

AT Excellence-S AT Excellence-M



Operating instructions

Winterhalter AT Excellence Reverse Osmosis Device
(translation of the original German operating instructions)

1 About this manual



To operate this device safely, please carefully read the safety notes listed here.

On our website www.winterhalter.com/download-centre you can find the operating instructions in electronic form too.

1.1 Explanation of symbols

The following symbols are used in these instructions:

	Warning against potentially serious or fatal injuries if the precautionary measures described are not followed.
	Warns against possible defects or damage of the product if the described precautionary measures are not followed.
	Carefully read the safety notes and operating instructions.
IMPORTANT	Important information is provided here.
INFO	Useful information is provided here.
➤	These arrows indicate handling instructions.
⇒	This symbol indicates results of your actions.
–	This symbol indicates itemisations.
▶	This symbol refers to a chapter with more detailed information.

2 Safety notes

2.1 Proper use

- The AT Excellence reverse osmosis device treats (demineralises) mains water (max. 35 °C) for subsequent use in commercial warewashers. The device reduces the overall salt content of the mains water.
- The device may be used only in conjunction with a commercial warewasher.
- The device is a technical device for commercial use and is not intended for private use.

2.2 Improper use

- The treated water may not be used as drinking water or foodstuffs.
- This device is not intended for use by persons (including children) with limited physical, sensory or mental capabilities or who do not have the required experience with and knowledge of this device. Such persons must either be instructed by a supervisor who is responsible for their safety or must be supervised during the operation of the device.
- Winterhalter Gastronom GmbH assumes no liability or warranty in the event that the device is used improperly.

2.3 General safety notes

- Carefully read the safety notes and operating instructions. Winterhalter Gastronom GmbH disclaims all liability or warranty if these safety notes are not complied with.
- Only use the device after you have read and understood the operating instructions. Ensure you are instructed by the Winterhalter Customer Service about the operation and function. Only operate the device according to these operating instructions.
- Train personnel in the operation of the device and refer to the safety notes. Repeat the training sessions at regular intervals to prevent accidents.
- Keep the operating instructions accessible.
- Do not make any changes, additions to or conversion of the device without the approval of the manufacturer.
- Original spare parts must be used for repairs or to replace consumable parts.

- If the mains cable is damaged, to prevent hazards it must be replaced by Winterhalter or its Customer Service or another qualified person. The mains cable must be a H05RN-F type or equivalent.
- Operate this device only when it is in perfect condition.
- Danger of electric shock: Do not open any covers or panels if a tool is required. Do not tamper with the electrical components of the device; always call a qualified electrician.
- Disconnect the water supply immediately if the device begins to leak. Disconnect and isolate the device from power supply and close the water stop cock.
- In case of danger, switch off the device immediately. Pull out the mains plug. Only then is the device free of voltage.
- Never insert or pull out the mains plug with wet hands.
- Never remove the plug from the socket using the cord.
- Contact an authorised service technician for defects not caused by the on-site water or electricity supply.
- For your safety, test the on-site residual current circuit breaker regularly by pressing the test button.

3 Requirements

Mains water

The quality of the mains water must conform to the requirements of your water authority. In addition, threshold limits must be adhered to (▶ 12).

Water connection and electrical supply

To maintain the membranes, automatic flushing takes place every two hours in stand-by mode. For this reason, the device must remain permanently switched on and the electricity and water supply must be connected.

Warewasher connected to the device

- The warewasher must fulfil the requirements of DIN EN 61770.
- All components of the warewasher that come into contact with water must be suitable for osmosis water. Use of non-ferrous metals is not permitted. Only synthetic components and stainless steel components may be used.
- The device should primarily be used in combination with a commercial warewasher with a pressure-independent boiler. Operation on warewashers with pressure boilers in conjunction with a pressure expansion vessel is possible. The yield is reduced, however, and the fill time of the warewasher is extended.

4 Before working with the device

- Have the device connected in accordance with local standards and regulations by authorised technicians (water, waste water, electrical system) (▶ 13).
- Have the device installed and commissioned by an authorised service technician. Ensure you and your operating personnel are trained in the operation of the device.

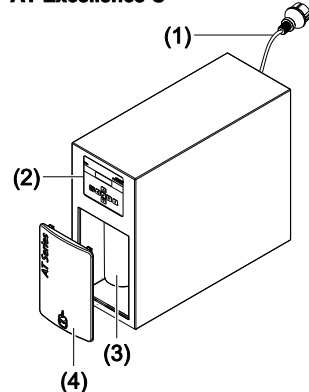
5 Product description

This water treatment device is based on the principle of reverse osmosis (mechanical filtration). Initially, the water passes through an active charcoal filter that filters out chlorine and sediment. The water is then forced at high pressure through several membranes, which removes almost all of its mineral content.

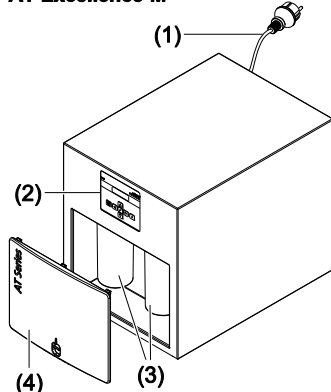
5.1 Dimensions and overview diagram

		AT Excellence	
		-S	-M
Width	[mm]	205	365
Height	[mm]	420	420
Depth	[mm]	490	490

AT Excellence-S



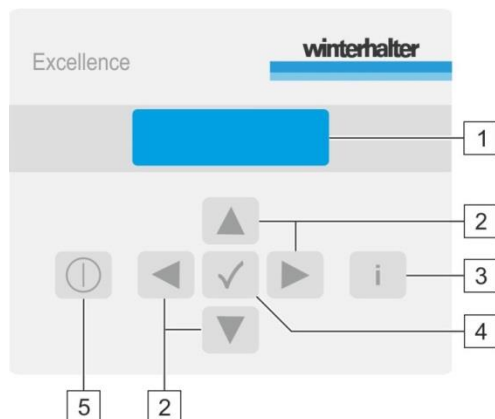
AT Excellence-M



Item	Description
1	Mains cable
2	Operating panel ► 5.2
3	Active charcoal filter ("Filter AC-M")
4	Filter cover

IMPORTANT Never pick up the device by the filter cover (4).

5.2 Operating panel



Item	Description
1	Display
2	Buttons for navigation within the menu
3	Info button (display of additional information)
4	Confirmation button
5	On/off button

Display

Colour	Meaning
green	Device is ready for operation (stand-by mode).
blue	The device is in AquaOpt mode (► 6.2) or produces osmosis water (► 6.3).
yellow	A warning is present; however, operation is still possible (► 9.1).
red	An error exists, the device no longer produces osmosis water (► 9.2).
not lit	Device is switched off.

6 Operation

6.1 Switching on the device

- Press the button.
 - ⇒ The display then lights up green and the greeting text appears.

AT Series
Excellence-S

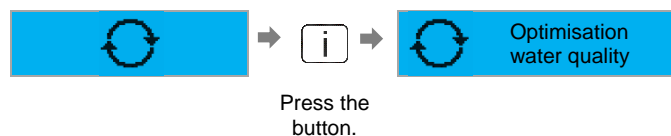
AT Series
Excellence-M

⇒ The device is automatically in stand-by mode.

INFO To maintain the membranes, automatic flushing takes place every two hours in stand-by mode.

6.2 AquaOpt

This function guarantees that a specified water quality is available for washing. Water that does not correspond to this quality is automatically flushed into the drain. The water volume and the flushing time depend on the device's selected quality and the downtime. During flushing, the display lights up blue and the following pictogram appears:

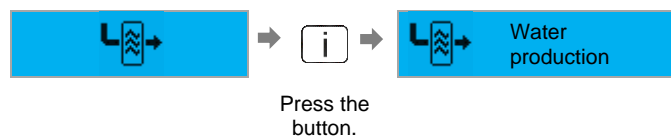


INFO Three different qualities are available (good, better, best). The factory setting for quality is "better".

- Contact an authorised service technician if you want to change or disable this function.

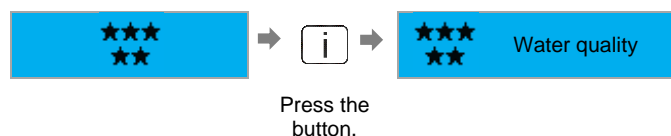
6.3 Production of osmosis water

As soon as the connected warewasher requests water, the device first goes into AquaOpt mode. Then the production of osmosis water begins. During this process, the display lights up blue and the following pictogram appears:



6.4 Water quality display

After the device has produced osmosis water for at least 30 seconds and production is finished, the water quality will be displayed for several seconds on the display:



The more stars, the better the water quality (low conductivity). The water quality depends on the condition of the membranes.

6.5 Switching off the device

To maintain the membranes, automatic flushing takes place every two hours in stand-by mode. For this reason, the device must be permanently connected to the electricity and water supply. When required (e.g. overnight), however, the device can be switched off:

- Press the button.
 - ⇒ The display is not illuminated.

7 Production stops

Production stops of up to four weeks:

The device must be permanently connected to the electricity and water supply.

INFO To maintain the membranes, automatic flushing takes place every two hours in stand-by mode.

Production stops longer than four weeks:
Preservation required (► 8)

8 Preservation


The device must be preserved during production stops longer than four weeks.


- Contact an authorised service technician for preservation of the device.

INFO In a preserved state, the device can be stored at temperatures reaching -10 °C. If the production stop lasts longer than nine months, the preservation must be renewed.

8.1 Checking the preservation

If a device is in a preserved state, the display is not lit. The remaining preservation time can be displayed as follows:


- Press the  button.
 - ⇒ Within the preservation time, the display lights up white and the following two texts display alternately:

 Preserved!
200 days

Commissioning:
Call the Service team!

INFO The device will automatically switch off after 5 seconds.

INFO If the preservation time has been exceeded, the display lights up yellow and the following message appears:

 Preservation
-3 days

8.2 Putting back into operation after preservation

Before the device can be put into operation after a period of preservation, it must be flushed through.

- Contact an authorised service technician to restart the device.

9 Warnings and errors



Danger

Danger of death: Live components!

- Do not open any covers if you require a tool to do so. There is a risk of electric shock.
- Only an authorised service technician may work on the electrical system. The device must first be disconnected from the electric network.



Caution

If you cannot correct the malfunction yourself:

- Close the on-site water stop cock and switch off the device.
- Contact an authorised service technician.

Warewasher interface

The device can communicate directly with the Winterhalter warewasher. In the event of a malfunction the following pictogram will appear on the warewasher's display:



UC Series (03/2016 - 10/2018)

PT Series (11/2017 - ...)

UF Series




UC Series (10/2018 - ...)

- Contact an authorised service technician to set up the interface.

9.1 Warnings

Warnings are displayed on the display as pictograms. The display turns yellow (Exception: when in AquaOpt mode and during the production of osmosis water, the display illuminates blue despite the warning). Operation remains possible. If several warnings occur at the same time, the pictograms will appear alternately.

INFO Press the  button to display additional information to the right of the pictogram.

AT Excellence-S only



Replace
filter!

Active charcoal filter exhausted

- Change the active charcoal filter (► 10).

AT Excellence-M only



Replace
left filter!



Replace
right filter!

Active charcoal filter exhausted

- Change left/right active charcoal filter (► 10).



Call the
Service team!

Different causes

- Display the error code (► 9.3) and assign the repair to an authorised service technician.



Preservation
-3 days

Preservation time has been exceeded

- Contact an authorised service technician to have the preservation renewed.




Preservation
required!

Device without preservation minimum of 28 days without water connection and electricity

- Contact an authorised service technician immediately for the preservation

9.2 Errors

Errors are displayed as pictograms. The display lights up red. The production of osmosis water is stopped. If several errors occur at the same time, the pictograms will appear alternately.

INFO Press the  button to display additional information to the right of the pictogram.

AT Excellence-S only



Insert filter!

Active charcoal filter is not fitted

⇒ The production of osmosis water is stopped.

Rectifying the cause of the error

➤ Insert the active charcoal filter (► 10).

AT Excellence-M only



Insert left filter!



Insert right filter!

Active charcoal filter is not fitted

⇒ The production of osmosis water is stopped.

Rectifying the cause of the error

➤ Insert the active charcoal filter (► 10).



Water pressure too low!

On-site inlet pressure at the start of water production is too low

⇒ The production of osmosis water is stopped.

Rectifying the cause of the error

➤ Check whether the water stop cock is open. If necessary, open the water stop cock.

If the error continues, have the cause of the problem rectified by an authorised service technician.



Call the Service team!

Different causes of the error

⇒ The production of osmosis water is stopped.


➤ Close the on-site water stop cock.
➤ Switch off the device.
➤ Immediately have the cause of the error rectified by an authorised service technician.

9.3 Error memory

All warnings and errors are saved in the error memory. Every entry is double-spaced and contains the following information: code, date, time and error text

Accessing the error memory

➤ Press the  button.

INFO If a warning or an error is displayed, press the  button twice.

⇒ The error memory will be displayed.

ERR2: 2015.04.08 14:51
OK Insert filter
ERR14: 2015.04.08 14:51




newer entries



older entries

Display	Explanation
EVT	Warning
ERR	Error
OK	Error/warning rectified

Leaving the error memory

➤ Press the button  twice.

10 Changing the active charcoal filter



Caution

If the active charcoal filter is not changed in time, the membranes can be damaged or the water flow could decrease. This decreases the water quality and impairs the washing result.
➤ Change the active charcoal filter in good time.

The active charcoal filter is a wear part and must be replaced annually or when the following message is displayed:

AT Excellence-S



AT Excellence-M



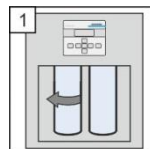
or



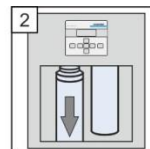
Changing the filter

INFO A small amount of water will be expelled during the filter change.

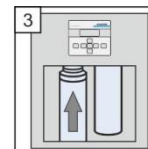
➤ Take off the filter cover located at the front of the device.
➤ Change the filter cartridge as follows:



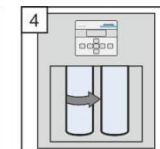
Turn the filter cartridge to the left up to the stop.



Firmly pull the filter cartridge out of the holder.



Firmly push the new filter cartridge into the holder.



Turn the filter cartridge to the right up to the stop.

⇒ The device will carry out automatic flushing (approx. 1 minute).
➤ Fit the filter cover.

11 Servicing and maintenance



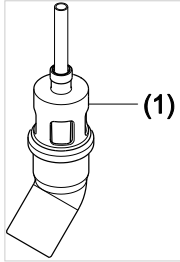
Do not spray the device and the surrounding area (panels, base) using a water hose, steam-jet air ejector or high-pressure cleaner.

Caution

- Clean the control panel and filter cover with a damp cloth.
- Clean the stainless steel coverings with a stainless steel cleaner. We recommend using Winterhalter C 122 universal grease solvent and stainless steel cleaner such as Winterhalter C 162 Stainless Steel Polish in the pressurized spray can.
- Do not use corrosive products, acids, steel wool or wire brushes.
- Do not use abrasives or abrasive cleaners.

We recommend that you have an authorised service technician service the device at least once a year.

Cleaning/descaling breather



- Check the breather (1) every six months for dirt and scaling.
- Where required, clean, and/or descale with a standard decalcification agent.
- If necessary, commission a service technician to carry this out.

Consumable parts

The following parts are consumable parts and must be replaced at regular intervals.

Description	Note
Active charcoal filter	Exchange annually (► 10).
Membranes	If the following warning appears on the display: <div style="background-color: yellow; padding: 5px; display: inline-block;"> Call the Service team! </div> <ul style="list-style-type: none"> ➤ Access the error memory (► 9.3). ➤ If the EVT 24 is listed, the membranes must be replaced by an authorised service technician.

12 Technical data

	AT Excellence	
	-S	-M
Height	420 mm	
Width	205 mm	365 mm
Depth	490 mm	
Type of protection	IP X5	
Weight	19 kg	33 kg
Admissible noise level under normal operating conditions	< 55 dB(A)	< 62 dB(A)
Filter capacity (1 mg/l Cl ₂)	4.8 m ³	

Operating conditions

Operating temperature	0 – 40 °C
Relative air humidity	< 95 %
Storage temperature in preserved condition	> -10 °C
Maximum height of the installation location above sea level	3000 m

Threshold values for the mains water

	-S	-M
Maximum inlet water temperature	35 °C	
Minimum flow rate	360 l/h	720 l/h
Minimum flow pressure	120 kPa (1.2 bar)	150 kPa (1.5 bar)
Maximum inlet pressure	600 kPa (6.0 bar)	
Maximum total hardness (TH)	35 °dH	
Electrical conductivity (at 25 °C)	< 1200 µS/cm	
Chlorine	< 0.2 mg/l	
Silicates (as SiO ₂)	< 30 mg/l	

Power supply

	-S	-M
Voltage	200 - 240 V	
Power consumption (50 Hz)	1.4 – 2.0 A	2.9 – 4.0 A
Power consumption (60 Hz)	1.4 – 1.5 A	2.7 – 3.0 A
Fuse (electronic operating panel)	6,3 A mT	

Water dispenser

	-S	-M
Volume flow of osmosis water at an inlet water temperature of 15 °C	at least 90 l/h	at least 180 l/h

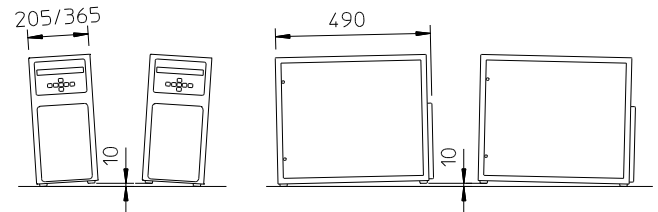
Yield

The yield depends upon the total hardness (°dH) and the conductivity (µS/cm) of the mains water. During commissioning, the authorised service technician will install the correct capillary in the interior of the device.

13 Installation and connection

13.1 Installation

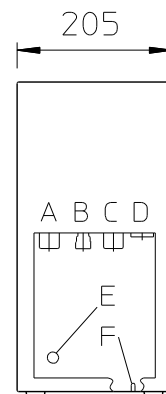
- The device must be installed in an **upright** position. The maximum permitted tilted position is 10 mm.



- The installation site must be frost-resistant to keep the water supply systems from freezing.

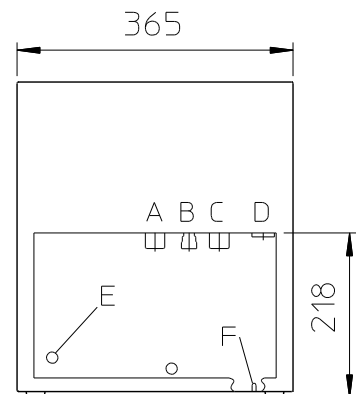
13.2 Dimensions and position of the connections

AT Excellence-S



Rear view

AT Excellence-M



Item	Description
A	Water inlet (mains water) G 3/4", external thread
B	Water drain (waste water), DN 10
C	Water outlet (osmosis water) G 3/4" external thread
D	Mains cable
E	Washer interface
F	Connection for on-site equipotential bonding system



13.3 Electrical connection



Danger

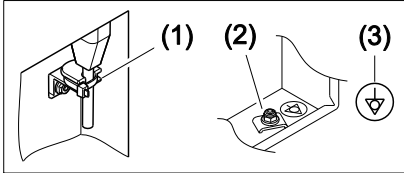
Danger of death: Live components!

The device must be connected by a qualified in accordance with local or national regulations.

Notes for the electrician:

- Only connect to alternating current ensuring the socket is correctly earthed.
- Electrical installation must be carried out according to the details on the type plate.
- Install a residual current circuit breaker with a release current of 30 mA in the electrical cables.
- Only for Japan and Mexico:
Permanently install the mains cable in place or mount an appropriate plug connector.

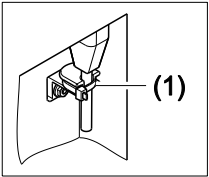
Connecting the device



- Plug in the mains cable to the device and the on-site power socket.
- Install cable tie (1) for strain relief.
- Connect the device to the on-site equipotential bonding system. The connection screw (2) is on the rear of the device and is marked with the symbol (3).

13.4 Replacing the mains cable

If the mains cable is damaged, to prevent hazards it must be replaced by Winterhalter or its Customer Service or another qualified person. The mains cable must be a H05RN-F type or equivalent. The mains cable is available at Winterhalter.



Rear view

- Plug in the mains cable to the device.
- IMPORTANT** Install cable tie (1) for strain relief and pull tightly.
- Plug in the mains cable to the on-site power socket.

13.5 Water connection



Caution

The device must be connected to the mains inlet and waste water by a qualified plumber in accordance with local or national water regulations. National installation and operation regulations must be observed.



Caution

The inlet water hose may not be shortened or damaged. Old existing hoses may not be re-used. Do not bend the inlet water hose while laying it.

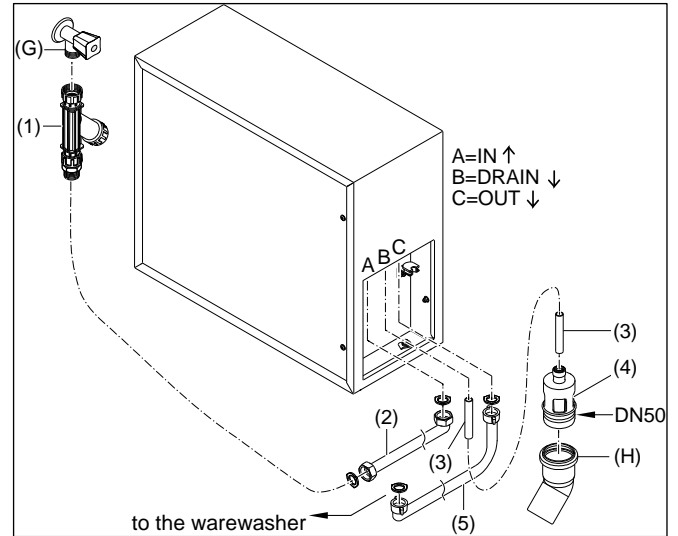
INFO

An EA type backflow preventer according to EN 13959 is installed in the interior of the device.

- Follow the threshold values for the mains water (► 12). If necessary, consult the local Winterhalter subsidiary.
- Carry out connection according to the diagram:

IMPORTANT

In order for the device to operate properly, a suitable dirt trap (1) must be fitted at the water intake point.



Item	Description
A	Water inlet (mains water)
B	Water drain (wastewater)
C	Water outlet (osmosis water)
G	Water stop cock
H	On-site drain

1	Dirt trap
2	Inlet water hose according to EN 13618 (supplied with the device)
3	Waste water hose
4	Breather
5	Hose from the warewasher

- Check that the connections are tight.

14 Disposal

Contact your dealer so that the materials in the device can be fed back into the material cycle as soon as possible.

EG-KONFORMITÄTSERKLÄRUNG EC-DECLARATION OF CONFORMITY

winterhalter®

Wir, We, Nous, Noi, Wij, Nosotros, Nós, My, My, Podjetje, Εμείς η, Mi a, Biz

Hersteller / Manufacturer: Winterhalter Gastronom GmbH
Winterhalterstraße 2–12
DE-88074 Meckenbeuren

erklären in alleiniger Verantwortung, dass das Produkt „Wasseraufbereitungsgerät“,
declare under our sole responsibility that the product "water treatment device",
déclarons sous notre seule responsabilité que le produit « dispositif de traitement de l'eau »,
dichiaro sotto la nostra piena responsabilità che il prodotto "attrezzatura per il trattamento acqua",
verklaan als enig verantwoordelijke dat het product „waterbehandelingsapparaat“,
declaramos bajo nuestra absoluta responsabilidad que el producto „planta para tratamiento de agua“,
Declaramos sob nossa única responsabilidade, que o produto "Equipamento de osmose inversa",
oświadczamy na własną odpowiedzialność, że produkt „urządzenie do uzdatniania wody”,
prohlašujeme na vlastní zodpovednosť, že produkt „úpravna vody”,
na lastno odgovornostjo izjavlja, da je izdelek „naprava za pripravo vode”,
δηλώνουμε αποκλειστικά με δική μας ευθύνη, ότι το προϊόν „Συσκευή αντίστροφης όσμωσης”,
felelősségünk teljes tudatában kijelentjük, hogy a termék „Fordított ozmózisú berendezés”,
olarak yegane sorumlugumuz dahilinde beyan ederiz ki „Su hazırlama cihazı”

Typenbezeichnung / Model: AT Excellence-S, AT Excellence-M
Warenzeichen / Trademark: Winterhalter

auf das sich diese Erklärung bezieht, mit den folgenden Normen übereinstimmt:

to which this declaration relates is in conformity with the following standards:
auquel se réfère cette déclaration est conforme aux normes :
al quale fa riferimento la presente dichiarazione, è conforme alle seguenti norme :
waarop deze verklaring betrekking heeft, met de volgende normen in overeenstemming is:
al que se refiere esta declaración, cumple las siguientes normas :
ao qual esta declaração diz respeito, está em conformidade com as seguintes normas:
do którego odnosi się to oświadczenie, jest zgodny z następującymi normami:
na ktorou se vzťahuje toto prohlásení, odpovídá níže uvedeným normám:
na katerega se nanaša ta izjava, skladen z naslednjimi standardi:
στο οποίο αναφέρεται αυτή η δήλωση, συμφωνεί με τα ακόλουθα πρότυπα:
amihez kapcsolódóan ezen nyilatkozat megfelel a következő szabványoknak:
aşadaki standartlara uygundur:

EN 55014-1:06 + A1:09 + A2:11 EN 61000-3-2:14
EN 55014-2:15 EN 61000-3-3:13
EN 60335-1:12 + A11:14/AC:14 EN 62233:08

gemäß den Bestimmungen folgender Richtlinien:

following the provisions of Directives:
selon les conditions des directives suivantes :
Ai sensi alle disposizioni previste dalle seguenti direttive :
volgens de bepalingen van de volgende richtlijnen:
conforme a las disposiciones de las siguientes directivas:
de acordo com as disposições das seguintes directivas:

zgodnie z postanowieniami następujących dyrektyw:
na základě ustanovení následujících směrnic:
in je skladen z določili naslednjih direktiv :
σύμφωνα με τους κανονισμούς των ακόλουθων Οδηγιών:
enligt följande riktlinjers bestämmelser:
a következő Irányelvek rendelkezéseinek:
aşadaki Direktif hükümlerine uygundur:

2006/42/EC/MD (Machinery Directive);
2014/30/EC/EMC (Electromagnetic Compatibility)

Hinsichtlich der elektrischen Gefahren wurden gemäß Anhang I Nr. 1.5.1 der Maschinenrichtlinie 2006/42/EC die Schutzziele der Niederspannungsrichtlinie 2014/35/EC eingehalten.

With respect to potential electrical hazards as stated in appendix I No. 1.5.1 of the machine guide lines 2006/42/EC all safety protection goals are met according to the low voltage guide lines 2014/35/EC.

Conformément à l'annexe I N° 1.5.1 de la Directive "Machines" (2006/42/EC) les objectifs de sécurité relatifs au matériel électrique de la Directive "Basse Tension" 2014/35/EC ont été respectés.

Con respecto al potencial peligro eléctrico como se indica en el apéndice I No. 1.5.1 del manual de la máquina 2006/42/EC, todos los medios de protección de seguridad se encuentran según la guía de bajo voltaje 2014/35/EC.

Güvenlik hedefleri uyarınca Makine Direktifi 2006/42 / EC deki EK No. 1.5.1 ile ilgili olarak, Düşük voltaj Direktifi 2014/35 / EC uygundur

Name und Anschrift der Person, die bevollmächtigt ist, die technischen Unterlagen zusammenzustellen:

Name and address of the person authorised to compile the technical file:
Nom et adresse de la personne autorisée à constituer le dossier technique :
Nome e indirizzo della persona autorizzata a costituire il fascicolo tecnico:
Naam en adres van degene die gemachtigd is het technisch dossier samen te stellen:
Nombre y dirección de la persona facultada para elaborar el expediente técnico:
Yetkili kişinin İsmi/Ünvanı:

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Meckenbeuren, 20.04.2016

Bernhard Graeff
Technical Manager

Anbringung der CE Kennzeichnung /
CE Marking date:
2016

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