UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

February 26, 2018

Sheryl Dolan
Agent
Industrie de Nora, S.p.A.
c/o De Nora Tech
7590 Discovery Lane
Concord, OH 44077

Subject: Notification per PRN 98-10 – To revise labels and Manuals
Product Name: Salt Cartridge For Giselle
EPA Registration Number: 91386-1
Application Date: January 24, 2018
Decision Number: 538652

Dear Ms. Dolan:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Antimicrobials Division (AD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped "Notification" and will be placed in our records.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If you have any questions, you may contact Wanda Henson at (703) 308-6345 or via email at henson.wanda@epa.gov

Sincerely,

Demson Fuller, Product Manager 32
Regulatory Management Branch II
Antimicrobials Division (7510P)
Office of Pesticide Programs

{SMALL CONTAINER LABEL}

Salt Cartridge For Giselle®

a De Nora Business Unit

Produces Ready to Use Sanitizer or Disinfectant For hard, non-porous surfaces

Active Ingredient:
Sodium Chloride* 99.86%
Other Ingredients: 0.14%
Total: 100.00%

***Produces 0.6%, 0.1%, and/or 0.05% available chlorine**

KEEP OUT OF REACH OF CHILDREN

CAUTION

Read complete directions and precautions in the accompanying booklet and manual

EPA Reg. No. 91386-1

EPA Est. No. _____

Net Contents: 2.82 ounces (80 grams)

Mfg. by: Industries de Nora, S.p.A.
Via Bistolfi 35
20134 Milan, Italy

NOTIFICATION
91386-1
The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:
02/26/2018

{ACCOMPANYING BOOKLET}

Salt Cartridge For Giselle®

FIRST AID

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If Inhaled: Move person to fresh air. If person is not breathing call 911 or an ambulance then give artificial respiration, preferably mouth to mouth if possible. Call poison control center or doctor for treatment advice.

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Harmful if swallowed, absorbed through skin, or inhaled. Do not get in eyes, on skin or on clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

DIRECTIONS FOR USE:

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For use only in the Giselle® 1.0 or 2.0 Machine

Use Salt Cartridge for Giselle to produce the following solutions:

- Soleva Sodium Hypochlorite Solution (0.6%), a one-step disinfectant for hard, non-porous surfaces, environmental and non-critical care equipment surfaces. Solution kills bacteria, fungi, viruses and spores■**. Cleans and deodorizes.
- Soleva Sodium Hypochlorite Solution (0.1%), One-step sanitizer▲*** for hard, non-porous surfaces, environmental and food and non-food contact surfaces. Cleans and deodorizes.
- Soleva Sodium Hypochlorite Solution (0.05%), One-step sanitizer▲*** for hard, non-porous surfaces, environmental and food and non-food contact surfaces. Cleans and deodorizes.

Use solution onsite. Do not sell or distribute the solution to other sites.

■**SOLEVA 0.6% kills: **Staphyloc~~c~~occus aure~~a~~us (ATCC 6538), Pseudomonas aeruginosa ATCC15442, Salmonella enterica ATCC10708, Tr~~y~~ichophyton ~~mentagrophytes~~interdigitale ATCC9533, Poliovirus ~~t~~Type1 (Sabin Strain L~~c~~Sc-~~s~~2ab), Feline Calicivirus F-9 ATCCVR782,** and **Hepatitis C Virus ATCCVR534, HIV-1 (HTLV IIIB), Clostridium difficile ATCC43598.**

▲***SOLEVA 0.1% and 0.05% solution has been tested in the presence of 5% organic soil (blood serum) against **Staphyloc~~c~~occus aure~~a~~us (ATCC 6538)** on food contact surfaces and **Klebsiella pneumoniae (ATCC 4352)** on non-food contact surfaces ~~in the presence of 5% organic soil (blood serum)~~.

To use the Giselle salt cartridge:

- Dry, Ready-to-Use
- Shake vigorously before use.
- Remove the cap.
- Empty the cartridge inside the Giselle cartridge compartment.
- Insert cartridge inside the Giselle cartridge compartment.
- Gently tap the cartridge bottom, to facilitate salt crystals flow.
- Do not use if the cartridge or the cap is damaged.
- NOTE: The salt cartridge is single use and cannot be refilled.
- Labeling for sodium hypochlorite solutions produced from the Giselle salt cartridge and equipment (Giselle 1.0 and Giselle 2.0) is distributed attached to the bottles for these solutions. Giselle 1.0 produces the 0.6% and 0.1% solutions. Giselle 2.0 produces the 0.6% and 0.05% solutions. Users must follow all the directions for use that are listed in the manual for the Giselle 1.0 or Giselle 2.0 equipment and on all labeling.

STORAGE AND DISPOSAL:

Do not contaminate water, food, or feed by storage.

Pesticide Storage: Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration. In case of spill, flood areas with large quantities of water.
Pesticide Disposal: Product or rinsates that cannot be used must be diluted with water before disposal in a sanitary sewer.
Container Handling: Nonrefillable container. Do not reuse or refill this container. Offer for reconditioning if appropriate. Wrap empty container in paper and dispose with trash.

Please refer to the expiration date printed at the bottom of the cartridge.

{Attachment 1}
SOLEVA™

Sodium Hypochlorite Solution (0.6%)

One-step disinfectant for hard, non-porous surfaces
Environmental and non-critical care equipment surfaces
Kills bacteria, fungi, viruses and spores[*]
Cleans and Deodorizes
***See* label, booklet and manual for Salt Cartridge for Giselle, EPA Reg. No. 91386-1, for more information.**
Use solution onsite. Do not sell or distribute the solution to other sites.

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

If in eyes:	• **Hold eye open and rinse slowly and gently with water for 15-20 minutes.** • **Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.** • **Call a poison control center or doctor for treatment advice.**
If on skin:	• **Take off contaminated clothing.** • **Rinse skin immediately with plenty of water for 15-20 minutes.** • **Call a poison control center or doctor for treatment advice.**
If swallowed:	• **Call a poison control center or doctor immediately for treatment advice.** • **Have person sip a glass of water if able to swallow.** • **Do not induce vomiting unless told to do so by a poison control center or doctor.** • **Do not give anything to an unconscious person.**
Have the product container or label with you when calling a poison control center or doctor, or when going for treatment. You may also contact CHEMTREC at 1-800-424-9300 for emergency calls.	

Net Contents: 13.5 ounces (0.4 liter)

DIRECTIONS FOR USE:

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

- Ready-to Use. No further dilution required.
- Limit exposure of the solution to sunlight and heat sources.
- Include time (day/hour) of SOLEVA 0.6% solution production on the bottle using the dedicated label.
- Efficacy of the solution is maintained if used within 24 hours (0.6% Solution) from production and kept in sealed bottles. Do not use 24 hours after production time. Refer to the label indicating time of production.
- SOLEVA 0.6% solution can be used as a disinfectant on a variety of hard, non-porous, food and non-food environmental surfaces, and non-critical care equipment surfaces. (For a complete list, refer to the manual.)
- **To kill fungi or *Clostridium difficile spores*, pre-clean surfaces according to the instructions below prior to spraying SOLEVA 0.6% solution.**
- Spray SOLEVA 0.6% solution directly onto the surface to be disinfected. Hold sprayer 6 to 8 inches from the surface. Thoroughly wet the entire surface. Wait 10 minutes before rinsing with potable water. Thoroughly rinse surfaces when steel or coated metals are treated.

■* SOLEVA 0.6% kills: **Staphyloc~~c~~occus aure~~a~~us (ATCC 6538), Pseudomonas aeruginosa ATCC15442, Salmonella enterica ATCC10708, Tr~~y~~ichophyton ~~mentagrophytes~~ interdigitale ATCC9533, Poliovirus T~~t~~ype1 (Sabin Strain LSc~~s~~-2ab), Feline Calicivirus F-9 ATCCVR782, and Hepatitis C Virus ATCCVR534, HIV-1 (HTLV IIIB), Clostridium difficile ATCC43598.**

Special Instructions for Cleaning and Decontamination Against HIV and HCV of Surfaces/ Objects Soiled with Blood/Bodily Fluids:

Personal Protection: Wear appropriate barrier protection such as gloves, gowns, masks, or eye covering.

Cleaning Procedure: Blood and other body fluids must be thoroughly cleaned from surfaces and objects. Cleaning is to include vigorous wiping and/or scrubbing until all visible soil is removed. Special attention is needed for high-touch surfaces. Surfaces in patient rooms are to be cleaned in an appropriate manner, such as from right to left or left to right, on horizontal surfaces, and top to bottom, on vertical surfaces, to minimize spreading of the spores. Restrooms are to be cleaned last. Do not reuse soiled cloths.

Infectious Materials Disposal: Blood and other body fluids should be autoclaved and disposed of according to Federal, State and local regulations for infectious waste disposal.

Special Pre-Cleaning Instructions Prior to Disinfection for Fungi and *Clostridium difficile spores* -- Cleaning Instructions Prior to Disinfection of Heavily Soiled Surfaces or for *Clostridium difficile* spores:

Personal Protection: Wear appropriate barrier protection such as gloves, gowns, masks, or eye covering.

Cleaning Procedure: Fecal matter/waste must be thoroughly cleaned from surfaces/objects before disinfection by application with a clean cloth, mop, and/or sponge saturated with the disinfectant product. Cleaning is to include vigorous wiping and/or scrubbing until all visible soil is removed. Special attention is needed for high-touch surfaces. Surfaces in patient rooms are to be cleaned in an appropriate manner, such as from right to left or left to right, on horizontal surfaces, and top to bottom, on vertical surfaces, to minimize spreading of the spores. Restrooms are to be cleaned last. Do not reuse soiled cloths.
Infectious Materials Disposal: Materials used in the cleaning process that may contain feces/wastes are to be disposed of immediately in accordance with local regulations for infectious materials disposal.

This product is not to be used as a terminal sterilant/high level disinfectant on any surface or instrument that (1) is introduced directly into the human body, either into or in contact with the bloodstream or normally sterile areas of the body, or (2) contacts intact mucous membranes but which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body. This product may be used to preclean or decontaminate critical or semi-critical medical devices prior to sterilization or high level disinfection.

PRECAUTIONARY STATEMENTS:

HUMANS AND DOMESTIC ANIMALS: Avoid breathing spray mist as vapors may irritate. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Wear cotton, rubber, PVC, neoprene, Viton or latex clothing and gloves when using.

PHYSICAL AND CHEMICAL HAZARDS: Do not mix SOLEVA solution with other products as dangerous gases can be produced. Do not mix with acid. Do not mix with ammonia. Refer to the Use Manual for additional information concerning toxicity, first aid, use directions, storage and disposal.

STORAGE AND DISPOSAL:

Do not contaminate water, food, or feed by storage or disposal or cleaning of equipment.

Pesticide Storage: Store away from children. Store this product upright in a cool, dry area, away from direct sunlight and heat to avoid deterioration.

Pesticide Disposal: Product that cannot be used should be diluted with water before disposal in a sanitary sewer.

Container Disposal: Nonrefillable container. Do not reuse this container to hold materials other than 0.6% sodium hypochlorite solution produced by the Giselle® system.

{Attachment 2}
SOLEVA™

a De Nora Business Unit

Sodium Hypochlorite Solution (0.1%)

One-step sanitizer for hard, non-porous surfaces
Environmental and food and non-food contact surfaces
Cleans and deodorizes
***See* label, booklet and manual for Salt Cartridge for Giselle, EPA Reg. No. 91386-1, for more information.**
Use solution onsite. Do not sell or distribute the solution to other sites.

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

If in eyes:	• **Hold eye open and rinse slowly and gently with water for 15-20 minutes.** • **Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.** • **Call a poison control center or doctor for treatment advice.**
If on skin:	• **Take off contaminated clothing.** • **Rinse skin immediately with plenty of water for 15-20 minutes.** • **Call a poison control center or doctor for treatment advice.**
If swallowed:	• **Call a poison control center or doctor immediately for treatment advice.** • **Have person sip a glass of water if able to swallow.** • **Do not induce vomiting unless told to do so by a poison control center or doctor.** • **Do not give anything to an unconscious person.**
Have the product container or label with you when calling a poison control center or doctor, or when going for treatment. You may also contact CHEMTREC at 1-800-424-9300 for emergency calls	

Net Contents: 16.9 ounces (0.5 liter)

DIRECTIONS FOR USE:

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

- Ready-to Use. No further dilution required.
- Limit exposure of the solution to sunlight and heat sources.
- Include time (day/hour) of SOLEVA 0.1% solution production on the bottle using the dedicated label.
- Efficacy of the solution is maintained if used within 48 hours (0.1% Solution) from production and kept in sealed bottles. Do not use 48 hours after production time. Refer to the label indicating time of production.
- SOLEVA 0.1% solution can be used as a sanitizer on a variety of hard, non-porous, food and non-food environmental surfaces, and non-critical care equipment surfaces. (For a complete list, refer to the manual.)
- Pre-clean heavily soiled surfaces according to the instructions below.
- Spray SOLEVA 0.1% solution directly onto the surface to be sanitized. Thoroughly wet the entire surface. Wait 2 minutes before rinsing with potable water.
- **SOLEVA 0.1% solution has been tested in the presence of 5% organic soil (blood serum) against Staphylococcus aureaus (ATCC 6538) on food contact surfaces and Klebsiella pneumoniae (ATCC 4352) on non-food contact surfaces ~~in the presence of 5% organic soil (blood serum)~~.**

Special Cleaning Instructions Prior to Sanitization of Heavily Soiled Surfaces:
Personal Protection: Wear appropriate barrier protection such as gloves, gowns, masks, or eye covering.
Cleaning Procedure: Fecal matter/waste must be thoroughly cleaned from surfaces/objects before sanitization by application with a clean cloth, mop, and/or sponge saturated with the sanitizer product. Cleaning is to include vigorous wiping and/or scrubbing, until all visible soil is removed. Special attention is needed for high-touch surfaces. Do not reuse soiled cloths.

PRECAUTIONARY STATEMENTS:

HUMANS AND DOMESTIC ANIMALS: Avoid breathing spray mist as vapors may irritate. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Wear cotton, rubber, PVC, neoprene, Viton, or latex clothing and gloves when using.

PHYSICAL AND CHEMICAL HAZARDS: Do not mix SOLEVA solution with other products as dangerous gases can be produced. Do not mix with acid. Do not mix with ammonia.

Refer to the Use Manual for additional information concerning toxicity, first aid, use directions, storage and disposal.

STORAGE AND DISPOSAL:

Do not contaminate water, food, or feed by storage or disposal or cleaning of equipment.

Pesticide Storage: Store away from children. Store this product upright in a cool, dry area, away from direct sunlight and heat to avoid deterioration.

Pesticide Disposal: Product that cannot be used should be diluted with water before disposal in a sanitary sewer.

Container Disposal: Nonrefillable container. Do not reuse this container to hold materials other than 0.1% sodium hypochlorite solution produced by Giselle® system.

{Attachment 3}
SOLEVA™

Sodium Hypochlorite Solution (0.05%)

One-step sanitizer for hard, non-porous surfaces
Environmental and food and non-food contact surfaces
Cleans and deodorizes
***See* label, booklet and manual for Salt Cartridge for Giselle, EPA Reg. No. 91386-1, for more information.**
Use solution onsite. Do not sell or distribute the solution to other sites.

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

If in eyes:	• **Hold eye open and rinse slowly and gently with water for 15-20 minutes.** • **Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.** • **Call a poison control center or doctor for treatment advice.**
If on skin:	• **Take off contaminated clothing.** • **Rinse skin immediately with plenty of water for 15-20 minutes.** • **Call a poison control center or doctor for treatment advice.**
If swallowed:	• **Call a poison control center or doctor immediately for treatment advice.** • **Have person sip a glass of water if able to swallow.** • **Do not induce vomiting unless told to do so by a poison control center or doctor.** • **Do not give anything to an unconscious person.**
Have the product container or label with you when calling a poison control center or doctor, or when going for treatment. You may also contact CHEMTREC at 1-800-424-9300 or emergency calls.	

Net Contents: 16.9 ounces (0.5 liter)

DIRECTIONS FOR USE:

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

- Ready-to Use. No further dilution required.
- Limit exposure of the solution to sunlight and heat sources.
- Include time (day/hour) of SOLEVA 0.05% solution production on the bottle using the dedicated label.
- Efficacy of the solution is maintained if used within 48 hours (0.05% Solution) from production and kept in sealed bottles. Do not use 48 hours after production time. Refer to the label indicating time of production.
- SOLEVA 0.05% solution can be used as a sanitizer on a variety of hard, non-porous, food and non-food environmental surfaces, and non-critical care equipment surfaces. (For a complete list, refer to the manual.)
- Pre-clean heavily soiled surfaces according to the instructions below.
- Spray SOLEVA 0.05% solution directly onto the surface to be sanitized. Thoroughly wet the entire surface. Wait 2 minutes before rinsing with potable water.
- **SOLEVA 0.05% solution has been tested in the presence of 5% organic soil (blood serum) against Staphyloc~~c~~occus aure~~a~~us (ATCC 6538) on food contact surfaces and Klebsiella pneumonia~~e~~ (ATCC 4352) on non-food contact surfaces ~~in the presence of 5% organic soil (blood serum)~~.**

Special Cleaning Instructions Prior to Sanitization of Heavily Soiled Surfaces:
Personal Protection: Wear appropriate barrier protection such as gloves, gowns, masks, or eye covering.
Cleaning Procedure: Fecal matter/waste must be thoroughly cleaned from surfaces/objects before sanitization by application with a clean cloth, mop, and/or sponge saturated with the sanitizer product. Cleaning is to include vigorous wiping and/or scrubbing, until all visible soil is removed. Special attention is needed for high-touch surfaces. Do not reuse soiled cloths.

PRECAUTIONARY STATEMENTS:

HUMANS AND DOMESTIC ANIMALS: Avoid breathing spray mist as vapors may irritate. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Wear cotton, rubber, PVC, neoprene, Viton, or latex clothing and gloves when using.

PHYSICAL AND CHEMICAL HAZARDS: Do not mix SOLEVA solution with other products as dangerous gases can be produced. Do not mix with acid. Do not mix with ammonia.

Refer to the Use Manual for additional information concerning toxicity, first aid, use directions, storage and disposal.

STORAGE AND DISPOSAL:

Do not contaminate water, food, or feed by storage or disposal or cleaning of equipment.

Pesticide Storage: Store away from children. Store this product upright in a cool, dry area, away from direct sunlight and heat to avoid deterioration.

Pesticide Disposal: Product that cannot be used should be diluted with water before disposal in a sanitary sewer.

Container Disposal: Nonrefillable container. Do not reuse this container to hold materials other than 0.05% sodium hypochlorite solution produced by Giselle® system.

Qiselle

1.0 User and installation manual

DE NORA NEXT a De Nora Business Unit

For best performance, Industrie De Nora S.p.A. recommends reading the manual thoroughly before installing and using the equipment. Store this manual in an easy accessible location so that operators can consult it at any time.

Product: **Giselle® 1.0**
Giselle 1.0 produces the 0.6% and 0.1% solutions.
Users of Giselle® 1.0 to produce the 0.6% and the 0.1% solutions cannot sell the solution or distribute it to other facilities.

Manufactured by: **Industrie De Nora S.p.A. - Via Bistolfi 35, 20134 Milano, Italy**

Installed by: .....

Date of installation: .....

Location of installation: .....

For technical assistance, please contact:
Industrie De Nora S.p.A.
Via Bistolfi 35, 20134 Milano, Italy

Tel: +39 (340) 9912737
Fax:+39 02 21292831
Email:info@denoranext.com

Contents

Using the manual

Thank you for purchasing the Giselle® 1.0 unit and its accessories.

This manual aims to provide the following information to the operator:
- Safety measures
- Installation instructions
- Operating instructions
- Routine maintenance instructions

This manual must be stored in an easily accessible location.

Read carefully the manual before operating the device.

Observe all the relevant warnings and precautions during the installation, operation and maintenance of Giselle® 1.0 and its accessories.

The operator is responsible for ensuring that Giselle® 1.0 and its accessories are implemented in accordance with the instructions of this manual. If the device is used in ways other than those indicated in this manual, Industrie De Nora S.p.A will not provide any warranty and it will not take responsibility for any damage to people or other objects.

In case of malfunctions requiring advanced technical interventions, please contact:
Industrie De Nora S.p.A., Via Bistolfi 35, 20134 Milano, Italy - Tel: +39 (340) 9912737 - Email: info@denoranext.com

DE NORA NEXT a De Nora Business Unit

General precautions and warnings

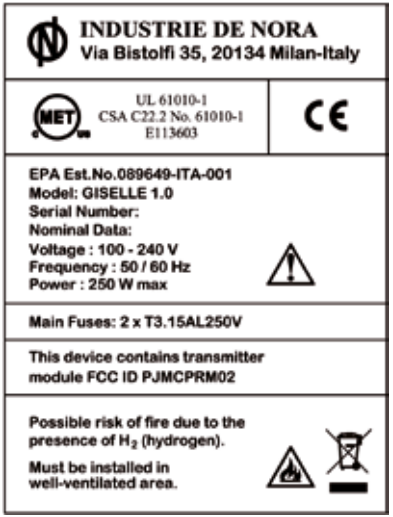
2.1 Declaration of conformity

Industrie De Nora S.p.A. declares that this product conforms to the following directives:

- 2006/95/CE (LDV)
- 2004/108/CE (EMC)

European standards:
- EN 61010-1: 2001
- EN 61326-1: 2006
- ETSI EN 301489-1 V1.8.1: 2008
- ETSI EN 301489-3 V1.4.1: 2002

Standards for USA and Canada:
- FCC Part 15 subpart B
- EPA regulations - 40 CFR, Part 152.500
- EPA Est. No. 089649-ITA-001



2.2 PPE (Personal Protection Equipment)



Operating Giselle® 1.0 involves handling various chemical substances: therefore, prior to using the device, it is advisable to carefully read the manual, labels and safety sheets.
It is advisable to use protective glasses and gloves.

2.3 Safety measures

In this manual, the safety measures are subdivided into WARNINGS and PRECAUTIONS.

WARNINGS
If these instructions are not observed, the device may damage objects, cause injury to persons or loss of life.

PRECAUTIONS
If these instructions are not observed, the device may cause light or serious damage to objects, or personal injury.
The following WARNINGS AND PRECAUTIONS must be observed.

2.4 General safety

WARNINGS

- In order to prevent fires, explosions or injury, do not operate the device near flammable, hazardous or corrosive gases. Do not attempt to dismantle, repair or modify the device on your own. Intervening incorrectly may cause electric discharges and fires.
- Do not place any object on top of the device.

- Do not introduce objects inside the device or in the tank.
- Do not obstruct the vent on the upper section of the device's tank. This may cause the pressure inside the tank to increase sharply which may result in leakages, liquid jets and explosions.
- Clean periodically the ventilation slits, on the top and on both sides of the machine, in order to avoid modifications or reduction of the machine ventilation.
- Persons without adequate training should not attempt to install or use the device.
- Only personnel authorized by Industrie S.p.A De Nora can repair and mantain Giselle 1.0.
- The solution produced by Giselle® 1.0 (sodium hypochlorite) can be a sanitizer or a disinfectant —NOT DRINKING WATER—and therefore must NOT be swallowed.

PRECAUTIONS

- Do not place any containers with water or other liquids on top of the device. Water may accidentally leak into the device and jeopardise the electrical insulation, causing electric shocks.
- Only use Giselle® 1.0 with spray bottles and cartridges provided by Industrie De Nora S.p.A..

2.5 Electrical safety

WARNINGS

- Verify conformity to all electrical regulations.
  Failure to observe such regulations shall void the Industrie De Nora warranty.
- The device must be properly earthed. Always use an electrical system having an earth connection.
- Do not remove or cut parts of the plug for earthing the power socket.
- Do not deactivate or tamper with the electrical interlocks or lockout mechanisms.
- Connect the device only to a 100-240V ~ 50/60Hz 250 W max. electrical source.
- Do not attempt to repair, replace or modify the power cord.
- Do not pull the cord.

- All the electric cables and connections in use must be free of defects or damages (cuts, abrasions or other elements that may be risk of electrocution).
- If any water sources are nearby, take the necessary precautions to protect the electrical components.

PRECAUTIONS

- If the Industrie De Nora S.p.A. device is subjected to voltage variations exceeding ± 10% or blackouts, electrical storms, incorrect earthing, or harmonic effects, Industrie De Nora recommends installing an uninterruptible power supply (UPS), or a surge arrester in order to protect sensitive electrical components.
- Do not modify the cable connectors as it is a potential risk.
- If an extension is needed, only use certified components.

2.6 Installation site

WARNINGS

- Do not install the machine in a room classified at risk of explosion for flammable gas/vapour/powders.
- Assess the adequacy of the place where to install the machine on the basis of the quantity of emitted hydrogen (0.19 l/min during production of the solution).
- Verify that the facility and installation where Giselle® 1.0 is installed conform to the relevant safety regulations.
- Ensure that the equipment is installed in a safe location to prevent uncontrolled access, tampering with the devices or water supply difficulties.
- Install the device in a well ventilated and clean room. NFPA497 requires at least 6 air changes per hour.
- Install the device far away (at least 1m) from sources of heat, flames and sparks or other possible sources of ignition.
- Place the device in locations where there are no patients with life-sustaining devices.
- Keep the device in places where there are only devices complying with CEI EN 61326.1 for electromagnetic compatibility.

- Do not position the device near walls or ther objects that could limit the ventilation around the machine. Position it at least 1m far.
- Clean the room in order to avoid presence of dirty into the ventilation slits of the machine.

PRECAUTIONS

- Transport and handle with care. The device weighs 14 kg. If necessary, use appropriate mechanical aids (for example, manual pallet jacks or forklift trucks). Use suitable personal protection equipment.
- Giselle® 1.0 is designed to operate in a fixed and stable position.

FURTHER INFORMATION:

During normal operation of Giselle® 1.0

- The device emits low level noise.
- The external surfaces are at ambient temperature or slightly higher. There is no risk of burns.
- The device does not emit any significant vibrations.

2.7 Treatment of chemical substances

Information on the raw materials

The basic elements intervening in the production process of Giselle® 1.0 include:

- Potable tap water
- Electrical power
- Salt (sodium chloride 99.86%), provided as "Salt Cartridge for Giselle®"
- Citric Acid Monohydrate (Solid-100%), provided as "Maintenance Cartridge for Giselle®"

This cartridge cannot be used to produce a solution that will treat surfaces against pest.

1. Salt (sodium chloride 99.86%)

Sodium chloride is supplied by Industrie De Nora S.p.A. in a high-density polyethylene sealed cartridge.
The substance is classified as NON HAZARDOUS pursuant to OHSA criteria.
In case of need, consult the safety sheet.

PRECAUTIONS

Only use original salt cartridges supplied by Industrie De Nora S.p.A. and carrying the De Nora Next logo.
The salt cartridge are single use and cannot be refilled.

2. Citric Acid Monohydrate (Solid-100%)

The citric acid solution is supplied by Industrie De Nora S.p.A. in a high-density polyethylene sealed cartridge.
The substance is classified as EYES IRRITANT H319 substance pursuant to OHSA criteria.

Causes serious eyes irritation

WARNINGS

- Read the label and consult the safety sheet before use.
- Handle, store and dispose in accordance to the instructions on the label and safety sheet.

PRECAUTIONS

- Only use original citric acid cartridges supplied by Industrie De Nora S.p.A..

2.8 The Giselle® 1.0 solution (Soleva™)

Giselle® 1.0 produces Soleva™, a sodium hypochlorite solution in water, with two different concentrations:

Type of Soleva™ Solution	Concentration of active ingredients	Other Ingredients	pH
Low concentration	0.1% Free Available Chlorine	1% Sodium Chloride - 98.9% Water	9
High concentration	0.6% Free Available Chlorine	2% Sodium Chloride - 97.4% Water	9

The preparation is classified as NON HAZARDOUS pursuant to OHSA criteria.

PRECAUTIONS

- Read the label and consult the safety sheet before use.
- Handle, store and dispose in accordance to the instructions on safety sheet.

2.9 Waste water of Giselle® 1.0

The production of the Soleva™ solution and the cleaning and maintenance cycles (if any) produce waste water that is collected in a polyethylene tank connected to the machine. The tank is identified by the orange "Waste Water" label.
The waste water's composition may vary depending on the number and type of Soleva™ solutions produced and on the cleaning cycles effected.

The solution may contain citric acid, sodium hypochlorite, sodium chloride and water.

WARNINGS
- Read the label before use.
- Handle, store and dispose as per local regulation.

2.10 Respect for the environment

Packaging

The packaging of Giselle® 1.0 is made up of totally recyclable materials which must be disposed of in conformity to the local regulations.

- Cardboard
- Expanded PE (polyethylene)

Giselle® 1.0

Dispose of in conformity to the local regulations.

Plastic

- ABS (acrylonitrile butadiene styrene polymer)
- PE (polyethylene)
- PVC (polyvinyl chloride)
- PTFE (polytetrafluoroethylene)

Metal

- Titanium Grade 1
- RuOx (ruthenium oxide)
- IrOx (iridium oxide)
- 316L stainless steel
- Copper
- Iron
- Zinc

Rubber

- EPDM (ethylene propylene diene monomer)

Electronic materials

- Components

Accessories

Dispose of in conformity to the local regulations.

Salt cartridge

- HD PE (high-density polyethylene) cartridge
- Contents: 80g sodium chloride
- Paper label with antenna for RFID reading

Maintenance cartridge

- HD PE cartridge (high-density polyethylene)
- Contents: 25g of citric acid monohydrate (solid-100%)
- Paper label with antenna for RFID reading

Bottles for Soleva™ solutions

- HD PE (high-density polyethylene) bottles
- ABS (acrylonitrile butadiene styrene polymer) connector
- PE (polyethylene) labels

Tanks

- HD PE (high-density polyethylene) tanks
- PE (polyethylene) stoppers
- HD PE (high-density polyethylene) caps
- PE (polyethylene) labels

Tubes

- PVC (polyvinyl chloride) tubes
- PE (polyethylene) tubes
- PVDF (polyvinylidene fluoride), steel, nylon fittings

Standard cart

- Anodised aluminium alloy cart
- Rubber wheels

Premium cart

- Anodised aluminium alloy cart (equipped with doors and lock)
- Rubber wheels

Fixing kit

- Non alloy steel, PE (polyethylene), PA 6 (polyamide 6)
- Nylon nuts

Printer (s'print model supplied by Custom)

- ABS (acrylonitrile butadiene styrene polymer)
- Electronic components

Description

Giselle® 1.0 ™ is an electronic device for the on-site production of Soleva™, a sodium hypochlorite solution generated in two different concentrations (0.1 and 0.6% free available chlorine)

3.1 Process

The operating process leading to the production of Soleva™ can be summarised as follows:
$NaCl + H_2O + 2e^- \rightarrow NaOCl + H_2$
Salt + Water + Electricity $\rightarrow$ Soleva™ + Hydrogen
At the start of the process, the salt (sodium chloride - NaCl) is dissolved in water.
The salt is entirely broken down into sodium Na+ and Chlorine Cl- ions in solution:
$NaCl \rightarrow Na^+ + Cl^-$

This saline solution is transferred to the electrolysis cell where the following reaction occurs:
ANODE: $2Cl^- \rightarrow Cl_2 + 2e^-$
CATHODE: $2H_2O + 2e^- \rightarrow 2OH^- + H_2\uparrow$

Subsequently, the chlorine (Cl2) and hydroxide ion (OH-)
react to form sodium hypochlorite:
$Cl_2 + OH^- \rightarrow OCl^- + Cl^- + H^+$
The sodium hypochlorite remains in solution and can be used as a sanitizer or disinfectant depending on its concentration.

The Giselle® 1.0 device is equipped with an appropriate tank for preparing the salt solution. This solution is then transferred to the electrolysis cell where the above-mentioned electrochemical reaction takes place.
The necessary energy supplied to the system is electronically managed and controlled. The electrolysis cell is equipped with electrodes manufactured with catalytic coats exclusively supplied by Industrie De Nora S.p.A.. At the end of the process, after a few minutes of electrochemical reaction, the Soleva™ solution is transferred from the cell to the spray bottle and is ready for use.

The hydrogen, generated inside the cell through a cathodic reaction, rises to the top and exits the cell and system thanks to the fan and appropriate aeration vent.

The level switches, connected to the insertion fork, allow for measuring the correct amount of water and solution required for the process.

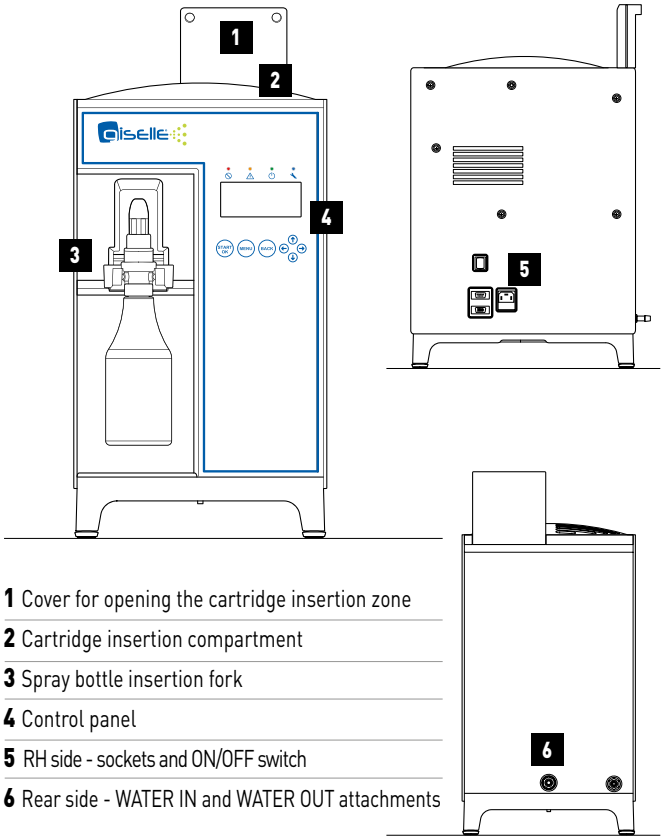
All the functions of the components and the entire process are electronically controlled by a proprietary firmware.

The RFId (Radio Frequency Identification) technology is used to guarantee maximum quality, reliability of Giselle® 1.0 and safety avoiding uncontrollable production of Soleva™.

3.2 Giselle® 1.0 technical data:

• Model	Giselle® 1.0
• Material	ABS,PTFE, PE, PVC, EPDM, Metals
• Production capacity	Up to 0.5 l of solution for each production cycle
• Power connection	100-240V~ 50/60Hz 250 W max.
• RFId Transmitter module RFId	FCC ID PJMCPRM02
• Feed water	Temperature from 10 to 29 °C - Atmospheric pressure
• Ambient temperature	Min 10°C, max 40°C
• Ambient relative humidity	Max 95% (without condensate build-up)
• Altitude	0-2000 m above sea level
• Water consumption	Roughly 10 l per salt cartridge
• Dimensions	310 mm x 420 mm x 550 mm (WxDxH)
• Weight	14 kg
• Protection rating	1
• Pollution degree	2
• Installation category	2
• Surfaces subject to heat	None
• Vibrations	Non appreciable
• Effluents/emissions	Hydrogen gas (diluted: 0.19l/min) during the solution production. Water with variable content of: sodium chloride, sodium hypochlorite, citric acid.
• Warranty	1 year
• Mains Fuses	2 x T3.15AL250V

The device is designed to operate in a stable vertical position. Indoor use only.
Voltage fluctuations shall not exceed +/- 10% of the nominal supply voltage.



1 Cover for opening the cartridge insertion zone

2 Cartridge insertion compartment

3 Spray bottle insertion fork

4 Control panel

5 RH side - sockets and ON/OFF switch

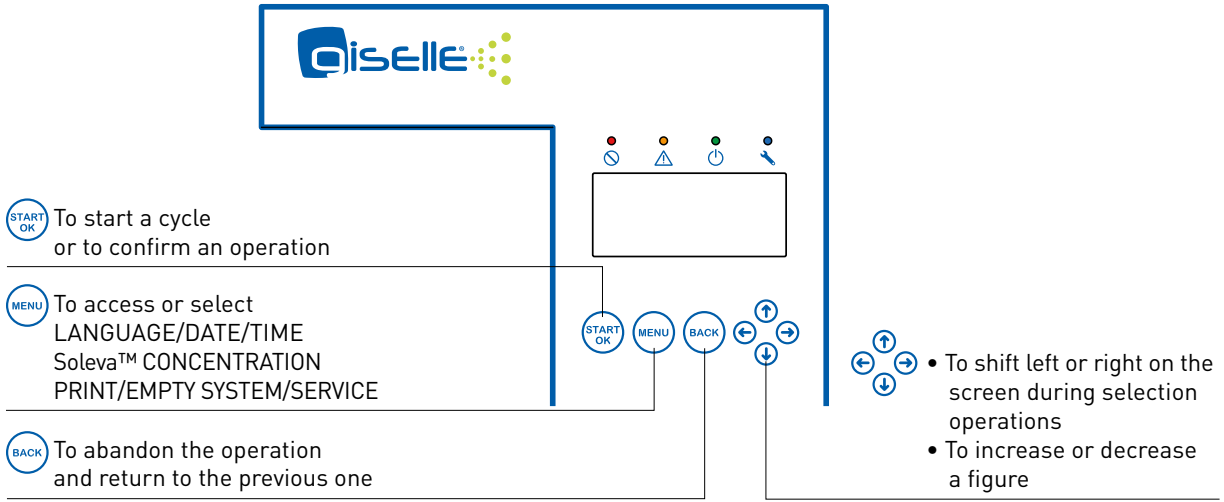
6 Rear side - WATER IN and WATER OUT attachments

Risk of fire: consult the section **Precautions and warnings** (Section **2.0**)

Do not dispose of this product as solid urban waste but bring to to appropriate waste collection facilities.

Important operating and maintenance (servicing) instructions in the literature accompanying the product.
Read carefully the manual.

Front panel



Indicator Leds

			
ERRORS: see Section **7.0** of the manual	**SIGNALS:** see Section **7.0** of the manual	**SYSTEM READY FOR OPERATION**	**MAINTENANCE:** see Section **6.0** of the manual

- Yellow + Blue Request for maintenance: see Section **6.0** of the manual
- Green + Blue Configuration: see Section **4.0** of the manual
- Green + Yellow System operating: do not touch

3.3 Soleva™

Soleva is a sodium hypochlorite solution produced by Giselle® 1.0 directly in the bottle equipped with spray nozzle, with which it can be applied.
The bottles supplied have 2 different colours and are used depending on the desired concentration of Soleva™.

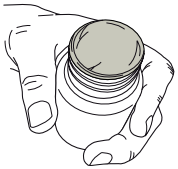
Type of Soleva™ Solution	Concentration of active ingredients	Label and Connector colour	Volume
Low concentration	0.1% Free Available Chlorine	BLUE	0.5 l
High concentration	0.6% Free Available Chlorine	GREEN	0.4 l

Low Concentration

High Concentration

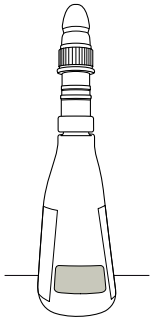
• Soleva Sodium Hypochlorite Solution (0.6%) is a one-step disinfectant for hard, non-porous surfaces, environmental and non-critical care equipment surfaces. Solution kills bacteria, fungi, viruses and spores. Cleans and deodorizes.
• Soleva Sodium Hypochlorite Solution (0.1%) is a One-step sanitizer for hard, non-porous surfaces, environmental and food contact surfaces. Cleans and deodorizes.
Soleva has been tested in agreement with OCSPP 810.2300 and OCSPP 810.2200 Guidelines.

3.4 Accessories



Salt cartridge
Size: 40 mm Ø x 75 mm Weight: 100 g
High-density polyethylene cartridge, provided with sealing gasket.
Contains the proper amount and type of salt for correctly operating Giselle® 1.0 (80 g).
Each cartridge comes with an RFID label so that it can be identified by Giselle® 1.0.

Maintenance cartridge
Size: 40 mm Ø x 75 mm Weight: 45 g
High-density polyethylene cartridge, provided with sealing gasket.
Contains the proper amount (25 g) and type of citric acid for performing cleaning and maintenance of Giselle® 1.0.
Each cartridge comes with an RFID label so that it can be identified by Giselle® 1.0.

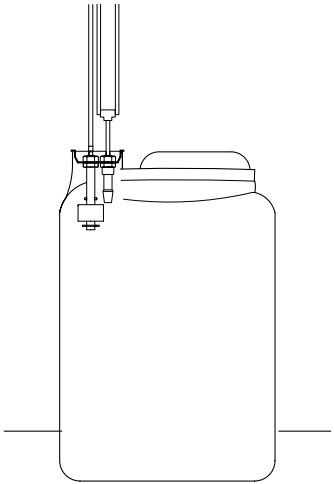


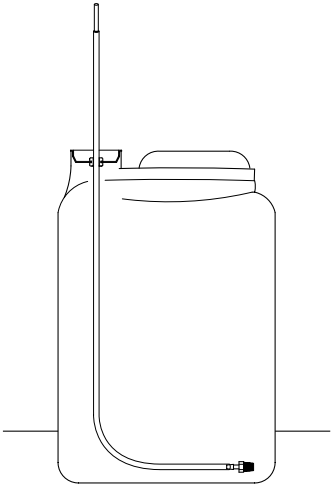
Soleva™ spray bottles
Blue bottle: Size: 80 x 96 x 290 mm (WxDxH) Weight (empty): 120 g
Green bottle: Size: 64 x 95 x 300 mm (WxDxH) Weight (empty): 120 g
High-density polyethylene bottles equipped with machine connector and nebuliser for producing and applying Soleva™ solutions. The bottles come in different sizes and include different colour labels and connectors: blue for solutions with 0.1% free available chlorine and green for 0.6% chlorine solutions. The labels applied to the bottles include the solution's instructions for use. The label with the relevant date and time of production of the solution (see Section 5.3) can be applied in the appropriate space.

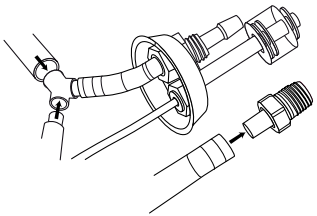
Tanks

Ext. dimensions 200 x 210 x 325 mm (WxDxH) Weight (empty): 450 g Capacity: 11l
High-density polyethylene tanks for tap water and waste water.
The tanks are equipped with pierced stoppers for connection to Giselle® 1.0.
The waste water tank is identified by the orange label with the wording “WASTE WATER TANK”.
The tap water tank is identified by the blue label with the wording “TAP WATER TANK”.

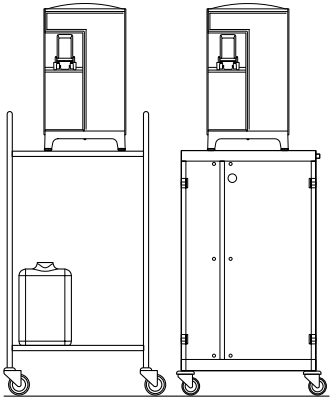
Connection tubes







Tubes and fittings for tap water and waste water.

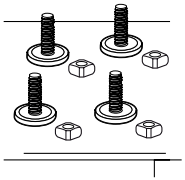


Standard - optional - cart
Ext. dimensions 540 x 540 x 1085 mm (WxDxH)
Load-bearing capacity per shelf: 20kg
Dismantable anodised aluminium cart equipped with 2 shelves, 4 non-marking grey rubber caster wheels (diameter 75 mm) and 2 independent brakes.

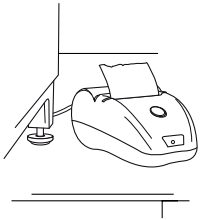
The cart is designed to house and fix Giselle® 1.0 (top shelf) and 2 tap and waste water tanks (lower shelf), so that the equipment can be easily transported.

Premium - optional - cart (equipped with doors and lock)
Ext. dimensions 570 x 585 x 920 mm (WxDxH)
Load-bearing capacity per shelf: 20kg
Anodised aluminium cart with shelves, equipped with doors and lock with key, handle, 4 anti-marking grey rubber caster wheels (diameter 100 mm) and 2 independent brakes.

The cart is designed to house and fix Giselle® 1.0 (top shelf), 2 tap and waste water tanks and other accessories (lower shelf with doors), so that the equipment can be easily transported.



Fixing kit
The kit includes 4 nuts and 4 feet that allow for fixing the machine to the cart shelf and adjusting its levelling.



Thermal printer - optional
Ext. dimensions 85 x 150 x 65 mm (WxDxH)
The thermal printer is supplied with appropriate labels for printing the data relative to the production of Soleva™ (concentration, date and time of production), to be attached to the spray bottle.

Installation

4.1 Unpacking

Verify whether the packaging box contains the following items:
- N° 1 tube kit for water supply and discharge
- N° 1 fixing kit
- N° 1 power suplly cord

Carefully check that the machine has not suffered any damages during transport; if so, notify the supplier.
Check that the following items are available:
- Water supply and discharge tanks
- Spray bottles for producing and applying Soleva™
- Salt cartridges not expired
- Citric acid cartridges for cleaning and maintenance

4.2 Correct positioning

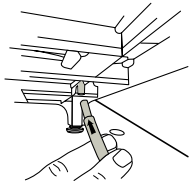
WARNINGS
- Do not install the machine in a room classified at risk of explosion for flammable gas/vapour/powders.
- Assess the adequacy of the place where to install the machine on the basis of the quantity of emitted hydrogen (0.19 l/min during production of the solution).
- Verify that the facility and installation where Giselle® 1.0 is installed conform to the relevant safety regulations.
- Ensure that the equipment is installed in a safe location to prevent uncontrolled access, tampering with the devices or water supply difficulties.
- Install the device in a well ventilated and clean room NFPA497 requires at least 6 air changes per hour.
- Install the device far away (at least 1m) from sources of heat, flames and sparks or other possible sources of ignition.

- Place the device in locations where there are no patients with life-sustaining devices.
- Keep the device in places where there are only devices complying with CEI EN 61326.1 for electromagnetic compatibility.
- Do not position the device near walls or ther objects that could limit the ventilation around the machine. Position it at least 1m far.
- Clean the room in order to avoid presence of dirty into the ventilation slits of the machine.

PRECAUTIONS

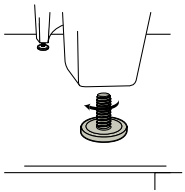
- Transport and handle with care. The device weighs 14 kg. If necessary, use appropriate mechanical aids (for example, manual pallet jacks jacks or forklift trucks). Use suitable personal protection equipment.
- Position the device on a flat and sturdy surface.
- Giselle® 1.0 is designed to operate in a fixed and stable position.

If no cart is available

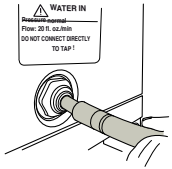


1. Place Giselle® 1.0 on a flat, sturdy surface at about 900-1,000 mm above the floor.

2. Tilt Giselle® 1.0 slightly and connect the drainage tube to the connection marked by the DRAIN label on the lower side of the device.



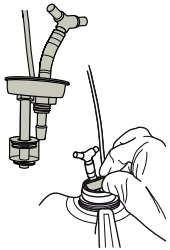
3. Insert the feet of the fixing kit into the appropriate threaded housings then - with the aid of the bubble level on the upper part of Giselle® 1.0 - turn them until the bubble is centred, so as to balance out the surface's irregular features. Giselle® 1.0 must operate in a stable position.



4. Connect the water feed tube to the connection situated on the rear of Giselle® 1.0, identified by the WATER IN label.

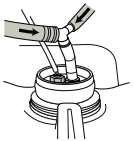
5. Connect the discharge tube to the connection situated on the rear of Giselle® 1.0, identified by WATER OUT.

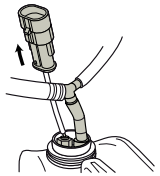
6. Position the tanks beneath the support surface of Giselle® 1.0 at about 900-1,000 mm of distance.



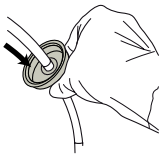
7. Arrange the connector of the discharge tank fixing it to the waste water tank.

8. Connect it to the DRAIN and the DISCHARGE tubes.



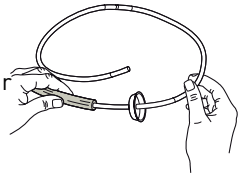


9. Connect the level sensor.

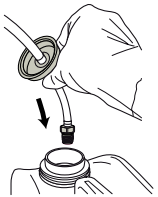


10. Insert the tube for tap water in the hole on the undercap.

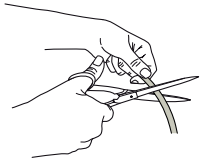
11. Insert the overtube on the water supply tube.



12. Insert the steel terminal on the supply tube and verify whether it reaches the bottom of the Tap Water Tank.

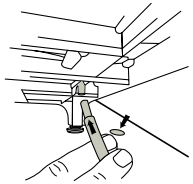


With Premium or basic cart is available



1. Place Giselle® 1.0 on the top shelf of the cart.

2. Cut the drainage tubes (DRAIN) and water discharge and supply tubes (WATER OUT and WATER IN) where indicated by the scissor symbol.



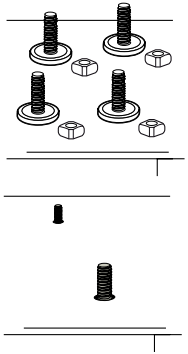
3. Tilt Giselle® 1.0 slightly and connect the drainage tube to the connection marked by the DRAIN label on the lower side of the device, then feed the tube through the large hole on cart's top shelf and on the inner shelf (Premium cart only).

4. Connect the water feed tube to the connection situated on the rear of Giselle® 1.0, identified by the WATER IN label.

5. Connect the discharge tube to the connection situated on the rear of Giselle® 1.0, identified by WATER OUT.

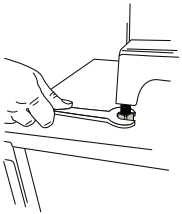
6. Position the tanks on the cart's lower support shelf.

7. Fix Giselle® 1.0 to the cart shelf using the feet and nuts provided, according to the following procedure:



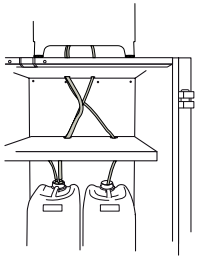
a. Ensure that the threaded part of the feet emerges from the appropriate holes on the support surface.

b. Screw the nuts onto the threading without tightening them.

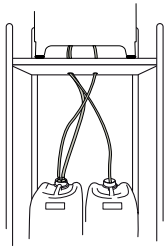


c. Insert the threaded part into the feet of Giselle® 1.0 and tightness firmly.

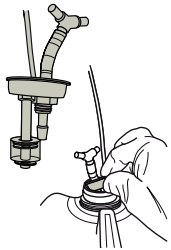
d. Use the bubble level located on the top part of Giselle® 1.0 to adjust the nylon feet, until the bubble is centred: Giselle® 1.0 must operate in a stable position.



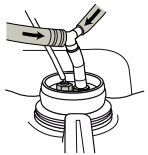
8. If Giselle® 1.0 comes with the Premium cart, feed the "DRAIN" and "WATER OUT" tubes through the large hole and the "Water IN" tube through the small hole on the cart's upper shelf then through the holes on the inner shelf; with the basic cart, simply let the tubes drop below the upper shelf.

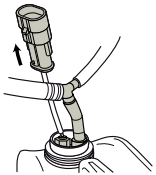


9. Arrange the connector of the discharge tank fixing it to the waste water tank.

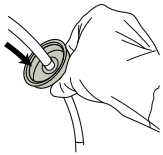


10. Connect it to the DRAIN and the DISCHARGE tubes.



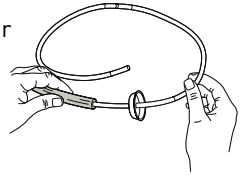


11. Connect the level sensor.

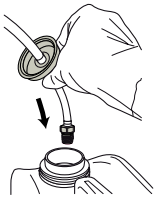


12. Insert the tube for tap water in the hole on the undercap.

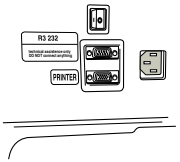
13. Insert the overtube on the water supply tube.



14. Insert the steel terminal on the supply tube and verify whether it reaches the bottom of the Tap Water Tank.



4.3 Electrical connections



WARNINGS

- Verify conformity to all electrical regulations.
  Failure to observe such regulations shall void the Industrie De Nora warranty.
- The device must be properly earthed. Always use an electrical system having an earth connection.
- Do not remove or cut parts of the plug for earthing the power socket.
- Do not deactivate or tamper with the electrical interlocks or lockout mechanisms.
- Connect the device only to a 100-240V ~ 50/60Hz 250 W max. electrical source.
- Do not attempt to repair, replace or modify the power cord.
- Do not pull the cord.
- All the electric cables and connections in use must be free of defects or damages (cuts, abrasions or other elements that may be risk of electrocution).
- If any water sources are nearby, take the necessary precautions to protect the electrical components.

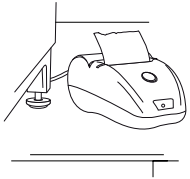
PRECAUTIONS

- If the Industrie De Nora device is subjected to voltage variations exceeding ± 10% or blackouts, electrical storms, incorrect earthing, or harmonic effects, Industrie De Nora S.p.A. recommends installing an uninterruptible power supply (UPS), or a surge arrester in order to protect sensitive electrical components.
- Do not modify the cable connectors as it is a potential risk.
- If an extension is needed, only use certified components.

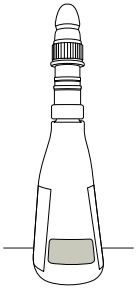
Connect the power cord to the electrical outlet IEC C14.

NOTE: a RS-232 port is available on the right-hand side wall for technical assistance: do not connect anything to it.

4.4 Printer connection (if printer is supplied)



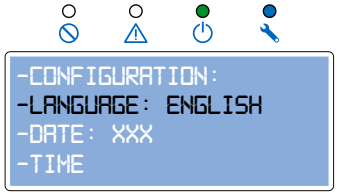
Connect the printer to the "PRINTER" serial port on the right-hand side of Giselle® 1.0.

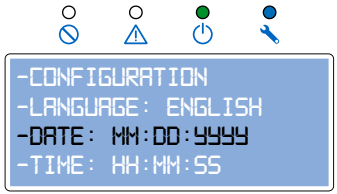


If the printer is purchased subsequently to Giselle® 1.0, install it as indicated in Section **4.7**. Every time a Soleva™ solution is produced, a label will be printed containing the concentration and date of production. The label may applied over the space reserved on the bottle.

4.5 Configuration

Press the ON/OFF switch on the right-hand side of the machine. After the initial start-up, a salt cartridge must be inserted into the machine (Section **5.2**).



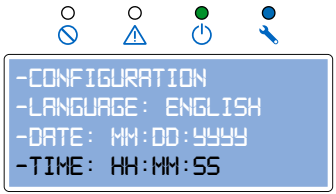


Language/date/time configuration: LANGUAGE
The following 4 options are available: ITALIAN/ ENGLISH/ SPANISH/JAPAN.
When the machine is switched on, the default language is English.

- PRESS THE MENU BUTTON
- Move onto Language using the UP/DOWN arrow buttons
- PRESS START/OK
- Move onto the desired language using the UP/DOWN arrow buttons
- PRESS START/OK
- PRESS THE BACK BUTTON: after a few seconds the machine will return to the initial window in the desired language.

Language/date/time configuration: DATE
To set the date:

- PRESS THE MENU BUTTON
- Use the UP/DOWN arrow buttons to highlight the DATE
- CONFIRM BY PRESSING THE START/OK BUTTON
- Use the RIGHT/LEFT arrow buttons to move onto month/day/year
  Use the UP/DOWN arrow buttons to set the day, month and year



CONFIRM BY PRESSING THE START/OK BUTTON

PRESS THE BACK BUTTON: after a few seconds the machine will return to the initial window.

Language/date/time configuration: TIME

Press the MENU button to set the time

Use the UP/DOWN arrow buttons to highlight the TIME

PRESS THE START/OK BUTTON

Use the RIGHT/LEFT arrow buttons to move onto: HOURS: MINUTES: SECONDS
Move UP/DOWN with the cursor to set the time

CONFIRM BY PRESSING THE START/OK BUTTON

PRESS THE BACK BUTTON: after a few seconds the machine will return to the initial window.

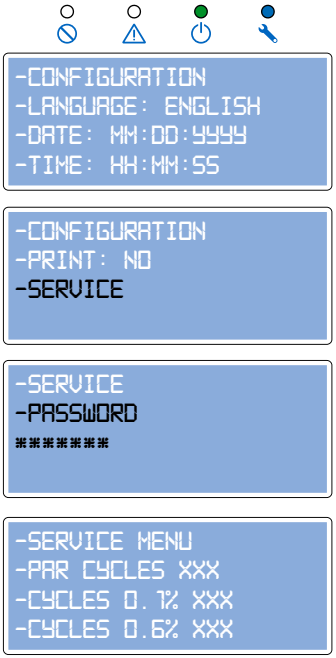
NOTE: only if English or Spanish have been set with the wording am/pm appear alongside the time.

4.6 Configuration of the concentration

Giselle® 1.0 is configured for producing Soleva™ in 2 different concentrations:

Type of Soleva™ Solution	Concentration of active ingredients	Label and Connector colour	Volume
Low concentration	0.1% Free Available Chlorine	BLUE	0.5 l
High concentration	0.6% Free Available Chlorine	GREEN	0.4 l

The choice of the concentration can be made before each production cycle.
For limiting the production to a single concentration, the following steps must be performed:



MENU PRESS THE MENU BUTTON

Move down the menu and highlight SERVICE using the UP/DOWN arrow buttons

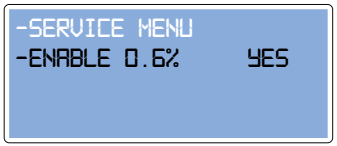
START OK PRESS THE START/OK BUTTON

Enter the password

After entering the password, the adjacent window will appear

Move down the menu using the UP/DOWN arrow buttons and highlight **ENABLE 0.6%**

PRESS START/OK



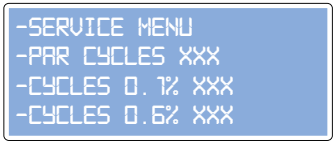
For **eliminating** the possibility of producing the solution with **0.6%** concentration:

USE THE UP/DOWN ARROW BUTTONS to select NO then confirm by

PRESSING THE START/OK BUTTON

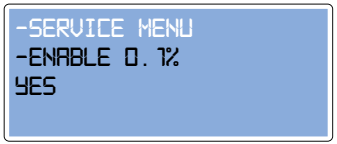
For **confirming** the possibility of producing the solution with **0.6%** concentration:

PRESS THE START/OK BUTTON DIRECTLY



Move down the menu using the UP/DOWN arrow buttons and highlight **ENABLE 0.1%**

PRESS START/OK



For **eliminating** the possibility of producing the solution with **0.1%** concentration:

use the UP/DOWN ARROW BUTTONS to select NO then CONFIRM by

PRESSING THE START/OK BUTTON

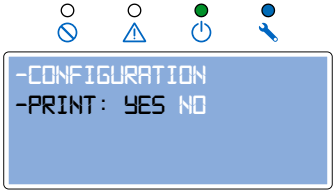
For **confirming** the possibility of producing the solution with **0.1%** concentration:

PRESS THE START/OK BUTTON DIRECTLY

PRESS BACK TWICE to return to the main window.

4.7 Printing configuration

Giselle® 1.0 is automatically configured to operate with an external printer.
If the printer was not purchased, it is necessary to uninstall it by performing the steps indicated below.
It can be reinstalled at any time by performing the steps indicated below.



PRESS THE MENU BUTTON
Use the UP/DOWN arrow buttons to highlight PRINT

PRESS THE START/OK BUTTON
SELECT **YES/NO** using the UP/DOWN arrow buttons

PRESS THE START/OK BUTTON
PRESS BACK: after a few seconds the machine will return to the initial window

Operation

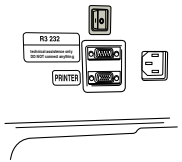
Before operating in this section, carefully read the
"General precautions and warnings" section and wear protective gloves and glasses.

ATTENTION

- **Do not move Giselle® 1.0 while it is operating.**
- **If the machine must be moved, switch it off and transport it using the appropriate cart or, if the latter is not available, always keep it in the vertical position. Do not turn it upside down.**
- **Plug is used as disconnect device from AC mains: the socket-outlet shall be installed near the equipment and shall be easily accessible.**

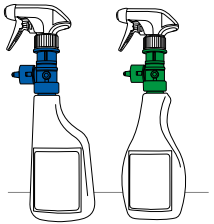
5.1 Start-up operations

Check that the WASTE WATER TANK is not full: its contents must not reach the threshold level.
If this occurs, it must be emptied in conformity to the procedures set forth in the local regulations.



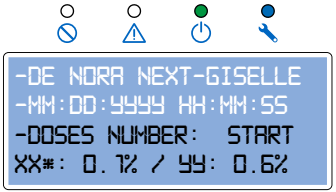
Verify that there is water in the "TAP WATER TANK".
If it is empty, fill it with potable water up to the indicated level.

Check that there are empty spray bottles available:
Blue bottle to prepare low concentration Soleva™ (0.1%)
Green bottle to prepare high concentration Soleva™ (0.6%)
Switch the machine on by pressing the ON/OFF (1/0) button.



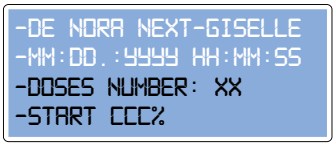
Reconfigure LANGUAGE/DATE/TIME/CONCENTRATION/PRINT if necessary. Consult Section **4.5**.

After a few seconds, one of the following windows will appear:



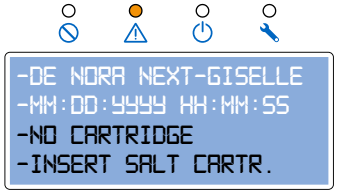
Giselle® 1.0 is ready to produce and indicates the number of available doses.

It is possible to proceed with the production of Soleva™ (Section **5.3**)

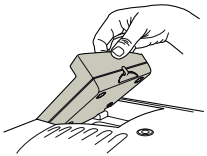


ATTENTION
For every other window, consult Section 7.0 SIGNALS AND ERRORS of the manual.

5.2 Cartridge insertion



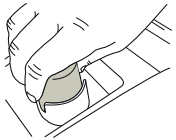
The following window indicates the need to insert a new cartridge.



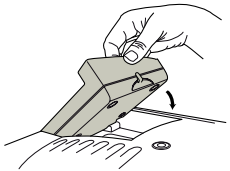
The upper panel is unlocked and can be opened.
If the panel is not opened within about 30 seconds, the safety lock automatically engages and the panel cannot be opened.
If this occurs, simply switch the machine off then on again: the previous window will reappear and the panel can be opened once again.

- Open the panel
- Take one salt cartridge, check the expiration date on the bottom, shake the salt cartridge vigorously
- Remove the cap.
  Empty the cartridge inside the Giselle cartridge compartment.

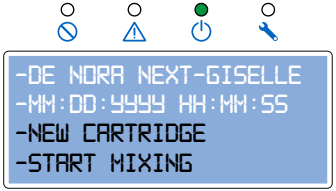
PRECAUTIONS
Only use original salt cartridges supplied by Industrie De Nora S.p.A. and carrying the De Nora Next logo.



Insert the cartridge in the appropriate compartment and press it down.
Tap the bottom of the cartridge to facilitate salt spilling out.
Check the complete emptying of the cartridge and push the salt residues, present in the cartridge compartment , down inside the machine.

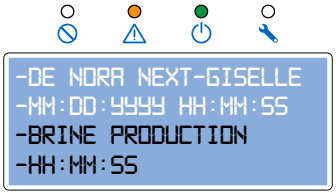


Close the panel.

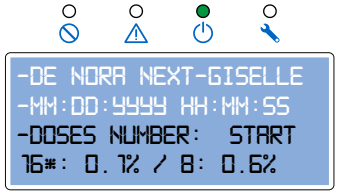


The adjacent window will appear.
PRESS THE START/OK button.

ATTENTION
In this phase, do not touch the machine and/or the buttons.

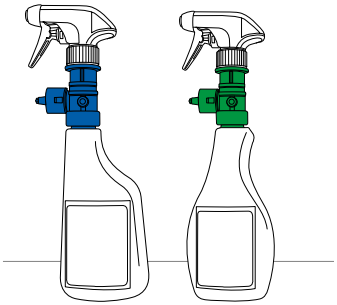


The count down is indicating how much time is required.



At the end the adjacent window will appear and the machine is ready to operate: there are 16 solutions available at 0.1% and 8 solutions at 0.6%.
The asterisk indicates the selected concentration.

Proceed with the preparation of Soleva™ (Section **5.3**) or stop the machine by pressing the ON/OFF (1/0) button.

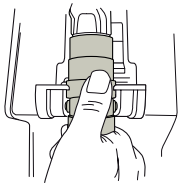


5.3 Production of Soleva™

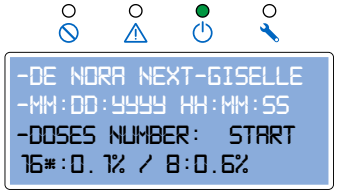
Before starting the production of Soleva™, verify that the start-up operations (Section **5.1**) have been performed and that the cartridge has been inserted, if necessary insert it (Section **5.2**).

Decide the concentration to be produced: 0.1% or 0.6%.

Take:
- the **blue spray bottle** for producing the 0.1% solution
- the **green spray bottle** for producing the 0.6% solution



- Check that the bottle is empty and that the solution it contains is expired
- Empty the bottle or take a empty one
- Clip the spray bottle onto the Giselle® 1.0 fork: push it until the connector on the fork clicks

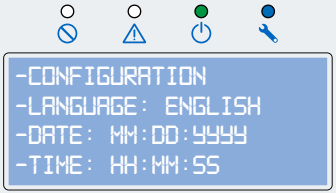


The control panel will visualise a window summarising the number of solutions available for each concentration and on which concentration the machine has been set.

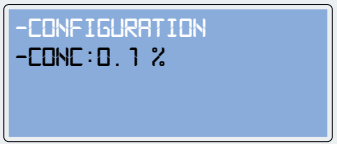
To change the concentration entered on the machine (indicated by the asterisk*), proceed as follows:

ATTENTION
if only one concentration has been set, in order to change it, before it is required to proceed with concentration configuration (Section 4.6).

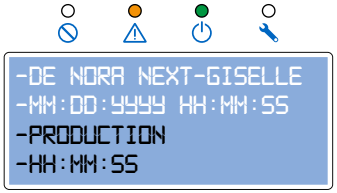
CONCENTRATION CHANGE



- PRESS THE MENU BUTTON
- Move down the menu and highlight CONC using the UP/DOWN arrow buttons
- PRESS THE START/OK BUTTON



- If necessary, change the concentration using the UP/DOWN arrow buttons Press the START/OK button to confirm the chosen concentration
- PRESS THE BACK BUTTON: after a few seconds the machine will return to the initial window.

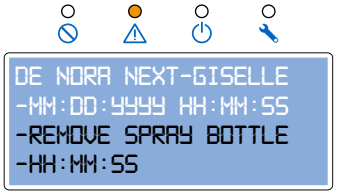


Verify that the machine is set to the desired concentration (indicated by the asterisk *) and PRESS THE START/OK BUTTON.

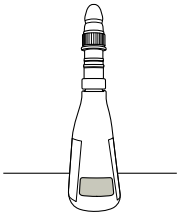
The adjacent window will appear and the count down will indicate how much time is required to complete the production cycle. If the window will not appear, consult the section **7.0** "Signals and Errors".

ATTENTION

During this phase, do not touch the machine/fork/spray bottle and/or buttons! Wait until the machine requests the user to detach the bottle and only the yellow LED flashes.

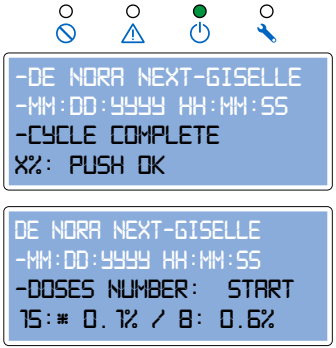


After the solution has been produced, the adjacent window will appear. It is possible to detach the spray bottle.
The count down is indicating how much time the machine requires to be ready for the next production.



Detach the spray bottle and attach the label to it or, if the printer has not been enabled or it isn't working, write production and expiration date/time on labels supplied for this purpose in permanent ink, as discussed in our user training.

ATTENTION
Remove the spray bottle gently avoiding rough movements up or down.



START OK PRESS THE START/OK BUTTON
The machine will return to the initial window and will visualise the number of solutions still available.

ATTENTION
For every other window, consult Section 7.0 SIGNALS AND ERRORS of the manual.

5.4 Soleva™ solution direction for use

The Soleva™ solution is produced by Giselle® 1.0 in two different concentrations.

Type of Soleva™ Solution	Concentration of active ingredients	Label and Connector colour	Volume
Low concentration	0.1% Free Available Chlorine	BLUE	0.5 l
High concentration	0.6% Free Available Chlorine	GREEN	0.4 l

Soleva™ solution (0.1%)

- Ready-to Use. No further dilution required.
- Limit exposure of the solution to sunlight and heat sources.
- Include time (day/hour) of SOLEVA 0.1% solution production on the bottle using the dedicated label.
- Efficacy of the solution is maintained if used within 48 hours (0.1% Solution) from production and kept in sealed bottles. Do not use 48 hours after production time. Refer to the label indicating time of production.
- If the solution is expired dispose it in accordance with local regulation and prepare a new solution **(Section 5.3)**.
- SOLEVA 0.1% solution can be used as a sanitizer on a variety of hard, non-porous, food and non-food environmental surfaces, and non-critical care equipment surfaces. (For a complete list refer to the below table).
- Pre-clean heavily soiled surfaces according to the instructions below.
- Spray SOLEVA 0.1% solution directly onto the surface to be sanitized. Thoroughly wet the entire surface. Wait 2 minutes before rinsing with potable water.
- **SOLEVA 0.1% has been tested in the presence of 5% organic soil (blood serum) against Staphylococcus aureus (ATCC 6538) on food contact surfaces and Klebsiella pneumoniae (ATCC 4352) on non-food contact surfaces.**

Special Cleaning Instructions Prior to Sanitization of Heavily Soiled Surfaces:

Personal Protection: Wear appropriate barrier protection such as gloves, gowns, masks, or eye covering.

Cleaning Procedure: Fecal matter/waste must be thoroughly cleaned from surfaces/objects before sanitization by application with a clean cloth, mop, and/or sponge saturated with the sanitizer product. Cleaning is to include vigorous wiping and/or scrubbing, until all visible soil is removed. Special attention is needed for high-touch surfaces. Do not reuse soiled cloths.

Soleva™ solution (0.6%)

- Ready-to Use. No further dilution required.
- Limit exposure of the solution to sunlight and heat sources.
- Include time (day/hour) of SOLEVA 0.6% solution production on the bottle using the dedicated label.
- Efficacy of the solution is maintained if used within 24 hours (0.6% Solution) from production and kept in sealed bottles. Do not use 24 hours after production time. Refer to the label indicating time of production.

-If the solution is expired dispose it in accordance with local regulation and prepare a new solution (Section 5.3).

- SOLEVA 0.6% solution can be used as a disinfectant on a variety of hard, non-porous, food and non-food environmental surfaces, and non-critical care equipment surfaces. (For a complete list, refer to the below table.)
- **To kill fungi or Clostridium difficile spores, pre-clean surfaces according to the instructions below prior to spraying SOLEVA 0.6% solution.**
- Spray SOLEVA 0.6% solution directly onto the surface to be disinfected. Hold sprayer 6 to 8 inches from the surface. Thoroughly wet the entire surface. Wait 10 minutes before rinsing with potable water. Thoroughly rinse surfaces when steel or coated metals are treated.
- SOLEVA 0.6% kills: **Staphylococcus aureus (ATCC 6538), Pseudomonas aeruginosa ATCC15442, Salmonella enterica ATCC10708, Trichophyton interdigitale ATCC9533, Poliovirus Type 1 (Sabin Strain LSc-2ab), Feline Calicivirus F-9 ATCCVR782, and Hepatitis C Virus ATCCVR534, HIV-1 (HTLV IIIB), Clostridium difficile ATCC43598.**

Special Instructions for Cleaning and Decontamination Against HIV and HCV of Surfaces/Objects Soiled with Blood/ Bodily Fluids:

Personal Protection: Wear appropriate barrier protection such as gloves, gowns, masks, or eye covering.

Cleaning Procedure: Blood and other body fluids must be thoroughly cleaned from surfaces and objects. Cleaning is to include vigorous wiping and/or scrubbing until all visible soil is removed. Special attention is needed for high-touch surfaces. Surfaces in patient rooms are to be cleaned in an appropriate manner, such as from right to left or left to right, on horizontal surfaces, and top to bottom, on vertical surfaces, to minimize spreading of the spores. Restrooms are to be cleaned last. Do not reuse soiled cloths.

Infectious Materials Disposal: Blood and other body fluids should be autoclaved and disposed of according to Federal, State and local regulations for infectious waste disposal.

Special Pre-Cleaning Instructions Prior to Disinfection for Fungi and Clostridium difficile spores

Cleaning Instructions Prior to Disinfection of Heavily Soiled Surfaces or for Clostridium difficile spores:

Personal Protection: Wear appropriate barrier protection such as gloves, gowns, masks, or eye covering.

Cleaning Procedure: Fecal matter/waste must be thoroughly cleaned from surfaces/objects before disinfection by application with a clean cloth, mop, and/or sponge saturated with the disinfectant product. Cleaning is to include vigorous wiping and/or scrubbing until all visible soil is removed. Special attention is needed for high-touch surfaces. Surfaces in patient rooms are to be cleaned in an appropriate manner, such as from right to left or left to right, on horizontal surfaces, and top to bottom, on vertical surfaces, to minimize spreading of the spores. Restrooms are to be cleaned last. Do not reuse soiled cloths.

Infectious Materials Disposal: Materials used in the cleaning process that may contain feces/wastes are to be disposed of immediately in accordance with local regulations for infectious materials disposal.

PRECAUTIONS

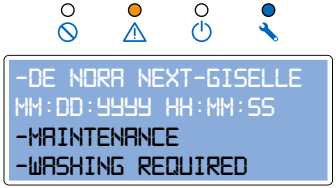
- Handle, store and dispose in accordance to the instructions on the safety sheet.

MATERIAL		Soleva™ COMPATIBILITY
Metal	AISI 316 steel	Good. It is advisable to rinse thoroughly after applying the product.
Metal	AISI 316L steel	Good. It is advisable to rinse thoroughly after applying the product.
Alloy	Nickel/Titanium	Good. It is advisable to rinse thoroughly after applying the product.
Metal	AISI 316Ti, EN 1.4571 steel	Good. It is advisable to rinse thoroughly after applying the product.
Metal	Anodised aluminium	Good. It is advisable to rinse thoroughly after applying the product.
Metal	Epoxy coated metals	Good. It is advisable to rinse thoroughly after applying the product.
Polymer	Fluoroelastomer FKM, FPM (Viton®)	Good
Polymer	Ethylene propylene diene monomer EPDM	Good
Polymer	Chlorosulfonated polyethylene CSM	Excellent
Polymer	Polypropylene PP	Good
Polymer	Polyethylene PE	Good
Polymer	Polycarbonate	Good
Polymer	Polyethylene terephthalate PET	Excellent
Polymer	High-density polyethylene HDPE	Excellent
Polymer	Polyvinylidene fluoride PVDF	Excellent
Polymer	Polyvinyl chloride PVC	Excellent
Polymer	Polytetrafluoroethylene PTFE (Teflon™)	Excellent

MATERIAL		Soleva™ COMPATIBILITY
Polymer	Polyaryletherketone, Polyetheretherketone PAEK, (PEEK™)	Excellent
Polymer	Silicone	Low
Polymer	Polyurethane PUR, PU	Good
Polymer	Polyoxymethylene copolymer POM	Good
Polymer	Polyamide PA6, PA66 (nylon)	Low
Polymer	Polybutylene terephthalate, PBT	Good
Polymer	Nitrile rubber NBR	Good
Polymer	Acrylonitrile butadiene styrene, ABS	Good
Ceramic		Excellent
Glass		Excellent

Maintenance and care

To ensure the machine's optimal operation, a washing with the maintenance cartridge must be regularly performed on Giselle® 1.0.
Moreover, it is advisable to clean Giselle® 1.0 with a damp cloth and to keep the support surface and cart interior dry.

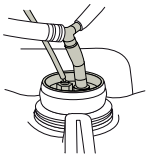


6.1 Washing with maintenance cartridge

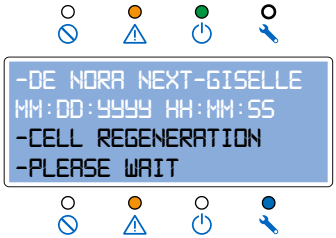
Giselle® 1.0 automatically performs the request of internal piping washing.
The adjacent window appears.

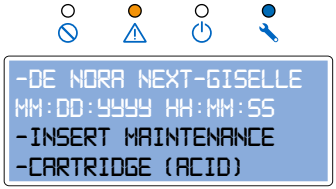
Remove the waste water tank and empty it.

WARNINGS
Handle, store and dispose the waste water as indicated on the label.



Reconnect the waste water tank.



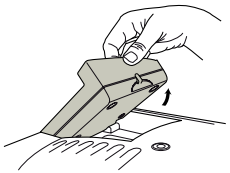


START/OK PRESS START/OK
The adjacent window will appear.

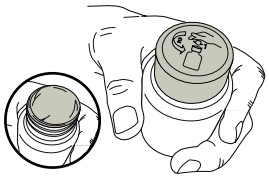
ATTENTION
DO NOT TOUCH the machine and/or buttons.

Wait until the adjacent window appears.

The upper panel is unlocked and can be opened. If the panel is not opened within about 30 seconds, the safety lock automatically engages and the panel cannot be opened; in such a case, simply switch the machine off then on again: the previous window will appear and the panel can be opened once again.

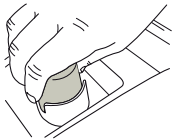


Take the maintenance cartridge. Wear personal protection equipment and remove the cartridge cap.
Empty the cartridge inside Giselle cartridge compartment.

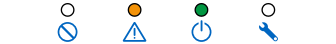


WARNINGS
- Read the label and consult the safety sheet before use.
- Handle, store and dispose in accordance to the instructions on the label and safety sheet.

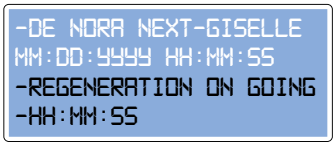
PRECAUTIONS
- Only use original citric acid cartridges supplied by Industrie De Nora S.p.A.



Insert the cartridge into the appropriate compartment.

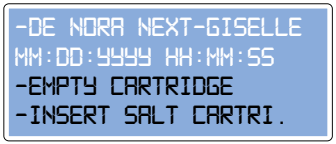


Close the panel and PRESS START/OK, the adjacent window will appear.



ATTENTION
DO NOT TOUCH the machine and/or buttons. Time for regeneration cycle is indicated by the count down.

At the end, the adjacent window will appear.



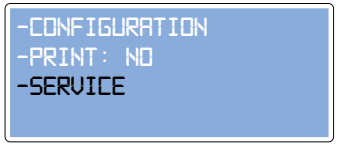
The upper panel will then be unlocked and can be opened. Remove the citric acid cartridge and close it with its own cap.

- Insert a new salt cartridge
- Remove the waste water tank and empty it
- Reconnect the waste water tank
- Proceed as indicated in Section **5.1** of the manual

WARNINGS
Handle, store and dispose the waste water as per local regulation.

6.2 Emptying the system

If Giselle® 1.0 must be moved by transport means (car, train, airplane, ship), the user either must use up the cartridge and sodium hypochlorite solution or otherwise empty the Giselle equipment of any remaining solution.

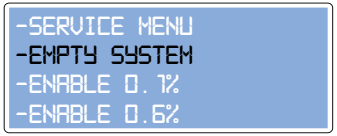


PRESS THE MENU BUTTON

Move down the menu and highlight SERVICE using the UP/DOWN arrow buttons

Press START/OK

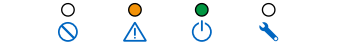
Enter the password

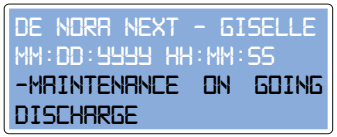


Move down the menu and highlight EMPTY SYSTEM using the UP/DOWN arrow buttons

Press START/OK

PRESS START/OK





The adjacent window will appear.

Wait until Giselle® 1.0 automatically returns to the initial window and the warning “EMPTY CARTRIDGE” will appear. Remove the cartridge, close the upper panel and proceed to package the machine.

Signals and Errors

7.1 Signals

DISPLAY	LED	DESCRIPTION	CAUSE	REMEDIES
Wrong cartridge washing HH:MM:SS	GREEN inter-mitt.+ YELLOW ON	The system has detected a salt or acid cartridge but does not identify it as being valid	Non-original cartridge, incorrect use or expired cartridge	1) Wait until the machine automatically completes the wash cycle. When the window "Empty cartridge Change cartridge" appears, it is possible to open the upper panel 2) Open it and remove the cartridge 3) Replace the cartridge with a salt or citric acid cartridge supplied by Industrie De Nora S.p.A. (Section **5.2** or **6.1** of the manual) If the problem persists, switch the machine off and contact the technical assistance service.
No cartridge insert salt cartri.	YELLOW ON	The system does not detect any cartridge	Cartridge not present or not detected	1) Open the upper panel (Section **5.2** of the manual) 2) Insert the new De Nora Next cartridge (Section **5.2** of the manual) If the problem persists, switch the machine off and contact the technical assistance service.
Empty cartridge Insert salt cartri.	YELLOW ON	The system has detected an exhausted cartridge	Cartridge exhausted	1) Open the upper panel (Section **5.2** or **6.1** of the manual) 2) Insert the new De Nora Next salt cartridge (Section **5.2**) If the problem persists, switch the machine off and contact the technical assistance service.
Available 0.1% empty 0.6%	YELLOW ON	The salt in the cartridge is only available for preparing the 0.1% solution		**Proceed with the production of the 0.1% solution:** 1) select the 0.1% solution from the MENU (Section **5.3** of the manual) 2) press START/OK **Or empty the system (Section 6.2 of the manual)**
Maintenance washing required	YELLOW ON + BLUE ON	The system requests a wash cycle	Regular maintenance requested by the system	Proceed with the wash cycle (Section **6.1** of the manual)

DISPLAY	LED	DESCRIPTION	CAUSE	REMEDIES
Maintenance on going discharge	GREEN intermitt.+ YELLOW ON	The system has detected an anomaly and will empty and rinse out the cell	Brine supply not correct	1) Wait until the machine automatically completes the wash cycle.
No production select concentration	YELLOW ON	The system detects the impossibility of proceeding with the production of any solution	The production of both the 0.1% and 0.6% solution has been disabled	Configure the concentration (Section **4.6** of the manual) If the problem persists, switch the machine off and contact the technical assistance service.

7.2 Errors

DISPLAY	LED	DESCRIPTION	CAUSE	REMEDIES
Error: High temperature Unloading solution	RED intermitt.	The system signals that the cell temperature is high		1) Wait for the solution to be discharged until the successive window appears
Error: High temperature Waiting lower temp	RED ON	The system has detected high temperature and is waiting for it to fall below the threshold value		1) Wait until the successive window appears: "Temperature OK Press OK" green LED 2) Press START/OK If the problem persists, switch the machine off, contact the technical assistance service and report error **E001**
Error: Production Solution Discharge	RED intermitt.	The system has detected some problems that hamper the production of the solution		1) Wait for the solution to be discharged until the successive window appears
Error: Production **E005**	RED ON	The system has detected some problems that hamper the production of the solution		1)Turn off the machine, turn it on again and wait for home screen. 2)Proceed with emptying of the system (section 6.2 of this manual). 3) When the system requires to insert a new cartridge, open the top cover, remove the cartridge and check the cleaning of the louvers. Bring down the salt present on the louvers. 4)Insert a new cartridge of salt : be sure to empty the cartridge completely and make sure that the salt does not stop on the louvers (section 5.2 of this manual). If the problem persists, contact the technical assistance service and report error E005
Error: Production **E007**	RED ON	The system has detected some problems that hamper the production of the solution		1) Switch the machine off then on again If the problem persists, contact the technical assistance service and report error E007
Error: Water mix **E008**	RED ON	The system has detected some problems that hamper the production of the solution		1) Switch the machine off 2) Contact the technical assistance service and report error E008

DISPLAY	LED	DESCRIPTION	CAUSE	REMEDIES
Error: Spray bottle load **E009**	RED ON	The system does not manage to transfer the Soleva™ solution to the bottle	The bottle was either touched or removed while Soleva™ was being produced	1) Switch the machine off 2) If necessary, remove the bottle and empty it 3) Switch the machine on again and wait until the initial window reappears 4) Clip on the bottle on and proceed with the production of the solution If the problem persists, switch the machine off, contact the technical assistance service and report error E009
Error: Water Loading **E010**	RED ON	The system does not manage to load water from the tank	The water tank is empty or the water supply tube is not positioned correctly	1) Verify whether there is any water in the tap water tank and that the tube reaches the bottom 2) Fill the tap water tank up to the blue level indicated, while ensuring that the tube reaches the bottom 3) Switch the machine off then on again and wait until the initial window reappears If the problem persists, switch the machine off, contact the technical assistance service and report error E010
Error: Water drainage **E011**	RED ON	The system does not manage to discharge the washing water into the discharge tank	The water discharge tank is full	1) Discharge the waste water tank and then reconnect it to the machine 2) Switch the machine off then on again If the problem persists, switch the machine off, contact the technical assistance service and report error E011
Error: Watch battery **E012**	RED ON	The system signals that the clock battery is exhausted		1) Contact the technical assistance service and report error E012 2) Press ok, the machine will go on the home screen 3) Check date and time, if they aren't correct change them (sec. 4.5 of this manual) 4) Proceed with the regular use of the machine waiting for technical intervention
Error: High temperature **E013**	RED ON	The system signals that the machine is not functioning properly and that the temperature is too high		1) Switch the machine off 2) Contact the technical assistance service and report error E013

DISPLAY	LED	DESCRIPTION	CAUSE	REMEDIES
Error: Hydrogen vent **E014**	RED ON	The system signals that the machine is not functioning properly and that the fan is blocked		1) Switch the machine off 2) Contact the technical assistance service and report error E014
Error: RFID reader **E016**	RED ON	The system signals a malfunction concerning the RFID control system		1) Swith the machine off 2) Contact the technical assistance service and report error E016
Error: Printer **E017**	RED ON	The system signals that the printer is not able to print	The printer is not connected, is not installed or it malfunctions	**If a printer is available:** 1) Verify that the printer is connected; if not, connect it 2) Verify that the labels are in the printer and load them 3) Verify that the printer is installed; if not, install it (Section **4.7**) 4) Verify that the labels are not rolled. Possibly unfold the roll and close the top cover of the printer. 5) Switch the machine off then on again Printing will be possible with the successive production cycle; for the current production cycle, use the manual label. If the problem persists, switch the machine off, contact the technical assistance service and report error E017 **If no printer is available:** 1) Press BACK 2) Withdraw the bottle and wait until the production cycle ends 3) At the end, verify that the printer has not been installed, consult Section **4.7** and select NO

NOTES

Industrie De Nora, Via Bistolfi 35, 20134 Milan, Italy
Tel: +39 02.21.29.1 - Email: info@denoranext.com

Qiselle®

2.0 User and installation manual

DE NORA NEXT

a De Nora Business Unit

For best performance, Industrie De Nora S.p.A. recommends reading the manual thoroughly before installing and using the equipment. Store this manual in an easy accessible location so that operators can consult it at any time.

Product: **Giselle® 2.0**
Giselle 2.0 produces the 0.6% and 0.05% solutions.
Users of Giselle® 2.0 to produce the 0.6% and the 0.05% solutions cannot sell the solution or distribute it to other facilities.

Manufactured by: **Industrie De Nora S.p.A. - Via Bistolfi 35, 20134 Milano, Italy**

Installed by: .....

Date of installation: .....

Location of installation: .....

For technical assistance, please contact:
Industrie De Nora S.p.A.
Via Bistolfi 35, 20134 Milano, Italy

Tel: +39 (340) 9912737
Fax:+39 02 21292831
Email:info@denoranext.com

Contents

DE NORA NEXT
a De Nora Business Unit

Using the manual

Thank you for purchasing the Giselle® 2.0 unit and its accessories.

This manual aims to provide the following information to the operator:
- Safety measures
- Installation instructions
- Operating instructions
- Routine maintenance instructions

This manual must be stored in an easily accessible location.

Read carefully the manual before operating the device.

Observe all the relevant warnings and precautions during the installation, operation and maintenance of Giselle® 2.0 and its accessories.

The operator is responsible for ensuring that Giselle® 2.0 and its accessories are implemented in accordance with the instructions of this manual. If the device is used in ways other than those indicated in this manual, Industrie De Nora S.p.A will not provide any warranty and it will not take responsibility for any damage to people or other objects.

In case of malfunctions requiring advanced technical interventions, please contact:
Industrie De Nora S.p.A., Via Bistolfi 35, 20134 Milano, Italy - Tel: +39 (340) 9912737 - Email: info@denoranext.com

DE NORA NEXT a De Nora Business Unit

General precautions and warnings

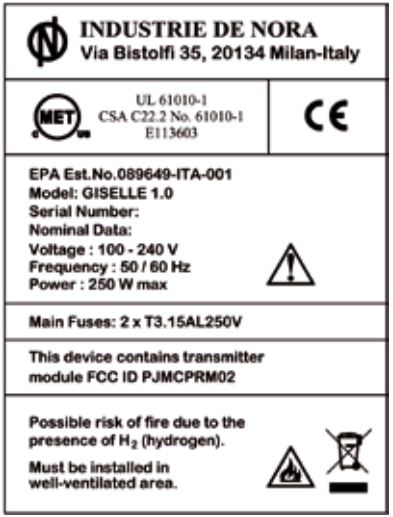
2.1 Declaration of conformity

Industrie De Nora S.p.A. declares that this product conforms to the following directives:

- 2006/95/CE (LDV)
- 2004/108/CE (EMC)

European standards:
- EN 61010-1: 2001
- EN 61326-1: 2006
- ETSI EN 301489-1 V1.8.1: 2008
- ETSI EN 301489-3 V1.4.1: 2002

Standards for USA and Canada:
- FCC Part 15 subpart B
- EPA regulations - 40 CFR, Part 152.500
- EPA Est. No. 089649-ITA-001



2.2 PPE (Personal Protection Equipment)



Operating Giselle® 2.0 involves handling various chemical substances: therefore, prior to using the device, it is advisable to carefully read the manual, labels and safety sheets.
It is advisable to use protective glasses and gloves.

2.3 Safety measures

In this manual, the safety measures are subdivided into WARNINGS and PRECAUTIONS.

WARNINGS
If these instructions are not observed, the device may damage objects, cause injury to persons or loss of life.

PRECAUTIONS
If these instructions are not observed, the device may cause light or serious damage to objects, or personal injury.
The following WARNINGS AND PRECAUTIONS must be observed.

2.4 General safety

WARNINGS

- In order to prevent fires, explosions or injury, do not operate the device near flammable, hazardous or corrosive gases. Do not attempt to dismantle, repair or modify the device on your own. Intervening incorrectly may cause electric discharges and fires.
- Do not place any object on top of the device.

- Do not introduce objects inside the device or in the tank.
- Do not obstruct the vent on the upper section of the device's tank. This may cause the pressure inside the tank to increase sharply which may result in leakages, liquid jets and explosions.
- Clean periodically the ventilation slits, on the top and on both sides of the machine, in order to avoid modifications or reduction of the machine ventilation.
- Persons without adequate training should not attempt to install or use the device.
- Only personnel authorized by Industrie S.p.A De Nora can repair and mantain Giselle 2.0.
- The solution produced by Giselle® 2.0 (sodium hypochlorite) can be a sanitizer or a disinfectant —NOT DRINKING WATER—and therefore must NOT be swallowed.

PRECAUTIONS

- Do not place any containers with water or other liquids on top of the device. Water may accidentally leak into the device and jeopardise the electrical insulation, causing electric shocks.
- Only use Giselle® 2.0 with spray bottles and cartridges provided by Industrie De Nora S.p.A..

2.5 Electrical safety

WARNINGS

- Verify conformity to all electrical regulations.
  Failure to observe such regulations shall void the Industrie De Nora warranty.
- The device must be properly earthed. Always use an electrical system having an earth connection.
- Do not remove or cut parts of the plug for earthing the power socket.
- Do not deactivate or tamper with the electrical interlocks or lockout mechanisms.
- Connect the device only to a 100-240V ~ 50/60Hz 250 W max. electrical source.
- Do not attempt to repair, replace or modify the power cord.
- Do not pull the cord.

- All the electric cables and connections in use must be free of defects or damages (cuts, abrasions or other elements that may be risk of electrocution).
- If any water sources are nearby, take the necessary precautions to protect the electrical components.

PRECAUTIONS

- If the Industrie De Nora S.p.A. device is subjected to voltage variations exceeding ± 10% or blackouts, electrical storms, incorrect earthing, or harmonic effects, Industrie De Nora recommends installing an uninterruptible power supply (UPS), or a surge arrester in order to protect sensitive electrical components.
- Do not modify the cable connectors as it is a potential risk.
- If an extension is needed, only use certified components.

2.6 Installation site

WARNINGS

- Do not install the machine in a room classified at risk of explosion for flammable gas/vapour/powders.
- Assess the adequacy of the place where to install the machine on the basis of the quantity of emitted hydrogen (0.19 l/min during production of the solution).
- Verify that the facility and installation where Giselle® 2.0 is installed conform to the relevant safety regulations.
- Ensure that the equipment is installed in a safe location to prevent uncontrolled access, tampering with the devices or water supply difficulties.
- Install the device in a well ventilated and clean room. NFPA497 requires at least 6 air changes per hour.
- Install the device far away (at least 1m) from sources of heat, flames and sparks or other possible sources of ignition.
- Place the device in locations where there are no patients with life-sustaining devices.
- Keep the device in places where there are only devices complying with CEI EN 61326.1 for electromagnetic compatibility.

- Do not position the device near walls or ther objects that could limit the ventilation around the machine. Position it at least 1m far.
- Clean the room in order to avoid presence of dirty into the ventilation slits of the machine.

PRECAUTIONS

- Transport and handle with care. The device weighs 14 kg. If necessary, use appropriate mechanical aids (for example, manual pallet jacks or forklift trucks). Use suitable personal protection equipment.
- Giselle® 2.0 is designed to operate in a fixed and stable position.

FURTHER INFORMATION:

During normal operation of Giselle® 2.0

- The device emits low level noise.
- The external surfaces are at ambient temperature or slightly higher. There is no risk of burns.
- The device does not emit any significant vibrations.

2.7 Treatment of chemical substances

Information on the raw materials

The basic elements intervening in the production process of Giselle® 2.0 include:

- Potable tap water
- Electrical power
- Salt (sodium chloride 99.86%), provided as "Salt Cartridge for Giselle®"
- Citric Acid Monohydrate (Solid-100%), provided as "Maintenance Cartridge for Giselle®"

This cartridge cannot be used to produce a solution that will treat surfaces against pest.

1. Salt (sodium chloride 99.86%)

Sodium chloride is supplied by Industrie De Nora S.p.A. in a high-density polyethylene sealed cartridge. The substance is classified as NON HAZARDOUS pursuant to OHSA criteria.
In case of need, consult the safety sheet.

PRECAUTIONS

Only use original salt cartridges supplied by Industrie De Nora S.p.A. and carrying the De Nora Next logo.
The salt cartridge are single use and cannot be refilled.

2. Citric Acid Monohydrate (Solid-100%)

The citric acid is supplied by Industrie De Nora S.p.A. in a high-density polyethylene sealed cartridge. The substance is classified as EYES IRRITANT H319 substance pursuant to OHSA criteria.

Causes serious eyes irritation

WARNINGS

- Read the label and consult the safety sheet before use.
- Handle, store and dispose in accordance to the instructions on the label and safety sheet.

PRECAUTIONS

- Only use original citric acid cartridges supplied by Industrie De Nora S.p.A..

2.8 The Giselle® 2.0 solution (Soleva™)

Giselle® 2.0 produces Soleva™, a sodium hypochlorite solution in water, with two different concentrations:

Type of Soleva™ Solution	Concentration of active ingredients	Other Ingredients	pH
Low concentration	0.05% Free Available Chlorine	1% Sodium Chloride - 98.95% Water	9
High concentration	0.6% Free Available Chlorine	2% Sodium Chloride - 97.4% Water	9

The preparation is classified as NON HAZARDOUS pursuant to OHSA criteria.

PRECAUTIONS

- Read the label and consult the safety sheet before use.
- Handle, store and dispose in accordance to the instructions on the label and safety sheet.

2.9 Waste water of Giselle® 2.0

The production of the Soleva™ solution and the cleaning and maintenance cycles (if any) produce waste water that is collected in a polyethylene tank connected to the machine. The tank is identified by the orange "Waste Water" label.
The waste water's composition may vary depending on the number and type of Soleva™ solutions produced and on the cleaning cycles effected.

The solution may contain citric acid, sodium hypochlorite, sodium chloride and water.

WARNINGS
- Read the label before use.
- Handle, store and dispose as per local regulation.

2.10 Respect for the environment

Packaging

The packaging of Giselle® 2.0 is made up of totally recyclable materials which must be disposed of in conformity to the local regulations.

- Cardboard
- Expanded PE (polyethylene)

Giselle® 2.0

Dispose of in conformity to the local regulations.

Plastic

- ABS (acrylonitrile butadiene styrene polymer)
- PE (polyethylene)
- PVC (polyvinyl chloride)
- PTFE (polytetrafluoroethylene)

Metal

- Titanium Grade 1
- RuOx (ruthenium oxide)
- IrOx (iridium oxide)
- 316L stainless steel
- Copper
- Iron
- Zinc

Rubber

- EPDM (ethylene propylene diene monomer)

Electronic materials

- Components

Accessories

Dispose of in conformity to the local regulations.

Salt cartridge

- HD PE (high-density polyethylene) cartridge
- Contents: 80g sodium chloride
- Paper label with antenna for RFID reading

Maintenance cartridge

- HD PE cartridge (high-density polyethylene)
- Contents: 25g of citric acid monohydrate (solid-100%)
- Paper label with antenna for RFID reading

Bottles for Soleva™ solutions

- HD PE (high-density polyethylene) bottles
- ABS (acrylonitrile butadiene styrene polymer) connector
- PE (polyethylene) labels

Tanks

- HD PE (high-density polyethylene) tanks
- PE (polyethylene) stoppers
- HD PE (high-density polyethylene) caps
- PE (polyethylene) labels

Tubes

- PVC (polyvinyl chloride) tubes
- PE (polyethylene) tubes
- PVDF (polyvinylidene fluoride), steel, nylon fittings

Standard cart

- Anodised aluminium alloy cart
- Rubber wheels

Premium cart

- Anodised aluminium alloy cart (equipped with doors and lock)
- Rubber wheels

Fixing kit

- Non alloy steel, PE (polyethylene), PA 6 (polyamide 6)
- Nylon nuts

Printer (s'print model supplied by Custom)

- ABS (acrylonitrile butadiene styrene polymer)
- Electronic components

Description

Giselle® 2.0 ™ is an electronic device for the on-site production of Soleva™, a sodium hypochlorite solution generated in two different concentrations (0.1 and 0.6% free available chlorine)

3.1 Process

The operating process leading to the production of Soleva™ can be summarised as follows:
$NaCl + H_2O + 2e^- \rightarrow NaOCl + H_2$

Salt + Water + Electricity $\rightarrow$ Soleva™ + Hydrogen
At the start of the process, the salt (sodium chloride - NaCl) is dissolved in water.
The salt is entirely broken down into sodium Na^+ and Chlorine Cl^- ions in solution:
$NaCl \rightarrow Na^+ + Cl^-$

This saline solution is transferred to the electrolysis cell where the following reaction occurs:
ANODE: $2Cl^- \rightarrow Cl_2 + 2e^-$
CATHODE: $2H_2O + 2e^- \rightarrow 2OH^- + H_2\uparrow$

Subsequently, the chlorine (Cl_2) and hydroxide ion (OH^-)
react to form sodium hypochlorite:
$Cl_2 + OH^- \rightarrow OCl^- + Cl^- + H^+$
The sodium hypochlorite remains in solution and can be used as a sanitizer or disinfectant depending on its concentration.

The Giselle® 2.0 device is equipped with an appropriate tank for preparing the salt solution. This solution is then transferred to the electrolysis cell where the above-mentioned electrochemical reaction takes place.
The necessary energy supplied to the system is electronically managed and controlled. The electrolysis cell is equipped with electrodes manufactured with catalytic coats exclusively supplied by Industrie De Nora S.p.A.. At the end of the process, after a few minutes of electrochemical reaction, the Soleva™ solution is transferred from the cell to the spray bottle and is ready for use.

The hydrogen, generated inside the cell through a cathodic reaction, rises to the top and exits the cell and system thanks to the fan and appropriate aeration vent.

The level switches, connected to the insertion fork, allow for measuring the correct amount of water and solution required for the process.

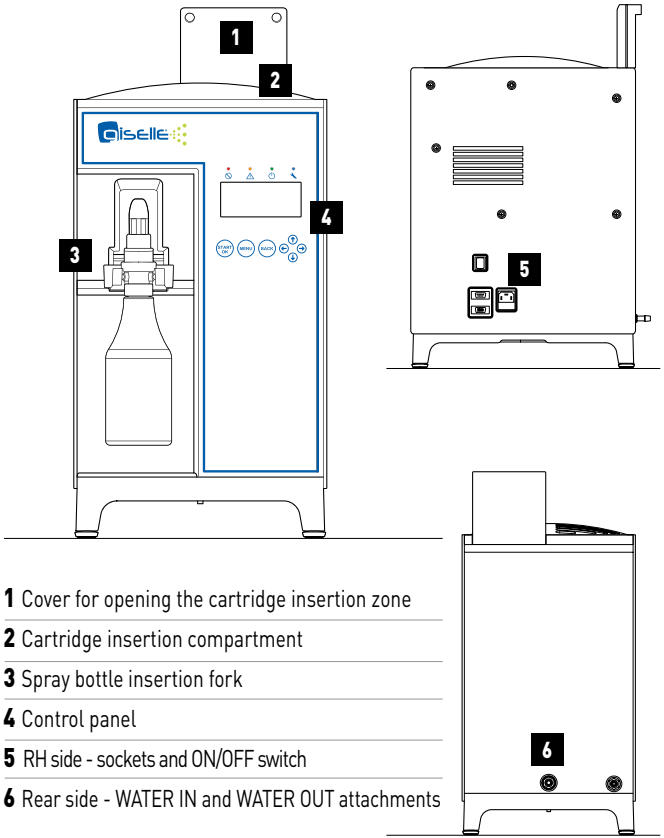
All the functions of the components and the entire process are electronically controlled by a proprietary firmware.

The RFID (Radio Frequency Identification) technology is used to guarantee maximum quality, reliability of Giselle® 2.0 and safety avoiding uncontrollable production of Soleva™.

3.2 Giselle® 2.0 technical data:

• Model	Giselle® 2.0
• Material	ABS,PTFE, PE, PVC, EPDM, Metals
• Production capacity	Up to 0.5 l of solution for each production cycle
• Power connection	100-240V~ 50/60Hz 250 W max.
• RFId Transmitter module RFId	FCC ID PJMCPRM02
• Feed water	Temperature from 10 to 29 °C - Atmospheric pressure
• Ambient temperature	Min 10°C, max 40°C
• Ambient relative humidity	Max 95% (without condensate build-up)
• Altitude	0-2000 m above sea level
• Water consumption	Roughly 10 l per salt cartridge
• Dimensions	310 mm x 420 mm x 550 mm (WxDxH)
• Weight	14 kg
• Protection rating	1
• Pollution degree	2
• Installation category	2
• Surfaces subject to heat	None
• Vibrations	Non appreciable
• Effluents/emissions	Hydrogen gas (diluted: 0.19l/min) during the solution production. Water with variable content of: sodium chloride, sodium hypochlorite, citric acid.
• Warranty	1 year
• Mains Fuses	2 x T3.15AL250V

The device is designed to operate in a stable vertical position. Indoor use only.
Voltage fluctuations shall not exceed +/- 10% of the nominal supply voltage.



1 Cover for opening the cartridge insertion zone

2 Cartridge insertion compartment

3 Spray bottle insertion fork

4 Control panel

5 RH side - sockets and ON/OFF switch

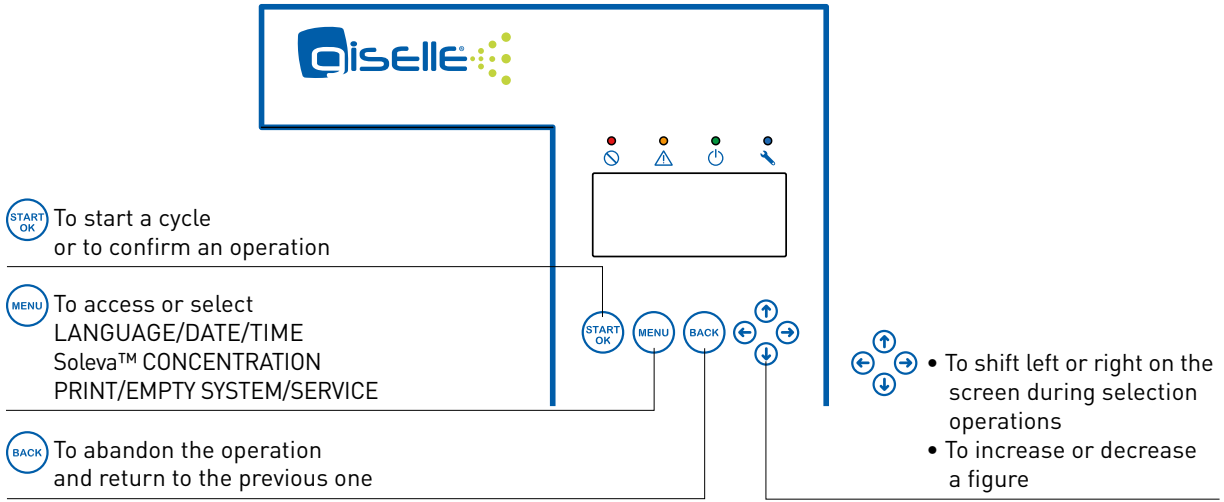
6 Rear side - WATER IN and WATER OUT attachments

Risk of fire: consult the section **Precautions and warnings** (Section **2.0**)

Do not dispose of this product as solid urban waste but bring to to appropriate waste collection facilities.

Important operating and maintenance (servicing) instructions in the literature accompanying the product.
Read carefully the manual.

Front panel



Indicator Leds

			
ERRORS: see Section **7.0** of the manual	**SIGNALS:** see Section **7.0** of the manual	**SYSTEM READY FOR OPERATION**	**MAINTENANCE:** see Section **6.0** of the manual

- Yellow + Blue Request for maintenance: see Section **6.0** of the manual
- Green + Blue Configuration: see Section **4.0** of the manual
- Green + Yellow System operating: do not touch

3.3 Soleva™

Soleva is a sodium hypochlorite solution produced by Giselle® 2.0 directly in the bottle equipped with spray nozzle, with which it can be applied.
The bottles supplied have 2 different colours and are used depending on the desired concentration of Soleva™.

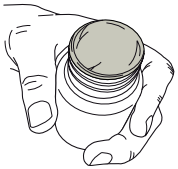
Type of Soleva™ Solution	Concentration of active ingredients	Label and Connector colour	Volume
Low concentration	0.05% Free Available Chlorine	GRAY	0.5 l
High concentration	0.6% Free Available Chlorine	GREEN	0.4 l

Low Concentration

High Concentration

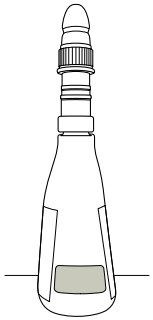
• Soleva Sodium Hypochlorite Solution (0.6%) is a one-step disinfectant for hard, non-porous surfaces, environmental and non-critical care equipment surfaces. Solution kills bacteria, fungi, viruses and spores. Cleans and deodorizes.
• Soleva Sodium Hypochlorite Solution (0.05%) is a One-step sanitizer for hard, non-porous surfaces, environmental and food contact surfaces. Cleans and deodorizes.
Soleva has been tested in agreement with OCSPP 810.2300 and OCSPP 810.2200 Guidelines.

3.4 Accessories



Salt cartridge
Size: 40 mm Ø x 75 mm Weight: 100 g
High-density polyethylene cartridge, provided with sealing gasket.
Contains the proper amount and type of salt for correctly operating Giselle® 2.0 (80 g).
Each cartridge comes with an RFID label so that it can be identified by Giselle® 2.0.

Maintenance cartridge
Size: 40 mm Ø x 75 mm Weight: 45 g
High-density polyethylene cartridge, provided with sealing gasket.
Contains the proper amount (25 g) and type of citric acid for performing cleaning and maintenance of Giselle® 2.0.
Each cartridge comes with an RFID label so that it can be identified by Giselle® 2.0.



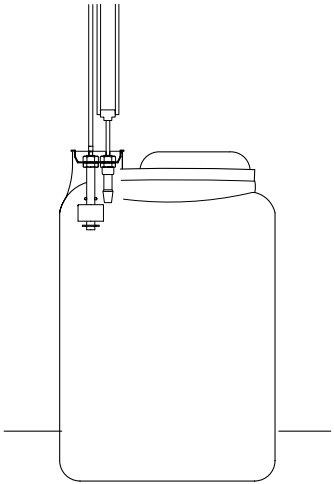
Soleva™ spray bottles
Gray bottle: Size: 80 x 96 x 290 mm (WxDxH) Weight (empty): 120 g
Green bottle: Size: 64 x 95 x 300 mm (WxDxH) Weight (empty): 120 g
High-density polyethylene bottles equipped with machine connector and nebuliser for producing and applying Soleva™ solutions. The bottles come in different sizes and include different colour labels and connectors: gray for solutions with 0.05% free available chlorine and green for 0.6% chlorine solutions. The labels applied to the bottles include the solution's instructions for use. The label with the relevant date and time of production of the solution (see Section 5.3) can be applied in the appropriate space.

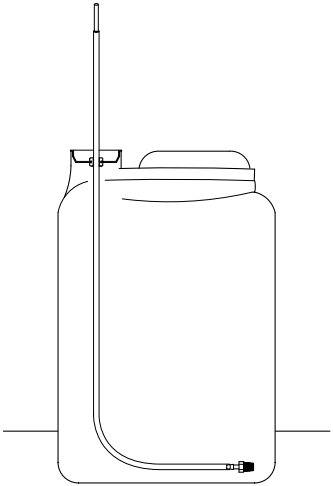
Tanks

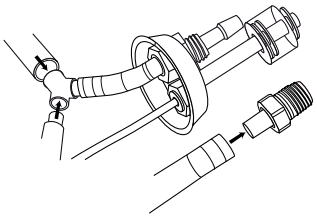
Ext. dimensions 200 x 210 x 325 mm (WxDxH) Weight (empty): 450 g Capacity: 11l
High-density polyethylene tanks for tap water and waste water.

The tanks are equipped with pierced stoppers for connection to Giselle® 2.0.
The waste water tank is identified by the orange label with the wording “WASTE WATER TANK”.
The tap water tank is identified by the blue label with the wording “TAP WATER TANK”.

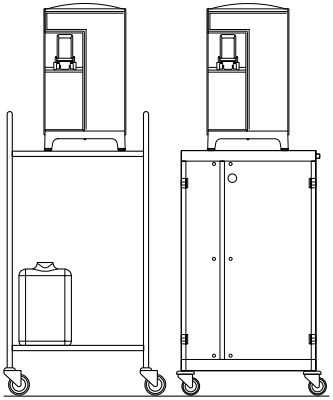
Connection tubes







Tubes and fittings for tap water and waste water.

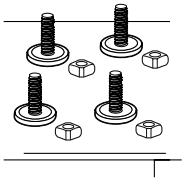


Standard - optional - cart
Ext. dimensions 540 x 540 x 1085 mm (WxDxH)
Load-bearing capacity per shelf: 20kg
Dismantable anodised aluminium cart equipped with 2 shelves, 4 non-marking grey rubber caster wheels (diameter 75 mm) and 2 independent brakes.

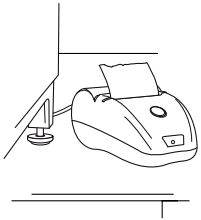
The cart is designed to house and fix Giselle® 2.0 (top shelf) and 2 tap and waste water tanks (lower shelf), so that the equipment can be easily transported.

Premium - optional - cart (equipped with doors and lock)
Ext. dimensions 570 x 585 x 920 mm (WxDxH)
Load-bearing capacity per shelf: 20kg
Anodised aluminium cart with shelves, equipped with doors and lock with key, handle, 4 anti-marking grey rubber caster wheels (diameter 100 mm) and 2 independent brakes.

The cart is designed to house and fix Giselle® 2.0 (top shelf), 2 tap and waste water tanks and other accessories (lower shelf with doors), so that the equipment can be easily transported.



Fixing kit
The kit includes 4 nuts and 4 feet that allow for fixing the machine to the cart shelf and adjusting its levelling.



Thermal printer - optional
Ext. dimensions 85 x 150 x 65 mm (WxDxH)
The thermal printer is supplied with appropriate labels for printing the data relative to the production of Soleva™ (concentration, date and time of production), to be attached to the spray bottle.

Installation

4.1 Unpacking

Verify whether the packaging box contains the following items:
- N° 1 tube kit for water supply and discharge
- N° 1 fixing kit
- N° 1 power suplly cord

Carefully check that the machine has not suffered any damages during transport; if so, notify the supplier.
Check that the following items are available:
- Water supply and discharge tanks
- Spray bottles for producing and applying Soleva™
- Salt cartridges not expired
- Citric acid cartridges for cleaning and maintenance

4.2 Correct positioning

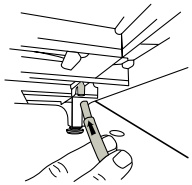
WARNINGS
- Do not install the machine in a room classified at risk of explosion for flammable gas/vapour/powders.
- Assess the adequacy of the place where to install the machine on the basis of the quantity of emitted hydrogen (0.19 l/min during production of the solution).
- Verify that the facility and installation where Giselle® 2.0 is installed conform to the relevant safety regulations.
- Ensure that the equipment is installed in a safe location to prevent uncontrolled access, tampering with the devices or water supply difficulties.
- Install the device in a well ventilated and clean room NFPA497 requires at least 6 air changes per hour.
- Install the device far away (at least 1m) from sources of heat, flames and sparks or other possible sources of ignition.

- Place the device in locations where there are no patients with life-sustaining devices.
- Keep the device in places where there are only devices complying with CEI EN 61326.1 for electromagnetic compatibility.
- Do not position the device near walls or ther objects that could limit the ventilation around the machine. Position it at least 1m far.
- Clean the room in order to avoid presence of dirty into the ventilation slits of the machine.

PRECAUTIONS

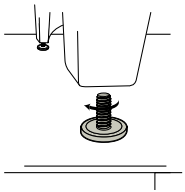
- Transport and handle with care. The device weighs 14 kg. If necessary, use appropriate mechanical aids (for example, manual pallet jacks jacks or forklift trucks). Use suitable personal protection equipment.
- Position the device on a flat and sturdy surface.
- Giselle® 2.0 is designed to operate in a fixed and stable position.

If no cart is available

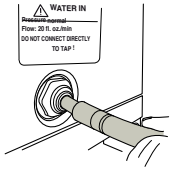


1. Place Giselle® 2.0 on a flat, sturdy surface at about 900-1,000 mm above the floor.

2. Tilt Giselle® 2.0 slightly and connect the drainage tube to the connection marked by the DRAIN label on the lower side of the device.



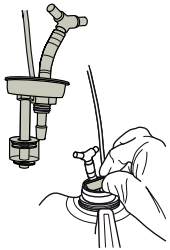
3. Insert the feet of the fixing kit into the appropriate threaded housings then - with the aid of the bubble level on the upper part of Giselle® 2.0 - turn them until the bubble is centred, so as to balance out the surface's irregular features. Giselle® 2.0 must operate in a stable position.



4. Connect the water feed tube to the connection situated on the rear of Giselle® 2.0, identified by the WATER IN label.

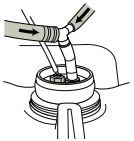
5. Connect the discharge tube to the connection situated on the rear of Giselle® 2.0, identified by WATER OUT.

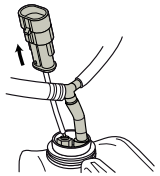
6. Position the tanks beneath the support surface of Giselle® 2.0 at about 900-1,000 mm of distance.



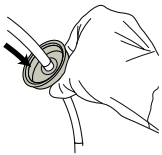
7. Arrange the connector of the discharge tank fixing it to the waste water tank.

8. Connect it to the DRAIN and the DISCHARGE tubes.



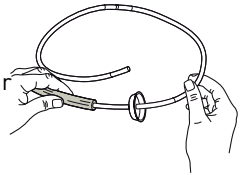


9. Connect the level sensor.

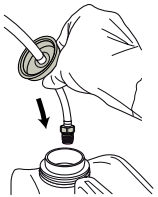


10. Insert the tube for tap water in the hole on the undercap.

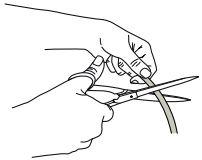
11. Insert the overtube on the water supply tube.



12. Insert the steel terminal on the supply tube and verify whether it reaches the bottom of the Tap Water Tank.

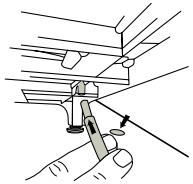


With Premium or basic cart is available



1. Place Giselle® 2.0 on the top shelf of the cart.

2. Cut the drainage tubes (DRAIN) and water discharge and supply tubes (WATER OUT and WATER IN) where indicated by the scissor symbol.



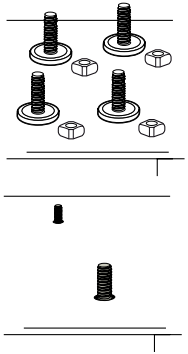
3. Tilt Giselle® 2.0 slightly and connect the drainage tube to the connection marked by the DRAIN label on the lower side of the device, then feed the tube through the large hole on cart's top shelf and on the inner shelf (Premium cart only).

4. Connect the water feed tube to the connection situated on the rear of Giselle® 2.0, identified by the WATER IN label.

5. Connect the discharge tube to the connection situated on the rear of Giselle® 2.0, identified by WATER OUT.

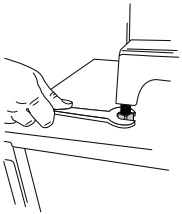
6. Position the tanks on the cart's lower support shelf.

7. Fix Giselle® 2.0 to the cart shelf using the feet and nuts provided, according to the following procedure:



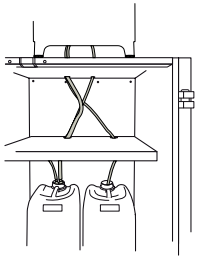
a. Ensure that the threaded part of the feet emerges from the appropriate holes on the support surface.

b. Screw the nuts onto the threading without tightening them.

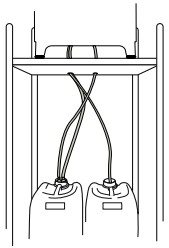


c. Insert the threaded part into the feet of Giselle® 2.0 and tightness firmly.

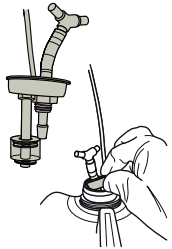
d. Use the bubble level located on the top part of Giselle® 2.0 to adjust the nylon feet, until the bubble is centred: Giselle® 2.0 must operate in a stable position.



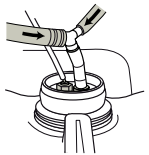
8. If Giselle® 2.0 comes with the Premium cart, feed the "DRAIN" and "WATER OUT" tubes through the large hole and the "Water IN" tube through the small hole on the cart's upper shelf then through the holes on the inner shelf; with the basic cart, simply let the tubes drop below the upper shelf.

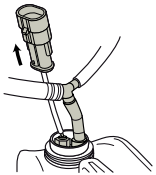


9. Arrange the connector of the discharge tank fixing it to the waste water tank.

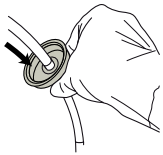


10. Connect it to the DRAIN and the DISCHARGE tubes.



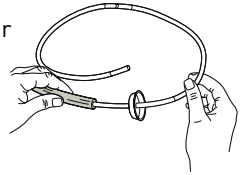


11. Connect the level sensor.

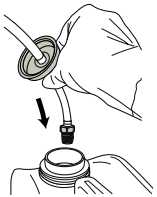


12. Insert the tube for tap water in the hole on the undercap.

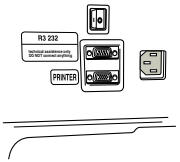
13. Insert the overtube on the water supply tube.



14. Insert the steel terminal on the supply tube and verify whether it reaches the bottom of the Tap Water Tank.



4.3 Electrical connections



WARNINGS

- Verify conformity to all electrical regulations.
  Failure to observe such regulations shall void the Industrie De Nora warranty.
- The device must be properly earthed. Always use an electrical system having an earth connection.
- Do not remove or cut parts of the plug for earthing the power socket.
- Do not deactivate or tamper with the electrical interlocks or lockout mechanisms.
- Connect the device only to a 100-240V ~ 50/60Hz 250 W max. electrical source.
- Do not attempt to repair, replace or modify the power cord.
- Do not pull the cord.
- All the electric cables and connections in use must be free of defects or damages (cuts, abrasions or other elements that may be risk of electrocution).
- If any water sources are nearby, take the necessary precautions to protect the electrical components.

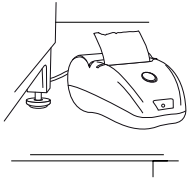
PRECAUTIONS

- If the Industrie De Nora device is subjected to voltage variations exceeding ± 10% or blackouts, electrical storms, incorrect earthing, or harmonic effects, Industrie De Nora S.p.A. recommends installing an uninterruptible power supply (UPS), or a surge arrester in order to protect sensitive electrical components.
- Do not modify the cable connectors as it is a potential risk.
- If an extension is needed, only use certified components.

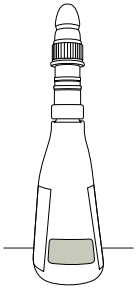
Connect the power cord to the electrical outlet IEC C14.

NOTE: a RS-232 port is available on the right-hand side wall for technical assistance: do not connect anything to it.

4.4 Printer connection (if printer is supplied)



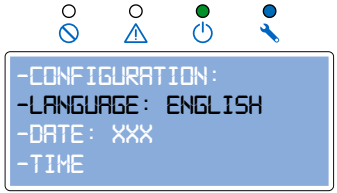
Connect the printer to the "PRINTER" serial port on the right-hand side of Giselle® 2.0.

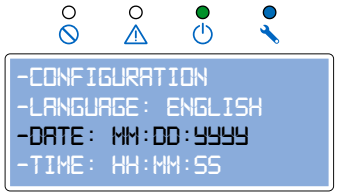


If the printer is purchased subsequently to Giselle® 2.0, install it as indicated in Section **4.7**. Every time a Soleva™ solution is produced, a label will be printed containing the concentration and date of production. The label may applied over the space reserved on the bottle.

4.5 Configuration

Press the ON/OFF switch on the right-hand side of the machine. After the initial start-up, a salt cartridge must be inserted into the machine (Section **5.2**).



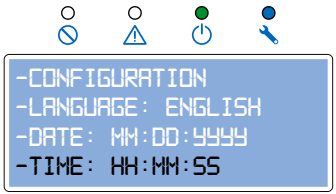


Language/date/time configuration: LANGUAGE
The following 4 options are available: ITALIAN/ ENGLISH/ SPANISH/JAPAN.
When the machine is switched on, the default language is English.

- PRESS THE MENU BUTTON
- Move onto Language using the UP/DOWN arrow buttons
- PRESS START/OK
- Move onto the desired language using the UP/DOWN arrow buttons
- PRESS START/OK
- PRESS THE BACK BUTTON: after a few seconds the machine will return to the initial window in the desired language.

Language/date/time configuration: DATE
To set the date:

- PRESS THE MENU BUTTON
- Use the UP/DOWN arrow buttons to highlight the DATE
- CONFIRM BY PRESSING THE START/OK BUTTON
- Use the RIGHT/LEFT arrow buttons to move onto month/day/year
  Use the UP/DOWN arrow buttons to set the day, month and year



CONFIRM BY PRESSING THE START/OK BUTTON

PRESS THE BACK BUTTON: after a few seconds the machine will return to the initial window.

Language/date/time configuration: TIME

Press the MENU button to set the time

Use the UP/DOWN arrow buttons to highlight the TIME

PRESS THE START/OK BUTTON

Use the RIGHT/LEFT arrow buttons to move onto: HOURS: MINUTES: SECONDS
Move UP/DOWN with the cursor to set the time

CONFIRM BY PRESSING THE START/OK BUTTON

PRESS THE BACK BUTTON: after a few seconds the machine will return to the initial window.

NOTE: only if English or Spanish have been set with the wording am/pm appear alongside the time.

4.6 Configuration of the concentration

Giselle® 2.0 is configured for producing Soleva™ in 2 different concentrations:

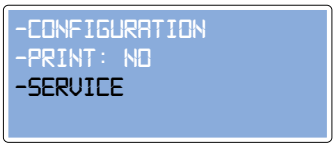
Type of Soleva™ Solution	Concentration of active ingredients	Label and Connector colour	Volume
Low concentration	0.05% Free Available Chlorine	GRAY	0.5 l
High concentration	0.6% Free Available Chlorine	GREEN	0.4 l

The choice of the concentration can be made before each production cycle.
For limiting the production to a single concentration, the following steps must be performed:

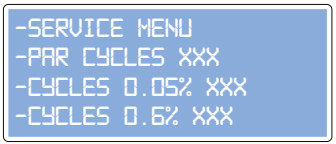
PRESS THE MENU BUTTON

Move down the menu and highlight SERVICE using the UP/DOWN arrow buttons

PRESS THE START/OK BUTTON



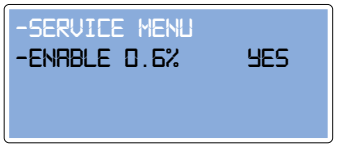
Enter the password



After entering the password, the adjacent window will appear

Move down the menu using the UP/DOWN arrow buttons and highlight **ENABLE 0.6%**

PRESS START/OK



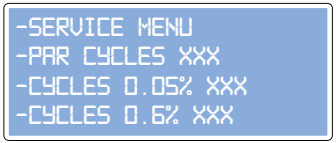
For **eliminating** the possibility of producing the solution with **0.6%** concentration:

USE THE UP/DOWN ARROW BUTTONS to select NO then confirm by

PRESSING THE START/OK BUTTON

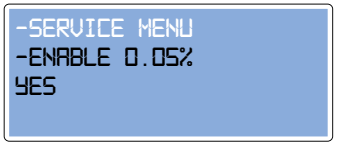
For **confirming** the possibility of producing the solution with **0.6%** concentration:

PRESS THE START/OK BUTTON DIRECTLY



Move down the menu using the UP/DOWN arrow buttons and highlight **ENABLE 0.05%**

PRESS START/OK



For **eliminating** the possibility of producing the solution with **0.05%** concentration:

use the UP/DOWN ARROW BUTTONS to select NO then CONFIRM by

PRESSING THE START/OK BUTTON

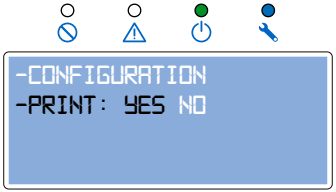
For **confirming** the possibility of producing the solution with **0.05%** concentration:

PRESS THE START/OK BUTTON DIRECTLY

PRESS BACK TWICE to return to the main window.

4.7 Printing configuration

Giselle® 2.0 is automatically configured to operate with an external printer.
If the printer was not purchased, it is necessary to uninstall it by performing the steps indicated below.
It can be reinstalled at any time by performing the steps indicated below.



PRESS THE MENU BUTTON
Use the UP/DOWN arrow buttons to highlight PRINT

PRESS THE START/OK BUTTON
SELECT **YES/NO** using the UP/DOWN arrow buttons

PRESS THE START/OK BUTTON
PRESS BACK: after a few seconds the machine will return to the initial window

Operation

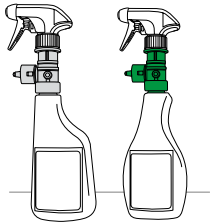
Before operating in this section, carefully read the
"General precautions and warnings" section and wear protective gloves and glasses.

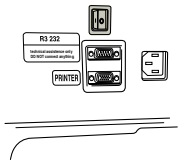
ATTENTION

- **Do not move Giselle® 2.0 while it is operating.**
- **If the machine must be moved, switch it off and transport it using the appropriate cart or, if the latter is not available, always keep it in the vertical position. Do not turn it upside down.**
- **Plug is used as disconnect device from AC mains: the socket-outlet shall be installed near the equipment and shall be easily accessible.**

5.1 Start-up operations

Check that the WASTE WATER TANK is not full: its contents must not reach the threshold level.
If this occurs, it must be emptied in conformity to the procedures set forth in the local regulations.



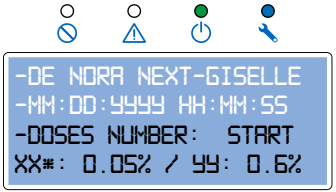


Verify that there is water in the "TAP WATER TANK".
If it is empty, fill it with potable water up to the indicated level.

Check that there are empty spray bottles available:
Gray bottle to prepare low concentration Soleva™ (0.05%)
Green bottle to prepare high concentration Soleva™ (0.6%)
Switch the machine on by pressing the ON/OFF (1/0) button.

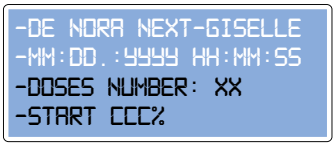
Reconfigure LANGUAGE/DATE/TIME/CONCENTRATION/PRINT if necessary. Consult Section **4.5**.

After a few seconds, one of the following windows will appear:



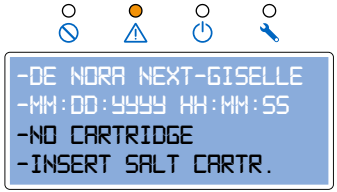
Giselle® 2.0 is ready to produce and indicates the number of available doses.

It is possible to proceed with the production of Soleva™ (Section **5.3**)

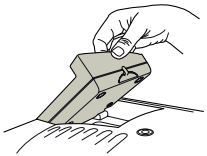


ATTENTION
For every other window, consult Section 7.0 SIGNALS AND ERRORS of the manual.

5.2 Cartridge insertion



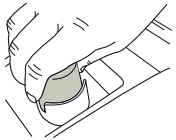
The following window indicates the need to insert a new cartridge.



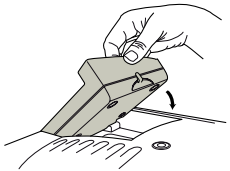
The upper panel is unlocked and can be opened.
If the panel is not opened within about 30 seconds, the safety lock automatically engages and the panel cannot be opened.
If this occurs, simply switch the machine off then on again: the previous window will reappear and the panel can be opened once again.

- Open the panel
- Take one salt cartridge, check the expiration date on the bottom, shake the salt cartridge vigorously
- Remove the cap.
  Empty the cartridge inside the Giselle cartridge compartment.

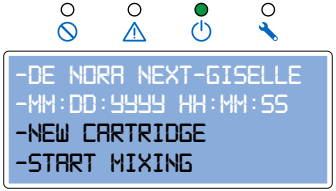
PRECAUTIONS
Only use original salt cartridges supplied by Industrie De Nora S.p.A. and carrying the De Nora Next logo.



Insert the cartridge in the appropriate compartment and press it down.
Tap the bottom of the cartridge to facilitate salt spilling out.
Check the complete emptying of the cartridge and push the salt residues, present in the cartridge compartment , down inside the machine.

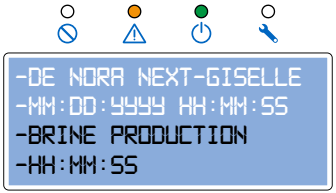


Close the panel.

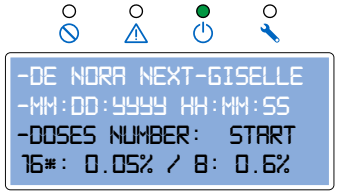


The adjacent window will appear.
PRESS THE START/OK button.

ATTENTION
In this phase, do not touch the machine and/or the buttons.

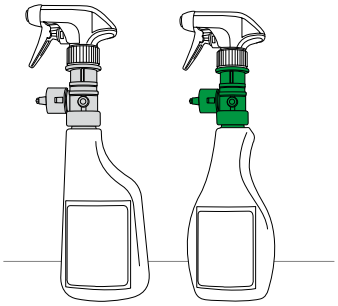


The count down is indicating how much time is required.



At the end the adjacent window will appear and the machine is ready to operate: there are 16 solutions available at 0.05% and 8 solutions at 0.6%.
The asterisk indicates the selected concentration.

Proceed with the preparation of Soleva™ (Section **5.3**) or stop the machine by pressing the ON/OFF (1/0) button.

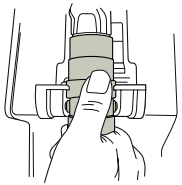


5.3 Production of Soleva™

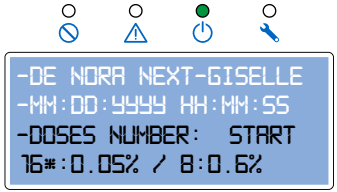
Before starting the production of Soleva™, verify that the start-up operations (Section **5.1**) have been performed and that the cartridge has been inserted, if necessary insert it (Section **5.2**).

Decide the concentration to be produced: 0.05% or 0.6%.

Take:
- the **gray spray bottle** for producing the 0.05% solution
- the **green spray bottle** for producing the 0.6% solution



- Check that the bottle is empty and that the solution it contains is expired
- Empty the bottle or take a empty one
- Clip the spray bottle onto the Giselle® 2.0 fork: push it until the connector on the fork clicks

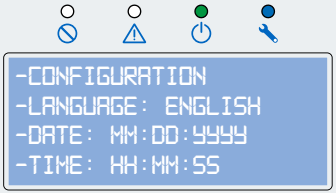


The control panel will visualise a window summarising the number of solutions available for each concentration and on which concentration the machine has been set.

To change the concentration entered on the machine (indicated by the asterisk*), proceed as follows:

ATTENTION
if only one concentration has been set, in order to change it, before it is required to proceed with concentration configuration (Section 4.6).

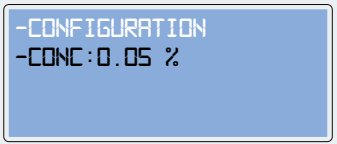
CONCENTRATION CHANGE



MENU PRESS THE MENU BUTTON

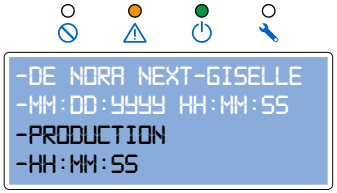
Move down the menu and highlight CONC using the UP/DOWN arrow buttons

START/OK PRESS THE START/OK BUTTON



If necessary, change the concentration using the UP/DOWN arrow buttons Press the START/OK button to confirm the chosen concentration

BACK PRESS THE BACK BUTTON: after a few seconds the machine will return to the initial window.

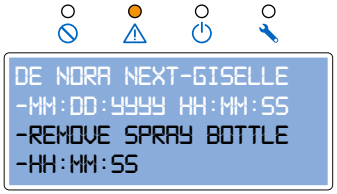


Verify that the machine is set to the desired concentration (indicated by the asterisk *) and PRESS THE START/OK BUTTON.

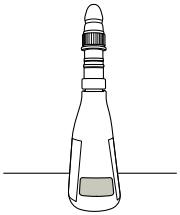
The adjacent window will appear and the count down will indicate how much time is required to complete the production cycle. If the window will not appear, consult the section **7.0** "Signals and Errors".

ATTENTION

During this phase, do not touch the machine/fork/spray bottle and/or buttons! Wait until the machine requests the user to detach the bottle and only the yellow LED flashes.

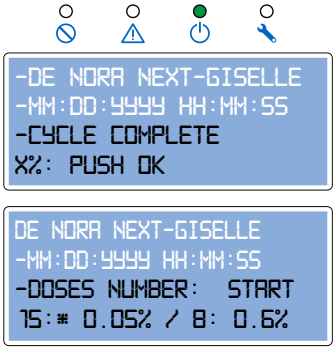


After the solution has been produced, the adjacent window will appear. It is possible to detach the spray bottle.
The count down is indicating how much time the machine requires to be ready for the next production.



Detach the spray bottle and attach the label to it or, if the printer has not been enabled or it isn't working, write production and expiration date/time on labels supplied for this purpose in permanent ink, as discussed in our user training.

ATTENTION
Remove the spray bottle gently avoiding rough movements up or down.



START/OK PRESS THE START/OK BUTTON
The machine will return to the initial window and will visualise the number of solutions still available.

ATTENTION
For every other window, consult Section 7.0 SIGNALS AND ERRORS of the manual.

5.4 Soleva™ direction for use

The Soleva™ solution is produced by Giselle® 2.0 in two different concentrations.

Type of Soleva™ Solution	Concentration of active ingredients	Label and Connector colour	Volume
Low concentration	0.05% Free Available Chlorine	GRAY	0.5 l
High concentration	0.6% Free Available Chlorine	GREEN	0.4 l

Soleva™ solution (0.05%)

- Ready-to Use. No further dilution required.
- Limit exposure of the solution to sunlight and heat sources.
- Include time (day/hour) of SOLEVA 0.05% solution production on the bottle using the dedicated label.
- Efficacy of the solution is maintained if used within 48 hours (0.05% Solution) from production and kept in sealed bottles. Do not use 48 hours after production time. Refer to the label indicating time of production.
- If the solution is expired dispose it in accordance with local regulation and prepare a new solution (Section 5.3).
- SOLEVA 0.05% solution can be used as a sanitizer on a variety of hard, non-porous, food and non-food environmental surfaces, and non-critical care equipment surfaces. (For a complete list refer to the below table).
- Pre-clean heavily soiled surfaces according to the instructions below.
- Spray SOLEVA 0.05% solution directly onto the surface to be sanitized. Thoroughly wet the entire surface. Wait 2 minutes before rinsing with potable water.
- **SOLEVA 0.05% solution has been tested in the presence of 5% organic soil (blood serum) against Staphylococcus aureus (ATCC 6538) on food contact surfaces and Klebsiella pneumoniae (ATCC 4352) on non-food contact surfaces.**

Special Cleaning Instructions Prior to Sanitization of Heavily Soiled Surfaces:

Personal Protection: Wear appropriate barrier protection such as gloves, gowns, masks, or eye covering.

Cleaning Procedure: Fecal matter/waste must be thoroughly cleaned from surfaces/objects before sanitization by application with a clean cloth, mop, and/or sponge saturated with the sanitizer product. Cleaning is to include vigorous wiping and/or scrubbing, until all visible soil is removed. Special attention is needed for high-touch surfaces. Do not reuse soiled cloths.

Soleva™ solution (0.6%)

- Ready-to Use. No further dilution required.
- Limit exposure of the solution to sunlight and heat sources.
- Include time (day/hour) of SOLEVA 0.6% solution production on the bottle using the dedicated label.
- Efficacy of the solution is maintained if used within 24 hours (0.6% Solution) from production and kept in sealed bottles. Do not use 24 hours after production time. Refer to the label indicating time of production.

-If the solution is expired dispose it in accordance with local regulation and prepare a new solution (Section 5.3).

- SOLEVA 0.6% solution can be used as a disinfectant on a variety of hard, non-porous, food and non-food environmental surfaces, and non-critical care equipment surfaces. (For a complete list, refer to the below table.)
- **To kill fungi or Clostridium difficile spores, pre-clean surfaces according to the instructions below prior to spraying SOLEVA 0.6% solution.**
- Spray SOLEVA 0.6% solution directly onto the surface to be disinfected. Hold sprayer 6 to 8 inches from the surface. Thoroughly wet the entire surface. Wait 10 minutes before rinsing with potable water. Thoroughly rinse surfaces when steel or coated metals are treated.
- SOLEVA 0.6% kills: **Staphylococcus aureus (ATCC 6538), Pseudomonas aeruginosa ATCC15442, Salmonella enterica ATCC10708, Trichophyton interdigitale ATCC9533, Poliovirus Type 1 (Sabin Strain LSc-2ab), Feline Calicivirus F-9 ATCCVR782, and Hepatitis C Virus ATCCVR534, HIV-1 (HTLV IIIB), Clostridium difficile ATCC43598.**

Special Instructions for Cleaning and Decontamination Against HIV and HCV of Surfaces/Objects Soiled with Blood/ Bodily Fluids:

Personal Protection: Wear appropriate barrier protection such as gloves, gowns, masks, or eye covering.

Cleaning Procedure: Blood and other body fluids must be thoroughly cleaned from surfaces and objects. Cleaning is to include vigorous wiping and/or scrubbing until all visible soil is removed. Special attention is needed for high-touch surfaces. Surfaces in patient rooms are to be cleaned in an appropriate manner, such as from right to left or left to right, on horizontal surfaces, and top to bottom, on vertical surfaces, to minimize spreading of the spores. Restrooms are to be cleaned last. Do not reuse soiled cloths.

Infectious Materials Disposal: Blood and other body fluids should be autoclaved and disposed of according to Federal, State and local regulations for infectious waste disposal.

Special Pre-Cleaning Instructions Prior to Disinfection for Fungi and Clostridium difficile spores

Cleaning Instructions Prior to Disinfection of Heavily Soiled Surfaces or for Clostridium difficile spores:

Personal Protection: Wear appropriate barrier protection such as gloves, gowns, masks, or eye covering.

Cleaning Procedure: Fecal matter/waste must be thoroughly cleaned from surfaces/objects before disinfection by application with a clean cloth, mop, and/or sponge saturated with the disinfectant product. Cleaning is to include vigorous wiping and/or scrubbing until all visible soil is removed. Special attention is needed for high-touch surfaces. Surfaces in patient rooms are to be cleaned in an appropriate manner, such as from right to left or left to right, on horizontal surfaces, and top to bottom, on vertical surfaces, to minimize spreading of the spores. Restrooms are to be cleaned last. Do not reuse soiled cloths.

Infectious Materials Disposal: Materials used in the cleaning process that may contain feces/wastes are to be disposed of immediately in accordance with local regulations for infectious materials disposal.

! PRECAUTIONS

- Handle, store and dispose in accordance to the instructions on the safety sheet.

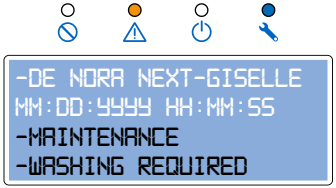
MATERIAL		Soleva™ COMPATIBILITY
Metal	AISI 316 steel	Good. It is advisable to rinse thoroughly after applying the product.
Metal	AISI 316L steel	Good. It is advisable to rinse thoroughly after applying the product.
Alloy	Nickel/Titanium	Good. It is advisable to rinse thoroughly after applying the product.
Metal	AISI 316Ti, EN 1.4571 steel	Good. It is advisable to rinse thoroughly after applying the product.
Metal	Anodised aluminium	Good. It is advisable to rinse thoroughly after applying the product.
Metal	Epoxy coated metals	Good. It is advisable to rinse thoroughly after applying the product.
Polymer	Fluoroelastomer FKM, FPM (Viton®)	Good
Polymer	Ethylene propylene diene monomer EPDM	Good
Polymer	Chlorosulfonated polyethylene CSM	Excellent
Polymer	Polypropylene PP	Good
Polymer	Polyethylene PE	Good
Polymer	Polycarbonate	Good
Polymer	Polyethylene terephthalate PET	Excellent
Polymer	High-density polyethylene HDPE	Excellent
Polymer	Polyvinylidene fluoride PVDF	Excellent
Polymer	Polyvinyl chloride PVC	Excellent
Polymer	Polytetrafluoroethylene PTFE (Teflon™)	Excellent

MATERIAL		Soleva™ COMPATIBILITY
Polymer	Polyaryletherketone, Polyetheretherketone PAEK, (PEEK™)	Excellent
Polymer	Silicone	Low
Polymer	Polyurethane PUR, PU	Good
Polymer	Polyoxymethylene copolymer POM	Good
Polymer	Polyamide PA6, PA66 (nylon)	Low
Polymer	Polybutylene terephthalate, PBT	Good
Polymer	Nitrile rubber NBR	Good
Polymer	Acrylonitrile butadiene styrene, ABS	Good
Ceramic		Excellent
Glass		Excellent

Maintenance and care

To ensure the machine's optimal operation, a washing with the maintenance cartridge must be regularly performed on Giselle® 2.0.

Moreover, it is advisable to clean Giselle® 2.0 with a damp cloth and to keep the support surface and cart interior dry.

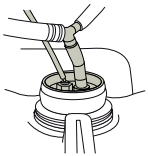


6.1 Washing with maintenance cartridge

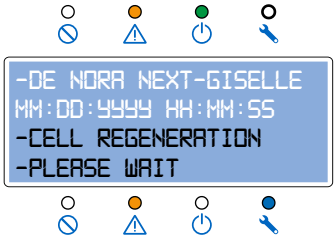
Giselle® 2.0 automatically performs the request of internal piping washing.
The adjacent window appears.

Remove the waste water tank and empty it.

WARNINGS
Handle, store and dispose the waste water as indicated on the label.

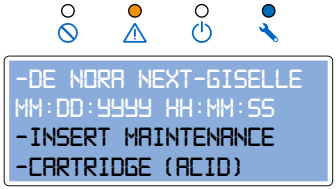


Reconnect the waste water tank.



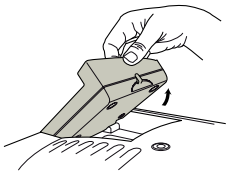
START/OK PRESS START/OK
The adjacent window will appear.

ATTENTION
DO NOT TOUCH the machine and/or buttons.

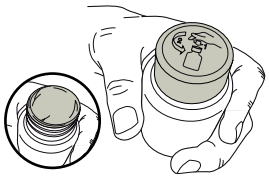


Wait until the adjacent window appears.

The upper panel is unlocked and can be opened. If the panel is not opened within about 30 seconds, the safety lock automatically engages and the panel cannot be opened; in such a case, simply switch the machine off then on again: the previous window will appear and the panel can be opened once again.

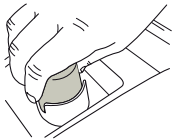


Take the maintenance cartridge. Wear personal protection equipment and remove the cartridge cap.

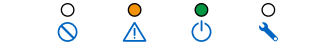


WARNINGS
- Read the label and consult the safety sheet before use.
- Handle, store and dispose in accordance to the instructions on the label and safety sheet.

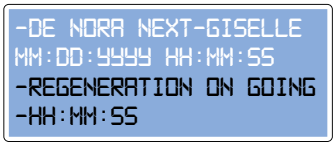
PRECAUTIONS
- Only use original citric acid cartridges supplied by Industrie De Nora S.p.A.



Insert the cartridge into the appropriate compartment.

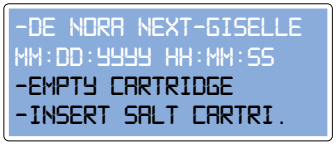


Close the panel and PRESS START/OK, the adjacent window will appear.



ATTENTION
DO NOT TOUCH the machine and/or buttons. Time for regeneration cycle is indicated by the count down.

At the end, the adjacent window will appear.



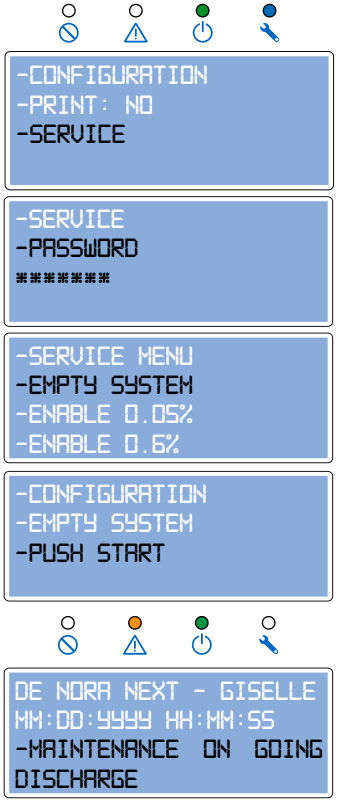
The upper panel will then be unlocked and can be opened. Remove the citric acid cartridge and close it with its own cap.

- Insert a new salt cartridge
- Remove the waste water tank and empty it
- Reconnect the waste water tank
- Proceed as indicated in Section **5.1** of the manual

WARNINGS
Handle, store and dispose the waste water as per local regulation.

6.2 Emptying the system

If Giselle® 2.0 must be moved by transport means (car, train, airplane, ship), the user either must use up the cartridge and sodium hypochlorite solution or otherwise empty the Giselle equipment of any remaining solution.



MENU PRESS THE MENU BUTTON

Move down the menu and highlight SERVICE using the UP/DOWN arrow buttons

START/OK Press START/OK

Enter the password

Move down the menu and highlight EMPTY SYSTEM using the UP/DOWN arrow buttons

START/OK Press START/OK

START/OK PRESS START/OK

The adjacent window will appear.

Wait until Giselle® 2.0 automatically returns to the initial window and the warning "EMPTY CARTRIDGE" will appear. Remove the cartridge, close the upper panel and proceed to package the machine.

Signals and Errors

7.1 Signals

DISPLAY	LED	DESCRIPTION	CAUSE	REMEDIES
Wrong cartridge washing HH:MM:SS	GREEN inter-mitt.+ YELLOW ON	The system has detected a salt or acid cartridge but does not identify it as being valid	Non-original cartridge, incorrect use or expired cartridge	1) Wait until the machine automatically completes the wash cycle. When the window "Empty cartridge Change cartridge" appears, it is possible to open the upper panel 2) Open it and remove the cartridge 3) Replace the cartridge with a salt or citric acid cartridge supplied by Industrie De Nora S.p.A. (Section **5.2** or **6.1** of the manual) If the problem persists, switch the machine off and contact the technical assistance service.
No cartridge insert salt cartri.	YELLOW ON	The system does not detect any cartridge	Cartridge not present or not detected	1) Open the upper panel (Section **5.2** of the manual) 2) Insert the new De Nora Next cartridge (Section **5.2** of the manual) If the problem persists, switch the machine off and contact the technical assistance service.
Empty cartridge Insert salt cartri.	YELLOW ON	The system has detected an exhausted cartridge	Cartridge exhausted	1) Open the upper panel (Section **5.2** or **6.1** of the manual) 2) Insert the new De Nora Next salt cartridge (Section **5.2**) If the problem persists, switch the machine off and contact the technical assistance service.
Available 0.05% empty 0.6%	YELLOW ON	The salt in the cartridge is only available for preparing the 0.05% solution		**Proceed with the production of the 0.05% solution:** 1) select the 0.05% solution from the MENU (Section **5.3** of the manual) 2) press START/OK **Or empty the system (Section 6.2 of the manual)**
Maintenance washing required	YELLOW ON + BLUE ON	The system requests a wash cycle	Regular maintenance requested by the system	Proceed with the wash cycle (Section **6.1** of the manual)

DISPLAY	LED	DESCRIPTION	CAUSE	REMEDIES
Maintenance on going discharge	GREEN intermitt.+ YELLOW ON	The system has detected an anomaly and will empty and rinse out the cell	Brine supply not correct	1) Wait until the machine automatically completes the wash cycle.
No production select concentration	YELLOW ON	The system detects the impossibility of proceeding with the production of any solution	The production of both the 0.05% and 0.6% solution has been disabled	Configure the concentration (Section **4.6** of the manual) If the problem persists, switch the machine off and contact the technical assistance service.

7.2 Errors

DISPLAY	LED	DESCRIPTION	CAUSE	REMEDIES
Error: High temperature Unloading solution	RED intermitt.	The system signals that the cell temperature is high		1) Wait for the solution to be discharged until the successive window appears
Error: High temperature Waiting lower temp	RED ON	The system has detected high temperature and is waiting for it to fall below the threshold value		1) Wait until the successive window appears: "Temperature OK Press OK" green LED 2) Press START/OK If the problem persists, switch the machine off, contact the technical assistance service and report error **E001**
Error: Production Solution Discharge	RED intermitt.	The system has detected some problems that hamper the production of the solution		1) Wait for the solution to be discharged until the successive window appears
Error: Production **E005**	RED ON	The system has detected some problems that hamper the production of the solution		1)Turn off the machine, turn it on again and wait for home screen. 2)Proceed with emptying of the system (section 6.2 of this manual). 3) When the system requires to insert a new cartridge, open the top cover, remove the cartridge and check the cleaning of the louvers. Bring down the salt present on the louvers. 4)Insert a new cartridge of salt : be sure to empty the cartridge completely and make sure that the salt does not stop on the louvers (section 5.2 of this manual). If the problem persists, contact the technical assistance service and report error E005
Error: Production **E007**	RED ON	The system has detected some problems that hamper the production of the solution		1) Switch the machine off then on again If the problem persists, contact the technical assistance service and report error E007
Error: Water mix **E008**	RED ON	The system has detected some problems that hamper the production of the solution		1) Switch the machine off 2) Contact the technical assistance service and report error E008

DISPLAY	LED	DESCRIPTION	CAUSE	REMEDIES
Error: Spray bottle load **E009**	RED ON	The system does not manage to transfer the Soleva™ solution to the bottle	The bottle was either touched or removed while Soleva™ was being produced	1) Switch the machine off 2) If necessary, remove the bottle and empty it 3) Switch the machine on again and wait until the initial window reappears 4) Clip on the bottle on and proceed with the production of the solution If the problem persists, switch the machine off, contact the technical assistance service and report error E009
Error: Water Loading **E010**	RED ON	The system does not manage to load water from the tank	The water tank is empty or the water supply tube is not positioned correctly	1) Verify whether there is any water in the tap water tank and that the tube reaches the bottom 2) Fill the tap water tank up to the blue level indicated, while ensuring that the tube reaches the bottom 3) Switch the machine off then on again and wait until the initial window reappears If the problem persists, switch the machine off, contact the technical assistance service and report error E010
Error: Water drainage **E011**	RED ON	The system does not manage to discharge the washing water into the discharge tank	The water discharge tank is full	1) Discharge the waste water tank and then reconnect it to the machine 2) Switch the machine off then on again If the problem persists, switch the machine off, contact the technical assistance service and report error E011
Error: Watch battery **E012**	RED ON	The system signals that the clock battery is exhausted		1) Contact the technical assistance service and report error E012 2) Press ok, the machine will go on the home screen 3) Check date and time, if they aren't correct change them (sec. 4.5 of this manual) 4) Proceed with the regular use of the machine waiting for technical intervention
Error: High temperature **E013**	RED ON	The system signals that the machine is not functioning properly and that the temperature is too high		1) Switch the machine off 2) Contact the technical assistance service and report error E013

DISPLAY	LED	DESCRIPTION	CAUSE	REMEDIES
Error: Hydrogen vent **E014**	RED ON	The system signals that the machine is not functioning properly and that the fan is blocked		1) Switch the machine off 2) Contact the technical assistance service and report error E014
Error: RFID reader **E016**	RED ON	The system signals a malfunction concerning the RFID control system		1) Swith the machine off 2) Contact the technical assistance service and report error E016
Error: Printer **E017**	RED ON	The system signals that the printer is not able to print	The printer is not connected, is not installed or it malfunctions	**If a printer is available:** 1) Verify that the printer is connected; if not, connect it 2) Verify that the labels are in the printer and load them 3) Verify that the printer is installed; if not, install it (Section **4.7**) 4) Verify that the labels are not rolled. Possibly unfold the roll and close the top cover of the printer. 5) Switch the machine off then on again Printing will be possible with the successive production cycle; for the current production cycle, use the manual label. If the problem persists, switch the machine off, contact the technical assistance service and report error E017 **If no printer is available:** 1) Press BACK 2) Withdraw the bottle and wait until the production cycle ends 3) At the end, verify that the printer has not been installed, consult Section **4.7** and select NO

NOTES

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