

"GCS" scalper is using a screen-based system in order to pre-clean grain by removing large impurities such as whitecaps, pods, sticks, unthreshed heads, etc. With capacity ranging from 200 bu/hr (5 t/hr) up to 2,000 bu/hr (60 t/hr) GCS grain cleaning equipment fits the needs for any size grain producers. This operations manual is supplied with each scalper and it will allow you to review the design details and learn the operation of the machine.

All workers should be familiar with this manual and the operation of the scalper. This manual contains information about the design and construction of the machine. Technical data, as well as safety precautions, manufacturer information and conditions of warranty. Detailed record keeping of operating conditions with help with troubleshooting and maintenance.

Upgrades and refinements are an ongoing process. This manual represents the design and construction of this machine as currently offered, minor changes in the construction of scalpers are possible that are not mentioned in this manual. Additional details on the product can be obtained from Grain Cleaning, LLC website at www.gcsgraincleaner.com.

PRODUCT GENERAL INFORMATION

Name of the product:

"GCS" SCALPER

Manufacturer:

PE CF "REAL-M"

8 SEDOVA STR.

ZAPORIZHYA, 69057, UKRAINE

Distributor:

GRAIN CLEANING, LLC

14608 FELTON CT, SUITE 108

APPLE VALLEY, MN 55124

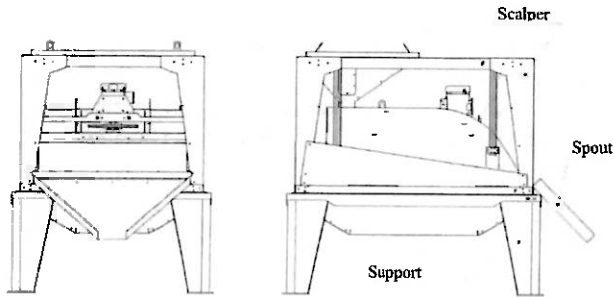
1. APPLICATION AND INSTALLATION

Application:

Scalper (further referred to as the “machine”) is designed for pre-cleaning grain by removing large impurities such as whitecaps, pods, sticks, unthreshed heads, etc.

Installation:

- a. Covered shed
- b. Elevators or processing plants
- c. Mounted on a portable trailer



2. DESIGN OF SCALPER

All models of the scalper will be delivered as a standard design. Any modification without consulting Distributor will void the warranty. If you want to make changes, contact Grain Cleaning, LLC for potential operational solutions before modifications.

Standard Design Includes:

1. Assembled base machine, accessories may be removed for shipping and will need to be attached after delivery.
2. Mounting points and hardware to allow for a secure shipping.
3. An operational manual for the machine purchased.

3. SPECIFICATIONS

Table 1 (US Standard)

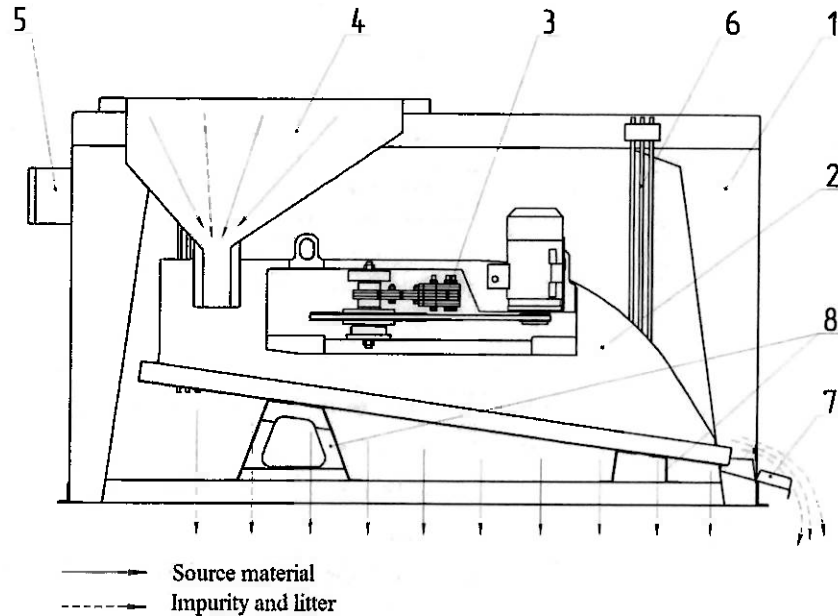
Model	Productivity (bushels/hour)	Dimensions: -length, in -width, in -height, in	Energy consumption	Weight (lb)
GCS-200 Scalper	200	32x24x32	1/3 HP	200
GCS-1000 Scalper	1000	65x58x65	1/3 HP	500
GCS-2000 Scalper	2000	88x78x68	3/4 HP	1000

Table 2 (Metric)

Model	Productivity (tons/hour)	Dimensions: -length, mm -width, mm -height, mm	Energy consumption	Weight (kg)
GCS-200 Scalper	5	800x600x805	0.37 kW	80
GCS-1000 Scalper	30	1680x1350x940	0.37 kW	240
GCS-2000 Scalper	60	2110x1860x1035	0.55 kW	405

4. «GCS» SCALPER PRINCIPLE OF OPERATIONS

The machine consists of such parts: 1 - frame; 2 - screen; 3 – vibration creating mechanism; 4 - hopper; 5 – On/Off button (optional); 6 – fiberglass rods; 7 - spout; 8 – transportation brackets



Grain is fed into the hopper and under its own weight enters onto the screen for cleaning process. The electric motor rotates the shaft on which the vibrator is mounted through the V-belt transmission, creating circular vibrations of the screen. By going through the screen large impurities are being separated and get discharged via the spout. Selection of screen size depends on the type of grain being cleaned, how dirty it is and its moisture levels.

5. DECALS AND MARKING

1. Name and contact information of the distributor - Grain Cleaning, LLC
2. Model and serial number of the machine
3. Electrical specifications (see name plate on motor)
4. Safety warning labels

6. SAFETY REGULATIONS

Ensuring that everyone who is operating the scalper has familiarized with the recommended operating and maintenance procedures will be key to maintaining a safe environment not just for the operator but for everyone around. Most accidents can be prevented, thus focusing on safety should be priority when operating a GCS scalper. Serious injury or even death can occur when safety instructions are not followed.

This operation manual contains information that provides safe and stable work with the machine. Any deviation from the guidelines set out here is considered as improper use and the manufacturer is not liable for damages which have arisen as a result. Responsibility for such deviations rests with the user.

a. General Safety Instructions

Follow the guidelines laid down in the manual for all the work: transportation, commissioning, servicing and repair. Operation manual must always be at the working place of operator. Access to any work with scalper should have only staff that is at least 18 years old and after the instructions receiving. Staff should be familiar with the principle of machine, its technical service and warned of possible dangers.

- GCS scalper is designated for outdoor operation only, unless machine has been custom built for indoor use.
- Have a first-aid kit available for use and know how to use it.
- Have a fire extinguisher available, stored in a highly visible location, and know how to use it.
- Wear appropriate protective gear. This list may include but is not limited to:
- hard hat

- protective shoes with slip resistant soles
- protective glasses or goggles
- heavy gloves
- wet weather gear
- hearing protection
- respirator or filter mask.
- Read and understand the Operator's Manual and all safety signs before operating, servicing, adjusting, repairing, or unplugging the equipment.
- Do not attempt any unauthorized modifications to your GCS product as this could affect function or safety and could affect the life of the equipment.
- Inspect and clean the working area before operating.
- Keep hands, feet, clothing, and hair away from moving parts.
- Ensure bystanders are clear of the area before operating.

b. Start-Up Safety

- Do not let inexperienced operators or children run this equipment.
- Connecting the machine and carrying out all electrical work must be performed only qualified electrician.
- The power supply cable should not have any mechanical insulation damages.
- Place all machine controls in neutral before starting.
- Do not operate inside a building unless there is adequate ventilation.
- Ensure all shields are in place and in good condition before operating.
- Make certain electric motors are grounded.

c. Transport Safety

- Check with local authorities regarding transport on public roads. Obey all applicable laws and regulations.
- Never have the equipment in operation during transport.
- The equipment should never be transported without strong fixation to the vehicle.
- When unloading and loading operations, observe the following rules:
 - slinging machines must be in accordance with the scheme in specified in "Annex 1".
 - when lifting the machine, do not stand under.

d. Service and Maintenance Safety

- Stop machine, turn the power off, and wait for all moving parts to stop before servicing, adjusting or repairing.
- Follow good shop practices including: - keep service area clean and dry - be sure electrical outlets and tools are properly grounded - use adequate lighting for the job.
- Use only tools, jacks, and hoists of sufficient capacity for the job.
- Replace and secure all shields removed during servicing before operating.
- Use heavy leather gloves to handle sharp objects.

e. Safe Storage

- Store the machine in a safe and protected area. Make sure the unit is disconnected from power. Do not allow anyone untrained to make adjustments or modification to the unit while not in use.
- Do not permit children to play on or around the stored machine.

f. Common Dangers

- Electrical shock from a damaged or insufficiently rated power cord – inspect prior to activating.
- Inhalation problems from excessively dusty product going through the machine – proper face masks needed.
- Machinery noise from the fan and any auxiliary equipment running in the area – wear ear protection.
- Danger of mechanical injury. Do not operate the machine with open rotating parts.

ATTENTION!

- DO NOT OPERATE WITHOUT PROPER ELECTRICAL GROUNDING.
- HIGH HUMIDITY WEATHER CONDITIONS SHOULD BE AVOIDED WHILE OPERATING THE CLEANER.
- ALL SHIELDS AND EMERGENCY EQUIPMENT MUST BE IN PLACE
- OPERATORS MUST BE TRAINED TO OPERATE THE MACHINE WITH INFORMATION FROM THIS MANUAL.

7. INSTALLATION OF THE MACHINE

ATTENTION: Machine must be disconnected from power before moving the unit!

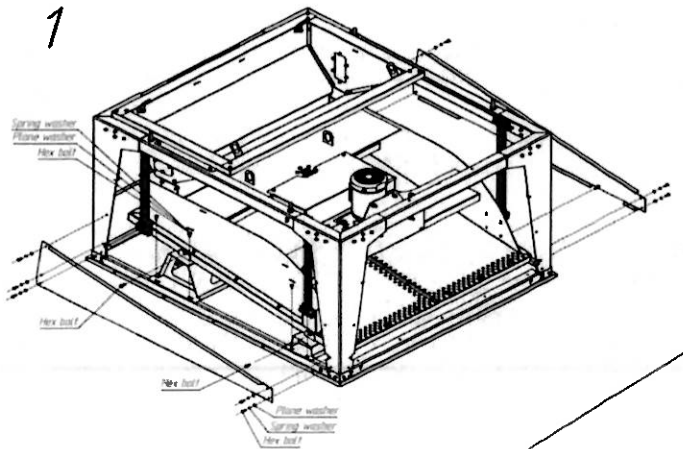
7.1. Installation Recommendations

During installation of scalper for reasons of serviceability the access from all sides must be not less than 40 in. The machine must be leveled. Do not operate during rain or windy conditions.

7.2. Prior to Start-up

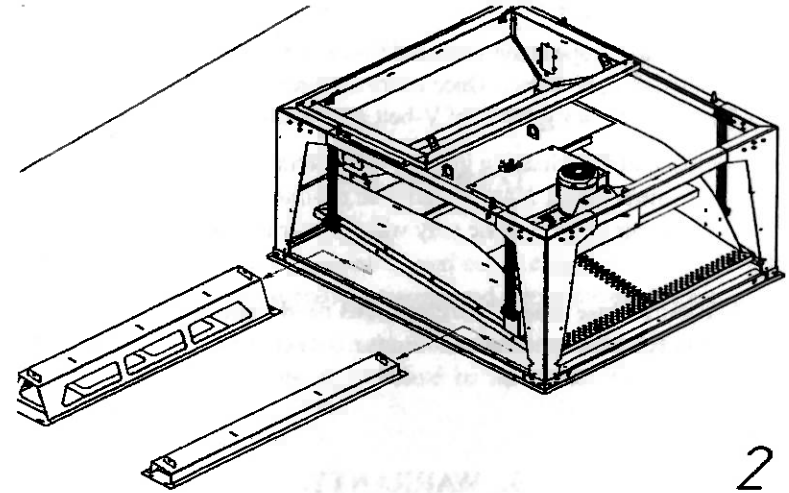
Secure the machine to a safe and sturdy base (floor, mezzanine or trailer frame). Attach the spout to the frame of the scalper for proper discharge of the screenings. Check fixation of screen and fiberglass rods after transportation to ensure nothing is loose. **Starting the scalper with loaded screen is prohibited!** Scalper needs to operate for 2 minutes in its initial run. Align the infeed and take-away equipment to provide a smooth transfer of grain from one system to another. For transportation purposes only, Scalper has a sub frame installed on the bottom of the unit to prevent damage during transportation. However, before initial startup of the Scalper the sub-frame needs to be removed following a simple process described below.

Step 1 - Remove the side panels on the bottom of the scalper as shown on figure below:



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Step 2 - Remove the sub-frame comprised of 2 pieces as shown in the figure below:



ATTENTION: When transporting the Scalper transportation brackets in "Step 2" need to be installed back under the cleaning deck.

7.3. Electrical Connections

Electrical wiring must be done by a professionally licensed electrician. Connect the grounding to the general grounding loop. Connect power cable to the power supply with voltage in 110-460 V (depending on motor installed on the scalper). Connection of the machine to the power supply line must be implemented by means of cable with section according to standards, taking into account losses in the feeding line.

7.4. Scalper Adjustments

Adjustment is done by reducing or increasing the weight of the balance that regulates vibration of screen deck. Removable plates can be used to change weight of balance to achieve desired vibration levels when cleaning specific crop.

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8. SCALPER MAINTENANCE

After first 24 hours of operation check tightness of fiberglass rods and ensure bracket's bolts are tightened firmly. Once every 3 months perform the same check. Also, every 3 months check tightness of V-belt and adjust if needed.

After completion of one cleaning job and transitioning to a different crop, it is necessary to clean the machine after the dust and residues of the original material. Changing of the screens must be done only when power on the scalper is completely turned off.

ATTENTION: In case when fiberglass rods need to be replaced, transportation brackets must be placed under the screen deck prior to making the change.

9. WARRANTY.

Grain Cleaning, LLC guarantees that the goods are new, free and clear of any third-party rights, and guarantees high-quality operation of the goods within the period of 12 months (1-yr manufacturer's warranty) from the date of sale provided that the Buyer observes conditions of use, handling and storage set out in this instruction manual. Electric motor has 1-yr manufacturer's warranty; Grain Cleaning, LLC does not hold any responsibility on the motor. Warranty is provided only to original retail purchasers of GCS grain cleaning products.

Grain Cleaning, LLC will fulfill this limited warranty by, at its option, repairing or replacing any covered part that is defective or is the result of improper workmanship, provided that the part is returned to Grain Cleaning, LLC within thirty (30) days of the date that such defect or improper workmanship is, or should have been, discovered. Under no circumstances are component parts warranted against normal wear and tear. This warranty is expressly in lieu of all other warranties expressed or implied. Grain Cleaning, LLC will in no event be liable for any incidental or consequential damages whatsoever. Nor for any sum in excess of the price received for the goods for which liability is claimed. What is Not Covered Under no circumstances does this limited warranty cover any components or parts that have been subject to the following: negligence; alteration or modification not approved by Grain Cleaning, LLC; misuse; improper storage; lack of reasonable and proper maintenance, service, or repair; normal wear; damage from failure to follow operating instructions; accident; and/ or repairs that have been made with parts other than those manufactured, supplied, and or authorized by Grain Cleaning, LLC.

Warranty is considered cancelled if unauthorized adjustments are made to the scalper which do not abide by the instructions in this manual. For example, operating machine when not leveled or overloading.

10. DISPOSAL

Disposal of the machine must be carried out in compliance with the requirements of the state and local law on waste electrical and electronic equipment.

The machine cannot be disposed of as ordinary household waste. It contains valuable recyclable materials, so it should be transferred to the receiving points of electrical equipment.

Annex 1

STRAPPING OF SCALPER

