



OPERATING AND **MAINTENANCE MANUAL**

Filling nozzle across the container wall 6" and 8"

Suitable for parts no.:

6"	8"
6400035	6400805
6400036	6400806
6400037	6400807
6400038	6400808
6400039	6400809
6400797	6400810
6400798	6400811
6401082	6401083

Document no.: 8180018 Version: January 2010

Space for notes:

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

General information

- **The technical specifications, weights and measures are to be considered approximate and not binding.**
- **Pictures are for illustration purposes and can deviate from the actual product.**

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1 MANUFACTURER'S DECLARATION

Manufacturer: Erich Stallkamp ESTA GmbH

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Germany

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Fax.: (0049) 04443 / 9666-60

Product name:

Filling nozzle across the container wall 6" and 8"

Stallkamp parts no.: 6" 6400035 to 6400039 and 6400797 to 6400798 and 6101082

8" 6400805 to 6400809 and 6400810 to 6400811 and 6401083

We hereby declare that the above-designated system was produced by Erich Stallkamp ESTA GmbH.



Erich Stallkamp ESTA GmbH

Dinklage, dated 21 December 2009

2 General information

Our systems are developed according to the current state of technology, manufactured with great care and subject to a continual quality control. This operating manual should help you to get to know the system and to employ its proper operational possibilities.

The operating manual contains important notices in order to operate the system safely, appropriately and cost-effectively. It is necessary to observe the operating manual to ensure the reliability and a long service life of the system and to avoid hazards.

The operating manual does not take local, on-site requirements into consideration; the operator is solely responsible for ensuring that these are observed, including by external installers.

2.1 Designation of notices in the installation manual



In the operating manual, safety references warning of dangers to persons are identified with the general hazard symbol according to DIN 4844-W9.



In the operating manual, warnings about electrical voltage are identified with the safety signs according to DIN 4844-W8.

All other notices which might restrict the functional reliability of the system or represent a danger for machines and systems if not observed are marked with the word:

ATTENTION!

Provided that additional information or notes are required or in case of damage, please contact our local field sales employee or contact us directly.

2.2 Unauthorised conversion and spare part manufacture

Conversions and modifications to the systems and their machine units are only permissible with the explicit approval of the manufacturer. The use of non-“original spare parts” abrogates all liability.

3 Safety

This operating manual contains fundamental information which must be observed during installation and operation as well as when performing maintenance work on the system.

It is therefore absolutely necessary that the installer as well as the responsible qualified personnel and operator read these instructions before installation and commissioning, and that they are continually available at the location where the system is installed.

Not only the safety instructions in this operating manual must be observed, but also the warning signs and provisions of the respective professional association.

3.1 Qualification of the personnel



The personnel performing the operation, maintenance, inspection and installation must be appropriately qualified for this work.

Area of responsibility, competence and the monitoring of the personnel must be precisely regulated by the operator. If the necessary skills are not available to the personnel, then they should be appropriately trained and instructed.

Furthermore the operator must ensure that the operating staff fully understands the contents of the operating manual.

3.2 Dangers if the safety instructions are not observed

Failure to observe the safety instructions can endanger persons as well as the environment, systems and machines. Failure to observe the safety instructions results in the loss of all claims for damages.

Specifically, failure to observe instructions can, for example, result in the following dangers:

- Failure of important functions of the device or plant.
- Endangerment of persons due to electrical, mechanical, chemical or other exposure.
- Endangerment of the environment due to leakage of hazardous materials.

WARNING SIGNS

Observe all notices and warning signs. Dangerous gases can escape when agitating and pumping the liquid manure.



DANGER OF POISONING!

If the liquid manure is stored below slatted floors, the presence of persons in buildings during agitation is only permissible with sufficient ventilation. Therefore windows and doors must be open and the ventilator set to full power.

3.3 Safety-conscious work

Observe all safety instructions presented in this operating manual, the existing national regulations for accident prevention as well as possible internal work, operation and safety regulations of the company at all times.

Safety instructions for the operator and attendant:

- ✓ If hot or cold machine parts can pose a hazard, then these parts must be protected on site against contact.
- ✓ Contact protection for moving parts may not be removed while the machine is in operation.
- ✓ Any leakage of dangerous materials must be conducted away so that there is no endangerment to persons and environment. Observe statutory provisions.

3.4 Safety instructions for maintenance, inspection and assembly work



The operator has to ensure that all maintenance, inspection and installation work is carried out by authorised and qualified personnel.

Fundamentally, all work on the machine can only be carried out when the machine is at a standstill.

Directly after completion of the work, all safety and protection equipment must be reattached or made functional.

4 Guarantee

This section contains the general particulars for the guarantee. Contractual agreements are always treated with priority and are hereby not rescinded. The period of guarantee is a component of Stallkamp's general terms and conditions. Agreements deviating from this must be specified in writing in the order confirmation.

4.1 General

Stallkamp is obligated to repair every defect to products sold by Stallkamp under the condition:

- ✓ that it is a quality defect of the material, manufacture or design;
- ✓ that the defect is reported to Stallkamp or the Stallkamp representative within the period of the guarantee;
- ✓ that the product is employed exclusively in the specified operating conditions described in the operating manual and employed for the intended purpose;
- ✓ that the monitoring devices integrated in the product are correctly installed and connected;
- ✓ that genuine Stallkamp parts are used.

4.2 Exclusion of liability

No guarantee or liability is assumed for damage to the system if one or several of the following points are applicable:

- A faulty configuration of the system on our part because of inadequate or incorrect information from the ordering party or operator;
- Failure to observe the safety instructions, regulations or the necessary requirements in this operating manual which apply according to German law;
- Installation, disassembly or repair of the system not in keeping with the regulations;
- Inadequate maintenance;
- Possible chemical, electrical or electrochemical influences;
- Wear and tear.

Since maintenance has an influence on the safety and functional capability of the system, it is an integral component of the guarantee. The operator of the system is obligated to have maintenance work carried out by the manufacturer himself or a service provider approved by the manufacturer according to the regulations of the manufacturer, including the necessary repair and replacement of wearing parts.

The use of system and/or the field of application and reliability for the application must be verified by the operator and does not form part of the guarantee.

The liability of Stallkamp thereby excludes any liability for personal damages, material damages or financial losses.

The manufacturer reserves the right to modify the performance, specifications or configuration data without prior information.

5 Applications

The filling nozzle across the container wall 6" and 8" is designed for the following use:

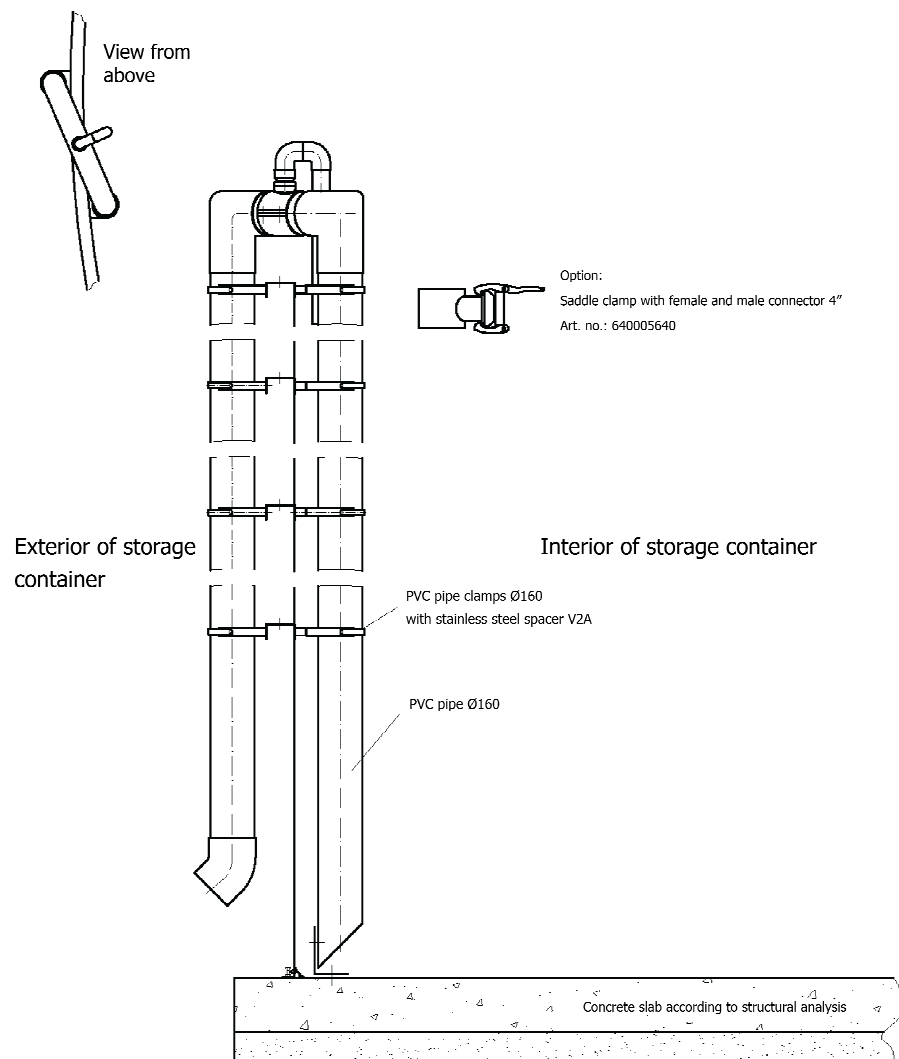
- Filling a liquid manure container with a pre-lagoon pump via a fixed pump line.

The flow rate is dependent on the density and viscosity of the liquid, the diameter of the pipeline and the contents of the container.

6 Installation

6.1 Assembly diagram – Filling nozzle across the container wall 6" and 8", drawing no.: 1-102560

Filling nozzle across the container wall



We reserve the right to alter the technical information

Drawing no.: 1-102560

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Installation work must only be performed by trained specialist personnel. These installation diagrams are not intended to replace the requisite training.

7 Commissioning

7.1 Prior to commissioning: Safety instructions

The following rules should fundamentally be observed to prevent accidents during operating, maintenance and installation work:

- 1) Never work alone. The danger of drowning and suffocation must not be underestimated.
- 2) Check whether sufficient oxygen is available and that no poisonous gases exist.
- 3) Before using electrical tools, check whether there is a danger of explosion.
- 4) Pay attention to the danger of electrical accidents.
- 5) Examine lifting equipment to ensure their fully satisfactory condition.
- 6) Ensure an adequate shutoff at the place of work, e.g., cordoning trellis
- 7) Wear a hardhat, safety glasses and safety footwear.
- 8) Keep a first-aid kit ready.

Otherwise observe the health and safety regulations as well as the prevailing governmental regulations.

7.2 Commissioning the filling nozzle across the container wall

7.2.1 Notes on when system is not in use:

- 1) The ventilation tube must normally always be open to prevent the container from draining when the pump is turned off.
Attention: Monitor the fill level in the container; the end of the ventilation tube must not be immersed.
- 2) **Attention:** The tubes and lines outside the container must be completely emptied if there is a danger of frost.
- 3) **Attention:** The female part 4" as a blind cover (frost filling option) must be opened if there is a risk of frost.

7.2.2 Notes on when system is in use:

- 1) The vent tube on the filling nozzle remains open.
- 2) **Attention:** The female part 4" as a blind cover (frost filling option) must be opened if there is a risk of frost.
- 3) Commission the pre-lagoon pump connected via a fixed 6" or 8" pipeline and start the filling procedure. (Observe operating manual of pre-lagoon pump).

Attention: The tubes and pipes must be checked to be free of ice in advance if there is a risk of frost.

Attention: Monitor the fill level in the storage container.

- 4) To finish the filling procedure, turn the pre-lagoon pump off.
- 5) The remainder from the riser should run back into the pre-lagoon. For this to happen, air must enter the pipeline via the ventilation tube. The pipeline from the filling nozzle to the pre-lagoon should be laid with a slight decline.

8 Maintenance

The specified maintenance and inspection work must be performed regularly. These tasks may only be carried out by trained, qualified and authorised personnel. The operator of the system is obligated to have maintenance work carried out by the manufacturer himself or a service provider approved by the manufacturer according to the regulations of the manufacturer, including the necessary repair and replacement of wearing parts.

8.1 Maintenance intervals

The system must be inspected for damage before every commissioning. The slides and pipelines in particular must be proven to be free of damage. In addition, the secure positioning of all screws and other fastening devices must be verified.

8.1.1 Visual inspection and cleaning of the ventilation tube

Every 6 months we recommend checking the slides and pipelines for damage, corrosion and soiling in the scope of maintenance work. Deposits, blockages and adhering fibrous materials must be removed. In addition, the ventilation tube must also be inspected for damage such as cracks or encrustations. Damaged and corroded components must be exchanged immediately. Please contact our sales representative.

8.1.2 Check the tightening torque of all screw connections

At least every 12 months we recommend checking the secure positioning of the screw connections in the scope of maintenance work. The tightening torques for stainless steel screws in Nm for different thread sizes are shown below:

(M8 = 18 Nm, M10 = 33 Nm, M12 = 57 Nm, M16 = 135 Nm, M20 = 150 Nm)

9 Spare parts

The customer-specific data for systems are stored by the manufacturer under the order nos. If spare parts are required, please consult our sales representative.

10 Notes

10.1 Regulation of the professional association

The following accident prevention regulations of the Agricultural Professional Association can be found in Paragraph 2.8 under "Special Provisions for Pits and Canals":

Paragraph 2.8

§ 1 Principles

This accident prevention regulation applies to the storage of liquid manure and for the construction, setting up and operation of pits, canals and wells.

§ 2 Protection against falling in

The operator must ensure that

Pits, ditches, canals and wells are protected with safety fences or coverings to prevent persons falling in. If these are not deeper than 100 cm, other safety precautions can suffice.

Foil-covered ground tanks and rainwater collection tanks must be fitted with measures to assist people to climb out should they fall in.

§ 3 Openings

The operator must ensure that

Persons cannot fall into the removal, entrance or similar openings;

Collection troughs sunk into the floor must be covered with walkable grids which can support vehicles if necessary or fenced off;

Pits and collection facilities into which the loads or vehicles or transport containers are emptied must have a base and a parapet; the parapet may be hinged or sliding at the loading point, but not removable,

Pits, wells and canals that are customarily entered have facilities which permit risk-free entry. The openings of these pits and canals must be dimensioned in such a way as to allow the rescue of any casualties.

Suitable tools must be used for the safe lifting and replacing of duct covers.

§ 4 Entry and recovery of accident victims

The operator must ensure that

Only persons enter the pits, canals and wells who are aware of the risks involved;

The necessary equipment for securing the person entering the object must be kept in the vicinity of the entrance and the person entering must be trained in its use;

Before entering and while in the pits, canals and wells, it must be ensured that

There is no danger of poisoning;

Sufficient air is available;

Control devices have been reliably secured against being turned on.

Entry is only permissible if a person remains visible above ground. The person entering must be secured so that he can be rescued at any time.

Liquid manure pits may only be entered if the person entering is secured with a rope and the rope is anchored outside the liquid manure pit, and the person entering is secured by two persons.

Entering to recover an accident victim is only permissible when the person entering is secured so that he can leave the dangerous area at any time and has suitable equipment on hand to guarantee his air supply.

The handling of naked flames is not permitted.

§ 5 Pits and canals for animal faeces

The operator must ensure that

Suitable measures are in place to prevent dangerous gases from pits and canals in the open air entering buildings.

Closed pits have ventilation openings on opposite sides leading outside that cannot be closed;

Poisonous gases from pits and canals in buildings are led away using suitable measures;

Canals must be designed so as to avoid any unnecessary whirling up of the faeces.

Operating stations for agitating, pumping and rinsing, etc., equipment are not installed below ground level.

Closed rooms in which there are operating stations may not have openings to the tanks and canals.

Operation instructions must be permanently attached to the operating stations.

Tanks above the floor which can only be accessed by climbing must be furnished with ladders and working platforms.

Agitators, pumping and rinsing works in buildings must only be switched on when the compulsory removal of dangerous gases has been verified. The gases conducted away must not endanger persons.

§ 6 Removal of animal faeces from tanks and canals

No smoking and no naked flames or fire are allowed in the immediate proximity of removal openings during the agitating and removal of faeces; sparks must be avoided.

In the buildings in which there are open tanks and canals, the presence of persons and animals during agitation and removal is only permissible with sufficient ventilation.

§ 7 Warning signs

Easily visible warning signs must be attached to openings of tanks and canals which indicate the danger of the gases.

We refer to the accident prevention regulation for the provision of health and safety signs at work (Health and Safety Regulations 1.5).

You can find us here



Stallkamp

...Advantage by innovative technology

Dinklage lies in the heart of Oldenburg Minster Country.

From the exit (A1) Lohne Dinklage No. 65, direction Dinklage, towards Dinklage Vechta, then industrial area West.

- Pump technology
- Agitating technology
- Stainless steel tanks



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