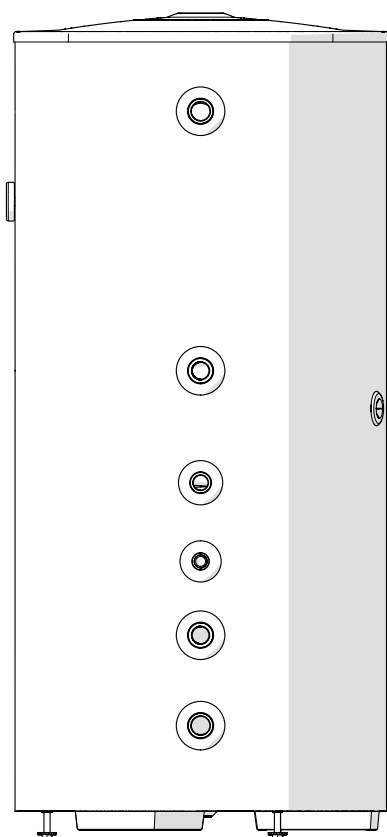


IDRA BV 200 - 1000

Storage cylinder



EN Installation and Operation Manual

RANGE

MODEL	CODE
IDRA BV 200	20101895
IDRA BV 300	20101897
IDRA BV 430	20101899
IDRA BV 550	20101900
IDRA BV 800	20101901
IDRA BV 1000	20101902

The following symbols are used in this manual:

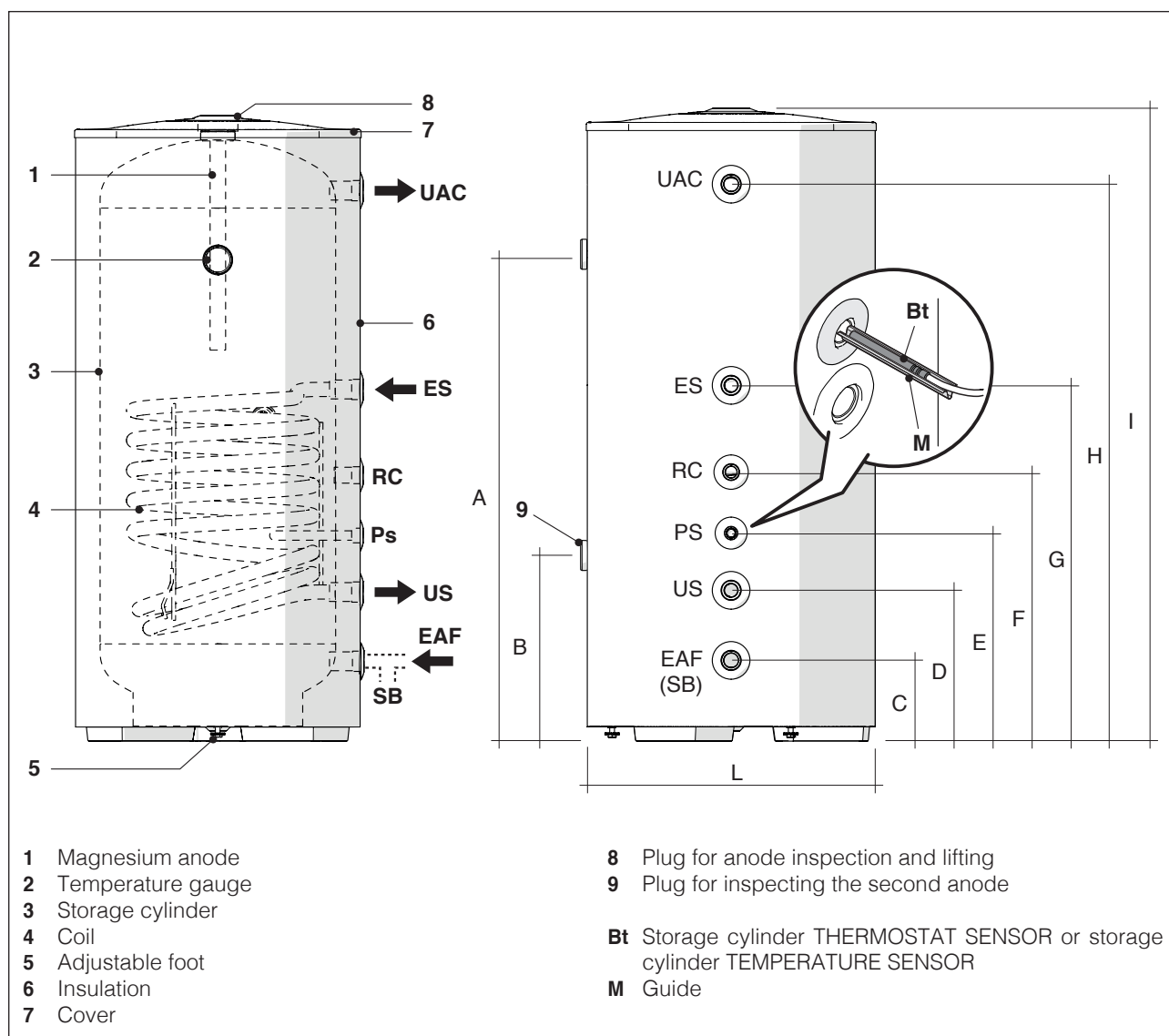


CAUTION! = Identifies actions that require caution and adequate preparation.



STOP! = Identifies actions that you **MUST NOT** do.

1 STRUCTURE, DIMENSIONS AND FITTINGS



DESCRIPTION		IDRA BV						
		200	300	430	550	800	1000	
UAC	Domestic hot water outlet	1"F				1"1/4M		Ø
ES	Heat exchanger inlet	1"F		1"1/4F				Ø
RC	DHW recirculation	3/4"F				1"M		Ø
US	Heat exchanger outlet	1"F		1"1/4F				Ø
EAF (SB) Domestic cold water inlet (storage cylinder drain)		1"F				1"1/4M		Ø
Ps	Temperature sensor socket	16/175						Ø/L
A		1025	1495	1305	1645	1470	1695	mm
B		-					550	mm
C		170	170	205	205	75	75	mm
D		315	315	405	405	355	355	mm
E		435	435	555	555	600	600	mm
F		565	805	780	780	825	910	mm
G		745	965	1005	1005	1125	1125	mm
H		1170	1670	1440	1785	1705	2030	mm
I		1330	1830	1630	1980	1835	2165	mm
L		605	605	755	755	1000	1000	mm

We recommend that you install isolating valves in the outlet and return lines.

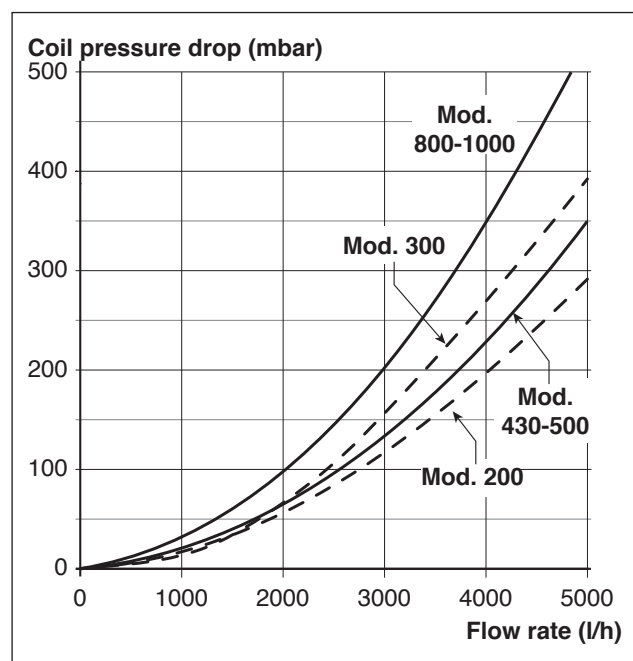
⚠ Check the efficiency of the seals when filling/refilling the storage cylinder.

2 TECHNICAL SPECIFICATIONS

DESCRIPTION	IDRA BV						
	200	300	430	550	800	1000	
Type of storage cylinder	Vitrified						
Storage cylinder layout	Vertical						
Heat exchanger layout	Vertical						
Storage cylinder capacity	210	304	444	556	735	890	l
Diameter of storage cylinder with insulation	605		755		1000		mm
Diameter of storage cylinder without insulation	500		650		790		mm
Height with insulation	1330	1830	1630	1980	1835	2165	mm
Insulation thickness	50				100		mm
Diameter/length of first magnesium anode	26/500		33/450		33/520	33/450	mm
Diameter/length of second magnesium anode	-					33/330	mm
Diameter/length of sensor sockets	16/175						Ø mm
Maximum power absorbed							
Primary at 80-70°C	24	34	52	52	71	71	kW
Primary at 90-80°C	33	43	66	66	94	94	kW
Coil water capacity	4,8	6,9	9,8		16,30		l
Coil heat exchange surface area	0,78	1,13	1,49		2,47		m²
Domestic hot water production (ΔT 35°C)							
Primary coil at 80°C	590	831	1260	1260	1700	1700	l/h
Primary at 90°C	810	1070	1600	1600	2300	2300	l/h
Maximum working pressure of coils	10						bar
Specific flow rate over 10 minutes	35	50	66	75	100	135	l/min
Heat loss	58	68	73	84	93	98	W
Maximum working pressure of storage cylinder	10				7		bar
Maximum operating temperature	99						°C
Net weight with insulation	68	91	121	142	182	207	kg
Energy efficiency class	B	B	B	B	B	B	



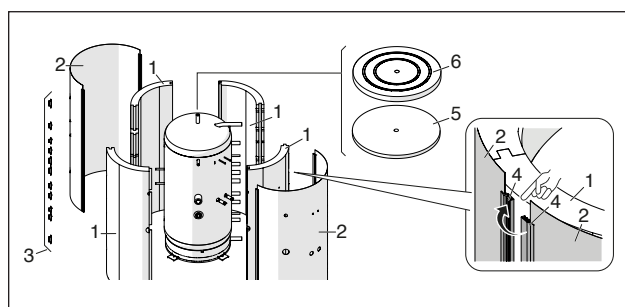
This **IDRA BV** storage cylinder is delivered without a charging pump. A suitably rated pump must therefore be provided and installed separately.



3 ASSEMBLY OF THE INSULATION AND THE LINING

IDRA BV 800 - 1000

The assembly of the insulation and lining components must be performed at the site of installation to facilitate passage through any doors and/or entries to the room.



Proceed as follows:

- Assemble the insulating covers (1) around the body of the heater, making sure that the engagement points on the edges are positioned correctly. The edges are not required to be closed completely
- Place the front protection plate (2) correctly on the attachments
- Put the washers on the attachments (3)
- Place the rear protection plate by closing the interlocking flaps (4) without closing completely (leave one tooth open)
- Apply the upper insulation (5) and the upper cover (6) (in order to insert the cover, exert a light and homogeneous pressure)
- Close the interlocking flaps (4) completely, which were previously left with an open tooth
- Apply the technical data plate and serial number plate

If disassembling is required, proceed in reverse order.



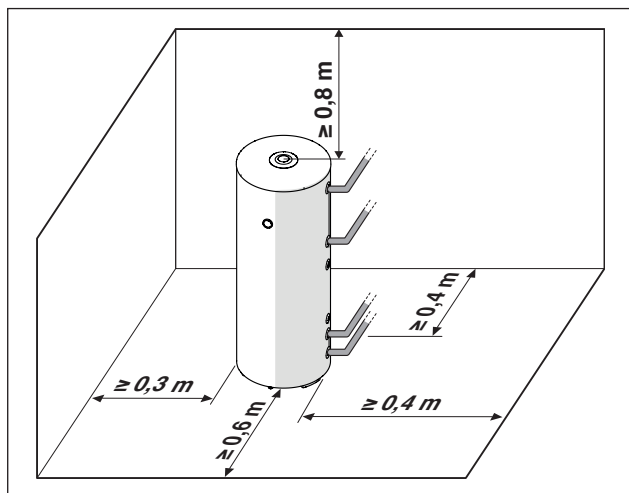
Wear suitable personal protective equipment and use suitable safety devices.



Do not dispose of packaging material into the environment, or leave it within the reach of children, since it can become a potential hazard. Dispose of packaging material in compliance with applicable legislation.

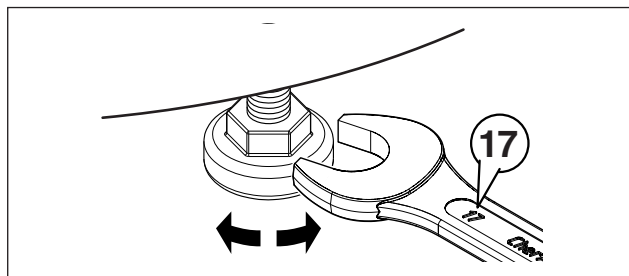
4 PLACE OF INSTALLATION

Beretta IDRA BV storage cylinders can be installed in any room where there is no specific requirement for an electrical protection rating higher than IP X0D.



! Respect the minimum specified installation distances to ensure correct installation and access for maintenance.

Adjust the feet to ensure that the storage cylinder is perfectly level.



5 INSTALLATION IN OLDER SYSTEMS AND SYSTEMS REQUIRING MODERNISATION

When installing Beretta IDRA BV storage cylinders in old systems or systems requiring modernisation, always perform the following checks.

- Make sure that the system is fitted with safety and control devices in accordance with applicable legislation and standards
- Make sure that the central heating circuit has been flushed out to remove all sludge and lime scale, and has been vented and seal tested
- Make sure that a suitable water treatment system is installed if the quality of the supply/recirculation water so demands. (Refer to the reference values listed in the table alongside.)

REFERENCE VALUES

pH	6-8
Electrical conductivity	less than 200 $\mu\text{S}/\text{cm}$ (25°C)
Chlorine ions	less than 50 ppm
Sulphuric acid ions	less than 50 ppm
Total iron	less than 0.3 ppm
Alkalinity M	less than 50 ppm
Total hardness	less than 35°F
Sulphur ions	none
Ammonia ions	none
Silicon ions	less than 30 ppm

6 MAINTENANCE

Perform the following operations before beginning any maintenance:

- Switch the electricity supply to the storage cylinder's valve group and to any associated boiler OFF at the main switch and at the control panel
- Close the shut-off cocks for the domestic hot water circuit
- Drain the storage cylinder's DHW (secondary) water circuit.

7 CLEANING AND REMOVING INTERNAL COMPONENTS

EXTERNAL CLEANING

Clean the outside of the storage cylinder with a soft cloth damped in soapy water.

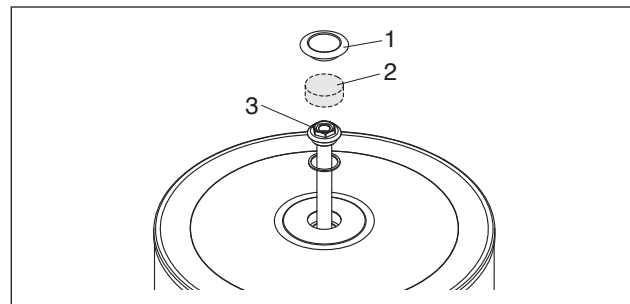


Do not use abrasive products, petrol or triethylene.

INTERNAL CLEANING

Removing and checking the magnesium anode

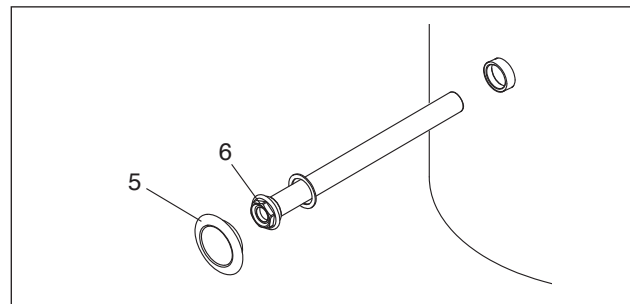
- Remove the cover (1) (removing the screws first from models 800 and 1000), and remove the insulation (2). Use a suitable wrench to unscrew the anode holder (3)
- Check the magnesium anode for wear and replace it if necessary.



MODELS IDRA BV 800 - 1000

Removing and checking the second magnesium anode

- Remove the plug (5) and use a suitable wrench to unscrew the anode holder (6).
- Check the magnesium anode for wear and replace it if necessary.



On completion of cleaning, follow the above steps in the reverse order to refit all removed parts.

NOTE: Tighten the anode plug to a torque of 25-30 Nm.

8 RECYCLING AND DISPOSAL

At the end of its useful working life, do not abandon the storage cylinder in the environment, but dispose of it through the proper channels in accordance with applicable legislation.