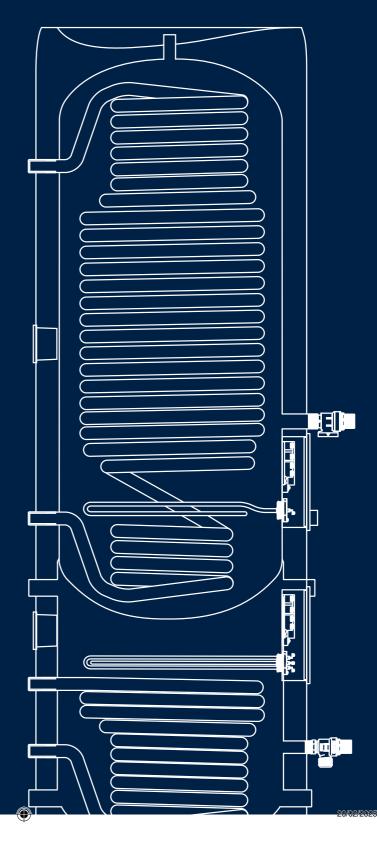
**EXPORT** 

# 050

# Water heaters

for heat pumps





# **KEY ADVANTAGES**



# **CLASS LEADING QUALITY**

Manufactured in Norway by the family business OSO Hotwater since 1932



# **MORE HOT WATER**

More hot water than other brands due to smart solutions



# **UNIQUE INSULATION**

The best insulated water heater on the market saves more than 3 000 kWh during its lifespan



# **STRONGER**

OSO withstands more with EVERLAST™ steel and ULTRAWELD™ technology.



# **TOUGHER**

Maximum durability in hard water with INCOTEC™ heating elements



# **5 YEAR WARRANTY**

The 5 year warranty\* on the pressure tank provides peace of mind and unbeatable lifetime economy



# **ENVIRONMENTALLY FRIENDLY**

Big resource savings and minimal environmental impact with a 25 year lifespan



# **CERTIFIED**

ISO 9001 / 14001 / 45001 / 3834-2 certified

\*conditions apply

Subject to changes without notice



# WATER HEATERS FOR HEAT PUMPS

All over Europe there is a change in how we heat our homes and our water. This is primarily driven by the change from fossil fuel to renewable energy sources, and high focus to reduce climate emissions. Energy crisis and increased energy costs are also a strong contributor to the fast shift across Europe. Many homes today have heat pumps already installed, or will choose this as part of their solution to heat their home in the near future. Connecting your heat pump to an indirect water heater cylinder, can be very beneficial as it can provide a more efficient and cost-effective way to heat water.

OSO Hotwater has developed a number of products that are special designed for efficient production of hot water in combination with renewable energy sources. Most of our indirect products are specialised for heat pumps and some are developed for multiple heating sources, like solar heating or bio.

Cylinders from OSO Hotwater are all insulated with world leading insulation, specifically invented for hot water cylinders. Our welding technique is unrivalled when it comes to welding stainless steel cylinders.

The focus for OSO Hotwater has always been to produce as energy efficient and environmentally friendly as possible and at the same time deliver high quality water heater with a modern and appealing design.



# **OPTIMA GEOCOIL - OGC**

# Tank-in-tank unit with domestic hot water and buffer tank integrated







OPTIMA GEOCOIL – OGC – features high efficiency and fast recovery times, and covers the hot water demand for at least 5 people as well as heating demand in homes up to  $400m^2$  in a single unit. OPTIMA COIL is suitable for heat pumps up to 12 kW, by way of the stainless steel tube heat exchanger with a large surface area of  $1.8m^2$  in the DHW tank. OPTIMA GEOCOIL also features an electric heating element at the bottom of the DHW tank for maximum protection against legionella (must be controlled externally). The heater can also be used as a backup for the heat pump. The buffer tank in stainless steel is 62 L, perfect for heat pumps of this size.

OPTIMA is the market's most advanced and energy efficient tank-in-tank products, with class-leading PUR insulation and patented solutions to increase hot water production from heat pumps. The OPTIMA series integrates both a stainless steel buffer tank and heat exchangers in one unit, and takes up minimal space.

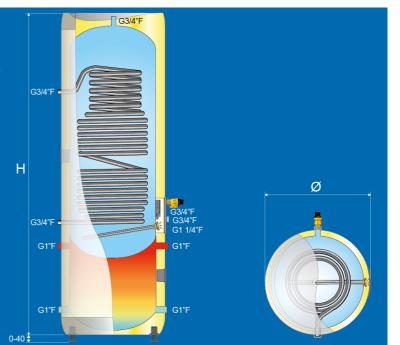




- Save approx. 650 kWh / year vs. glass wool insulated products
- Integrated heat exchanger for heat pump ≤ 12 kW
- Integrated stainless buffer tank saves floor space

# **IMPORTANT EQUIPMENT**

Thermostat DHW: Adjustable 50-80 °C
Safety valve VV: 9 bar, G ¾"F overflow
Heating element: G 1.¼"M / limescale resistant
Sensor pockets: 2 pcs. for 6 - 8 mm. sensor
Appliance feet: Adjustable 0 - 40 mm.



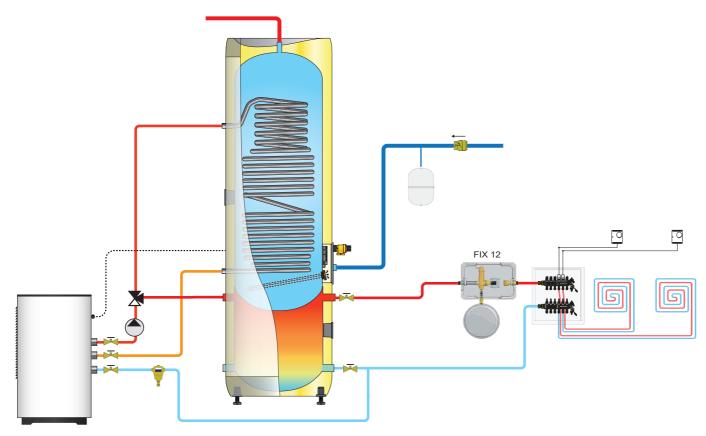
# **TECHNICAL DATA**

OSO No.	Product name	Dia x Height mm.	Cap. pers.	Wt. kg.	Freight vol. m³	Volume L	Volume L/40 °C	AEC kWh/år	Heat loss W	Therm. set point °C	Ener. eff. %	Rating ErP	Prof. ErP	
1 1 009 417	OGC 300 - 3 kW/1x230V+HX1.8m <sup>2</sup>	Ø595x1760	-	68	0.64	233/62	375	-	54	75	-	В	-	

#### $\bigoplus$

# **OPTIMA GEOCOIL - SYSTEM SCHEMATIC**





Optima Geocoil with underfloor heating, heat pump and FIX 12





# PRESSURE DROP TABLE (mbar)

OSO No.	Product name	540 L/h 0.15L/s	900 L/h 0.25 L/s			3 600 L/h 1.00L/s			kv-verdi m³/time	
1 1 009 417	OGC 300 - 3 kW/1x230V+HX1.8m <sup>2</sup>	50	135	455	930	1 580	2 350	3 350	2.8	



# **OPTIMA TWINCOIL - OTC**

# Tank-in-tank unit with DHW and buffer tank integrated for multiple energy sources







OPTIMA TWINCOIL - OTC - features high efficiency and fast recovery times, and covers the hot water demand for at least 6 people as well as heating requirements in homes up to 400m<sup>2</sup> in a single unit. OPTIMA TWINCOIL is suitable for heat pumps up to 15 kW, by way of the stainless steel tube heat exchanger with a large surface area of 2.6m2 in the DHW tank. The stainless buffer tank of 85 L can be connected to ≤ 12m<sup>2</sup> solar collectors using a second tube heat exchanger (0.7m²). The 9 kW electric heater in the buffer tank provides full energy flexibility as well as backup. OPTIMA TWINCOIL also features an electric heating element in the DHW tank for legionella protection (controlled externally). The heater can also be used as DHW backup for the heat pump.

OPTIMA is the market's most advanced and energy efficient tank-in-tank products, with class-leading PUR insulation and patented solutions to increase hot water production from heat pumps. The OPTIMA series integrates both a stainless steel buffer tank and heat exchangers in one unit, and takes up minimal space.

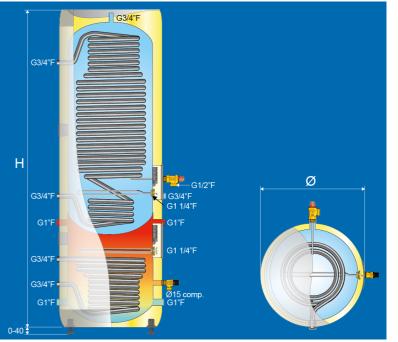




- Save approx. 650 kWh / year vs. glass wool insulated products
   Integrated heat exchangers for HP ≤ 15 kW / solar ≤ 12m²
- · Integrated stainless buffer tank of 85 L

# **IMPORTANT EQUIPMENT**

Thermostat DHW/Buffer: Adjustable 50-75°C + 30-60°C 9 bar/90°C, G ½"M + 3 bar, G ½"M Security VV/Buffer: G 1.¼"M / limescale resistant Heating elements: Sensor pockets: 2 pcs. for 6 - 8 mm. sensor Adjustable 0 - 40 mm. Appliance feet:



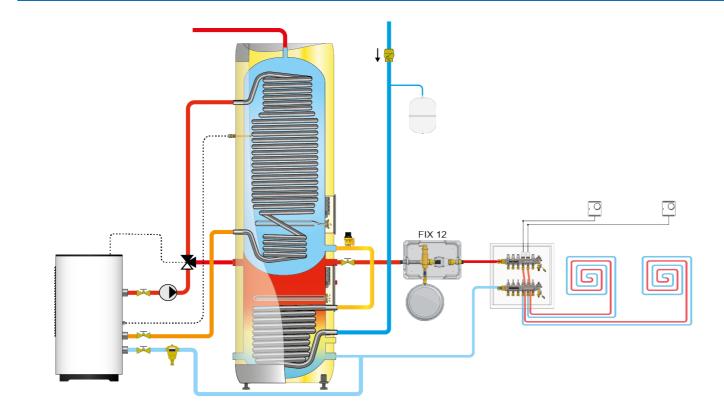
# **TECHNICAL DATA**

OSO No.	Product name	Dia x Height mm.	Cap.	Wt. kg.	Freight vol. m³	Volume L	Volume L/40 °C	AEC kWh/år	Heat loss W	Therm. set point °C	Ener. eff. %	Rating ErP	Prof. ErP	
1 1 009 418	OTC 300 - 3+9kW/1/3x230V+HX 2.6+0.7m <sup>2</sup>	Ø595x1760	-	71	0.64	200/85	335	-	49	75	-	В	-	





# OPTIMA TWINCOIL - SYSTEM SCHEMATIC OTC 300 with HP, DHP prioritization, underfloor heating, solar collector (solar heating)



# PRESSURE DROP TABLE (mbar)

**(** 

OTC 300 with HP, DHW prioritization, underfloor heating and tap water preheating in the coil in the lower magazine

OSO No.	Product name	540 L/h 0.15L/s			2 700 L/h 0.75 L/s					
1 1 009 418	OTC 300 - 3+9 kW/1/3x230V+HX 2.6+0.7m <sup>2</sup>	24	53	188	375	650	975	1 370	4.6	



# **DELTA GEOCOIL - DGC**

# Custom designed for heat pumps up to 18 kW







DELTA GEOCOIL – DGC – is specifically designed for highly efficient hot water production for all types of heat pumps up to 18 kW (200 L = 15kW/300 L = 18kW), thanks to the large heating surface (2.6 –  $3.1m^2$ ) of the tube heat exchanger. DELTA GEOCOIL features an electric heating element at the bottom of the tank for maximum protection against legionella (must be controlled externally). The heater can also be used as a backup for the heat pump when needed, which provides maximum operational reliability.

DELTA is our most energy-efficient water heater series, and minimizes heat loss with best-inclass PUR insulation, vacuum panels and functional design. DELTA has been developed with a number of smart technical solutions especially suitable for alternative energy sources such as heat pumps or solar collectors.

DELTA also features unique corrosion protection technology.

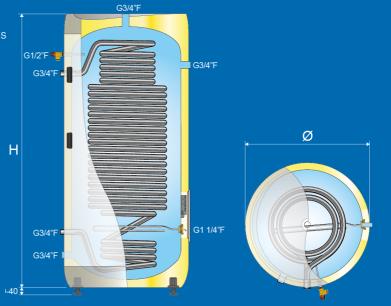
#### WHY DELTA GEOCOIL?

- · Save approx. 650 kWh / year vs. glass wool insulated products
- Integrated heat exchanger for heat pump ≤ 18 kW
- Unique corrossion resistance features

# **IMPORTANT EQUIPMENT**

Thermostat: Adjustable 50 - 75 °C
Safety valve: 9 bar / 90 °C / G ½"M overflow
Heating element: G 1.¼"M / limescale resistant
Sensor pockets: 2 pcs. for 6/8 mm. sensor

Appliance feet: Adjustable 0 - 40 mm.



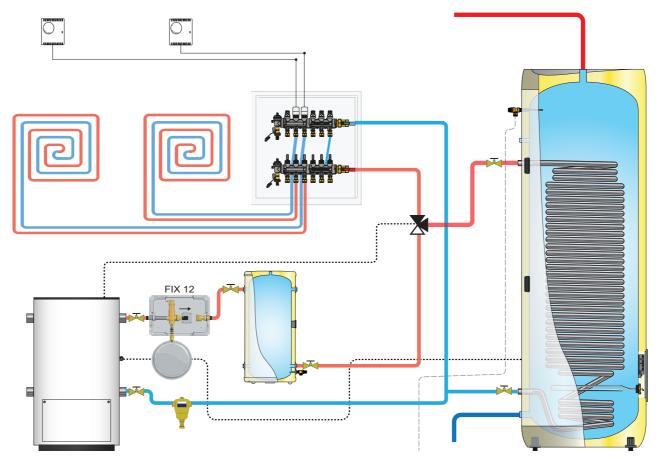
# **TECHNICAL DATA**

OSO No.	Product name	Dia x Height mm.	Cap. pers.	Wt. kg.	Freight vol. m³	Volume L	Volume L/40 °C	AEC kWh/år	Heat loss W	Therm. set point °C	Ener. eff. %	Rating ErP	Prof. ErP	
1 1 003 138	DGC 200 - 2.8 kW/1x230V + HX 2.6m <sup>2</sup>	Ø595x1270	-	53	0.48	191	-	-	58.0	70	-	В	-	
1 1 003 139	DGC 250 - 2.8 kW/1x230V + HX 2.6m <sup>2</sup>	Ø595x1540	-	73	0.57	245	-	-	62.0	70	-	В	-	
1 1 003 141	DGC 300 - 2.8 kW/1x230V + HX 3.1m <sup>2</sup>	Ø595x1750	-	85	0.64	282	-	-	68.5	70	-	В	-	



# **DELTA GEOCOIL - SYSTEM SCHEMATIC**





Delta Geocoil DGC 300 with heat pump, FIX 12 and underfloor heating

# PRESSURE DROP TABLE (mbar)

•

OSO No.	Product name	540 L/h 0.15L/s	900 L/h 0.25 L/s	1800 L/h 0.50 L/s		3 600 L/h 1.00L/s				
1 1 003 138	DGC 200 - 2.8 kW/1x230V + HX 2.6m <sup>2</sup>	40	109	415	824	1 440	2 150	3 050	3.0	
1 1 003 139	DGC 250 - 2.8 kW/1x230V + HX 2.6m <sup>2</sup>	40	109	415	824	1 440	2 150	3 050	3.0	
1 1 003 141	DGC 300 - 2.8 kW/1x230V + HX 3.1m <sup>2</sup>	51	117	440	890	1 550	2 330	3 340	2.9	



# **ACCU GEOCOIL - AGC**

# Buffer tank with preheating and electrical elements







ACCU GEOCOIL - AS - is designed as a buffer tank for heat pump systems. ACCU GEOCOIL features an integarted tube heat exchanger with a large surface area of 3.1m<sup>2</sup> for pre-heating domestic hot water. AGC also comes standard with dual sets of flow/return connections, which provide flexible connection and installation options, in addition to a separate G1/2"F connection for air vents and a drain connection. ACCU GEOCOIL also has electrical heating elements factory fitted, which provides the option for additional heating and operational security in the event of any operational issues with the energy source. ACCU ensures that the energy source has optimal operating conditions and provides a stable temperature for the system.

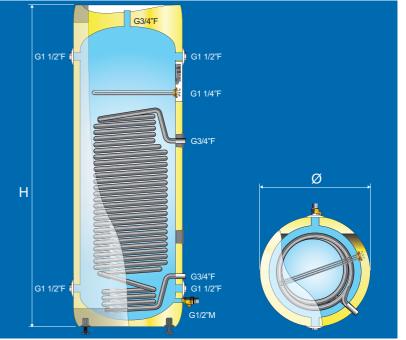
ACCU is a series of highly energy-efficient, PUR insulated buffer tanks for heating systems. ACCU is in stainless steel design which ensures a trouble-free system vs. buffer tanks in mild steel. ACCU features a modern design and fits perfectly in any heating system.

#### WHY ACCU GEOCOIL?

- Provides optimal operating conditions for heat pumps
- Large preheating capacity of hot water increases COP
- · Electric supplementary heating and / or backup for heating system

# **IMPORTANT EQUIPMENT**

Adjustable 30 - 60°C Thermostat: Safety valve: 3 bar / G ½"M overflow Heating element: G 1.1/4"M / limescale resistant Sensor pockets: 2 pcs. for 6-8 mm. sensor



# **TECHNICAL DATA**

OSO No.	Product name	Dia x Height mm.	Cap. pers.	Wt. kg.	Freight vol. m³	Volume L	Volume L/40 °C	AEC kWh/år	Heat loss W	Therm. set point °C	Ener. eff. %	Rating ErP	Prof. ErP	
11009867	AGC 300 - 9 kW/3 $\times$ 230 V + HX 2.6m <sup>2</sup>	Ø595x1750	-	65	0.64	296	-	-	68	45	-	В	-	

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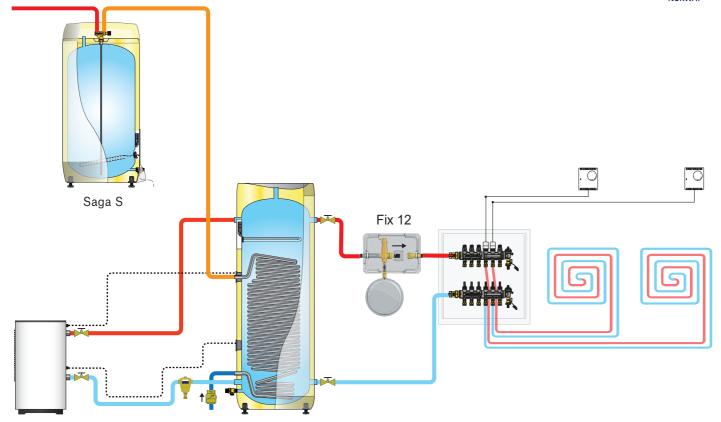
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# **ACCU GEOCOIL - SYSTEM SCHEMATIC**











# PRESSURE DROP TABLE (mbar)

OSO No.	Product name	540 L/h 0.15L/s		1800 L/h 0.50 L/s			4 500 L/h 1.25 L/s		kv-verdi m³/time
11009867	AGC 300 - 9 kW/3 × 230 V + HX 2.6m <sup>2</sup>	40	109	415	824	1 440	2 150	3 050	2.55

# **(**

# **ACCU - A**Buffer tank for heat pumps





ACCU – A – is designed as a buffer tank for heat pumps or solar collectors. ACCU features dual sets of flow/return connections, which provide flexible connection and installation options, in addition to a separate G½"F connection for air vents and a drain connection. ACCU ensures that the energy source has optimal operating conditions and provides a stable temperature for the system.

ACCU is a series of highly energy-efficient, PUR insulated buffer tanks for heating systems.

ACCU is in stainless steel design which ensures a trouble-free system vs. buffer tanks in mild steel. ACCU features a modern design and fits perfectly in any heating system.



# WHY ACCU?

- Stainless steel buffer tank for heating system
- · Provides optimal operating conditions for heat pumps

# **IMPORTANT EQUIPMENT**

Sensor pockets: 1 pc. for 6-8 mm. sensor Wall bracket: Corrosion resistant



# **TECHNICAL DATA**

12

OSO No.	Product name	Dia x Height mm.	Cap. pers.	Wt. kg.	Freight vol. m³	Volume L	Volume L/40 °C	AEC kWh/år	Heat loss W	Therm. set point °C	Ener. eff. %	Rating ErP	Prof. ErP	09
1 1 009 165	A 60	Ø434x741	-	18	0.18	57	-	-	44	-	-	С	-	
1 1 003 162	A 100	Ø434x1168	-	28	0.27	100	-	-	55	-	-	В	-	
11009745	A 200	Ø595x1265	-	39	0.48	199	-	-	46	-	-	В	-	

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# **MAXI GEOCOIL - MGC**

# Custom designed for heat pumps up to 70 kW







MAXI GEOCOIL — MGC — is custom-made for maximum hot water production from heat pumps up to 70 kW (400 L = 25 kW / 600 L = 60 kW/ 1.000 L = 70 kW), with the extremely large tube heat exchanger ( $400L = 3.1m^2 / 600L = 4.6m^2 / 1000L = 7.0m^2$ ). The units are also suitable for solar collectors up to  $40m^2$ . MAXI GEOCOIL features electric heating elements as booster raising the temperature above the heat exchanger to further increase capacity. The booster heaters also provides maximum safety vs. bacterial growth or if there are any operational problems with the energy source. The effect of the electric immersion heaters can be set from 2x7.5 kW, 400V 3-phase, and is thermostat controlled  $50-75^{\circ}C$ .

Installation kits for cold water inlet with shut-off valve and hot water outlet with mixing valve has been custom-made to fit directly on the MAXI series.

The commercial cylinders in the MAXI series have shown class-leading operational durability for commercial hot water systems through the last 50 years.



- Highly efficient DHW production from heat pumps up to 70 kW
- Extreme operational safety with electric heater as booster / back-up
- 10 bar design pressure and class-leading corrosion resistance
- · Capacities up to 15 000 litres on demand

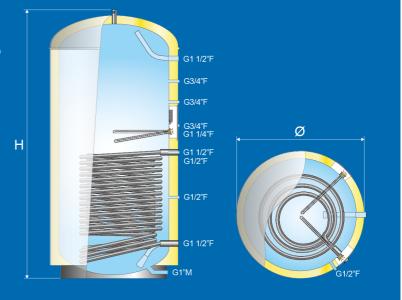
# **IMPORTANT EQUIPMENT**

Mixing valve: See separate commercial add-ons Thermostat: Adjustable 50-75°C—Preset 75°C Safety valve: TP 10 bar/90°C—¾" to drain

Flow/return conn.: 2 x G 1.1/2"F

Coil conn.: 2 × G ¾"F (400 L)/G 1"F (600–1 000 L)

Other conn.:  $4 \times G \%$ 



# **TECHNICAL DATA**

	OSO No.	Product name	Dia x Height mm.	Cap. pers.	Wt. kg.	Freight vol. m <sup>3</sup>	Volume L	Volume L/40°C	AEC kWh/år		Therm. set point °C			Prof. ErP
Τ	1 1 011 539	MGC 400 - 9 kW/3x400V + HX 3.1m <sup>2</sup>	Ø595x2172	-	95	0.81	362	-	-	96	75	-	С	-
	1 1 009 918	MGC 600 - 2x7.5 kW/3x400V + HX 4.6m <sup>2</sup>	Ø800x2030	-	136	-	543	-	-	-	75	-	-	-
	11009922	MGC 1 000 - 2x7.5 kW/3x400V + HX 7.0m <sup>2</sup>	Ø1000x2120	-	225	-	865	-	-	-	75	-	-	-





# Accumulator tank with preheating of domestic hot water







MAXI ACCU GEOCOIL - MAGC - is specially designed as a heat accumulator tank for heat pumps or solar collectors, with preheating of domestic hot water by using the large tube heat exchanger (4.0m²). MAXI ACCU GEOCOIL can also be connected to a heat pump with domestic hot water prioritization up to 40 kW, or to solar collectors with a plate heat exchanger in between. With preheating of the domestic hot water, MAXI ACCU GEOCOIL ensures improved operating conditions for the heat pump, higher domestic hot water capacity and stable temperature of the system. The tube heat exchanger preheats the cold water and lowers the return temperature of the heat pump or solar collectors significantly, thereby increasing the efficiency (COP).

The commercial cylinders in the MAXI series have shown class-leading operational durability for commercial hot water systems through the last 50 years.

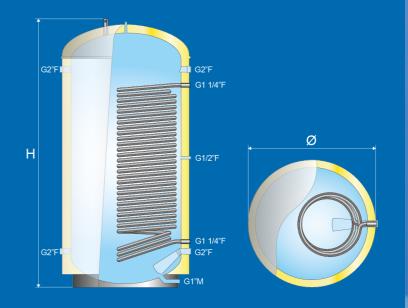
#### WHY MAXI ACCU GEOCOIL?

- Accumulator tank for heat pumps or solar collectors
- Large preheating capacity of domestic hot water provides better COP
- 10 bar pressure class and market-leading corrosion resistance

# **IMPORTANT EQUIPMENT**

Mixing valve: See separate commercial add-ons Safety valve: TP 10 bar/90°C - 3/4" overflow to drain

Flow/return conn.: 2 x G 1"F Other connections: 4 x G 2"F



# **TECHNICAL DATA**

OSO No.	Product name	Dia x Height mm.	Cap. pers.	Wt. kg.	Freight vol. m³	Volume L	Volume L/40°C	AEC kWh/år	Heat loss W	Therm. set point °C	Ener. eff. %	Rating ErP	Prof. ErP	
11 003 229	MAGC 600 - HX 4.0m <sup>2</sup>	Ø800x2030	-	131	1.96	544	-	-	-	-	-	-	-	
11003237	MAGC 1 000 - HX 4.0m <sup>2</sup>	Ø1000x2100	-	223	3.07	870	-	-	175	-	-	Е	-	

# OSO HOTWATER

Proud supplier of custom OEM stainless steel tanks and class-leading insulated products to some of the best known heating brands worldwide.

# Industrial OEM solutions Stainless steel OEM tanks

We offer a full range of OEM stainless steel tanks, with or without insulation and outer casing. Suitable for most heat pump systems, both for stand-alone and integrated solutions. An early stage partnership with OSO will provide great possibilities for optimizing design and efficiency.

We provide tank solutions with class-leading quality and cost efficiency for OEM customers based on our automated manufacturing. For market specific products, we can contribute with our own experience together with the customer to achieve the best result. Our smooth-pipe (no limescale build up) stainless heating coils up to 3,1 m² will perfectly fit any heat pump system up to 18 kW. Customer specified connections and design together with a wide range of heating coil options are available. Unique experience with high grade stainless steel enables us to meet any customer requirement.

# Manufactured in accordance with

- ISO 9001 (Quality)
- ISO 14001 (Environment)
- ISO 3834-2 (Welding)
- ISO 45001 (Health & Safety)

Extensive experience with third party certification processes.



Get to know OSO OEM



World class hot water cylinders since 1932

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