

UB INOX

Instruction and
recommendation booklet

IE

1.038279ENG



 **IMMERGAS**

UB INOX

80-120-200 ErP

Storage tank



Dear Customer,

Our compliments for having chosen a top-quality Immergas product, able to assure well-being and safety for a long period of time. As an Immergas customer you can also count on a qualified after-sales service, prepared and updated to guarantee constant efficiency of your storage tank.

Read the following pages carefully: you will be able to draw useful suggestions regarding the correct use of the storage unit, the respect of which, will confirm your satisfaction for the Immergas product.

For any interventions or routine maintenance contact Authorised Centres: these have original spare parts and boast of specific preparation directly from the manufacturer.

General recommendations

All Immergas products are protected with suitable transport packaging.

The material must be stored in dry environments protected against bad weather.

The instruction book is an integral and essential part of the product and must be consigned to the new user also in the case of transfer or succession of ownership.

It must be stored with care and consulted carefully, as all of the warnings provide important safety indications for installation, use and maintenance stages.

This instructions manual provides technical information regarding installation of Immergas storage tank units. As for the other issues related to installation of the said storage tank units (e.g. safety in the work site, environment protection, injury prevention), it is necessary to comply with the provisions specified in the regulations in force and principles of good practice.

In compliance with legislation in force, the systems must be designed by qualified professionals, within the dimensional limits established by the Law. Installation and maintenance must be performed in compliance with the regulations in force, according to the manufacturer's instructions and by an authorised company, which has specific technical expertise in the system sector, as required by Law.

Improper installation or assembly of the Immergas appliance and/or components, accessories, kit and devices can cause unexpected problems to people, animals and objects. Read the instructions provided with the product carefully to ensure a proper installation.

Maintenance must be carried out by an authorised company. The Authorised After-sales Service represents a guarantee of qualification and professionalism.

The appliance must only be destined for the use for which it has been expressly declared. Any other use will be considered improper and therefore potentially dangerous.

If errors occur during installation, operation and maintenance, due to non compliance with technical laws in force, standards or instructions contained in this book (or however supplied by the manufacturer), the manufacturer is excluded from any contractual and extra-contractual liability for any damages and the appliance warranty is invalidated.

For further information regarding legislative and statutory provisions relative to the installation of gas heat generators, consult the Immergas site at the following address: www.immergas.com.

CE DECLARATION OF CONFORMITY

(In compliance with ISO/IEC 17050-1)

The company **IMMERGAS S.p.A.**, with registered office in via Cisa Ligure 95 42041 Brescello (RE) whose design, manufacturing, and after sale assistance processes comply with the requirements of standard **UNI EN ISO 9001:2008**,

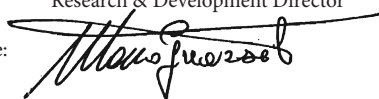
DECLARES that:

The UB INOX 80-120-200 ErP model of storage tank units comply with the following European Directives and Delegated European Regulations: "Eco-design" Directive 2009/125/EC, "energy labelling" Directive 2010/30/EC, EU Regulation 812/2013, and EU Regulation 814/2013.

Mauro Guareschi

Research & Development Director

Signature:



Immergas S.p.A. declines all liability due to printing or transcription errors, reserving the right to make any modifications to its technical and commercial documents without forewarning.

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1 STORAGE TANK UNIT INSTALLATION

1.1 INSTALLATION RECOMMENDATIONS.

Only professionally enabled companies are authorised to install Immergas appliances.

Installation must be carried out according to the Standards, current legislation and in compliance with local technical regulations and the required technical procedures.

Before installing the appliance, ensure that it is delivered in perfect condition; if in doubt, contact the supplier immediately. Packing materials (staples, nails, plastic bags, polystyrene foam, etc.) constitute a hazard and must be kept out of the reach of children.

If the appliance is installed inside or between cabinets, ensure sufficient space for normal servicing; therefore it is advisable to leave a gap of 2÷3 cm between the storage tank casing and the sides of the cabinet.

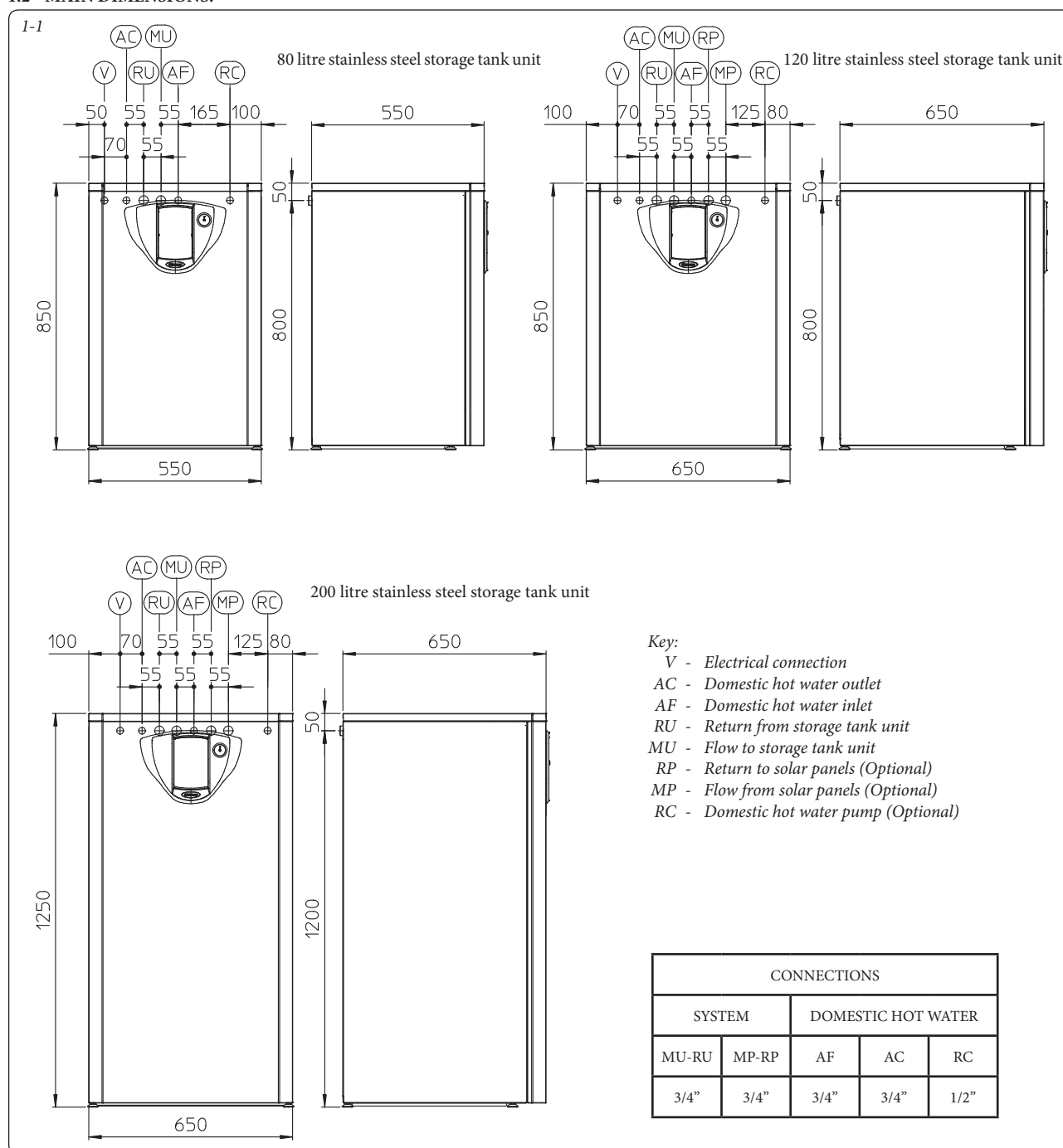
In the event of a malfunction, fault or incorrect operation, disable the storage tank unit and contact an authorised company (e.g. the Authorised Technical Assistance centre, which has specifically trained staff and original spare parts). Do not attempt to modify or repair the appliance alone.

Failure to comply with the above implies personal liability and invalidates the warranty.

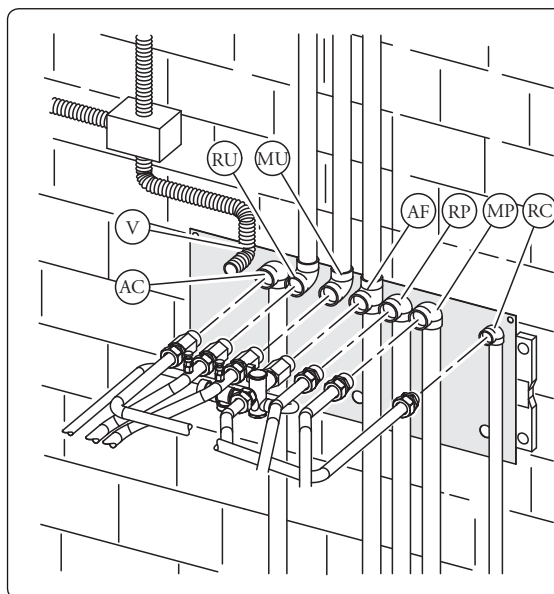
- Installation Standards: These storage tanks have been designed for floor installation; they must be used for the storage of domestic hot water and similar purposes. They have not been designed for wall-installation.

Important: these units are used to store water at a temperature below boiling point at atmospheric pressure. They must be connected to a boiler and to a DHW water distribution network. They must be installed in rooms where the temperature cannot fall below 0°C and must not be exposed to atmospheric agents.

1.2 MAIN DIMENSIONS.



1.3 CONNECTION GROUP.



- Key:
- V - Electrical connection
 - AC - 3/4" DHW outlet
 - RU - 3/4" return from storage tank
 - MU - 3/4" flow to storage tank
 - AF - 3/4" DCW inlet
 - RP - 3/4" solar panels return (optional per UB INOX 120-200 ErP)
 - MP - 3/4" solar panels flow (optional per UB INOX 120-200 ErP)
 - RC - 1/2" recirculation (optional)

1-2

Hydraulic connection. Before making the connections, all of the system piping must be washed thoroughly to remove any residues that could compromise the good functioning of the storage tank. Water connections must be made in a rational way using the couplings on the storage tank template. The storage tank safety valve outlet must be connected to a draining funnel. If this is not the case, the storage tank manufacturer declines any liability in the event of flooding if the drain valve cuts in.

1.4 SYSTEM FILLING.

Once the storage tank has been connected, fill the system via the boiler filling valve. Filling is performed at low speed to ensure release of air bubbles in the water via the boiler and central heating system vents.

Close the filling valve when the boiler manometer pointer indicates approx. 1.2 bar (see boiler instruction book).

1.5 DOMESTIC HOT WATER STORAGE TANK UNIT.

The storage tank unit must be connected to a boiler. It contains large coiled stainless steel heat exchanger pipes, which allow to notably reduce hot water production times. This storage tank unit, manufactured with stainless steel casing and bottoms, guarantees long duration through time. The assembly concepts and welding (T.I.G.) are implemented to the minimum detail to ensure maximum reliability.

The upper inspection flange ensures practical control of the storage tank unit and the coil heat exchanger pipe and easy internal cleaning.

The domestic hot water connections are placed on the flange cover (cold inlet and hot outlet), the Magnesium Anode cap inclusive of the same, is provided as standard for the internal protection of the storage tank from possible corrosion is located on the side of the UB INOX 200 ErP storage tank, in the other models is placed on the inspection flange.

N.B.: annually check (e.g. the Authorised Technical Assistance centre) efficiency of the sacrificial anodes. The storage tank unit is prepared for introduction of the domestic hot water pump fitting.

1.6 SOLAR CONTROL UNIT INSTALLATION.

(Optional for UB INOX 120-200 ErP
models only).

Using the solar control unit it is possible to couple
the UB INOX 120-200 ErP storage tank units to
a solar system.

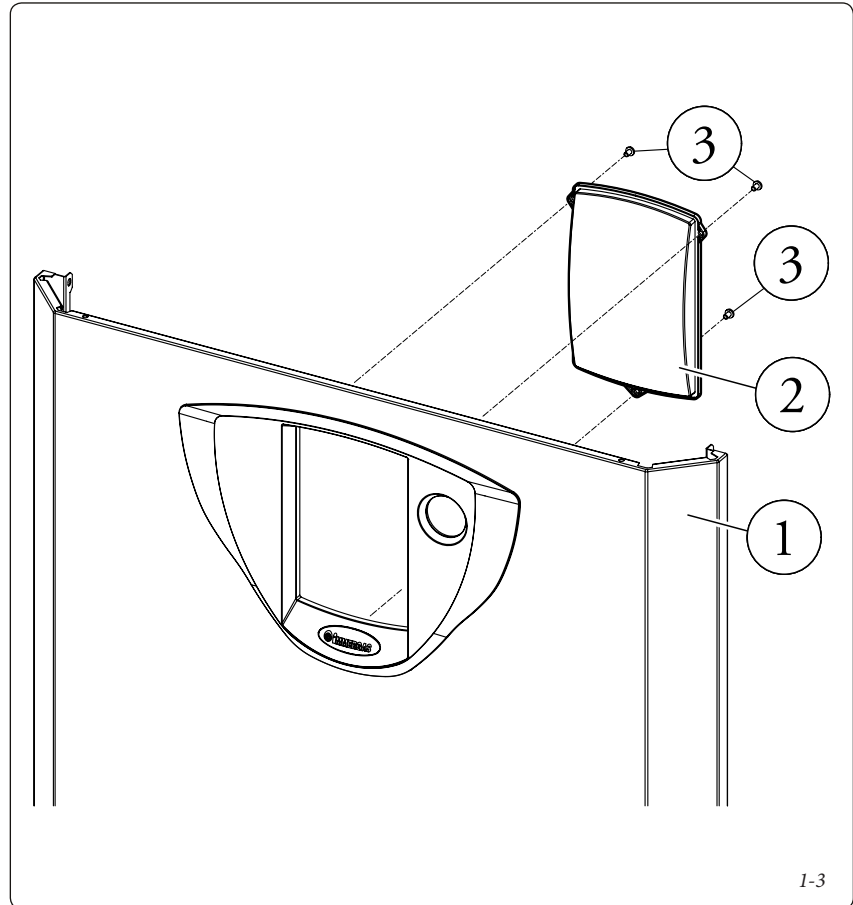
Hole plug plaque removal (Fig. 1-3).

- Remove the casing as indicated in paragraph
3.3 of this book;
- Take the front casing (1) and remove the hole
plug plaque (2) unscrewing the 3 fixing screws
(3).

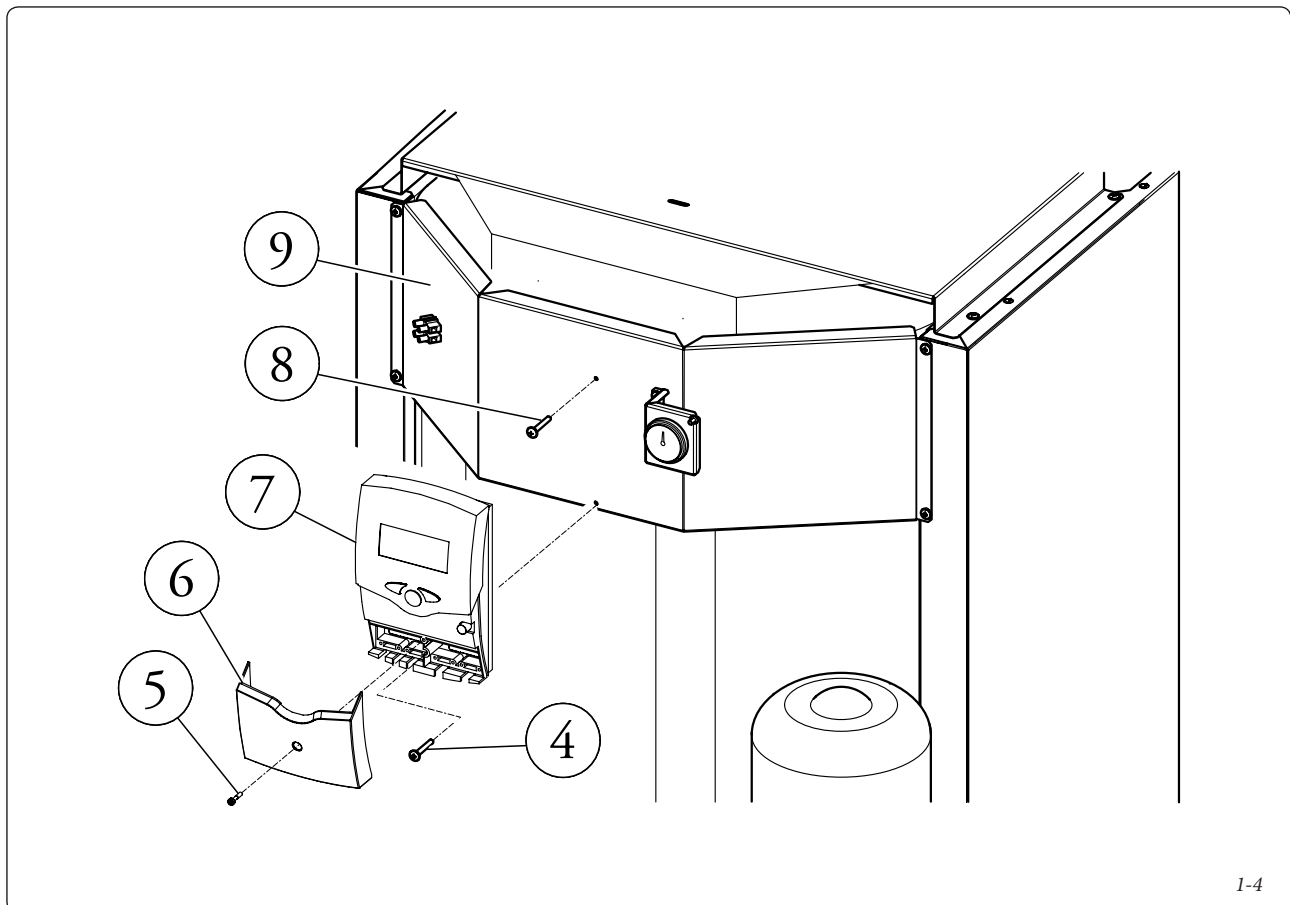
Solar control unit fixing (Fig. 1-4).

- Fix the screw (8) onto the support sheet steel
(9) paying attention to leave a couple of mm
between the head of the screw and the support
sheet steel;
- Remove the lid (6) from the solar control unit
(7) loosening the screw (5);
- Attach the upper part of the solar control unit
(7) to the screw (8);
- Block the solar control unit (7) in the lower
part using the screw (4);
- Make all electric connections as indicated in
the solar control unit instruction book;
- Re-mount the lid (6) from the solar control unit
(7) loosening the screw (5);
- Re-mount the storage tank unit casing.

Hole plug plaque removal.



Solar control unit fixing.



1.7 HYDRAULIC CIRCUIT RESISTANCE.

In order to guarantee sufficient DHW flow rate, it is important to consider the resistance of the storage tank hydraulic circuit to be coupled to the boiler. (Fig. 1-5). For correct connection of the storage tank unit to Immergas boilers, see the boiler instruction book.

1.8 KITS AVAILABLE ON REQUEST.

- Pump kit (on request). The storage tank unit is prepared for application of the pump kit. Immergas supplies a series of fittings and attachments that allow connection between the storage tank unit and domestic hot water system. The pump kit attachment is also envisioned on the template.
- Column attachment kit (on request for UB INOX 200 ErP) A vertical connection kit is envisioned for the connection of the storage tank unit to the column, which allows to connect the storage tank unit directly to the boiler without having to insert the connection pipes into the wall.
- Solar collectors kit (on request for UB INOX 120-200 ErP) On request Immergas supplies complete packs for set-up, if solar collectors are to be used for the production of domestic hot water.
- Double storage tank kit in parallel (on request for UB INOX 200 ErP) A connection kit is envisioned for the connection of two storage tank units in parallel, which allows connection of the two storage tank units directly to the boiler without having to insert the connection pipes into the wall.
- Solar panels kit in parallel (on request for UB INOX 200 ErP) For the connection of two storage tank units to the solar panels without having to insert the connection pipes into the wall.
- Storage tanks pump kit in parallel (on request for UB INOX 200 ErP) For the connection of two storage tank units to the recirculation pump pipes without having to insert the connection pipes into the wall.

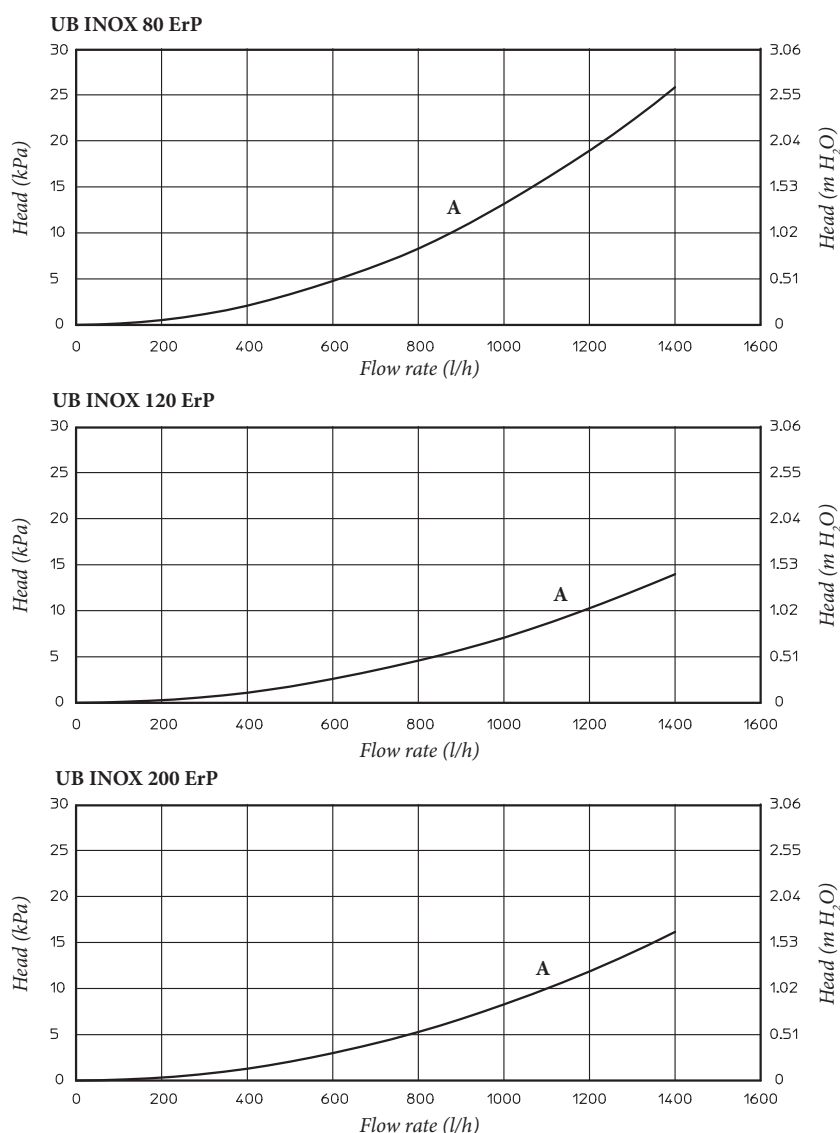
- Electronic anode kit (on request).
(**Not available for UB INOX 80 ErP**).

Direct current is made to circulate between the device and the tank to be protected via a special titanium anode.

Use the fitting present on the storage tank upper flange for installation of the anode (Free fitting for UB INOX 200 ErP, or replacing the anode present in the UB INOX 120 ErP).

The above-mentioned kits are supplied complete with instructions for assembly and use.

Hydraulic circuit resistance.

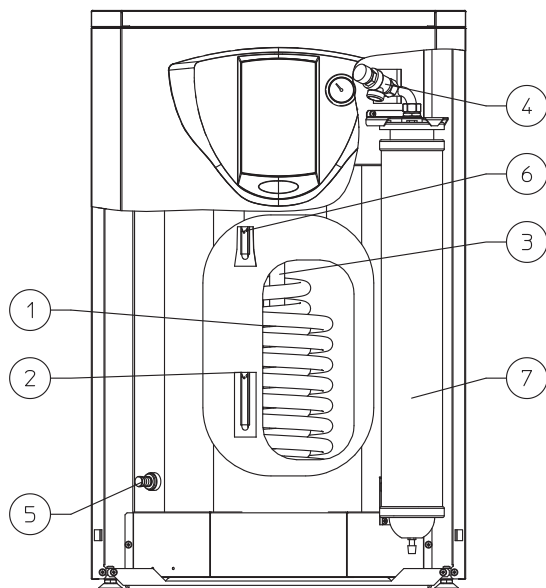


A - Storage tank unit
hydraulic circuit resistance

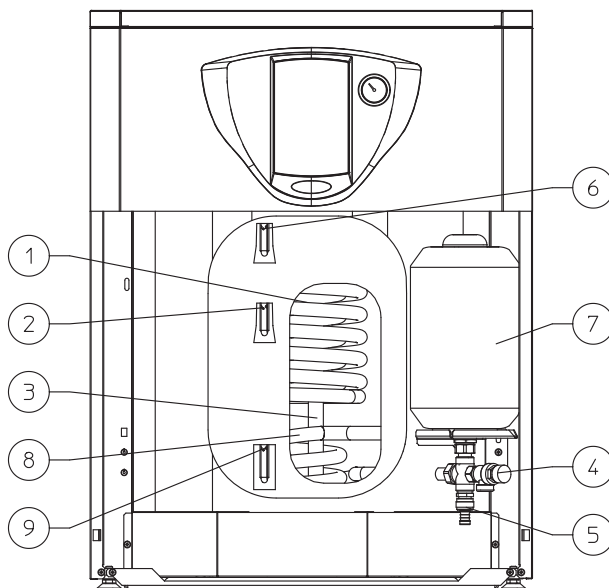
1-5

1.9 MAIN COMPONENTS.

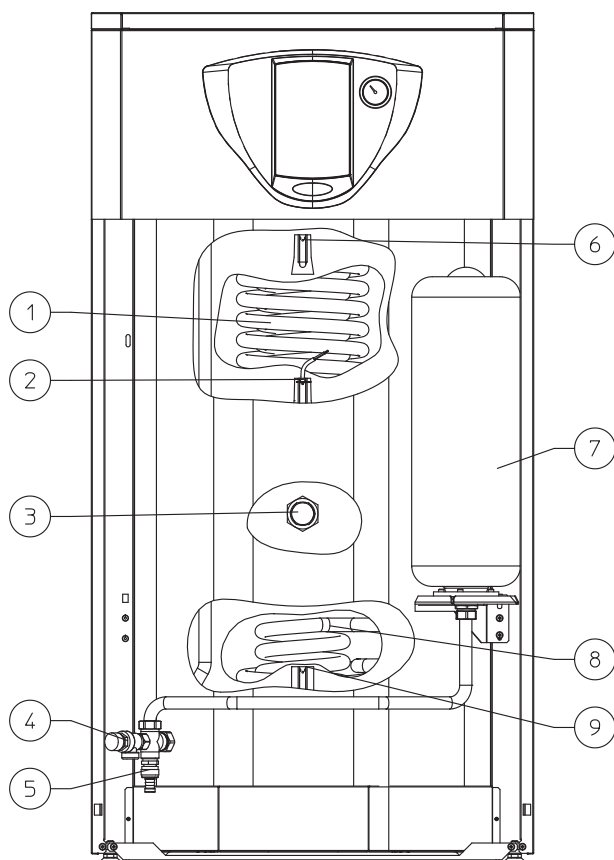
80 litre stainless steel storage tank unit



120 litre stainless steel storage tank unit



200 litre stainless steel storage tank unit



Key:

- 1 - Stainless steel coil for storage tank
- 2 - Domestic hot water probe
- 3 - Magnesium anode
- 4 - 8 bar safety valve
- 5 - Storage tank emptying cock
- 6 - Thermometer probe
- 7 - DHW expansion vessel
- 8 - Coil that can be coupled to solar panels
- 9 - Solar panels probe (Optional)

INSTALLER

USER

MAINTENANCE TECHNICIAN

2 INSTRUCTIONS FOR USE AND MAINTENANCE.

2.1 CLEANING AND MAINTENANCE.

Attention: to preserve integrity of the storage tank unit and keep the safety features, performance and reliability, which distinguish it, unchanged over time, you must at least execute maintenance operations on a yearly basis in compliance with what is stated in the relative point at “annual check and maintenance of the appliance”, in compliance with national, regional, or local standards in force. Annual maintenance is essential to validate the Immergas warranty. We recommend stipulating a yearly cleaning and maintenance contract with an authorised local firm.

2.2 EMPTYING THE STORAGE TANK UNIT.

To drain the storage tank, use the special valve in the lower part of the storage tank (Part. 5 Fig. 1-6).

Before draining, ensure that the DHW inlet valve is closed.

2.3 CASE CLEANING.

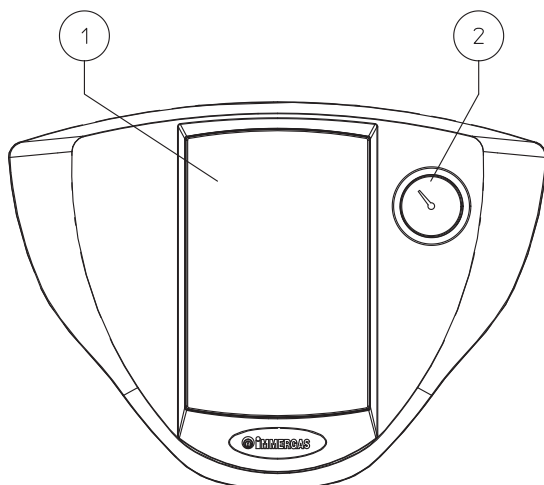
Use damp cloths and neutral detergent to clean the storage tank casing. Never use abrasive or powder detergents.

2.4 DECOMMISSIONING.

In the event of permanent shutdown of the storage tank, contact an authorised company for the relative operations, among other things making sure that water supply is disconnected.

At the end of its service life the appliance must not be disposed of like normal household waste nor abandoned in the environment, but must be removed by a professionally authorised company. Contact the manufacturer for disposal instructions.

2.5 CONTROL PANEL.



Key:

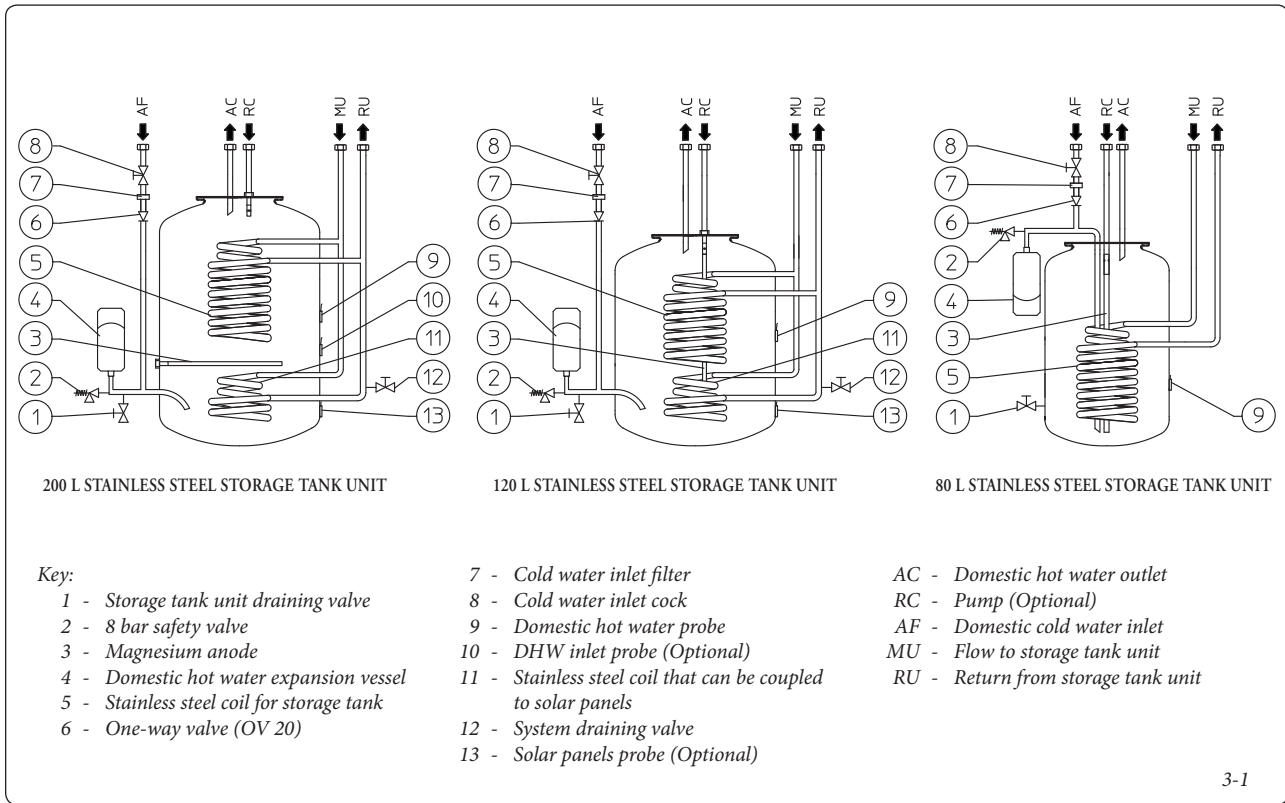
1 - Hole plug plaque

2 - Storage tank unit thermometer

2-1

3 CONTROL AND MAINTENANCE

3.1 HYDRAULIC DIAGRAM.



3.2 YEARLY APPLIANCE CHECK AND MAINTENANCE.

The following checks and maintenance should be performed at least once a year.

- Visually check for water leaks or oxidation from/on connections;
- Check visually that the safety and control devices have not been tampered with and in particular, the DHW regulation NTC probe;
- Check the integrity of the storage tank Magnesium anode;
- Check the state of the internal coil;
- Check the presence of any slurry deposits on the bottom of the storage tank.

INSTALLER

USER

MAINTENANCE TECHNICIAN

3.3 CASING REMOVAL.

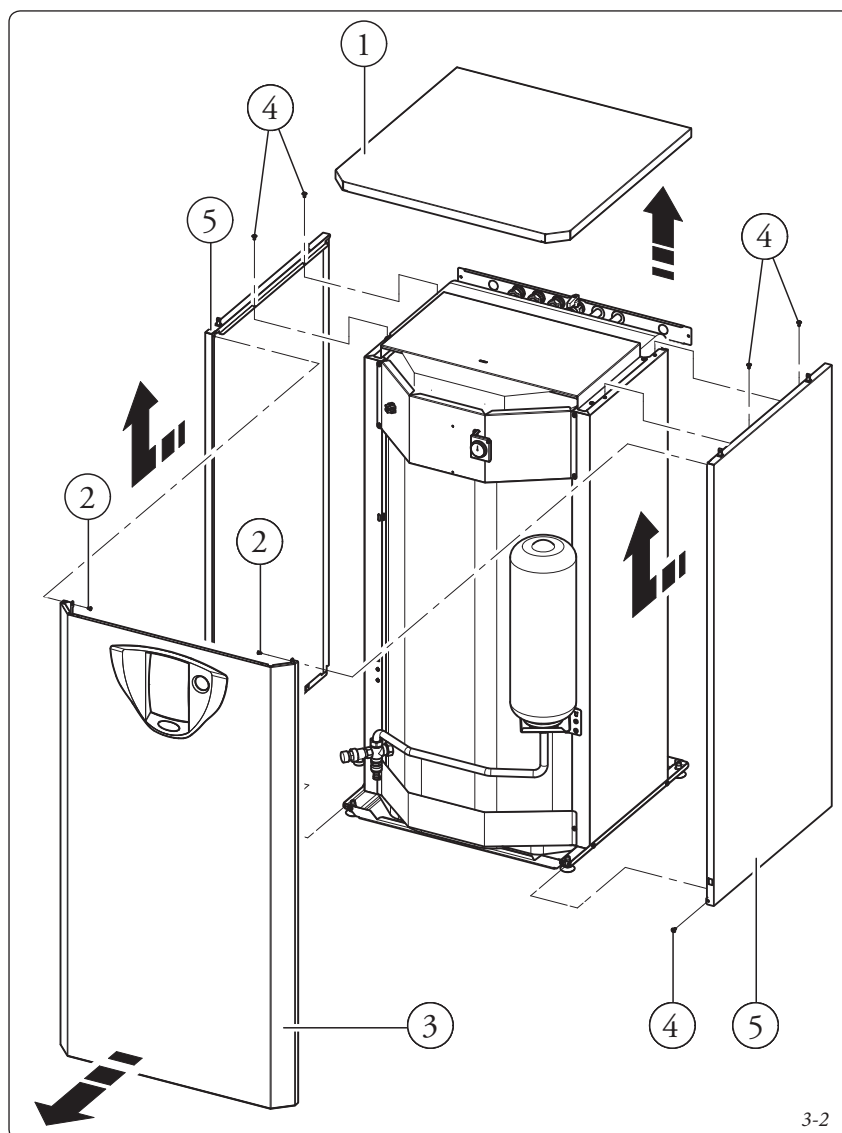
To facilitate storage tank maintenance, the casing can be completely removed as follows:

N.B.: the casing removal procedure is the same for all storage tank unit models.

- remove the lid (1) pulling it upwards;
- loosen the screws (2) and pull the front panel outwards (3);
- loosen the screws (4) of the side pieces (5) positioned on the top and in the lower part of the side pieces themselves. After having released them from the screws, they can be removed by pulling them forward and then upwards.

3.4 REPLACING THE ANODE.

The magnesium anode (Part. 3 Fig. 1-6), present in the storage tank, must be replaced every year with another having the same features.



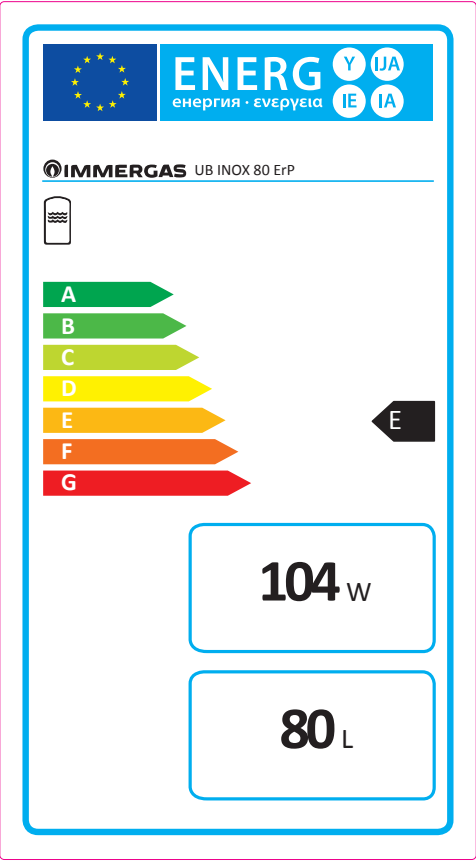
3-2

3.5 TECHNICAL DATA.

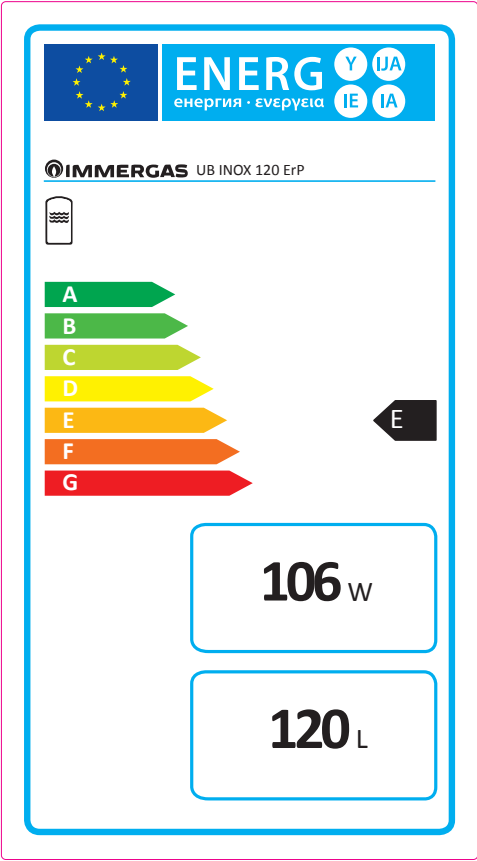
		UB INOX 80 ErP	UB INOX 120 ErP	UB INOX 200 ErP
Storage tank useful capacity	l	80	120	200
Domestic hot water side maximum pressure	bar	8	8	8
DHW side maximum temperature	°C	99	99	99
Domestic hot water expansion vessel	l	4.0	5.0	8.0
Dispersions	kWh/24h	2.49	2.54	3.42
Coil thickness	mm	0.8	0.8	0.8
Coil length	mm	10350	-	-
Lower coil length	mm	-	3850	6500
Upper coil length	mm	-	8400	10700
Coil exchange surface	m ²	0.65	-	-
Lower coil exchange surface	m ²	-	0.24	0.41
Upper coil exchange surface	m ²	-	0.53	0.67
Coil capacity	l	2.75	-	-
Lower coil capacity	l	-	1.02	1.73
Upper coil capacity	l	-	2.23	2.84
Primary fluid flow rate (coil)	l/h	1030	1325	1390
Coil head loss at 1000 l/h	kPa (m H ₂ O)	13.2 (1.35)	7.1 (0.72)	8.3 (0.85)
Central heating side maximum pressure	bar	6	6	6
Central heating side maximum temperature	°C	90	90	90
Heat exchange maximum output	kW	23.9	30.8	32.3
Reintegration heat output	kW	15.7	18.8	20.2
Full weight	kg	154.0	203.0	304.0
Empty weight	kg	70.9	78.9	99.4
Total water content	l	82.7	123.0	205.0

3.6 PRODUCT DATA SHEET (IN COMPLIANCE WITH REGULATION 812/2013).

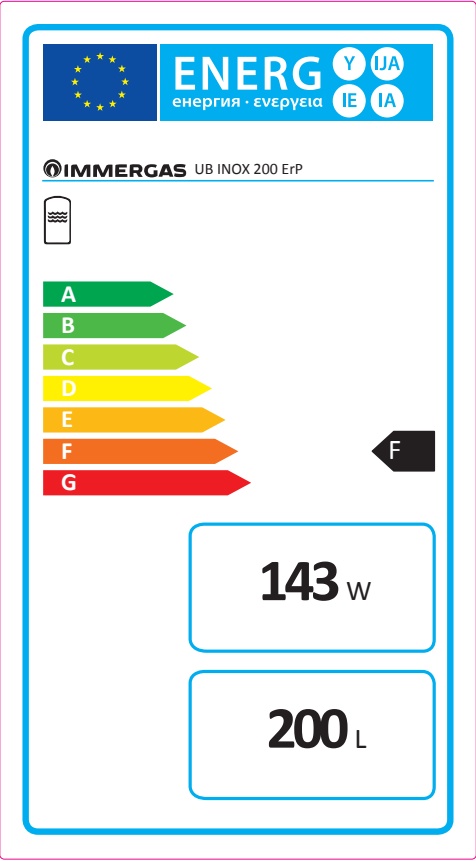
UB INOX 80 ErP



UB INOX 120 ErP



UB INOX 200 ErP



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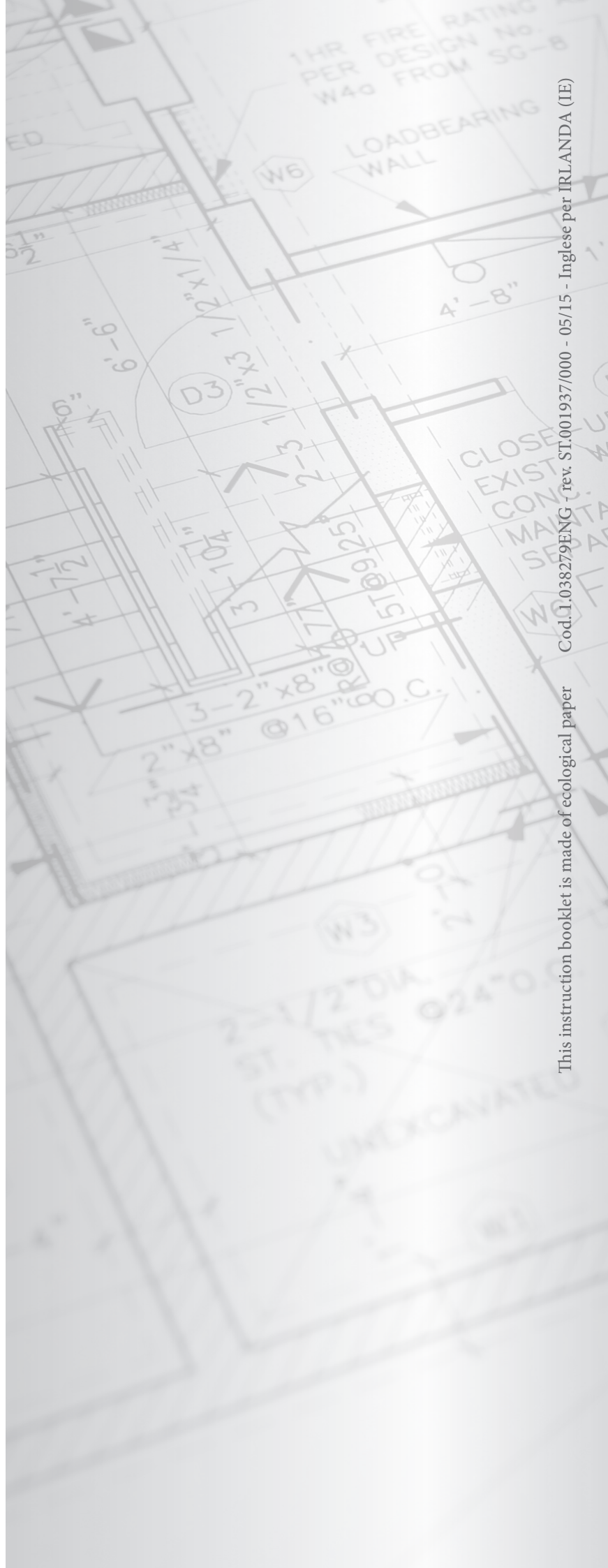
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