LOWARA

KelairPumps

it	STAZIONI DI SOLLEVAMENTO SERIE MIDIBOX/SINGLEBOX PLUS/DOUBLEBOX PLUS	Istruzioni d'installazione e uso
en	LIFTING STATIONS MIDIBOX/SINGLEBOX PLUS/DOUBLEBOX PLUS SERIES	Installation and operating instructions
fr	STATIONS DE RELEVAGE SÉRIE MIDIBOX/SINGLEBOX PLUS/DOUBLEBOX PLUS	Instructions pour l'installation et l'emploi
pt	ESTAÇÕES DE ELEVAÇÃO SÉRIE MIDIBOX/SINGLEBOX PLUS/DOUBLEBOX PLUS	Instruções de instalação e uso
es	ESTACIONES DE ELEVACIÓN SERIE MIDIBOX/SINGLEBOX PLUS/DOUBLEBOX PLUS	Instrucciones para la instalación y el uso
el	ΣΤΑΘΜΟΙ ΑΝΤΛΗΣΗΣ ΣΕΙΡΑ MIDIBOX/SINGLEBOX PLUS/DOUBLEBOX PLUS	Οδηγίες εγκατάστασης και χρήσης
de	ABWASSERHEBEANLAGEN BAUREIHE MIDIBOX/SINGLEBOX PLUS/DOUBLEBOX PLUS	Installations - und Bedienungsanleitungen
nl	HEFSTATIONS SERIE MIDIBOX/SINGLEBOX PLUS/DOUBLEBOX PLUS	Aanwijzingen voor de installatie en het gebruik
sv	PUMPSTATIONER I PRODUKTSERIE MIDIBOX/SINGLEBOX PLUS/DOUBLEBOX PLUS	Bruks- och underhållsanvisning
fi	NOSTOASEMAT MIDIBOX/SINGLEBOX PLUS/DOUBLEBOX PLUS -SARJA	Asennus- ja käyttöohjeet
ru	НАСОСНЫЕ СТАНЦИИ СЕРИЯ MIDIBOX/SINGLEBOX PLUS/DOUBLEBOX PLUS	Инструкции по монтажу и эксплуатации
pl	PRZEPOMPOWNIE ŚCIEKÓW SERII MIDIBOX/SINGLEBOX PLUS/DOUBLEBOX PLUS	Instrukcja montażu i obsługi
da	PUMPESTATIONER SERIE MIDIBOX/SINGLEBOX PLUS/DOUBLEBOX PLUS	Manual vedrørende installation og brug
tr	MIDIBOX/SINGLEBOX PLUS/DOUBLEBOX PLUS SERİSİ ATIK SU TERFİ İSTASYONLARI	Kurulum ve kullanım talimatları

it	Conservate con cura il manuale per future consultazioni
en	Keep this manual for future reference
fr	Conservez avec soin le manuel pour toute consultation future
pt	Conservar cuidadosamente o manual para consultas futuras
es	Guardar con cuidado el manual para poderlo consultar en el futuro
el	Διατηρήστε με επιμέλεια το εγχειρίδιο για μελλοντικές συστάσεις
de	Die Bedienungsanleitung muss für zukünftige Konsultationen sorgfältig aufbewahrt werden
nl	Bewaar de handleiding zorgvuldig voor latere raadpleging
sv	Spara bruksanvisningen för framtida bruk
fi	Säilytä käyttöopas huolellisesti
ru	Храните это руководство для возможных консультаций
pl	Przechowuj starannie niniejszy podręcznik do przyszłej obsługi
da	Gem manualen til senere brug
tr	Lütfen bu el kitabını ileride başvurmak üzere güvenli bir biçimde saklayınız

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it AVVERTIMENTI PER LA SICUREZZA DELLE PERSONE E DELLE COSE

Di seguito trovate il significato dei simboli utilizzati nel presente manuale

PERICOLO
Rischio di danni alle persone e alle cose se non osservate quanto prescritto

SCOSSE ELETTRICHE
Rischio di scosse elettriche se non osservate quanto prescritto

ATTENZIONE

AVVERTENZA
Rischio di danni alle cose (pompa, impianto, quadro,…) o all'ambiente se non osservate quanto prescritto

Leggete attentamente il manuale prima di procedere

Informazioni per:	
il trasportatore	Informazioni specifiche per chi trasporta, movimenta, immagazzina il prodotto
l'installatore	Informazioni specifiche per chi procede all'installazione del prodotto nell'impianto (per la parte idraulica e/o elettrica)
l'utilizzatore	Informazioni specifiche per chi usa il prodotto
il manutentore	Informazioni specifiche per chi cura la manutenzione del prodotto
il riparatore	Informazioni specifiche per chi ripara il prodotto

en WARNINGS FOR THE SAFETY OF PEOPLE AND PROPERTY

Meaning of the symbols used in this manual

DANGER
Failure to observe this warning may cause personal injury and/or damage to property

ELECTRIC SHOCK
Failure to observe this warning may result in electric shock

WARNING

WARNING
Failure to observe this warning may cause damage to the pump, system, panel or environment

Read the manual carefully before proceeding

Information for:	
carriers	Specific information for carriers, handlers and warehouse personnel
installers	Specific information for personnel in charge of installing the product in the system (plumbing and/or electrical aspects)
users	Specific information for users of the product
maintenance personnel	Specific information for personnel in charge of maintenance
repair personnel	Specific information for repair personnel

1. General information

The purpose of this manual is to provide the necessary information for proper installation, operation and maintenance of the MIDIBOX / SINGLEBOX PLUS / DOUBLEBOX PLUS series of lifting stations. The contents of this manual concern the standard product, as described in the sale documents. Special versions may be supplied with supplementary instructions leaflets. Please refer to the sale contract for any modifications or special version characteristics. Always specify the exact type of lifting station and the relative code when requesting technical information or spare parts from our Sales and Service Department. For any instructions, situations and events not covered in this manual or in the sales documentation, please contact the nearest Technical Assistance Centre.

Read this manual carefully before installing and using the product.

Improper use may cause personal injury and/or damage to property, and invalidate the warranty.

Refer to the specific manuals for information concerning the electric pumps and electrical panels.

2. Product description Information for installers and users

The Midibox / Singlebox Plus / Doublebox Plus range comprises lifting stations designed to pump water from buildings or land below the level of the sewage network. They comprise a tank, 1 or 2 electric pumps, internal piping, one or more float switches, electric panel (where applicable). The pump can be removed from the station by loosening a screw (for stations with fixed fittings) or using a lifting kit (where applicable).
The stations can be installed both inside and outside buildings.
Depending on the model, the lifting stations in the Midibox / Singlebox Plus / Doublebox Plus range may comply with EN 12050-1 or EN 12050-2 (consult sections 11.1 and 11.2).

3. Applications Information for installers and users

After installation and the relative hydraulic and electric connections, the lifting stations in the Midibox / Singlebox Plus / Doublebox Plus range are used to collect and pump clear water, non-faecal wastewater (grey water) and faecal wastewater (black water) from collection points in buildings and sites lying underneath the level of the public / private sewer to which they are connected.

3.1 Working Limits

3.1.1 How to read the station rating plate

Explanations of the essential data indicated on the rating plate can be found in section 11.3.

3.1.2 Pumped liquids, pressures, temperatures

Do not use this station to pump hazardous, flammable and/or explosive liquids.

WARNING

Do not use this station to pump water containing substances and materials that could impair the correct performance of the pump and other system components (consult the relative instructions manual).
Preferably install a degreasing bath upline from the station when pumping wastewater containing greasy material.

Maximum operating pressure depends on the model of pump installed. Consult the pump documentation for further information.

3.1.3 Storage limits

Ambient temperature: Minimum -5 °C / Maximum + 40 °C

3.1.4 Operating limits

Refer to the specific manuals for information concerning the electric pumps and electrical panels.

Do not use the station in explosive atmospheres or in the presence of corrosive and/or flammable dust, acid or gas, etc.
Do not use the station to pump hazardous, flammable and/or explosive liquids.
Make sure the performance level of the lifting station is compatible with the requirements of the system it is connected to.

- Ambient temperature: Minimum + 0 °C / Maximum + 40 °C
- Maximum altitude: 1,000 metres a.s.l.
- Temperature of pumped liquid: Minimum + 1 °C / Maximum + 35 °C for DOC, DOMO, DOMO-GRI series pumps
  Minimum + 1 °C / Maximum + 25 °C for all the other pumps

- Nature of pumped liquid:
  - Versions with one-channel or twin-channel impeller: clean water, wastewater/effluent with suspended particles but without chemically aggressive substances or sand (section 11.1).
  - Versions with vortex impeller: clean water, wastewater/effluent with suspended solids and filaments but without chemically aggressive substances or sand (section 11.2).
- Can be installed indoors (basements, cellars, …) or outdoors (on the surface or underground).
- The voltage and frequency of the mains power supply must be compatible with the rated data of the electric pump and electric panel.
- Maximum number of hourly start-ups evenly distributed: consult the electric pump operating manual.

3.1.5 Lifting stations with electric panel and/or electric pumps with external condenser holder (requirements in addition to the above)

- Température ambiante : minimum + 0 °C / maximum + 40 °C
- Humidité relative maximale : 50% à + 40 °C à condition qu'il n'y ait pas de phénomènes de condensation.
- Maximum altitude: 1,000 metres a.s.l.
- Degree of protection: consult the specific documentation of the electrical panel

For different environmental requirements, please contact our Sales and Service Department.

The motors of some electric pumps contain non-toxic cooling oil. Any leaks through the mechanical seal may enter the pumped liquid.

For special requirements, please contact our Sales and Service Department.

3.1.6 Special applications

WARNING For situations other than those described for the nature of the liquid and/or installation, please contact our Sales and Service Department.

3.1.7 Improper Use

Improper use of the station may create dangerous conditions and cause personal injury and/or damage to property. Improper use includes:
- introducing liquids that are incompatible with the materials of the station
- introducing materials that can block pipes and/or the electric pump
- pumping hazardous materials (harmful, irritating, toxic, explosive, corrosive, flammable)
- operating the station in explosive atmospheres or in the presence of corrosive and/or flammable dust, acid or gas, etc.
- working with a higher water temperature than that indicated in the previous points.

Always refer to current local and/or national regulations, legislation and bylaws when choosing the installation site and making water and power connections.

Prior to installation, read this operating manual, that of the electric pump, of the electrical panel (where applicable) and of any accessories. Keep the manuals with care.

4. Transport and storage — Information for carriers

4.1 Transporting, handling, storing and unpacking the product

Stations can be supplied in packs of different shapes of sizes, depending on the type.

WARNING
Packed products must be transported, handled and stored vertically.
Protect products from humidity, heat and physical damage (knocks, falls, …).
Do not place weights on the packed products and do not stack them.
Before lifting the station, drain any residue water from the tank.
Use the handles on the tank to lift the station.

Lift and handle products carefully, using suitable lifting equipment. Observe all accident prevention regulations. Never lift the station and electric pump using the electric pump motor cable or the float switch cable.

On receipt of the station, check the pack for evident signs of damage. If the product is damaged, inform the dealer within 8 days of delivery.

4.2 Disposal of packing materials

If you cannot reuse the pack, dispose of it according to local bylaws governing sorted waste disposal.

5. Installation — Information for installers

Installation operations may only be performed by qualified and experienced personnel.
Use suitable equipment and protective devices. Observe all accident prevention regulations.
Always refer to current local and/or national regulations, legislation and bylaws when choosing the installation site and making water and power connections.

Prior to installation, read this operating manual, that of the electric pump, of the electrical panel (where applicable) and of any accessories.

If the product shows evident signs of damage, do not proceed with installation, but contact the Technical Service Centre.

5.1 Choosing the installation position

5.1.1 Installing the station inside a building

Place the lifting station on a flat and level surface capable of bearing the weight of the station during operation.

Leave at least 60 cm of free space around and above the station for installation and maintenance purposes.
Fix the lifting station so that it cannot rotate.

Protect the lifting station from frost and ventilate it to prevent the formation of toxic and/or flammable gases.

Place the condenser holder and/or electric panel in a sheltered position, observing the limits indicated in section 3.1.

5.1.2 Installing the station outside a building

Do not position the lifting station directly on the ground. The chosen area must not contain ground water or be subject to flooding. Fix the station so as to prevent it from rotating and floating. The eyebolts at the bottom of the tank can be used.
The base must be horizontal and capable of bearing the weight of the station while it is operating. Depending on the characteristics of the ground it may be necessary to erect brick, prefab or concrete walls. Fill the space between the hole and station with sand and compress it.
Protect the station from frost.
Do not drive vehicles over the cover.
Singlebox Plus / Doublebox Plus: in case of underground installation, the basin can withstand passing loads of 100 kg.

Close the hole with a cover (manhole) or another method for simplifying subsequent maintenance operations. Erect signs indicating the presence of the station to avoid accidental damage. Leave enough space around and above the lifting station for installation and maintenance purposes.

Place the condenser holder and/or electric panel in a sheltered position, observing the limits indicated in section 3.1.

After completing hydraulic and electrical connections, place clean sand around the basin to reduce any movements of the system and/or surrounding ground.

5.1.3 Choosing the electric control panel

The station must be suitably protected against overloads and short circuits.

Make sure the panel power ratings match those of the pump. Incompatible combinations may cause faults and fail to fully protect the motor.

Always refer to the electric pump manual and the instructions accompanying the electric panel.

6. Start-up — Information for installers

Read this operating manual and the instructions for the electric pump and electric panel before start-up. Keep the manuals with care.

Start-up operations must only be performed by expert and qualified staff and according to local regulations.

Always refer to current local and/or national regulations, laws and standards.
It is best to call in the Lowara Technical Assistance Service to start up the system.

6.1 Hydraulic connections

Hydraulic connections may only be performed by qualified staff in compliance with current regulations.

The Midibox / Singlebox Plus / Doublebox Plus series of lifting stations are fitted with several piping access points. Depending on the type of installation and current local regulations, it may be necessary to fit a trap, check valve and/or tap on the pipe connecting the system to the public/private sewer or on other pipes. Always refer to current local and/or national regulations, laws and standards. It is always best to fit a check valve and an on/off valve upline and downline from the station. An installation example is shown in section 11.6.

All the pipes must be installed in such a way that they are not subject to stress. The pipes must not stress the station. Make sure the electric pump is firmly attached to the pipes and that all the hydraulic connections are watertight.

Where necessary, use suitable systems to prevent the transmission of vibrations and to protect the piping from icing up.

6.1.1 Opening and preparing duct connections

6.1.1.1 Midibox

Identify the connection for the duct you wish to open. Saw approximately 20 mm off the end of the duct and remove any burrs and residue material.

6.1.1.2 Singlebox Plus / Doublebox Plus

Identify the connection for the duct you wish to open. Remove the bottom of the connection and remove any burrs. Fit the relative gasket until the collar lies on the outer wall of the tank.

6.1.2 Connection to the inlet piping

On the station, identify the location of the inlet duct, marked with the symbol . Open the duct and connect the inlet pipe so that it can drain on its own and so that incoming liquid does not affect operation of the float switches. Make sure the connection is watertight.
Singlebox Plus / Doublebox Plus: there are several inlet ducts.

6.1.3 Connection to the outlet piping

The stations are supplied with the outlet piping already connected to the pump. The outlet is marked by the symbol .
Check that the unions are correctly tightened and airtight. Connect the outlet piping to the unions on the outer wall of the station. Make sure the connection is watertight. Consult table 11.1 for information on the outlet pipe union. Attach the outlet pipe to the connection with the public/private sewer. Make sure the outlet line is fitted with a check valve compliant with EN 12056-4.

6.1.4 Connection to the vent piping

Remember to fit a vent pipe to prevent the build-up of flammable, explosive or toxic gases.
On the station, identify the location of the vent duct, marked with the symbol . Open the duct and connect the vent pipe so that it can evacuate any condensation in the station. Make sure the connection is watertight.
Depending on local regulations, different ratios between the outlet pipe and vent pipe diameters may apply.
Make sure the vent outlet is outdoors (for example, above the ridge of the roof if the station is installed inside a building) and that the discharged gases cannot penetrate inside other buildings, rooms and the like.

6.1.5 Connection to the emergency drain piping

The bottom of the station is fitted with a connection for an emergency drain system, marked by the symbol . This connection can be used to connect a secondary pump (for example, a manual diaphragm pump) whose drain outlet must be independent from that of the electric pump inside the station. The manual pump is available as an optional kit.
Identify the location of the duct at the bottom of the station, open the duct and connect the emergency drain pipe. Make sure the connection is watertight.

6.1.6 Non-return valve

Fit a non-return valve in the piping connection to the public/private sewer. This will prevent backwash. If you choose a ball valve, check whether it is of the "sinking ball (heavy)" or "floating ball (lightweight)" type, as the installation and operating conditions change.
Install the valve at a distance of at least 1 metre from the lifting station to allow the liquid moved by the pump to open the valve shutter (unless otherwise indicated by the manufacturer).
Always refer to current local and/or national regulations, laws and standards.

6.1.7 Check valve

Install a check valve in both the inlet and outlet pipes (connection to the public/private sewer). This will enable maintenance operations to be carried out without having to drain the entire system. Either gate valves or ball valves can be used.

6.1.8 Mounting the pump

The electric pump is supplied assembled in the station. Make sure it is not damaged. Before start-up, remove any packaging clamps.

6.1.9 Float switch

Depending on the type of pump installed, one or more float switches may be fitted. The float switches are already installed and calibrated.
There may be a float switch located above the other ones in the pumping station. This is used to signal the presence of an excessive liquid level in the tank. In this case, an electric command and control panel must be installed.

6.1.10 Mounting the cover

Make sure the gaskets of the cover lie at the bottom of its housing before screwing the cover to the tank.
Check that the gasket does not slip in the thread when tightening.
When installing the product inside buildings, fully tighten the cover to ensure liquid and gases cannot leak from the station.
To prevent the unauthorised opening of the cover, secure it to the station using the supplied screws and washers. Pass the screw through the slot on the outer edge of the cover and screw into the relative housing in the tank. The washer should be interposed between the screw head and the upper surface of the cover. There may be a lock attached directly to the cover. In this case use the supplied key to open and close the cover.

6.1.11 Mounting the extension

When installing the product inside buildings, a 300 mm high extension can be fitted.
The extension uses the same gasket as the one on the cover. Refer to the section on mounting the cover for tightening the extension with the gasket.
After tightening the extension, make sure it cannot come loose. Use the screws supplied with the extension. Make a Ø 3 mm hole in the extension thread area and then tighten.

WARNING Up to 2 extensions may be installed.

6.1.12 Electrical connections

Electrical connections may only be performed by a qualified installer in compliance with current regulations.

Make sure that the supply type, voltage and frequency match the ratings of the electric pump and electric panel shown on the respective rating plates. Provide suitable short circuit protection on the supply line.
Before making electrical connections, read the manuals of the electric pump and electric panel (where applicable), the instructions and any wiring diagrams.

Before proceeding with any operations, make sure that all the connections (even those that are potential-free) are voltage-free.

Electric pumps can be fitted with a thermal protection incorporated in the motor (motor protector). Take care as the electric pump could start suddenly after the motor winding has cooled.

Unless otherwise specified in local bylaws, the supply line must be fitted with:
- a short circuit protection device.
- a high sensitivity residual current circuit breaker (30 mA) for additional protection from electrocution in case of inefficient grounding.
- a general switch with a contact aperture of at least 3 mm.

Ground the system in compliance with current regulations.
The stations are supplied with an electric cable. Connect the cable to the mains power supply.
When installing the product inside a building, pass the cables through the grommets on the tank. In case of underground installation, the additional cable passage can be used. On the station, identify the location of the cable duct, marked with the symbol . Open the duct, connect the piping and thread the cables inside. Make sure the piping is watertight.
Make sure there is enough cable inside the tank to allow the pump to be removed.
Connect to the mains power supply.

6.2 Initial start-up

Before starting the station and the electric pump, check that there are no residues or other materials in the system and tank that can prevent correct operation.

In this phase, leave the check valve on the inlet piping closed and fill the lifting station with clean water. Open the check valve on the outlet piping, check the piping is perfectly watertight and make sure the electric pump works correctly. Also check that the electric pump is primed.
Open the check valve on the inlet piping and make sure the station works correctly.

The flow of liquid from the various users must not prevent the float switches in the basin from operating correctly.

For three-phase electric pumps, check the correct direction of rotation of the impeller. Also check the electric pump manual.
Make sure that the cut-in levels of the float switches are correct. If necessary adjust them according to effective system requirements.

When there are 2 electric pumps, the float switches are adjusted so that the second pump starts after the first and only if the latter is unable to send as much liquid to the sewer duct as the amount arriving from the various users.
During operation, make sure the electric pump cannot be unprimed. Make sure that the number of hourly start-ups is compatible with the characteristics of the system components.
Check the system operates correctly and put it into service.
Close the cover or covers of the station, screwing them into place. If necessary, secure the cover to prevent unauthorised opening.

6.2.1 Operating capacity

Check that the speed of the liquid in the outlet piping is at least 0.7 m/s and less than 2.3 m/s.

6.3 Operation

When the liquid in the tank reaches the level at which the contact of the float switch commanding the electric pump closes, the pump starts and progressively drains the basin. The pump stops when the liquid reaches the minimum level and opens the float switch contact.
When there are 2 electric pumps, the second pump starts after the first and only if the latter is unable to send as much liquid to the sewer duct as the amount arriving from the various users.
There may be a float switch located above the other ones in the pumping station. This is used to signal the presence of an excessive liquid level in the tank.

7. Maintenance, service and spare parts — Information for maintenance personnel

Observe the following directions when performing maintenance on the product.

Before proceeding with any maintenance operations, make sure that all the connections (even those that are potential-free) are voltage-free.

Maintenance operations may only be performed by skilled and qualified people.
Use suitable equipment and protective devices. Observe all accident prevention regulations. Lift and handle the stations and electric pumps with care using suitable lifting equipment.

Read the operating instructions of the electric pump and of the electric panel, where applicable.

Always refer to current local and/or national regulations, laws and standards.

7.1 Routine maintenance

Periodically check the internal status of the basin. To do this, unscrew the cover and remove it. Clean the basin at least once a year, especially around the areas where the float switches are located.

7.2 Extraordinary maintenance

In the lifting stations featuring PVC pipe fittings, the electric pump can be removed by unscrewing the ring nut located under the cover of the station.
In lifting stations fitted with a descent device, remove the electric pump with the handle to which a rope or chain must be attached.

Do not use the electric power cable or float switch to lift and move the electric pump.

7.3 Spare parts

WARNING

Always specify the identification number of the lifting station and the relative code when requesting technical information or spare parts from our Sales and Service Department.

Only use spare parts to replace any components. The use of unsuitable spare parts may cause malfunctions, damage and injury.

8. Troubleshooting

Information for users and maintenance personnel

Follow the instructions in the operating manuals of the electric pump and of the electric panel, where applicable.

For further information, consult section 7.

PROBLEM	PROBABLE CAUSE	POSSIBLE SOLUTION
The electric pump does not start. The main switch is on	No power supply	Restore the power supply.
	Triggering of electric pump thermal protector	Wait for the electric pump motor to cool.
	Triggering of thermal relay or motor protector found in the electric control panel	Reset the thermal protector.
	Pump or auxiliary circuits protection fuses blown	Replace fuses.
	Problems on the external control device (float switch)	Check the device and the relative connection cables.
The electric pump starts up but the thermal protector is immediately triggered or the fuses blow	Electric motor short circuit	Check the operating conditions of the electric pump and reset the protection.
	Power supply cable is damaged	Check the components and replace as necessary.
	Thermal protector or fuses not suited to the motor current	
The electric pump starts up but, after a short period of time, the thermal protector is triggered or the fuses blow	A phase in the power supply is missing	Check the power supply
	Power supply voltage not within the motor's working limits	Check the operating conditions of the electric pump.
	The electric panel is situated in an excessively heated area or is exposed to direct sunlight	Protect the panel from heat sources and from the sun.
The electric pump starts up but, after a varying period of time, the thermal protector is triggered.	Incoming liquid too hot	Check the operating conditions of the electric pump.
	Excessively large solids have clogged the impeller	Remove the electric pump and clean it. If the problem persists, check the operating conditions of the electric pump.
	Filaments have blocked the impeller (for versions that do not feature a "vortex" type impeller)	
The pump starts up too frequently	Leaks in check valve or system	Check and locate leaks. Repair or replace the components.
	Float switch incorrectly adjusted	Check the float switch.
The electric pump starts up but does not deliver the required flow	Incorrect direction of rotation	Check the direction of rotation and, if necessary, exchange two phases in the motor or electrical panel if three-phase or check all the connections if single-phase.
	Delivery pipe blocked or the check valve is dirty or there is an air pocket	Check the installation.
	Electric pump is damaged or its internal parts are clogged	Consult the relative instructions in the pump manual.
The system's general protection cuts in.	Short circuit	Check the electrical system
The system's differential thermal-magnetic protection cuts in.	Ground leakage	Check insulation of the electrical system components.

9. Disposal

Information for installation and maintenance personnel

Observe the regulations and codes locally in force regarding sorted waste disposal. If possible, reutilise the packaging for other purposes.

10. Warranty

Please refer to the sales contract for further information.

11. Tabelle e disegni - Tables and Drawings - Tableaux et dessins - Tabelas e desenhos - Tablas y dibujos - **Πίνακες και σχέδια** - Tabellen und Zeichnungen - Tabellen en tekeningen - Tabeller och ritningar - Taulukot ja kaaviot - **Таблицы и рисунки** - Tabele i rysunki - Tabeller og tegninger - Tablo ve çizimler

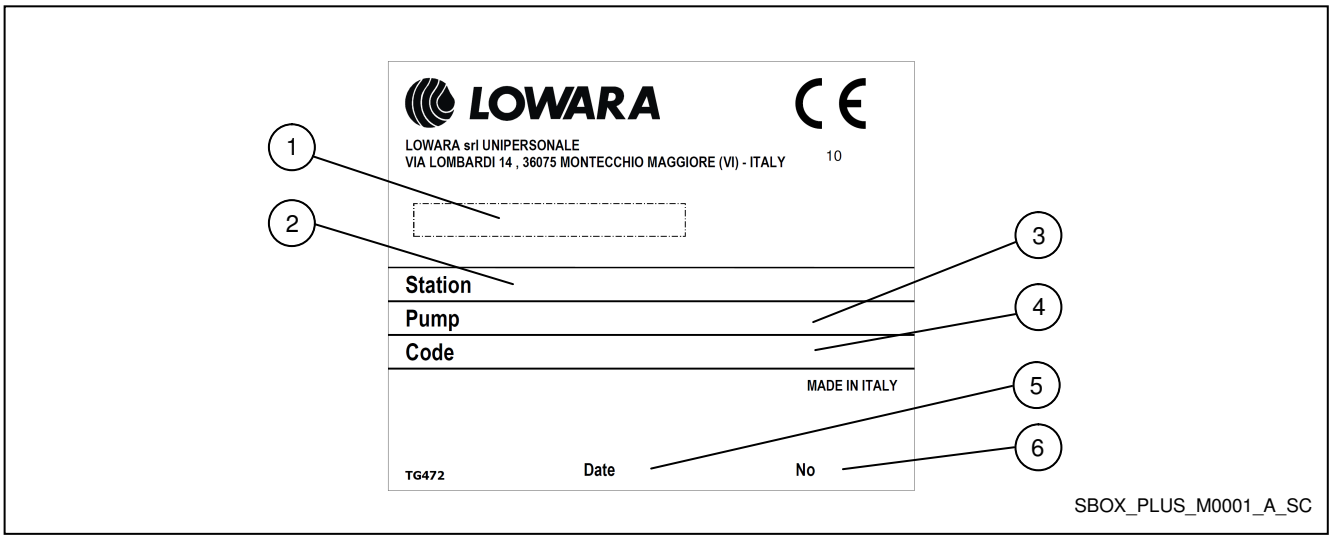
11.1 Tipo certificazione e passaggio libero elettropompa con girante monocanale o bicanale - Certification type and free passage for electric pump with single-channel or twin-channel impeller - Type de certification et passage libre pour les électropompe avec roue monocanal ou bicanal - Tipo de certificação e passagem livre da electrobomba com impulsor de um ou dois canais - Tipo de certificación y paso libre para la electrobomba con rodete de un canal o dos canales - **Τύπος πιστοποίησης και ελεύθερης διέλευσης ηλεκτρικής αντλίας με πτερωτή μονοκαναλική ή δικαναλική** - Zertifkationstyp und freier Durchgang für Motorpumpe mit Einkanal - und Zweikanal Laufrad - Type certificering en vrije doorlaat voor elektropomp met één - of tweekanaals waaier - Typ av certifiering och fri passage för elpump med en- eller tvåkanals pumphjul - Tyyppihyväksynnän tyyppi ja esteetön tila (yksi- tai kaksikanavaisella juoksupyörällä varustettu sähköpumpu) - **Тип сертификации и свободный проход электронасоса с одноканальным или двухканальным рабочим колесом** - **Typ certyfikatu i swobodny przepływ pompy elektrycznej z wirnikiem jednokanałowym lub dwukanałowym** - Certificeringstype og friafstand for elektropumpe med pumpehjul med en eller to kanaler - Sertifika tipi ve bir kanallı veya iki kanallı pervaneli elektrikli pompa için serbest geçiş

Tipo stazione - Station type - Type de station - Tipo de estação - Tipo de estación - Τύπος σταθμού - Anlagentyp - Type station - Typ av pumpstation - Nostoaseman tyyppi - Тип станции - Typ przepompowni - Pumpestationstype - Atık su terfi istasyonu tipi	Elettropompa - Electric pump - Électropompe - Electrobomba - Electrobomba - Ηλεκτρική αντλία - Motorpumpe - Elektropomp - Elpump - Sähköpumppu - Электронасос - Pompa elektryczna - Elektropumpe - Elektrikli pompa	Direttiva - Directive - Norme - Norma - Norma - Οδηγία - Norm - Richtlijn - Standard - Standardi - Стандарт - Norma - Standard - Direktif	Connessione di mandata - Delivery Connection - Raccord refoulement - Ligação de saída - Conexión de salida - Σύνδεση παροχής - Anschluss des Ablaufrohrs - Persaansluiting - Anslutning på trycksidan - Poistoliitin - Соединение подачи - Podłączenie doprowadzenia - Tryktilslutning - Basma boru bağlantısı	Passaggio libero - Free passage - Passage libre - Passagem livre - Paso libre - Ελεύθερη διέλευση - Freier Durchgang - Vrije doorlaat - Fri passage - Esteetön tila - Свободный проход - Swobodny przepływ - Friafstand - Serbest geçiş (mm)
Midibox	DOC 3 / 7	-	1” ¼	10
	DOMO 7	EN 12050-2	1” ½	35
Singlebox Plus Doublebox Plus	DOMO 7	EN 12050-2	1” ½	35
	DOMO 10 / 15 / 20	EN 12050-1	2”	50
	DOMO GRI	EN 12050-1	2”	-
	DL 80 / 90 / 105	EN 12050-2	2”	45
	DL 109 / 125	EN 12050-2	2”	50

11.2 Tipo certificazione e passaggio libero elettropompa con girante vortex - Certification type and free passage for electric pump with vortex impeller - Type de certification et passage libre pour les électropompe avec roue vortex - Tipo de certificação e passagem livre da electrobomba com impulsor vortex - Tipo de certificación y paso libre para la electrobomba con rodete vortex - **Τύπος πιστοποίησης και ελεύθερης διέλευσης ηλεκτρικής αντλίας με πτερωτή vortex** - Zertifkationstyp und freier Durchgang für Motorpumpe mit Vortex-Laufrad - Type certificering en vrije doorlaat voor elektropomp met Vortex waaier - Typ av certifiering och fri passage för elpump med Vortex-pumphjul - Tyyppihyväksynnän tyyppi ja esteetön tila (Vortex-juoksupyörällä varustettu sähköpumppu) - **Тип сертификации и свободный проход электронасоса с рабочим колесом vortex** - **Typ certifikatu i swobodny przepływ pompy elektrycznej z wirnikiem vortex** - Certificeringstype og friafstand for elektropumpe med Vortex pumpehjul - Sertifika tipi ve vorteks pervaneli elektrikli pompa için serbest geçiş

Tipo stazione - Station type - Type de station - Tipo de estação - Tipo de estación - Τύπος σταθμού - Anlagentyp - Type station - Typ av pumpstation - Nostoaseman tyyppi - Тип станции - Typ przepompowni - Pumpestationstype - Atık su terfi istasyonu tipi	Elettropompa - Electric pump - Électropompe - Electrobomba - Electrobomba - Ηλεκτρική αντλία - Motorpumpe - Elektropomp - Elpump - Sähköpumppu - Электронасос - Pompa elektryczna - Elektropumpe - Elektrikli pompa	Direttiva - Directive - Norme - Norma - Norma - Οδηγία - Norm - Richtlijn - Standard - Standardi - Стандарт - Norma - Standard - Direktif	Connessione di mandata - Delivery Connection - Raccord refoulement - Ligação de saída - Conexión de salida - Σύνδεση παροχής - Anschluss des Ablaufrohrs - Persaansluiting - Anslutning på trycksidan - Poistoliitin - Соединение подачи - Podłączenie doprowadzenia - Tryktilslutning - Basma boru bağlantısı	Passaggio libero - Free passage - Passage libre - Passagem livre - Paso libre - Ελεύθερη διέλευση - Freier Durchgang - Vrije doorlaat - Fri passage - Esteetön tila - Свободный проход - Swobodny przepływ - Friafstand - Serbest geçiş (mm)
Midibox	DOC 7 VX	EN 12050-2	1” ¼	20
	DOMO 7 VX	EN 12050-2	1” ½	35
Singlebox Plus Doublebox Plus	DOMO 7 VX	EN 12050-2	1” ½	35
	DOMO 10 VX /15 VX / 20 VX	EN 12050-1	2”	50
	MINIVORTEX / VORTEX	EN 12050-2	2”	45
	DLV 100 / DLV 115	EN 12050-2	2”	50

11.3 Come leggere la targa dati - How to Read the Rating Plate - Comment lire la plaque des données - Como ler a placa de características - Cómo leer la placa de características - Πώς διαβάζεται η πινακίδα στοιχείων - Lesen des Datenschilds - Wijze waarop het typeplaatje gelezen moet worden - Märkplåten - Arvokilven tulkinta - Как читать табличку данных - Jak czytać tabliczkę znamionową - Læsning af typeskilt - Veri plakasını nasıl okumak gerekir



1	Normativa cui la stazione è conforme
2	Tipo stazione
3	Tipo elettropompa
4	Codice stazione
5	Data di produzione
6	Numero di serie

1	Normes auxquelles la station est conforme
2	Type de station
3	Type d'électropompe
4	Code station
5	Date de production
6	Numéro de série

1	Normativa a la que la estación es conforme
2	Tipo de estación
3	Tipo de electrobomba
4	Código de la estación
5	Fecha de producción
6	Número de serie

1	Gemäß Richtlinie, Bestimmung
2	Typ Hebeanlage
3	Typ Motorpumpe
4	Code Hebeanlage
5	Herstellungsdatum
6	Seriennummer

1	Standard som pumpstationen överensstämmer med
2	Typ av pumpstation
3	Typ av elpump
4	Pumpstationens kod
5	Tillverkningsdatum
6	Serienummer

1	Стандарт, которому соответствует насосоная станция
2	Тип станции
3	Тип электронасоса
4	Код станции
5	Дата производства
6	Номер серии

1	Standards the station complies with
2	Station type
3	Pump type
4	Station part code
5	Manufacturing date
6	Serial number

1	Norma com a qual a estação está em conformidade
2	Tipo de estação
3	Tipo de electrobomba
4	Código da estação
5	Data de fabrico
6	Número de série

1	Προδιαγραφές που ικανοποιεί ο σταθμός
2	Τύπος σταθμού
3	Τύπος ηλεκτρικής αντλίας
4	Κωδικός σταθμού
5	Ημερομηνία παραγωγής
6	Αριθμός σειράς

1	Norm waarmee het station overeenstemt
2	Type station
3	Type elektropomp
4	Code station
5	Productiedatum
6	Serienummer

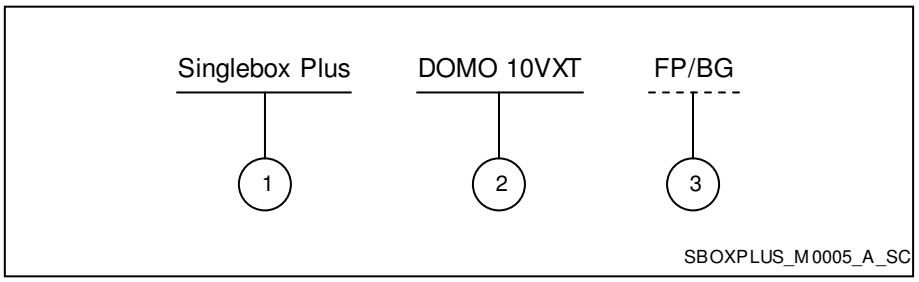
1	Standardi, jota nostoasema vastaa
2	Nostoaseman tyyppi
3	Sähköpumpun tyyppi
4	Nostoaseman koodi
5	Valmistuspvm
6	Sarjanumero

1	Normatywa, której odpowiada przepompownia
2	Typ przepompowni
3	Typ pompy elektrycznej
4	Kod przepompowni
5	Data produkcji
6	Numer fabryczny

1	Standard, hvormed pumpestationen er i overensstemmelse.
2	Pumpestationstype
3	Elektropumpetype
4	Kode for pumpestation
5	Produktionsdato
6	Serienummer

1	İstasyonun uygun olduğu standart
2	İstasyon tipi
3	Elektrikli pompa tipi
4	İstasyon kodu
5	Üretim tarihi
6	Seri numarası

11.4 Denominazione stazione - Station denomination - Dénomination station - Nome da estação - Denominación de la estación - Ονομασία σταθμού - Bezeichnung der Station - Benaming van het station - Pumpstationens benämning - Nostoaseman nimike - Наименование станции - Nazwa stacji - Betegnelse for pumpestation - İstasyon adı



1	Tipo stazione	
2	Tipo pompa	
3	Tipo tubazione	
		Raccorderia fissa (Midibox)
	FP	Raccorderia fissa standard
	FP/BG	Raccorderia fissa con valvola di non ritorno e rubinetto
	SL	Kit slitta standard
	SL/BV	Kit slitta con valvola di non ritorno

1	Station type	
2	Pump type	
3	Pipe type	
		Flexible coupling (Midibox)
	FP	Standard fixed coupling
	FP/BG	Flexible coupling with non-return valve and tap
	SL	Standard slide kit
	SL/BV	Slide kit with non-return valve

1	Type station	
2	Type pompe	
3	Type tuyauterie	
		Raccords fixes (Midibox)
	FP	Raccords fixes standard
	FP/BG	Raccords fixes avec clapet anti-retour et robinet
	SL	Kit glissière standard
	SL/BV	Kit glissière avec clapet anti-retour

1	Tipo de estação	
2	Tipo de bomba	
3	Tipo de tubagem	
		Conexões fixas (Midibox)
	FP	Conexões fixas standard
	FP/BG	Conexões fixas com válvula anti-retorno e torneira
	SL	Kit corrediça standard
	SL/BV	Kit corrediça com válvula anti-retorno

1	Tipo de estación	
2	Tipo de bomba	
3	Tipo de tubería	
		Empalmes fijos (Midibox)
	FP	Empalmes fijos estándar
	FP/BG	Empalmes fijos con válvula de retención y grifo
	SL	Kit corredera estándar
	SL/BV	Kit corredera con válvula de retención

1	Τύπος σταθμού	
2	Τύπος αντλίας	
3	Τύπος σωλήνωσης	
		Σταθερά ρακόρ (Midibox)
	FP	Σταθερά ρακόρ στάνταρ
	FP/BG	Σταθερά ρακόρ με ανεπίστροφη βαλβίδα και στρόφιγγα
	SL	Κιτ στάνταρ ολισθητήρα
	SL/BV	Κιτ ολισθητήρα με ανεπίστροφη βαλβίδα

1	Stationstyp	
2	Pumpentyp	
3	Leitungstyp	
		Fixe Anschlüsse (Midibox)
	FP	Fixe Standardanschlüsse
	FP/BG	Fixe Anschlüsse mit Rückschlagventil und Hahn
	SL	Standardschlittensatz
	SL/BV	Schlittensatz mit Rückschlagventil

1	Type station	
2	Type pomp	
3	Type leiding	
		Vaste verbindingen (Midibox)
	FP	Standaard vaste verbindingen
	FP/BG	Vaste verbindingen met balkeerklep en kraan
	SL	Standaard sledeset
	SL/BV	Sledeset met balkeerklep

1	Typ av pumpstation	
2	Typ av pump	
3	Typ av rör	

1	Nostoaseman tyyppi	
2	Pumpun tyyppi	
3	Putken tyyppi	

		Fasta kopplingar (Midibox)
	FP	Fasta standardkopplingar
	FP/BG	Fasta kopplingar med backventil och kran
	SL	Standardslid
	SL/BV	Slid med backventil

		Kiinteät liittimet (Midibox)
	FP	Kiinteät vakioliittimet
	FP/BG	Kiinteät liittimet, takaiskuventtiili ja hana
	SL	Vakioluisti
	SL/BV	Luisti ja takaiskuventtiili

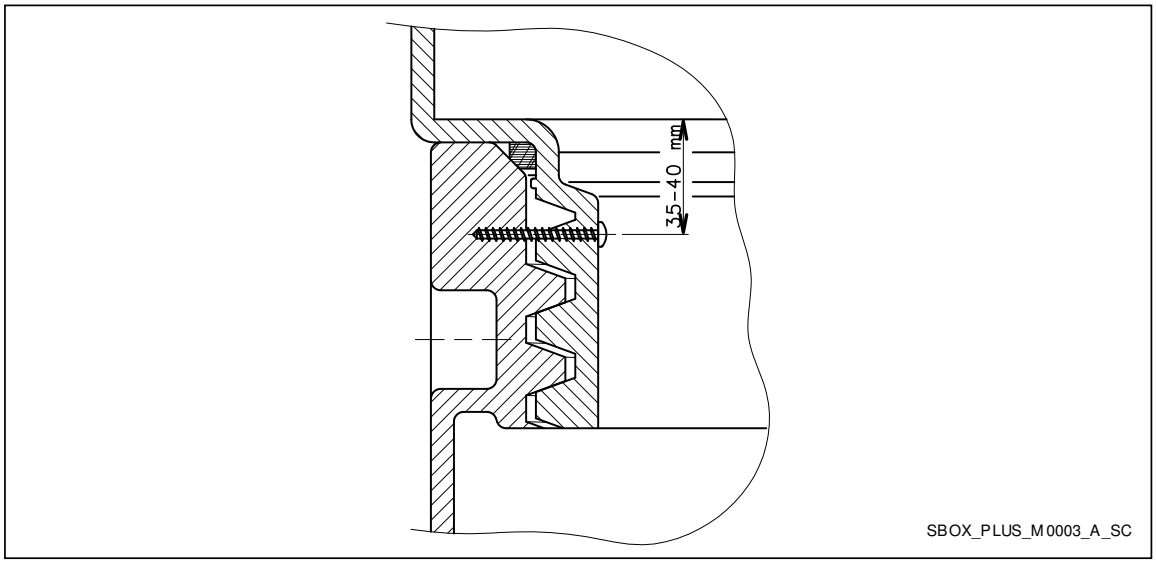
1	Тип станции	
2	Тип насоса	
3	Тип трубопровода	
		Фиксированные патрубки (Midibox)
	FP	Стандартные фиксированные патрубки
	FP/BG	Фиксированные патрубки с невозвратным клапаном и краном
	SL	Стандартный комплект тележки
	SL/BV	Комплект тележки с невозвратным клапаном

1	Typ stanowiska	
2	Typ pompy	
3	Typ rur	
		Łączniki rurowe stałe (Midibox)
	FP	Łącznika rurowe stałe standardowe
	FP/BG	Łączniki rurowe stałe z zaworem zwrotnym i kurkiem
	SL	Zestaw standardowy wodzika
	SL/BV	Zestaw wodzika z zaworem zwrotnym

1	Pumpestationstype	
2	Pumpetype	
3	Rørtype	
		Permanent tilslutning (Midibox)
	FP	Permanent tilslutning (standard)
	FP/BG	Permanent tilslutning med bakventil og hane
	SL	Skydeventil (standard)
	SL/BV	Skydeventil med bakventil

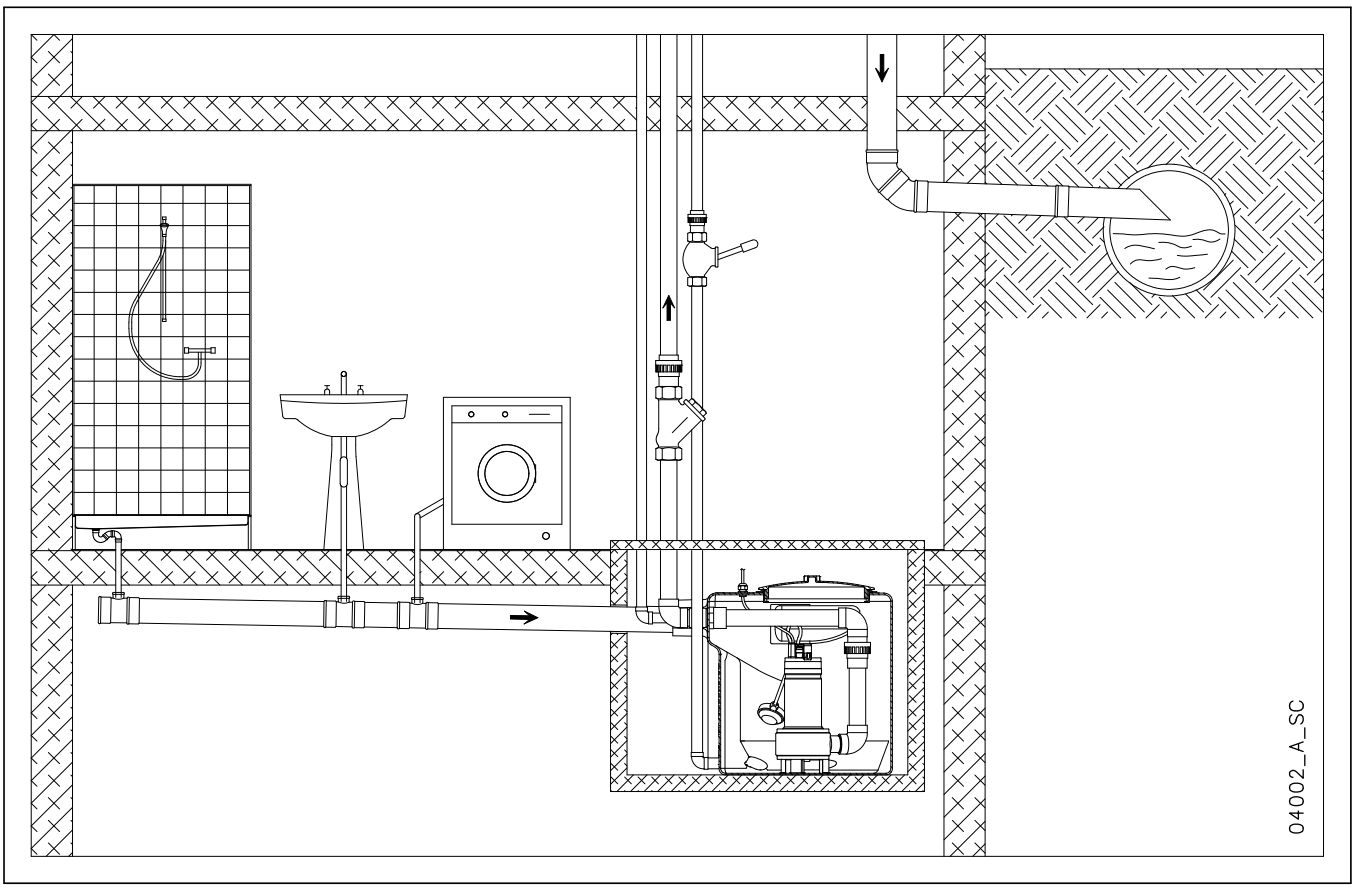
1	İstasyon tipi	
2	Pompa tipi	
3	Boru tipi	
		Sabit rakorlar (Midibox)
	FP	Standart sabit rakorlar
	FP/BG	Geri dönüşsüz valf ve musluklu sabit rakorlar
	SL	Standart kızak kiti
	SL/BV	Geri dönüşsüz valfli kızak kiti

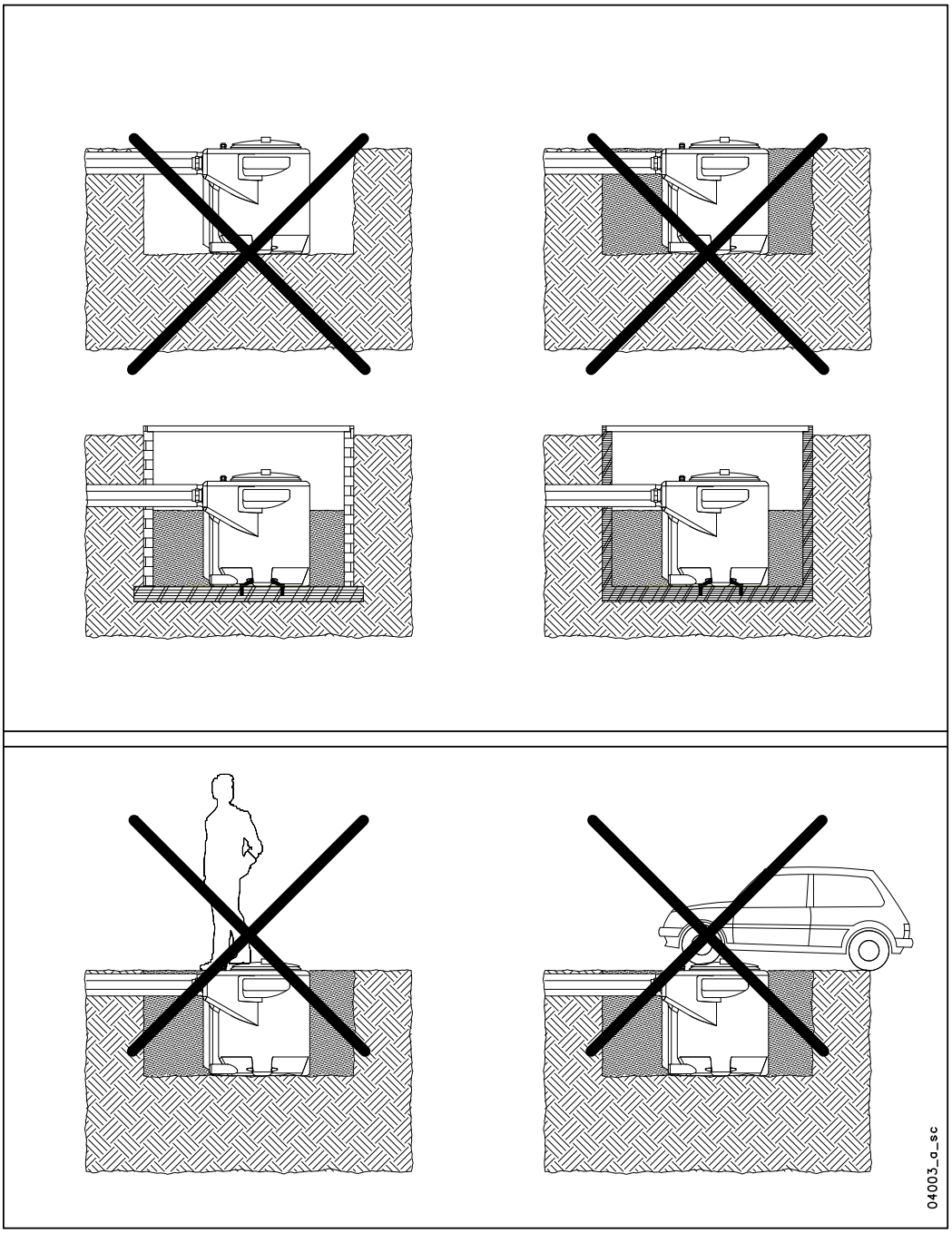
11.5 Montaggio estensione coperchio - Mounting the cover extension - Montage extension couvercle - Montagem da extensão da tampa - Instalación de la extensión de la tapa - Συναρμολόγηση επέκτασης καπακιού - Montage Deckelerweiterung - Montage kapverlenging - Montering av förlängningsdel för lock - Kannen jatkeen asennus - Монтаж удлинения крышки - Montaż przedłużenia pokrywy - Montering af forlænger til dæksel - Kapağın uzatma bölümünün montajı



11.6 Esempio di installazione - Installation example - Exemple d'installation - Exemplo de instalação - Ejemplo de instalación - **Παράδειγμα εγκατάστασης** - Installationsbeispiel - Installatievoorbeeld - Installationsexempel - Asennusesimerkki - **Пример монтажа - Przykład montażu** - Eksempel på installation - Kurulum örneği

MIDIBOX

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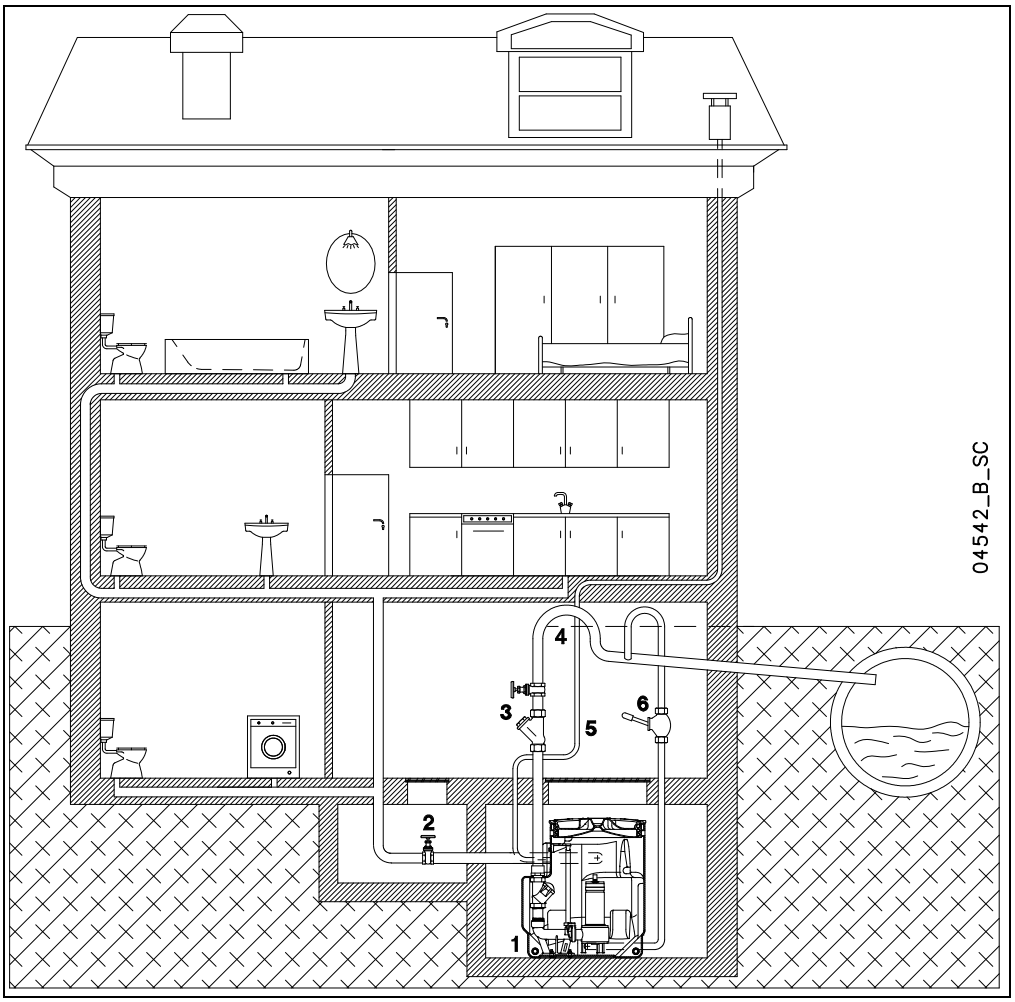
SINGLEBOX PLUS / DOUBLEBOX PLUS



1	Stazione di sollevamento
2	Tubazione di ingresso con valvola di intercettazione, giunti o tubi flessibili, supporti per le tubazioni (capitolo 6.1)
3	Tubazione di uscita con valvola di intercettazione, valvola di non ritorno, giunti o tubi flessibili, supporti per le tubazioni
4	Sifone
5	Ventilazione con giunti o tubi flessibili, supporti per le tubazioni
6	Sistema di svuotamento di emergenza con pompa manuale a diaframma, giunti o tubi flessibili, supporti per le tubazioni

1	Lifting station
2	Inlet pipe with on-off valve, flexible joints or pipes, supports for pipes (chapter 6.1)
3	Outlet pipe with on-off valve, non-return valve, flexible joints or pipes, supports for pipes
4	Trap
5	Vent with flexible joints or pipes, supports for pipes
6	Emergency drain system with manual diaphragm pump, flexible joints or pipes, supports for pipes

1	Station de relevage
2	Canalisation d'arrivée avec robinet d'arrêt, manchons de raccordement ou tubes flexibles, supports pour les canalisations (chapitre 6.1)
3	Canalisation de sortie avec robinet d'arrêt, clapet antiretour, manchons de raccordement ou tubes flexibles, supports pour les canalisations
4	Siphon
5	Ventilation avec manchons de raccordement ou tubes flexibles, supports pour les canalisations
6	Système de vidange d'urgence avec pompe manuelle à membrane, manchons de raccordement ou tubes flexibles, supports pour les canalisations

1	Estação de elevação
2	Tubo de entrada com válvula de intercepção, juntas ou tubos flexíveis, suportes para os tubos (capítulo 6.1)
3	Tubo de saída com válvula de intercepção, válvula anti-retorno, juntas ou tubos flexíveis, suportes para os tubos
4	Sifão
5	Ventilação com juntas ou tubos flexíveis, suportes para os tubos
6	Sistema de esvaziamento de emergência com bomba manual de diafragma, juntas ou tubos flexíveis, suportes para os tubos

1	Estación de elevación
2	Tubería de entrada con válvula de cierre, juntas o tubos

1	Σταθμός άντλησης
2	Σωλήνωση εισόδου με βαλβίδα ανάσχεσης, ενώσεις ή

	flexibles y soportes para las tuberías (capítulo 6.1)
3	Tubería de salida con válvula de cierre, válvula de retención, juntas o tubos flexibles y soportes para las tuberías
4	Sifón
5	Ventilación con juntas o tubos flexibles y soportes para las tuberías
6	Sistema de vaciado de emergencia con bomba manual de diafragma, juntas o tubos flexibles y soportes para las tuberías

1	Abwasserhebeanlage
2	Zulaufleitung mit Sperrventil, Anschlüssen oder Schläuchen, Rohrhalterungen (Kapitel 6.1)
3	Auslaufrohrleitung mit Sperrventil, Rückschlagventil, Anschlüssen oder Schläuchen, Rohrhalterungen
4	Siphon
5	Entlüftung mit Anschlüssen und Schläuchen, Rohrhalterungen
6	Sistema di svuotamento di emergenza con pompa manuale a diaframma, giunti o tubi flessibili, supporti per le tubazioni

1	Pumpstation
2	Inloppsrör med avstängningsventil, böjliga kopplingar eller slangar, stöd för rören (kapitel 6.1)
3	Tryckrör med avstängningsventil, backventil, böjliga kopplingar eller slangar, stöd för rören
4	Vattenlås
5	Avluftning med böjliga kopplingar eller slangar, stöd för rören
6	Nödtömningssystem med handpump med membran, böjliga kopplingar eller slangar, stöd för rören

1	Насосная станция
2	Входная труба с отсекающим клапаном, соединениями и гибкими шлангами, опорами для труб (главы 6.1)
3	Выходная труба с отсекающим клапаном, невозвратным клапаном, соединениями и гибкими шлангами, опорами для труб
4	Сифон
5	Вентиляция с соединениями и гибкими шлангами, опорами для труб
6	Система аварийного слива с ручным мембранным насосом, соединениями и гибкими шлангами, опорами для труб

1	Pumpestation
2	Indløbsrør med afspærringsventil, fleksible samlinger eller slanger samt støtter til slangerne (afsnit 6.1)
3	Trykrør med afspærringsventil, bakventil, fleksible samlinger eller slanger samt støtter til slangerne
4	Vandlås
5	Udluftningsrør med fleksible samlinger eller slanger samt støtter til slangerne
6	System til nødtømning med manuel membranpumpe, fleksible samlinger eller slanger samt støtter til slangerne

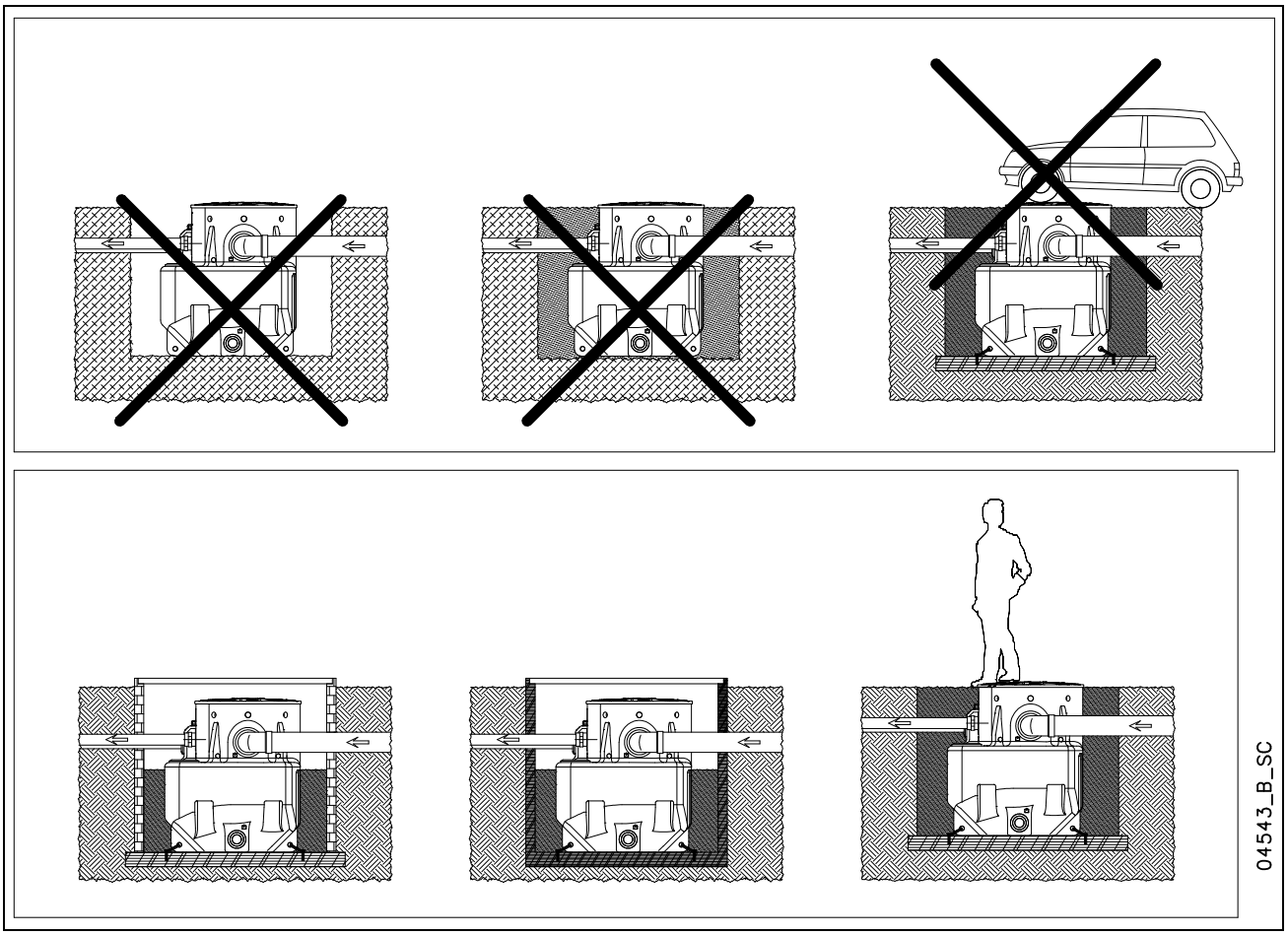
	εύκαμπτους σωλήνες, φορείς για τις σωληνώσεις (κεφάλαια 6.1)
3	Σωλήνωση εξόδου με βαλβίδα ανάσχεσης, ανεπίστροφη βαλβίδα, ενώσεις ή εύκαμπτους σωλήνες, φορείς για τις σωληνώσεις
4	Σιφώνιο
5	Αερισμός με ενώσεις ή εύκαμπτους σωλήνες, φορεία για τις σωληνώσεις
6	Σύστημα εκκένωσης έκτακτης ανάγκης με χειραντλία με διάφραγμα, ενώσεις ή εύκαμπτους σωλήνες, φορείς για τις σωληνώσεις

1	Hefstation
2	Inlaatleiding met afsluiter, koppelingen of slangen, steunen voor de leidingen (paragraaf 6.1)
3	Uitlaatleiding met afsluiter, terugslagklep, koppelingen of slangen, steunen voor de leidingen
4	Hevel
5	Ventilatie met koppelingen of slangen, steunen voor de leidingen
6	Systeem voor legen in geval van nood met handmembraanpomp, koppelingen of slangen, steunen voor de leidingen

1	Nostoasema
2	Syöttöputki, sulkuventtiili, joustoliitokset tai letkut, putkien tuet (luvut 6.1)
3	Poistoputki, sulkuventtiili, takaiskuventtiili, joustoliitokset tai letkut, putkien tuet
4	Hajulukko
5	Tuuletusputki, joustoliitokset tai letkut, putkien tuet
6	Hätätyhjennysjärjestelmä, käsikalvopumppu, joustoliitokset tai letkut, putkien tuet

1	Przepompownia
2	Rura weściowa z zaworem odcinającym, złączki lub węże, wsporniki do rur (rozdziały 6.1)
3	Rura wyściowa z zaworem odcinającym, zawór zwrotny, łączniki lub węże, wsporniki do rur
4	Syfon
5	Wentylacja z łącznikami lub wężami, wsporniki do rur
6	Awaryjny system opróżniania z pompą ręczną przeponową, złączki lub węże, w sporniki do rur

1	Atık su terfi istasyonu
2	Kapama valfi, esnek bağlantı veya borular, boru destekleri ile donatılmış giriş borusu (Bölüm 6.1)
3	Kapama valfi, geri dönüşsüz valf, esnek bağlantı veya borular, boru destekleri ile donatılmış çıkış borusu
4	Sifon
5	Esnek bağlantı veya borular, boru destekleri ile donatılmış havalandırma deliği
6	Diyaframlı el pompası, esnek bağlantı veya borular, boru destekleri ile donatılmış acil boşaltma sistemi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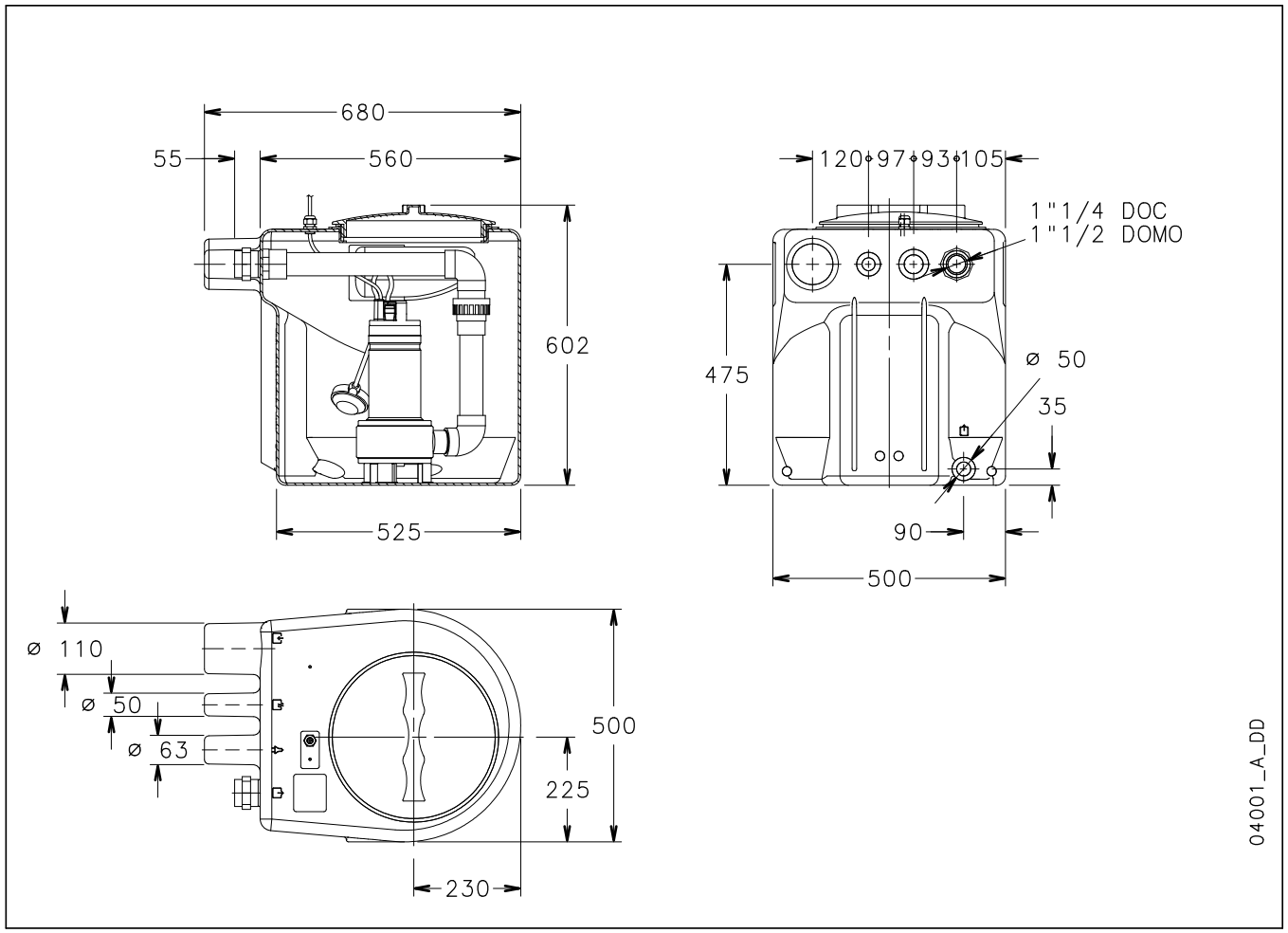
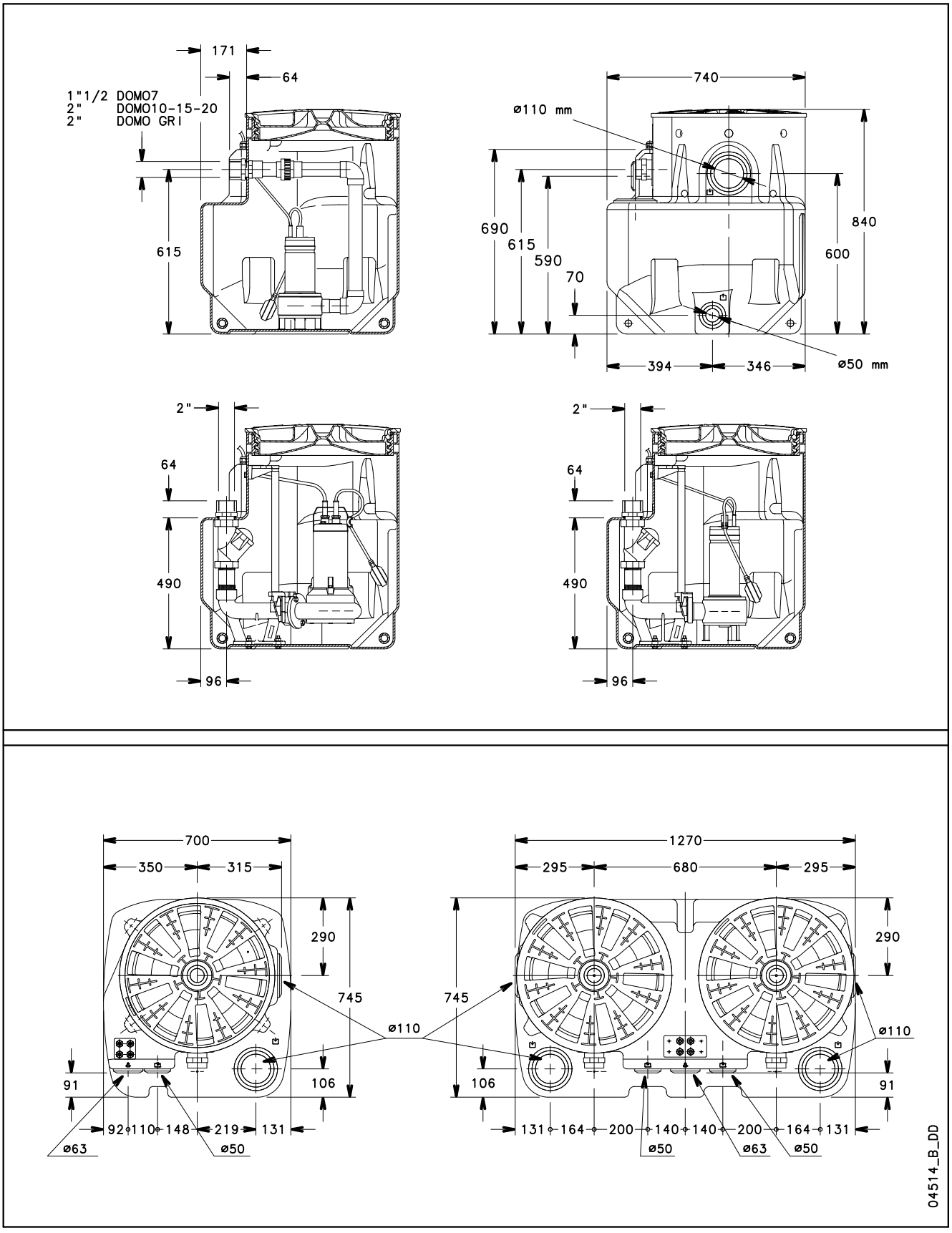
11.7 Schema ingombri - Dimensions scheme - Schéma des encombrements - Esquema das dimensões máximas - Esquemas de dimensiones máximas - **Σχέδιο διαστάσεων όγκου** - Bauabmessungen - Maatschets - Layout-ritning med yttermått - Mittakaavio - **Схема габаритных размеров** - **Schemat gabarytowy** - Skema over udvendige mål - Dış ebatlar

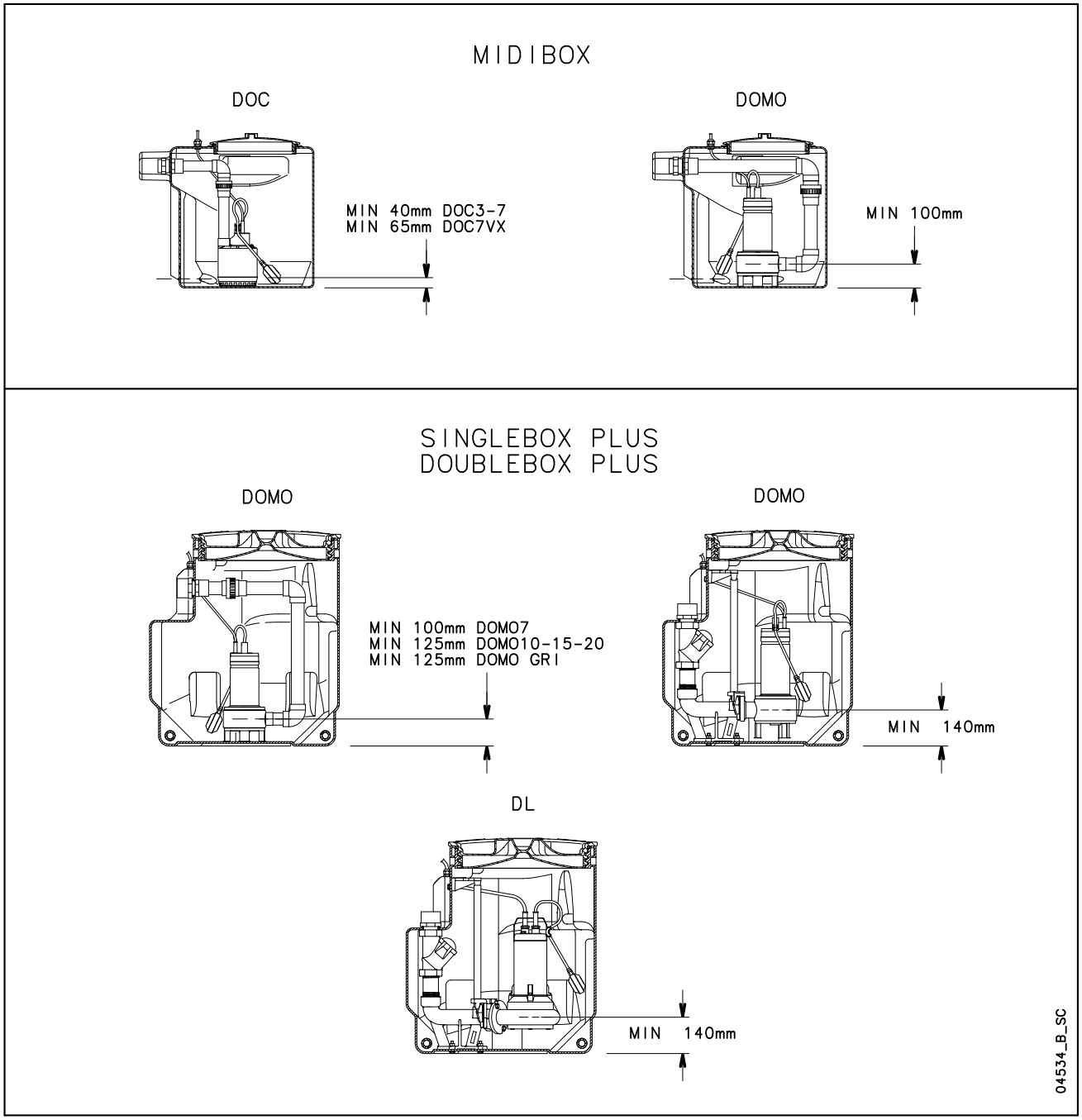
MIDIBOX



SINGLEBOX PLUS / DOUBLEBOX PLUS



11.8 Minimo livello da garantire nel contenitore - Minimum level of liquid in the basin - Niveau minimum à garantir dans le récipient - Nível mínimo que deve ser garantido na estação - Nivel mínimo que se debe garantizar en la estación - **Ελάχιστη στάθμη που θα πρέπει να διασφαλίζεται στο δοχείο** - Mindestwasserfüllstand im Behälter - Minimum niveau te waarborgen in het reservoir - Min. nivå i pumpstationen - Nostoaseman minimitaso - **Минимальный уровень, гарантируемый в резервуаре** - **Minimalny poziom do zagwarantowania w pojemniku** - Min. niveau i pumpestationen - Kabın minimum sıvı seviyesi



11.9 Marcatura CE - EC Marking - Marquage CE - Marca CE - Marcação CE - Σήμανση CE - CE-Kennzeichnung - CE markering - CE-märkning - CE-merkki - Маркировка ЕС - Znak CE - CE-mærkning - CE İşareti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10
EN 12050-1: Impianto di sollevamento di acque reflue contenenti materiale fecale DN 63 **EN 12050-2**: Impianto di sollevamento di acque reflue prive di materiale fecale DN 40, DN 50
Efficacia sollevamento: Vedere la curva della pompa
Livello rumorosità: Livello di potenza sonora ponderato secondo la scala A: 70 dB
Protezione contro la corrosione: Materiali utilizzati: Inox, plastica


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10
EN 12050-1: Lifting station for wastewater containing faecal matter DN 63 **EN 12050-2**: Lifting station for wastewater not containing faecal matter DN 40, DN 50
Lifting effectiveness: see pump curve
Noise level: A-weighted sound power level: 70 dB
Corrosion protection: used materials: stailess steel, plastic


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10
EN 12050-1: Installation de pompage des eaux sales contenant des matières fécales DN 63 **EN 12050-2**: Installation de pompage des eaux sales ne contenant pas de matières fécales DN 40, DN 50
Efficacité levage : voir courbe de la pompe
Niveau des émissions sonores : Niveau de puissance sonore pondéré sur l'échelle A 70 dB
Protection contre la corrosion:Matériaux utilisés: Inox, matière plastique


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10
EN 12050-1: Instalação de elevação de águas residuais com detritos fecais DN 63 **EN 12050-2**: Instalação de elevação de águas residuais livres de detritos fecais DN 40, DN 50
Eficácia de elevação: Ver a curva da bomba
Nível de ruído: Nível de potência sonora ponderada segundo a escala A: 70 dB
Protecção contra a corrosão: Materiais utilizados: aço inoxidável, plástico


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10
EN 12050-1: Instalación de elevación de aguas residuales que contienen material fecal DN 63 **EN 12050-2**: Instalación de elevación de aguas residuales que no contienen material fecal DN 40, DN 50
Eficacia de elevación: Véase la curva de la bomba
Nivel de ruido: Nivel de potencia acústica ponderado según la escala A: 70 dB
Protección contra la corrosión: Materiales utilizados: acero inoxidable y plástico


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10
EN 12050-1: Εγκατάσταση άντλησης αποβλήτων υδάτων που περιέχουν κοπρώδες υλικό DN 63 **EN 12050-2**: Εγκατάσταση άντλησης αποβλήτων υδάτων χωρίς κοπρώδες υλικό DN 40, DN 50
Αποτελεσματικότητα άντλησης: βλέπε την καμπύλη της αντλίας
Επίπεδο θορυβότητας: επίπεδο ηχητικής ισχύος σταθμισμένο σύμφωνα με την κλίμακα A: 70 dB
Προστασία κατά της διάβρωσης: Χρησιμοποιούμενα υλικά: Inox (ανοξείδωτο), πλαστικό


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10
EN 12050-1: Fäkalienhebeanlagen DN 63 **EN 12050-2:** Abwasserhebeanlagen für fäkalienfreies Abwasser DN 40, DN 50


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10
EN 12050-1: Hefstation van afvalwater dat fecaliën bevat DN 63 **EN 12050-2**: hefstation van afvalwater dat geen fecaliën

12. Dichiarazione CE di conformità - EC Declaration of Conformity - Déclaration CE de conformité – Declaração CE de conformidade - Declaración CE de conformidad – **Δήλωση συμμόρφωσης** ΕΚ - EG-Konformitätserklärung - EG-Verklaring van overeenstemming - EG-Försäkran om överensstämmelse - EY-Vaatimustenmukaisuusvakuutus - **Сертификат соответствия ЕС** - Deklaracja Zgodności WE - EF-Overensstemmelseserklæring - AT Uygunluk Beyanı

it Dichiarazione CE di Conformità — Originale

Lowara srl Unipersonale, con sede in via Lombardi 14 - 36075 Montecchio Maggiore (VI) - Italia, dichiara che i prodotti descritti sotto

Stazioni di sollevamento serie Midibox … , Singlebox Plus … , Doublebox Plus …

nelle varie varianti, sono conformi alle disposizioni delle seguenti direttive europee e alle disposizioni nazionali di attuazione:
- Macchine 2006/42/CE
- Bassa Tensione 2006/95/CE (anno di prima apposizione della marcatura: 2010)
- Compatibilità Elettromagnetica 89/336/CEE e successive modifiche
- Prodotti da costruzione 89/106/CE

e sono conformi alle seguenti norme tecniche:
- EN 12050-1 (*)
- EN 12050-2 (**)

(*) : Valido per le stazioni equipaggiate con elettropompe 1~ e 3~ serie: DOMO 10-10VX-15-15VX-20-20VX, DOMO GRI.
(**) : Valido per le stazioni equipaggiate con elettropompe 1~ e 3~ serie: DOC7VX, DOMO7, DOMO7VX, DL, Vortex, Minivortex, GL.
Il fascicolo tecnico è disponibile presso Lowara srl Unipersonale.

en EC Declaration of Conformity — Translation

Lowara srl Unipersonale, with headquarters in via Lombardi 14 - 36075 Montecchio Maggiore (VI) - Italia, hereby declares that the following products

Lifting stations Midibox … , Singlebox Plus … , Doublebox Plus … series

in the various versions comply with the provisions of the following European Directives and with the regulations transposing them into national law
- Machinery 2006/42/EC
- Low Voltage Directive 2006/95/EC (year of first use of the mark: 2010)
- Electromagnetic Compatibility Directive 89/336/EEC and subsequent amendments
- Construction products 89/106/EC

and comply with the following technical standards
- EN 12050-1 (*)
- EN 12050-2 (**)

(*) : Valid for stations equipped with electric pumps 1~ and 3~ series: DOMO 10-10VX-15-15VX-20-20VX, DOMO GRI.
(**) : Valid for stations equipped with electric pumps 1~ and 3~ series: DOC7VX, DOMO7, DOMO7VX, DL, VORTEX, MINIVORTEX, GL.
The technical file is available from Lowara srl Unipersonale.

fr Déclaration CE de conformité — Traduction

Lowara srl Unipersonale, ayant son siège à Via Lombardi 14 - 36075 Montecchio Maggiore (VI) - Italie, déclare que les produits décrits ci-après

Stations de relevage série Midibox … , Singlebox Plus … , Doublebox Plus …

dans leurs différentes variantes, sont conformes aux dispositions des directives européennes et aux dispositions nationales de transposition suivantes
- Machines 2006/42/CE
- Basse Tension 2006/95/CE (année de première apposition du marquage: 2010)
- Compatibilité électromagnétique 89/336/EEC et modifications successives
- Produits de construction 89/106/CE

et sont conformes aux normes techniques suivantes
- EN 12050-1 (*)
- EN 12050-2 (**)

(*) : Applicable pour les stations équipées d'électropompes 1~ et 3~ série : DOMO 10-10VX-15-15VX-20-20VX, DOMO GRI.
(**) : Applicable pour les stations équipées d'électropompes 1~ et 3~ série : DOC7VX, DOMO7, DOMO7VX, DL, Vortex, Minivortex, GL.
Le dossier technique est disponible auprès de Lowara srl Unipersonale.

da EF-Overensstemmelseserklæring Oversættelse

Lowara srl Unipersonale, med sæde i Via Lombardi 14 - 36075 Montecchio Maggiore (VI) - Italien, erklærer at nedenstående produkter

Pumpestationer serie Midibox … , Singlebox Plus … , Doublebox Plus …

i de forskellige versioner opfylder betingelserne i følgende europæiske direktiver og i den nationale inkorporationslovgivning:

- Maskindirektivet 2006/42/EF
- Lavspændingsdirektivet 2006/95/EF (første år for brug af mærkning: 2010)
- Direktivet vedrørende elektromagnetisk kompatibilitet 89/336/EØF og efterfølgende ændringer.
- Byggevarer 89/106/EØF.

Endvidere opfylder produkterne betingelserne i følgende tekniske standarder:

- EN 12050-1 (*)
- EN 12050-2 (**)

(*) : Gælder for pumpestationer med enkelt- og trefasede elektropumper i serie: DOMO 10-10VX-15-15VX-20-20VX, DOMO GRI..

(**) : Gælder for pumpestationer med enkelt- og trefasede elektropumper i serie: DOC7VX, DOMO7, DOMO7VX, DL, Vortex, Minivortex, GL.

Det tekniske dossier kan bestilles ved Lowara srl Unipersonale.

tr AT Uygunluk Beyanı Tercümesi

Merkezi via Lombardi 14 – 36075 Montecchio Maggiore – Vicenza (İtalya)'da bulunan Lowara srl Unipersonale firması, aşağıda gösterilen ürünlerin

Midibox … , Singlebox Plus … , Doublebox Plus … serisi atık su terfi istasyonları

çeşitli versiyonlarında, aşağıda yer alan Avrupa standartlarına ve ulusal hükümlerine uygun olduğunu beyan eder:

- 2006/42/AT sayılı Makine Emniyet Yönetmeliği
- 2006/95/AT sayılı Alçak Gerilim Yönetmeliği (markalamanın ilk yapıldığı yıl: 2010)
- 89/336/AET sayılı Elektromanyetik Uyumluluk Yönetmeliği ve sonradan yapılan değişiklikler
- 89/106/AT sayılı Yapı Malzemeleri Yönetmeliği

Ayrıca aşağıda yer alan teknik standartlara uygun olduğunu beyan eder:

- EN 12050-1 (*)
- EN 12050-2 (**)

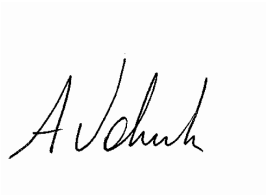
(*) : DOMO 10-10VX-15-15VX-20-20VX, DOMO GRI serisi 1~ ve 3~ elektrikli pompalar ile donatılmış istasyonlar için geçerlidir.

(**) : DOC7VX, DOMO7, DOMO7VX, DL, Vortex, Minivortex, GL serisi 1~ ve 3~ elektrikli pompalar ile donatılmış istasyonlar için geçerlidir.

Teknik dosya Lowara srl Unipersonale firmasında mevcuttur.

Montecchio Maggiore, 05.05.2010

Amedeo Valente
(Director Engineering and R&D)



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