

Operating Instructions

for the MEIKO disposal system for organic kitchen waste

WasteStar FC, Flexible Concept

Translation of the "Original operating instructions"

Contents

1	INTRODUCTION AND GENERAL INSTRUCTIONS	4
1.1	Safe keeping	5
1.2	Name and address of manufacturer	5
1.3	Authorization for service technicians of our service partners	5
1.4	Designation of installation	5
2	EXPLANATION OF THE SAFETY SYMBOLS USED	6
2.1	Graphic reference symbols	6
3	GENERAL DESCRIPTION AND USE FOR THE PURPOSE INTENDED	7
3.1	General description of the WasteStar FC system with collection tank	7
3.2	General description of the WasteStar FC system with drainage press	8
3.3	Intended use	9
3.4	Foreseeable use	9
4	EC DECLARATION OF CONFORMITY	10
4.1	Declaration of Incorporation	11
5	GENERAL SAFETY RULES	13
5.1	Operator's duty of care	13
5.2	Measures to ensure safe system operation	13
5.3	Basic safety measures	14
5.3.1	<i>Working on the electric fittings</i>	15
6	DELIVERY, TRANSPORT, INSTALLATION AND ASSEMBLY	16
6.1	Delivery	16
6.2	Transport and installation	16
6.2.1	<i>Installation and assembly</i>	16
6.2.2	<i>Assembly instructions (for a partially completed machine)</i>	17
6.3	Instructions for disposal of packing material	17
6.4	Operating conditions	18
6.4.1	<i>Requirements for the installation area</i>	18
6.5	Requirements for the electrical connection	19
7	SYSTEM SETTINGS BY AUTHORISED SERVICE TECHNICIAN UPON INITIAL COMMISSIONING	20
7.1	Commissioning	20
8	PRODUCT DESCRIPTION	21
8.1	Structure	21
9	OPERATION THE WASTESTAR FC	24
9.1	Operation WTS-A	24

9.2	Operation of the WTS-AK / AS / AM	25
9.3	Operation of the tank emptying process, collection tank depressurized without pendulum gas line	26
9.4	Operation of the tank emptying process, collection tank depressurized with pendulum gas line	26
9.5	Operation of tank emptying process, collection tank compression-proof without pendulum gas line	27
9.6	Operation of the tank emptying process, collection tank compression-proof with pendulum gas line	28
9.7	Switching on the WasteStar machine	28
9.8	Putting the WasteStar machine out of service	29
10	CLEANING AND SWITCHING OFF THE SYSTEM	30
10.1	Cleaning the pipe magnet, daily	30
10.2	Cleaning the agitator, monthly	30
10.3	Cleaning of the collection tank, every six months	31
11	DISCHARGING THE COLLECTION TANK	31
12	CHANGING THE WASTE CONTAINER ON THE DRAINAGE PRESS SUCTION TANK (CONTAINER USE)	32
13	MAINTENANCE AND CARE	32
13.1	Care, general	32
13.2	Care of stainless steel surfaces	32
14	STAFF TRAINING	33
15	MAINTENANCE, SERVICING	33
15.1	Basic safety measures during normal operation	34
15.1.1	<i>Before setting in operation - after maintenance and repair works</i>	34
16	MAINTENANCE MANUAL	34
17	DISPOSAL OF THE INSTALLATION	35
18	NOISE EMISSION	35
19	NON-IONISING RADIATION	35
20	ABBREVIATIONS	35
21	INSPECTING PRESSURE VESSELS FOR SYSTEMS THAT REQUIRE MONITORING	36
22	INDEX	37
23	NOTES	38

1 Introduction and general instructions

Dear customer,

Thank you for your confidence in our products.

MEIKO, we are sure that they make your work a great deal easier and are of great service to you.

If you follow the instructions in this document carefully, your machine will always give you total satisfaction and will have a long service life.

After assembly at our factory, this machine was put through a thorough inspection. This helps us make sure, and gives you the guarantee that you always receive a mature product.

Therefore we ask you to study these operating instructions carefully at first. Any further related operating instructions for accessories and incorporated third-party products must be strictly observed!

These operating instructions are designed to familiarise the owner/operator of this plant with its installation, modes of operation, use, safety instructions and servicing.

In the event of any damage caused by non-observance of these operating instructions, any guarantee claims are invalid. We accept no liability for any additional damage caused as a result.

MEIKO operates a policy of continuous development on all its appliances.

As a result of this, please understand that we thus reserve the right to make changes to the scope of supply concerning the design, equipment and technical features at any time.

No claims may therefore be based on the details, the images or the descriptions contained in these operating instructions.

Should you require any further information, or in case any particular problems not dealt with in great detail in the operating instructions should arise, you may contact the relevant MEIKO branch to obtain the information you require.

Further, we draw your attention to the fact that the content of these instructions makes not part of a former or existing agreement, promise or legal relationship and does not modify such a point.

All obligations of MEIKO result out of the resp. sales contract, which also contains the complete and only valid warranty regulation. The contractual warranty regulations are neither extended nor limited through these instructions.

The operating instructions must exist in the local language for each EU country. If this is not the case, the installation must not be commissioned.

The original operating instructions in Germany, and all operating instructions in all languages for EU countries can be downloaded from the following address:

<https://partnernet.meiko.de>

The complete technical documentation is issued to you free of charge. Additional copies will be charged at cost.

MEIKO wishes you much pleasure and success!

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All rights (including photo-mechanical reproduction and storage on electronic media) reserved to MEIKO Maschinenbau GmbH & Co KG. Any commercial use or distribution of texts, illustrated models, drawings and photographs within this product is not permitted. It is not permitted to reproduce, save, transfer, reflect or translate the operating manual, either in parts or on a whole, using any medium.



1.1 Safe keeping

Keep this operating manual in the vicinity of the installation in a location that is easily accessible to all users.

1.2 Name and address of manufacturer

In case of further questions or technical problems, contact directly:

MEIKO Maschinenbau GmbH & Co. KG
 Englerstrasse 3
 D - 77652 OFFENBURG
 Phone + 49 / 781 / 203-0
<http://www.meiko.de>
info@meiko.de

or:

Name and address of the MEIKO branch, manufacturer's agent or from MEIKO authorised Service Partners.

(Enter company's stamp or address)

1.3 Authorization for service technicians of our service partners


MEIKO exclusively authorises authorised Service Partners for commissioning, inductions, repairs, maintenance, assembly and installation of the corresponding product groups within MEIKO devices.

1.4 Designation of installation

Please provide the following information on any query and/or when ordering spare parts:

Model:

SN:



This information can be found on the plate.

2 Explanation of the safety symbols used

The following safety symbols will appear throughout these operating instructions. These symbols are designed to draw the reader's attention to the text next to the safety instructions.

 DANGER
Refers to a dangerous situation which results in death or serious bodily injury.

 WARNING
Refers to a dangerous situation which can result in death or serious bodily injury.

NOTE
Refers to a situation which can result in damage to property.



Application information and other useful information

2.1 Graphic reference symbols

The following notes and risk symbols can occur wholly or in part in the operating manual and on the installation. These symbols (or symbols on the installation) must be observed without fail!

The symbols have the following functions:

			
Caution! Electric shock!	Caution! Hand injuries!	Caution! Heavy loads!	No splashing water!
			
Access prohibited for persons with pacemak- ers!	Use protective gloves!	Wear safety glasses!	

3 General description and use for the Purpose Intended

3.1 General description of the WasteStar FC system with collection tank

MEIKO WasteStar FC with collection tank is designed to dispose of incidental organic waste with a central system using a vacuum. The WasteStar -- disposal system fulfills the most recent legal stipulations with regard to waste management for organic materials in industrial kitchens. It can be operated without a connection to the wastewater system,

DIN 1986 part 1.

The modular system with central vacuum generation makes possible the economical, environmentally-friendly and rational preparation / disposal of kitchen waste and food waste.

The incidental organic waste is fed into infeed stations. The feed hoppers have a capacity of approx. 40 litres, which is vacuumed into a central collection tank.

Organic waste from the preparation zones are collected in commercially available GN containers and fed into a central separate infeed station. A button is pressed for vacuuming into the collection tank.

Optionally the contents of the grease and starch separator (grease, oil, sludge, starch) can also be conducted to the collection tank through pipelines.

Periodical maceration breaks up and homogenizes the organic waste in the collection tank. This process brings the waste to a consistency that prevents blockage of the tank emptying line upon disposal of the stored waste.

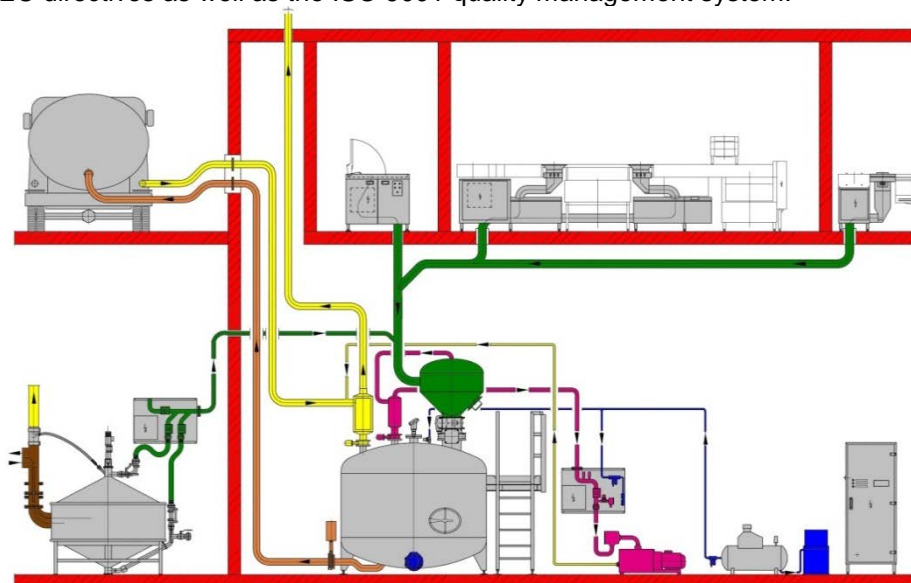
Consistent hygiene management can prevent unpleasant odours during disposal as well as when emptying the tank into the disposal vehicle.

The exhaust air from the vacuum pump and the smell emissions are discharged with a separate exhaust air duct via the roof.

The system is controlled centrally using a SPS control unit (Simatic S7). In the initial setting (automatic-operation) the control processes are fully automatic and are registered by signal lamps on the central switch cabinet.

Optional remote monitoring via modem is integrated into the system for purposes of maintenance and service. A connection to the central building - process control for the control data is provided.

The MEIKO WasteStar system complies with the quality and safety requirements of EC directives as well as the ISO 9001 quality management system.



3.2 General description of the WasteStar FC system with drainage press

MEIKO WasteStar FC with drainage press is designed to dispose of incidental organic waste with a central system using a vacuum. The WasteStar -- disposal system fulfills the most recent legal stipulations with regard to waste management for organic materials in industrial kitchens.

The modular system with central vacuum generation makes possible the economical, environmentally-friendly and rational preparation / disposal of kitchen waste and food waste.

The incidental organic waste is fed into infeed stations. The feed hoppers have a capacity of approx. 40 litres, which is vacuumed into a central suction tank.

Organic waste from the preparation zones are collected in commercially available GN containers and fed into a central separate infeed station. A button is pressed for vacuuming into the suction tank.

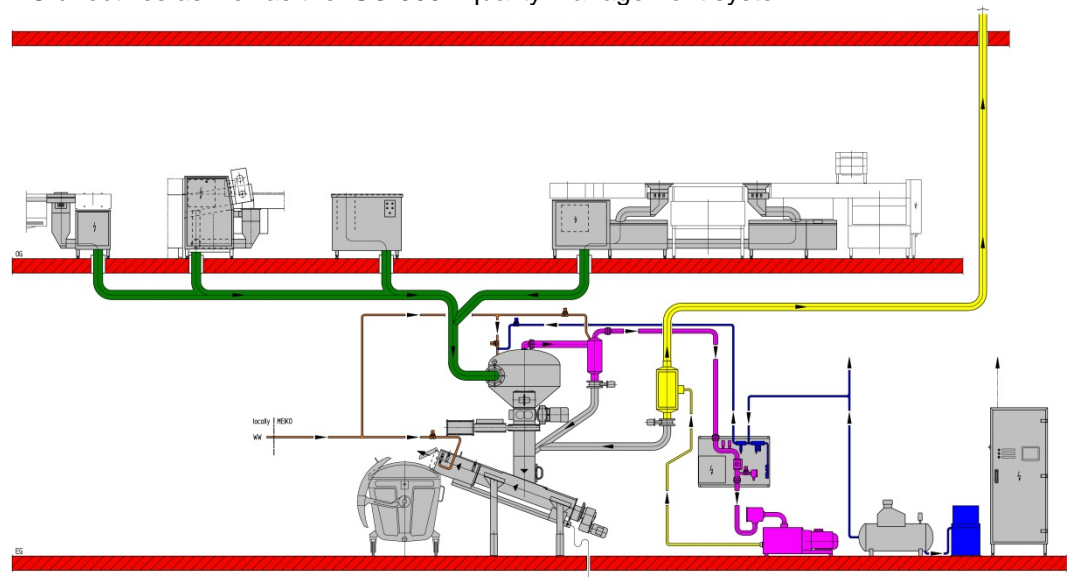
The disintegrator breaks down the organic waste after it has been extracted and then feeds it to a drainage press. The drainage press then removes any surplus water from the organic waste and channels it to the on-site drainage connection. The pressed organic waste falls from the drainage press and into an on-site container or an additional transport system.

The exhaust air from the vacuum pump and the smell emissions are discharged with a separate exhaust air duct via the roof.

The system is controlled centrally using a SPS control unit (Simatic S7). In the initial setting (automatic-operation) the control processes are fully automatic and are registered by signal lamps on the central switch cabinet.

Optional remote monitoring via modem is integrated into the system for purposes of maintenance and service. A connection to the central building - process control for the control data is provided.

The MEIKO WasteStar system complies with the quality and safety requirements of EC directives as well as the ISO 9001 quality management system.



3.3 Intended use

The installation must be deployed and operated only for its intended use only.

This WasteStar system is designed **only** for the disposal of ground-up organic kitchen waste any other use is not permitted

Leftovers and the following waste types are suitable for the sizer:

Organic particles (grain size $\leq 80\text{mm}$)

- Leftovers
- Food waste

If the WasteStar system is not used as intended, safe operation of the system is not guaranteed!

In case of injury or damage arising from the unintended use of the system, the manufacturer accepts no liability; the operator of the WasteStar system shall be liable in this case.

Any other use is not considered intended.

This installation is intended solely for use in a commercial environment!



The intended use of the system specifies that qualified and instructed personnel operates the system **only**!

Qualified personnel must be older than 14 years of age. Personnel must have been adequately qualified, instructed and authorised by the operator!

3.4 Foreseeable use

The installation **must not** be used for the following foreseeable uses:

- Metal parts, aluminium foil, beer mats, wire
- Cutlery pieces
- Glass/porcelain
- Living creatures
- Plastics, such as polystyrene
- Disposable crockery and plastic cutlery
- Yoghurt cups
- Plastic film (bags),
- Do not pour off deep frying oil or any other hardening oils into the funnel!
- Inorganic waste
- Paper waste, cardboard
- String
- Stones
- Wood
- Fabric cloth
- Larger amounts of the same organic kitchen waste and food waste (chops, coffee grounds etc.) are to be mixed with other organic kitchen and food waste! We recommend: Larger amounts of the same organic kitchen waste and food waste are to be mixed with other organic kitchen and food waste!
- No leftovers and waste with temperatures in excess of $\geq 50^{\circ}\text{C}$
- Solid bones (for gravy preparation etc.)
- No leftovers and waste with a grain size in excess of $\geq 80\text{mm}$ (leftovers $\geq 80\text{mm}$ must be comminuted beforehand).

4 EC Declaration of conformity

Muster / Example / Exemple / Esempio / Ejemplo / Voorbeeld / Mönster

EG-/EU-Konformitätserklärung

2017-11-07 (Update)

EC-/EU-Declaration of Conformity / CE-/UE-Déclaration de conformité / CE-/UE-Dichiarazione di conformità / CE-/UE-Declaración de conformidad /
EG-/EU-conformiteitsverklaring / EG-/EU-försäkrän om överensstämmelse

Firma

Company / Société / Ditta / Empresa / Fabrikant / Företag

MEIKO Maschinenbau GmbH & Co. KG
Englerstraße 3 - 77652 Offenburg - Germany

Kontakt

Contact / Contact / Contatto / Contacto / Contact / Kontakt

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E-mail: info@meiko.de
Telefon: +49(0)781/203-0

Seriennummer

Serial number / numéro de série / numero di serie / número de serie / volgnummer / serienummer

Abfallentsorgungsanlage Typ

Waste disposal unit, model / Installation d'élimination des déchets, modèle /
Impianto smaltimento rifiuti, modello / Instalación de restos de comida, modelo /
Avfallverwerkingsinstallatie, model / Avfallshanteringsanläggning modell

WasteStar FC

Konformitätserklärung

Declaration of Conformity / Déclaration de conformité / Dichiarazione di conformità / Declaración de conformidad / Conformiteitsverklaring /
Försäkrän om överensstämmelse

Hiermit bescheinigen wir in alleiniger Verantwortung die Konformität des Erzeugnisses mit den grundlegenden Anforderungen der folgenden EG-Richtlinien, harmonisierten Normen, nationalen Normen.

We hereby declare at our sole responsibility that the product conforms to the essential requirements of the following EC Directives, harmonized standards, national standards.

Par la présente nous certifions sous notre seule responsabilité la conformité du produit avec les exigences fondamentales des directives CE, normes harmonisées et normes nationales suivantes.

Con la presente dichiariamo sotto la nostra responsabilità la conformità del prodotto con i regolamenti basilari delle seguenti direttive CE normative armonizzate e normative nazionali.

Por la presente declaramos bajo nuestra sola responsabilidad que nuestros productos están en conformidad con las exigencias básicas de las siguientes directivas de la CE, normas homologadas y normas nacionales.

Hiermee verklaren wij onder geheel eigen verantwoordelijkheid de conformiteit van het product met de fundamentele en gestelde eisen volgens EG-richtlijnen, geharmoniseerde normen en nationale normen.

Vi intygar härmed på eget ansvar att produkten överensstämmer med de väsentliga kraven i nedan angivna EG-direktiv, harmoniserade standarder och nationella standarder.

Richtlinie / Directive / Directiva / Direttiva / Directiva / Richtlijn / Direktiv

2006/42/EG / 2014/30/EU

Dokumentationsbevollmächtigter

Responsible for documentation / Responsable de la documentation / Responsabile della documentazione / Responsable de la documentación / Voor deze documentatie verantwoordelijk /
Ansvarig för dokumentation

Viktor Maier
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Offenburg, 28.05.2019

MEIKO Maschinenbau GmbH & Co. KG

ppa.
(per procura)

Dr. Thomas Peukert
Technischer Leiter

Chief Technology Officer / Directeur de la technologie / Direttore tecnico /
Director técnico / Technisch directeur / Teknisk direktör



4.1 Declaration of Incorporation

Muster / Example / Exemple / Esempio / Ejemplo / Voorbeeld / Münster

Einbauerklärung

Datum: 2017-11-07 (Update)

Declaration of incorporation / Déclaration de montage / Dichiarazione di montaggio / Declaración de montaje / Inbouwverklaring / Försäkran om inbyggnad

Firma

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Seriennummer

Serial number / numéro de série / numero di serie / número de serie / volnummer / seriennummer

Maschinentyp

Machine type / Modèle machine / Tipo di macchina / Tipo de máquina / Machinemodel / Modell

Einbauerklärung für eine unvollständige Maschine

Declaration of incorporation for partly completed machinery / Déclaration de montage pour une machine incomplète / Dichiarazione di montaggio per una macchina incompleta / Declaración de montaje de incorporación para una máquina incompleta / Inbouwverklaring voor een onvolledige machine / Försäkran om inbyggnad för en ofullständig maskin

Hiermit bescheinigen wir:

We herewith certify / Nous certifions par la présente / Con la presente attestiamo / Por la presente certificamos / Hiermee verklaren wij / Vi intygar härmed:

dass die zum Einbau in Maschinen vorgesehenen Produkte oder Baugruppen mit den grundlegenden Sicherheits- und Gesundheitsschutzanforderungen nach Anhang I der Maschinenrichtlinie 2006/42/EG übereinstimmen. Die speziellen technischen Unterlagen gemäß Anhang VII B (für unvollständige Maschinen) wurden erstellt und werden der zuständigen Behörde auf Verlangen in elektronischer Form übermittelt.

that the product or sub-assemblies that are intended for installation in machines complies with the fundamental health and safety requirements in accordance with Annex I of the Machine Directive 2006/42/EG. The special technical documents have been created according to Annex VII B (for partly completed machinery) and shall be transferred to the responsible authority in electronic format when requested.

que les produits et modules destinés au montage dans des machines satisfont aux exigences fondamentales en matière de sécurité et de santé conformément à l'annexe I de la directive sur les machines 2006/42/CE. Les dossiers techniques spécifiques conformément à l'annexe VII B (pour les machines incomplètes) ont été rédigés et seront transmis sur demande aux autorités responsables sous forme électronique.

che i prodotti o gruppi di componenti previsti per il montaggio in macchine corrispondono ai requisiti essenziali di sicurezza e di tutela della salute secondo l'allegato I della Direttiva Macchine 2006/42/CE. La documentazione tecnica speciale secondo allegato VII B (per macchine incomplete) è stata creata e sarà trasmessa su richiesta e in forma elettronica all'ente responsabile.

que los productos o grupos previstos para la incorporación en máquinas cumplen con los requisitos básicos de seguridad y protección de la salud, conforme al anexo I de la directiva de máquinas 2006/42/CE. Se han confeccionado los documentos técnicos especiales conforme al anexo VII B (para máquinas incompletas), que se entregarán a las autoridades competentes en forma y por vía electrónica, en caso de solicitarlo las mismas.

dat de voor inbouw in de machine bestemde producten of bouwgroepen voldoen aan de fundamentele eisen met betrekking tot de veiligheid en bescherming van de gezondheid conform bijlage I van de machinerichtlijn 2006/42/EC. De speciale technische documentatie is conform bijlage VII B (voor onvolledige machines) opgesteld en wordt desgewenst in elektronische vorm ter beschikking gesteld aan de verantwoordelijke instanties.

att produkterna eller komponenterna som är avsedda för inbyggnad i maskiner överensstämmer med de grundläggande säkerhets- och hälsoskyddskraven i bilaga I i maskindirektivet 2006/42/EG. De särskilda tekniska underlagen enligt bilaga VII B (för ofullständiga maskiner) har tillhandahållits och översänds på begäran till ansvariga myndigheter i elektronisk form.

die Konformität mit den Bestimmungen folgender weiterer EG-Richtlinien:

the conformity with the provisions of the following additional EC Directives:

la conformité avec les dispositions des directives européennes supplémentaires suivantes:

la conformità alle disposizioni delle seguenti ulteriori direttive CE:

la conformidad con las disposiciones de las siguientes directivas de la CE adicionales:

de conformiteit met de bepalingen van de volgende aanvullende EC-richtlijnen:

överensstämmelse med bestämmelserna i nedan angivna ytterligare EG-direktiv:

2014/30/EU



Die vorgenannten speziellen technischen Unterlagen können angefordert werden bei:

The above mentioned technical documentation can be requested from:

Les documents techniques spécifiques précités peuvent être demandés auprès de:

La suddetta documentazione tecnica speciale può essere richiesta presso:

Los documentos técnicos especiales reseñados con anterioridad se pueden solicitar a:

De bovengenoemde speciale technische documentatie kan worden opgevraagd bij:

Ovannämnda särskilda tekniska underlag kan beställas från:

Dokumentationsbevollmächtigter

Responsible for documentation / Responsable de la documentation / Responsabile della documentazione / Responsable de la documentación / Voor deze documentatie verantwoordelijk

Viktor Maier

MEIKO Maschinenbau GmbH & Co. KG
Englerstr. 3 - 77652 Offenburg - Germany

Die Inbetriebnahme ist so lange untersagt, bis festgestellt wurde, dass die Maschine oder Anlage, in welche die o.a. unvollständige Maschine eingebaut werden soll, den Bestimmungen der Maschinenrichtlinie 2006/42/EG entspricht.

Commissioning is prohibited until it has been determined that the machine or system into which the partially completed machinery specified above is to be incorporated also complies with the provisions of the Machinery Directive 2006/42/EC.

La mise en service de la machine est interdite jusqu'à ce qu'il ait été déterminé que la machine ou l'installation dans laquelle la machine incomplète susmentionnée doit être montée respecte les dispositions de la directive relative aux machines 2006/42/CE.

La messa in funzione è vietata fino a che non sia stato accertato che la macchina o l'impianto, in cui deve essere installata la suddetta macchina incompleta, risponda alle disposizioni della Direttiva Macchine 2006/42/CE.

La puesta en marcha estará prohibida hasta que no se haya determinado que la máquina o instalación en la que se pretenda incorporar la máquina incompleta indicada arriba cumpla las disposiciones de la directiva de máquinas 2006/42/CE.

De inbedrijfstelling is niet toegestaan voordat is vastgesteld dat de machine of installatie waarin de o.a. onvolledige machine moet worden ingebouwd aan de bepalingen van de machinerichtlijn 2006/42/EC voldoet.

Idrifttagande är förbjudet tills att det har fastställts att maskinen eller anläggningen som den ovannämnda ofullständiga maskinen ska byggas in i uppfyller bestämmelserna i maskindirektivet 2006/42/EG.

Offenburg,

MEIKO Maschinenbau GmbH & Co. KG

ppa.

(per procura)

Dr. Thomas Peukert

Technischer Leiter

Chief Technology Officer / Directeur de la technologie / Direttore tecnico /
Director técnico / Technisch directeur / Teknisk direktör

5 General safety rules



NOTE

The following safety instructions are for your protection as well as the protection of others and the installation. Compliance with them is therefore absolutely necessary.

5.1 Operator's duty of care

This installation has been constructed and designed based on a risk assessment and careful selection of the applicable harmonised standards, as well as additional technical specifications.

It is therefore state of the art and guaranteed to provide maximum safety. Safety can only be guaranteed during operation if all necessary measures are taken.

The operator of the installation has an obligation of care to ensure that these measures are planned for, and also to check that they are correctly implemented.

5.2 Measures to ensure safe system operation



The operator must especially make sure that...

- ... the installation is only used in accordance with the regulations
In case of other use or operation, damage or risks may arise for which we accept no liability (cf. chapter "Intended use").
- in order to preserve the operational and safety guarantees, whenever required, only original parts supplied by the manufacturer are used. The user loses all potential claims if the system was altered with others than original spare parts.
- only appropriately qualified and authorized personnel use, maintain, and repair the installation.
- the relevant personnel is regularly trained in all questions relating to safety at work and environmental protection and, in particular, that they are familiar with the operating instructions as well as with the safety information provided in them.
- the installation is only operated in perfect, operationally efficient condition, all safeguards and cladding panels are installed, and, in particular, that the safety systems and switch elements are regularly checked for their operational efficiency.
- the required personal protective equipment is made available to maintenance and repair personnel, and is worn by them.
- a functional test on all safety systems of the installation is carried out during every regular maintenance.
- all the safety, warning and operating instructions provided are not removed and are legible.
- any necessary regular checks on supply parts are carried out. More detailed information, if required, can be found in the relevant operating instructions.

- after the installation, setting in operation and handing-over of installation to the customer/operator further modifications are not allowed (f. ex. electrical changes or changes to reg. location). Modifications of the plant, especially of a technical nature performed without the manufacturer's written approval, and by unauthorised persons, lead to complete loss of your warranty entitlement and void product liability.

5.3 Basic safety measures



DANGER

Risk of injury due to electric shock, damage to property.

Parts carrying electric current as well as moving or rotating parts can cause Dangers to the user's life and limb and material damage.

Danger can arise from the improper use of the installation or if it is used for purposes for which it was not intended.

The installation may only be operated by adequately qualified staff who have been trained by the operating company and who have been trained about the Hazard and Safety Instructions.

When electrical equipment is in operation, it is inevitable that certain parts carry a dangerous current.

All current to the whole installation must be switched off before the machine's cladding or electrical equipment is opened.

PLACE THE MAIN SWITCH IN THE "OFF" POSITION and install suitable security measures to prevent the switch from being switched on.

Works or repairs on electrical parts of the installation are to be performed only by specialists. Observe accident prevention rules.

You must not restart the system until after replacing **all detachable panels!**

- **Qualified staff**, as defined by the Operating Instructions, are persons:
 - who are over 14 years of age,
 - who have read and who observe the safety instructions and the operating instruction,

NOTE**Damage to property**

Do not spray the system, switch cabinets and electronic components using a water hose or pressure washer !

Avoid flooding the base of the system to prevent damage to components from penetrating water!

Observe all the instructions posted on the installation.

The installation must only be operated under the supervision of properly instructed staff. Do not use the machine if you are unsure about system operation.

Always keep flaps and cladding sheets closed!

**NOTE****Wear suitable work clothing**

Loose clothing and jewellery increases the risk of being caught on protruding parts.

- Wear closely fitting work clothing.
- Do not wear rings, necklaces, or other pieces of jewellery.
- Wear protective gloves.
- Wear secure, suitable shoes.

**5.3.1 Working on the electric fittings****⚠ DANGER****Risk of injury due to electric shock**

Any work or repairs to the electrical equipment on the dishwasher should only be conducted by a qualified electrician!

Electric fittings must be regularly checked!

Fix loose connections!

Damaged lines/cables must be immediately replaced!

6 Delivery, transport, installation and assembly

6.1 Delivery



NOTE

Check that the delivery is complete immediately after receiving it by comparing it to MEIKO's contract confirmation and/or the delivery note.

If necessary, complain about any missing parts immediately to the shipping company and notify MEIKO.

Check the entire installation for any damage that may have occurred during shipping.

In the event of any transport damage, please inform MEIKO immediately in writing, and also send a photo of the damaged parts to us.

6.2 Transport and installation



WARNING

Risk of injury caused by heavy loads!

In order to avoid damaging the system and causing serious injury during transport, the transport procedures must be carried out by qualified personnel only and in accordance with the safety precautions.

Read the chapter "General safety instructions".



- The installation must only be transported on the supplied wooden frame. The packing is specifically designed to allow the appliances to be moved safely and securely using a pallet jack or a sack truck.

- For safe transport, the installation is supported by a special square-timber frame.
- Observe transport instructions on the packing.
- Handle with care.
- Unpack the installation.

6.2.1 Installation and assembly

The system must be installed as per the information in the installation drawing. It **must** be installed by a licensed and authorised technician.

We decline any responsibility for damages caused by incompetent connections.

System installation steps:

The complete unit must be levelled in both directions using a water level.

Compensate for an uneven floor by adjusting the feet.

Table joints must be sealed with detergent-resistant sealing compound (e.g. silicone).

6.2.2 Assembly instructions (for a partially completed machine)

These apply where the MEIKO product is a partially completed machine in the sense of the Machinery Directive (Directive 2006/42/EC).

Observe the following items when connecting MEIKO products to an existing installation:

- The components must be aligned with one another, connected in an appropriate manner and fastened so that safe operation is assured. Choose conditions and fasteners on site in line with this.

Dangers (e.g: drawing in, crushing, shearing or cutting) that potentially arised due to the connection must be safeguarded appropriately.

The electrical connection to the supply grid on site, and any necessary electrical connections must be implemented in line with the enclosed wiring diagram.

During installation, make sure that you avoid damage, in particular to the electrical installation.

After completing the works, check the system for damage.

Safety and functional tests must be performed in the scope of testing the complete system at the latest.

The system is supplied with slide rails to optimise the transition point where applicable.

Working on the electric fittings



DANGER

Risk of injury due to electric shock

Work or repairs to the electrical equipment of the system must be conducted by a qualified electrician!

The wiring diagram for the partially completed machine delivered contains all necessary operational shut-offs known to the manufacturer MEIKO, as well as other known, necessary shut-offs and electrical connections. The connectors are clearly indicated in the wiring diagram. Always make sure that these connections are implemented prior to commissioning the machine, and that they work reliably.

If any unknown sources of danger that are not described by MEIKO arise due to connecting system parts, you must eliminate them; this may potentially mean that you must operate the machine.

6.3 Instructions for disposal of packing material

- The four-sided wooden frame consists of untreated, raw pine / spruce. Special country-specific import regulations may also stipulate the use of wood which has been treated against pests.
- The plastic sheeting (PE sheeting) may be recycled.
- The cardboard packaging material used to protect the edges can also be recycled.
- The hoop-casing strip made of steel can be recycled together with the steel scrap.
- The plastic tensioning strap of plastic (PP) can be recycled.



6.4 Operating conditions

It is assumed that the planning of the system, as well as installation, setting in operation and maintenance works are executed by sufficiently instructed staff and that these works are checked by responsible specialists. The details on the system type plate must match those of the standard drawing and the locally available connection conditions.

Conditions to be provided by the customer:

- Frost free storage and installation area
- Electrical connection in accordance with the installation drawing.
- Anti-slip floor coverings must be provided in the system's work area.

6.4.1 Requirements for the installation area

Ensure that the storage and installation area is permanently frost free.

If the system is installed in an area where the surrounding temperatures are below 12°C, the water freezing inside may damage the internal water components (pump, solenoid valve, etc.).

6.5 Requirements for the electrical connection



DANGER

Risk of injury due to electric shock!

Work on the electrical machine components may be undertaken by specialist electricians only.

When connecting the power supply to the system, observe the general electrical regulations.

The relevant wiring diagram is available behind the front panel of the installation. This wiring diagram must remain in the installation!

The type plate featuring electrical connected loads is available twice, 1 x visible from the outside and 1 x behind the front cover panel.

The customer must guarantee the following points relating to the connection:

The correct voltage and type of current must be available

The power supply must be fused according to regulations with a mains separator in the permanently wired electrical installation.

If an unearthed neutral (N) is used with alternating current, the power disconnection device must have 4-poles (with alternating current 2-poles).

The installation must be connected to a potential equalisation system!

If the neutral line (N) is not earthed, you must use a 4-pin master switch. Mains connecting leads must be oil-resistant, shielded cables no lighter than an H 07 RN-F cable.

For connection to three-phase current a 5-pole terminal strip (L1, L2, L3, N, PE) must be used.

Electricity supply without neutral conductor (N): when connecting to three-phase current, use a 4-pole clamping strip (L1, L2, L3, PE).

Conductor colours: live conductor L1 = black/1, L2 = brown/2, L3 = grey/3, neutral conductor N = blue/4, ground wire conductor PE = green-yellow.

The potential equalisation connection must be carried out in accordance with the requirements of the local electricity supply company and all applicable local regulations (in Germany VDE 0100 Part 540 must be observed).

The products are intended for permanent connection to the on-site power supply and have been tested for the market accordingly. Any other form of electrical connection is to be established by a licensed electrician.

Do not connect any additional consumers to the fuse protecting the installation.

- Re-tighten all terminal fixing screws before the setting in operation.

7 System settings by authorised Service technician upon initial commissioning

7.1 Commissioning



Commissioning and training will be handled and provided by MEIKO- authorised service technician. The operator must not use the installation before completing training.

To avoid damages or dangerous injuries during the setting in operation of the installation, please observe the following points:



WARNING

Risk of injury , damage to property!

As a result of unintended work on the system.

The chapter "**General safety instructions**" must be read and understood by all persons who will operate or make service, resp. repair works on the machine.

Before initial startup, check that any tools and parts not belonging to the installation have been removed.

Make sure that any liquid spills have been removed.

Activate all the safety systems before commissioning.

Check that all screw connections are tight.

Read the chapter "General safety instructions".

8 Product Description



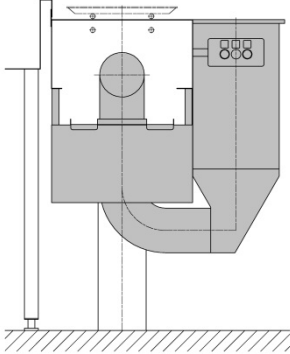




8.1 Structure

WTS-A



WTS-AS



WTS-AI	
	
Feeding station with control section	
WTS-AK	
	
WTS-AM	
	
Suction station of the fresh grease separator	
WTS-F	
	
Suction station Riser Unit	

WTS-R	
	
Switch cabinet with control elements	
	
Tank emptying unit with controls	
	

9 Operation the WasteStar FC

System operators must be very familiar with the Operating Instructions. Incorrect operation may result in personal injury or material damage.

9.1 Operation WTS-A

- The feeding station is switched on by briefly pressing the white ON button. This is confirmed when the ON button lights up.
- Put the collected organic kitchen and food waste into the funnel.
- Suction of the feeding station is started by briefly pressing the white ON button.
- The feeding station is switched off by pressing the black OFF button.



Note 1!

The orange "release" light on the control panel means the system is ready for suction.

Note 2!

Whenever the feeding is switched on, the white ON button flashes if there are any errors detected. A fault can be reset at this station by pressing the OFF button and then the ON button again.

If the ON button continues to flash after the feeding station has been switched back on again, contact building services immediately. Suction can be continued only after the fault has been rectified and the error message has been acknowledged on the touch panel (switch cabinet in the wet waste area).

Note "high vacuuming power"!

If the funnel is not emptied after the suction process, you can start a suction process with high vacuuming power by pressing the white ON button and holding it for more than 2 seconds.

9.2 Operation of the WTS-AK / AS / AM

- The feeding station is switched on by pressing the white ON button. This is confirmed when the ON button lights up.



Switching on the feeding station starts a suction process. Further suction processes are automatically started using set time intervals. The automatic suction processes end when the black OFF key is pressed.

- Put the collected organic kitchen and food waste into the funnel.
- With the station switched on, pressing the white ON button starts suction between automatic suction processes.
- The feeding station is switched off by pressing the black OFF button. The system stops if the OFF button is pressed during the suction process.



Note 1!

The orange "release" light on the control panel means the system is ready for suction.

Note 2!

If the feeding is switch on, the white ON button flashes if there is an error. A fault can be reset at this station by pressing the OFF button and then the ON button again.

If the ON button continues to flash after the feeding station has been switched back on again, contact building services immediately. Suction can be continued only after the fault has been rectified and the error message has been acknowledged on the touch panel.

Note: Automatic suction process!

You can switch off the "Automatic suction" status. Every suction process must then be started by pressing the ON button.

Note: Suction process not started!

If the funnel is not emptied by the suction process, one can start another suction process with higher suction power by pressing the white ON button and holding it for more than 2 seconds.



9.3 Operation of the tank emptying process, collection tank depressurized without pendulum gas line

- Circulation is activated after logging in (turning on the key switch)!
 - Circulation should take place for at least 15 min.!
 - Circulation is deactivated by selecting a "without compressed air" suction process (pressing the selection button)!
 - (Key) switch "Acknowledge – connection" set to position 1.
 - Tank emptying – connect hose.
 - Option!
- "Start without compressed air" - suction power from the disposal vehicle!
- Press the white illuminated button "Start without compressed air" -- the selected button will be light up continuously.
 - The selection can be switched off by pressing the "Stop" button and started again!
 - Emptying can take place.
 - After emptying, the tank vehicle has to be vacuumed for approx. 2 min.
 - Set (key) switch "Acknowledge connection" after emptying to position 0.
 - Disconnect tank emptying hose from "food waste" tank wagon connection.



9.4 Operation of the tank emptying process, collection tank depressurized with pendulum gas line

- Circulation is activated after logging in (turning on the key switch)!
 - Circulation should take place for at least 15 min.!
 - Circulation is deactivated by selecting a "without compressed air" suction process (pressing the selection button)!
 - (Key) switch "Acknowledge – connection" set to position 1.
 - Tank emptying – connect hose.
 - Pendulum gas – connect hose.
 - Option!
- "Start without compressed air" - only suction power from the disposal vehicle!
- Press the illuminated white button "Start without compressed air", and the selected button will light up continuously.
 - The selection can be switched off by pressing the "Stop" button and started again!

- Emptying can take place.
- After emptying, the tank vehicle has to be vacuumed for approx. 2 min.
- Set (key) switch "Acknowledge connection" after emptying to position 0.
- Disconnect tank emptying hose from "food waste" tank wagon connection.
- Disconnect the pendulum gas hose at the "pendulum gas" hose connection.

9.5 Operation of tank emptying process, collection tank compression-proof without pendulum gas line



- Circulation is activated after logging in (turning on the key switch)!
 - Circulation should take place for at least 15 min.!
 - Circulation is deactivated by selecting a suction process (pressing the selection key) "With compressed air" or : "Without compressed air"!
 - (Key) switch "Acknowledge – connection" set to position 1. Pressing "Acknowledge – connect" activates circulation!
 - Tank emptying – connect hose.
 - Option!
- "Start without compressed air" - only suction power from the disposal vehicle !
- "Start with compressed air" - compressed air from the MEIKO unit!
- Press the illuminated white button "Start without compressed air" or "Start with compressed air" and the selected button is continuously lighted up.
 - If you select compressed air, wait one minute before the tank vehicle starts the suction process.
 - The selection can be deactivated and restarted by pressing the "Stop" button!
 - Emptying can take place.
 - After emptying the suction process is started "Without compressed air" so that the tank vehicle can vacuum.
 - Set (key) switch "Acknowledge connection" after emptying to position 0.
 - Disconnect tank emptying hose from "food waste" tank wagon connection.
 - Disconnect the pendulum gas hose at the "pendulum gas" hose connection.

9.6 Operation of the tank emptying process, collection tank compression-proof with pendulum gas line



- Circulation is activated after logging in (turning on the key switch)!
- Circulation should take place for at least 15 min.!
- Circulation is deactivated by selecting a suction process (pressing the selection key) "With compressed air" or : "Without compressed air"!
- (Key) switch "Acknowledge – connection" set to position 1.
Pressing "Acknowledge – connect" activates circulation!
- Tank emptying – connect hose.
- Pendulum gas – connect hose.
- Option!

"Start without compressed air" - only suction power from the disposal vehicle!

"Start with compressed air" - compressed air from the MEIKO unit!

- Press the illuminated white button "Start without compressed air" or "Start with compressed air" and the selected button is continuously lighted up.
- If you select compressed air, wait one minute before the tank vehicle starts the suction process.
- The selection can be deactivated and restarted by pressing the "Stop" button!
- Emptying can take place.
- After emptying the suction process is started "Without compressed air" so that the tank vehicle can vacuum.
- Set (key) switch "Acknowledge connection" after emptying to position 0.
- Disconnect tank emptying hose from "food waste" tank wagon connection.
- Disconnect the pendulum gas hose at the "pendulum gas" hose connection.

9.7 Switching on the WasteStar machine



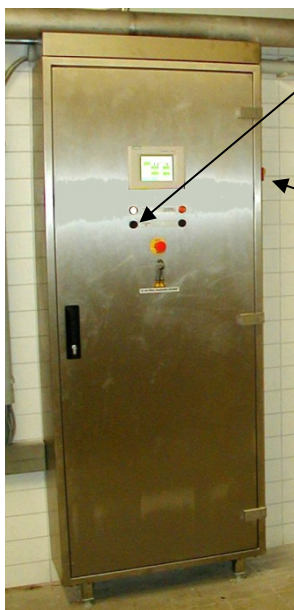
Switch on the main switch on the side of the electrical control cabinet!

Press the white "Control Unit ON" button
Press the white "Control Unit ON" button on the electrical control cabinet in the waste storage area!
The WasteStar machine is now ready for operation!



After a power failure the control of the wet waste system must be switched on using the button on the control cabinet. It does not start up on its own!

9.8 Putting the WasteStar machine out of service



Press the “Control Unit OFF” button on the electrical control cabinet in the waste storage area!
The WasteStar machine is switched off!

Switch off the main switch on the electrical control cabinet!
The WasteStar machine is now out of service!



In principle:

The control unit on the switch board should, in principle, be in a 'ready for operation' status, because circulation in the WasteStar FC system with collection tank is controlled cyclically. If it is in 'inactive' status, food residue cannot be homogenised!

10 Cleaning and switching off the system

WARNING



Damage to property

Do not spray the system, switch cabinets and electronic components using a water hose or pressure washer!

Avoid flooding the base of the system to prevent damage to components from penetrating water!



DANGER

Risk of injury due to electric shock! Damage to property!

Switch off the power supply using the locally available mains disconnecter prior to any cleaning or maintenance and care work and secure it with a padlock!

The key for this lock must be kept in the hands of the person carrying out the maintenance and repair work!

Failure to observe these precautions can result in severe injury or damage to property.



DANGER

Risk of injury, severe injury or death!

Caused by unauthorised access to the collection tank.

Before commencing cleaning work, the collecting tank must be drained and flushed. It is recommended to do cleaning after the emptying of the collecting tank.

Ensure sufficient ventilation in the tank.

Wear firm shoes, work gloves and a helmet.

A helper must be posted as a safety officer and must maintain constant contact with the person working in the collection tank.

10.1 Cleaning the pipe magnet, daily

Please observe the manufacturer's safety instructions and the separate operating instructions for pipe magnets before cleaning the pipe magnet. They are located in the enclosed manufacturer documents in your documentation.

10.2 Cleaning the agitator, monthly

Conduct a cleaning of the stirrer/mixer inside the collecting tank, respectively eliminate all disturbing residues sticking on the mixer (causing braiding).

10.3 Cleaning of the collection tank, every six months

Working in tanks is classified as hazardous in line with the employers' liability association rules. Young persons are not permitted to perform the hazardous tasks of "Entering" and "Moving in".

Before commencing cleaning work, the collecting tank must be drained and flushed. It is recommended to do cleaning after the emptying of the collecting tank.

Ensure sufficient ventilation in the tank.

Wear firm shoes, work gloves and a helmet.

A helper must be posted as a safety officer and must maintain constant contact with the person working in the collection tank.

- Drain the collection tank.
- Open the collection tank and visually check for foreign matter and dirt.
- Spray out the collection tank and remove any potential foreign matter.
- Close the collection tank.

11 Discharging the collection tank

The connections for the suction and pendulum gas line and the operating console are in a control cabinet near the street.

Suction takes place via a DN 100 connection pillar to which the discharge vehicle can be connected.

The used air (pendulum gas line) can also be connected to a DIN 100 connecting sleeve.

The following switching-on options are available on the operating panel:

Generally the built-in key switch is used to release tank emptying. You can also choose by means of a button whether to vacuum out the collection tank with or without the assistance of compressed air.

The "Suction with and without compressed air assistance" option can be deactivated by pressing the "OFF" button.

Once the suction operation is complete, the key switch must be reset to "0".

12 Changing the waste container on the drainage press suction tank (container use)

- Switch off the machine ("Control unit OFF" pushbutton)
- Remove the full waste container.
- Position and secure a new waste container.
- Switch on the machine (white pushbutton "Control unit ON")

13 Maintenance and care

13.1 Care, general

The installation has been designed to keep the need for cleaning, care and maintenance to a minimum.

However, for reliable, safe and long-term function of the installation, and in the interest of hygiene and cleanliness, correct care and maintenance is necessary.

13.2 Care of stainless steel surfaces

We recommend cleaning the stainless steel surfaces only when needed with cleaner and care products suitable for stainless steel.

Lightly soiled parts can be wiped with a (possibly damp) cloth or sponge.

Be sure to wipe dry after cleaning to avoid traces of scale. Use demineralised water if possible.

Do not use aggressive cleaning or scouring agents.

The care products must not attack the stainless steel, form deposits, or cause discoloration.

Never use cleaning agents that contain hydrochloric acid or bleaches based on chlorine.

Never use cleaning equipment that you have used previously by non-stainless steel to avoid external corrosion.

Aggressive, external influences due to cleaning and care products that evaporate in the vicinity of the system, or direct application, may lead to system damage and put the material at risk (e.g. aggressive tile cleaners).

Caution!

Observe the manufacturers' safety rules on the original packing and safety data sheets.

14 Staff training

Only trained and instructed personnel are allowed to work on the tray stacker. Staff responsibilities must be clearly defined in terms of operation, maintenance and repairs.

Any personnel undergoing training are only allowed to work on the installation under the supervision of an experienced person.

Persons	Trained operating personnel	Authorised trained persons	Authorised Service technician
Activity			
Installation and assembly			◆
Commissioning			◆
Operation, use	◆	◆	◆
Cleaning	◆	◆	◆
Check safety fittings		◆	◆
Troubleshooting		◆	◆
Troubleshooting, mechanical		◆	◆
Troubleshooting, electrical		◆ *	◆
Maintenance		◆	◆
Repair works		◆	◆

* trained electrician.

The instructions must be acknowledged in writing.

15 Maintenance, servicing

We recommend you conclude a maintenance contract with our agency to guarantee a long service life of the system.

Observe the maintenance intervals prescribed in the operating instructions!

Observe the maintenance instructions for the individual components!

A functional test on all safety systems of the installation is carried out during every regular maintenance.

Carefully dispose of any cleaning products that could harm the environment!

15.1 Basic safety measures during normal operation



DANGER

Risk of injury due to electric shock! Damage to property!

Switch off the power supply using the locally available mains disconnect prior to any maintenance or repair work and secure it with a padlock!
The key for this lock must be kept in the hands of the person carrying out the maintenance and repair work!

Failure to observe these precautions can result in severe injury or damage to property.



WARNING

Risk of injury or severe injury!

Caused by unauthorised access.

Set up a safety fence during maintenance procedures to prevent unauthorised access.

Existing safety systems must not be removed!

As a matter of principle, no safety systems may be disassembled or decommissioned (except in the event of maintenance and repair work)!



Danger of scalding/burning!

Before carrying out any maintenance and repair work, ensure that all the parts of the machine that may be touched have cooled down to room temperature!

15.1.1 Before setting in operation - after maintenance and repair works

Legal requirements relating to the avoidance of waste materials and to their recycling/removal in accordance with applicable regulations must be observed!

In particular, during installation, repair and maintenance work, materials that could pollute water must not pollute the ground or run into the sewerage system:

- Grease and oils
- Hydraulic oils
- Coolant
- Cleaning fluids containing solvents

These materials must be stored, shipped, collected and disposed of in suitable containers!

16 Maintenance manual



NOTE

Maintenance work should **only** be conducted by authorised MEIKO personnel.

Whenever any electrical components are disconnected and reconnected, replaced or repaired, a safety test must be conducted, at least on these components!!!

17 Disposal of the installation

When you eventually dispose of the installation (dismantlement/scrapping), the parts and their corresponding materials should preferably be re-used.

A list of all materials that frequently occur during disassembly follows below:

- Chromium-nickel steel
- Aluminium
- Copper
- Brass
- Electrical and electronic parts
- PP and other plastics

18 Noise emission

The noise level is determined on the basis of: DIN EN ISO 11204 precision class 2

Noise level in the workplace	LpA ≤ 85 dB (measurement uncertainty +/- 2.5 dB)
------------------------------	---

19 Non-ionising radiation



Non-ionising radiation is not produced intentionally but unfortunately comes about due to electrical operating equipment (e.g. electrical motors, high-voltage cables and magnetic coils). In addition the installation has no strong permanent magnet. There is a high possibility of eliminating any influence on active implants (e.g. pacers, defibrillators) by maintaining a safety distance of 30 cm (distance of the field source to the implant).

20 Abbreviations

LpA	LpA denotes the emission sound pressure levels at the workplace
dB	Abbreviation denoting decibel, the so-called sound pressure level.

21 Inspecting pressure vessels for systems that require monitoring

The collection tank and the compressor used by the WasteStar system are elements which, pursuant to paragraph 14 and 15 of the BetrSichV (Ordinance on Industrial Safety and Health), require examination prior to commissioning as well as periodic inspections during their service life.

The following responsibilities are incumbent upon the customer / operator of the WasteStar system!

PLEASE NOTE:

In accordance with the Pressure Equipment Directive (97/23/EC) the container (collection tank and compressor) is to be registered with the responsible TÜV for acceptance testing.

(See Construction & pressure inspection certificate, TÜV)

Inspection after 5 years:

Internal inspection (visual check)

Inspection after 10 years:

External inspection with pressure test (water filling) 1.3- fold working pressure.

22 Index

A

Abbreviations	35
Authorization	5

C

Care, Cleaning	32
Changing the waste container on the drainage press suction tank (container use)	32
Cladding panels	14
Cleaning	30
Clothing	15
Commissioning	13, 20

D

Declaration of conformity	10
Delivery	16
Discharging the collection tank	31
Disposal	35
Disposal of packing material	17

F

Faults	15
Foreseeable use	9

I

Inspecting pressure vessels for systems that require monitoring	36
Installation and assembly	16
Installation area	18
Intended use	9

M

Maintenance	33, 34
-------------------	--------

N

Noise emission	35
Non-ionising radiation	35

O

Operating conditions	18
Operation	24

P

Packaging	16
Pressure cleaner	15

R

Requirements for the electrical connection	19
--	----

S

Safety instructions	13
Safety measures	14
Servicing	33
Staff training	33
Steel surfaces	32
Switching off	30
Symbols	6

T

Transport and installation	16
----------------------------------	----

W

Working on the electric fittings	15
--	----

23 NOTES

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