

Magma - Diver Hot Water Unit

The Drass Magma Series Diver Hot Water Units are available in a complete product range covering all the different operational requirements for surface and saturation diving.

Magma Lite, Magma Top and Magma Sat are specifically designed to comply with the DNV Rules for Diving systems and IMCA recommendations.

The units are designed to be installed on board or into a container; the stand alone units are fully enclosed inside a stainless steel box to avoid flooding in case of ship deluge system activation or external presence of water.

The Magma Series are provided with a complete set of alarms and indicators, inclusive of a remote broadcast signal relevant to the value of output temperature, a remote control for setting temperature, a temperature warning in case of out of range temperature output and a generic failure alarm. Diagnostic features are also available on digital monitoring system.



Foto 1. Magma Unit

Magma Lite

It is designed to provide hot water supply for two surface divers in accordance with the US Navy Diving Manual. The unit can work at 50% of heating power in case of failure of one resistor. It is equipped with a powerful piston pump. Upgrade features are available for redundancy upgrade.

Magma Boiler

Magma unit can be equipped with an additional separate boiler, to provide a full flow of hot water to the divers in case of failure of the primary heating. The Boiler can be supplied with a pumping system as further redundancy: this feature gives an immediate back up in the event of the main pump failure. The boiler can set upon the Magma Lite or SAT.

Magma Sat

The unit provides hot water supply to two saturation divers in accordance to the North Sea standards (60 lpm). The Magma Sat is equipped with four independent heating pressure vessels to allow the maximum level of control in case of failure of one heating element. It is also available in a 45 lpm version with 3 heating pressure vessels. Upgrade features are available for redundancy in combination with Magma Boiler or ship water supply.

Main Data	Magma Lite	Magma Sat 45	Magma Sat 60
Power Supply	115 kW, 440 V, 3ph, 60 Hz, (50Hz on request)	168 kW, 440 V, 3ph, 60 Hz, (50Hz on request)	220 kW, 440 V, 3ph, 60 Hz, (50Hz on request)
Operational depth	300 m	300 m	300 m
Available Output Pump Pressure	60/70 Bar	60/70 Bar	60/70 Bar
Standard Flow	30 lpm (two divers)	45 lpm (two divers + one standby diver) 30 lpm in emergency	60 lpm (two divers + one standby diver) 30 lpm in emergency
Hot water temperature	Min.inlet 4°C – outlet 44°C/74°C	Min. inlet 4°C – outlet 44°C/74°C	Min. inlet 4°C – outlet 44°C/74°C
Temperature control	+/-1 °C from set point	+/-1 °C from set point	+/-1 °C from set point
Emergency	Heating redundancy	Heating redundancy can be combined with Magma Boiler or with another Magma Sat	Heating redundancy can be combined with Magma Boiler or with another Magma Sat

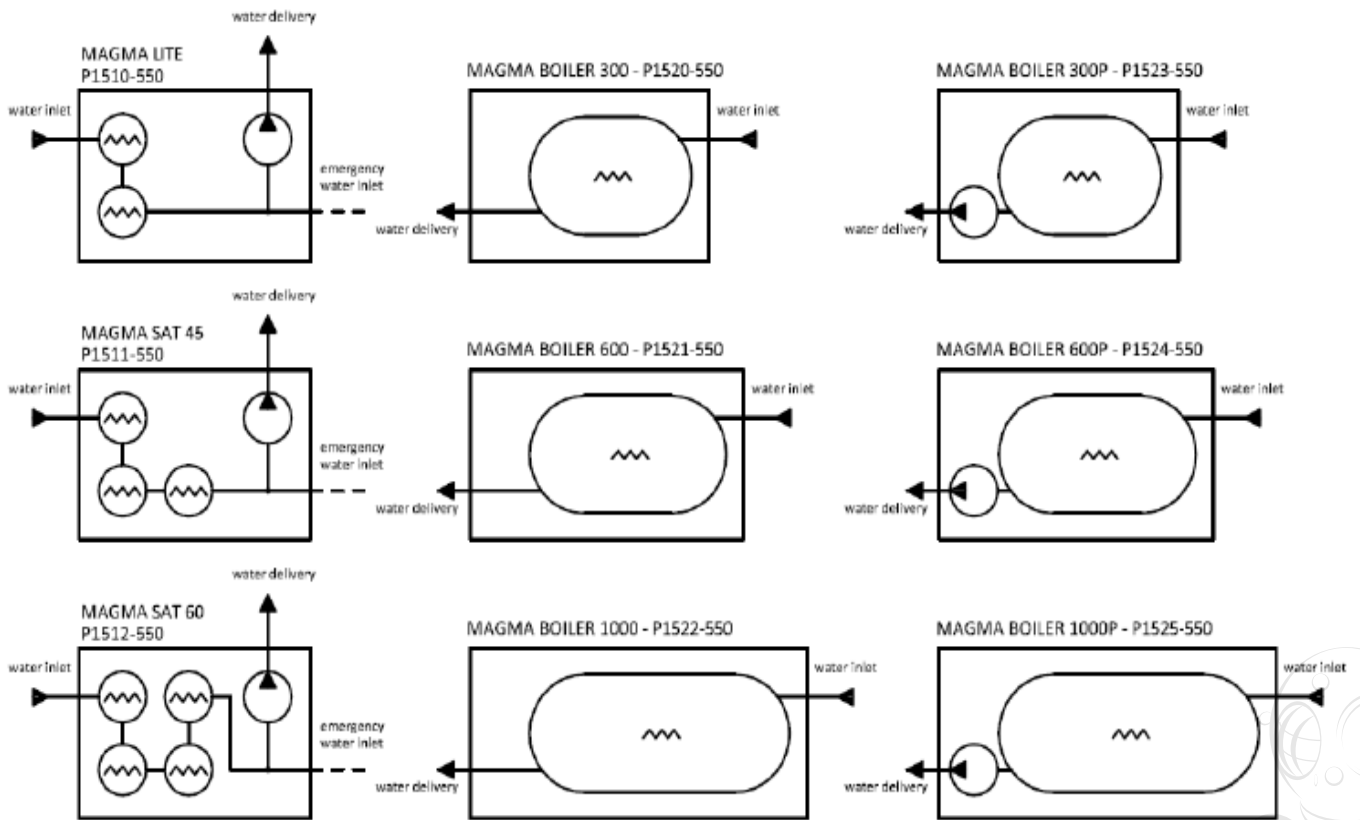
Magma Sat and Magma Lite Main Dimensions

Length	2000 mm
Height	1460 mm
Width	1400 mm
Weight	800/1000/1600 kg

MAGMA HOT WATER UNIT

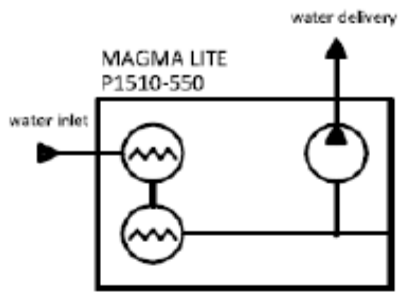
Main Data	Magma Boiler 300/300P	Magma Boiler 600/600P	Magma Boiler 1000/1000P
Power Supply	23 kW, 440 V, 3ph, 60 Hz	38 kW, 440 V, 3ph, 60 Hz	61 kW, 440 V, 3ph, 60 Hz
Water Capacity	300 L	625 L	1000 L
Hot water temperature	60°C	60°C	60°C
Available output pump pressure (for P-Version)	60/70 Bar	60/70 Bar	60/70 Bar
Standard flow rate (for P version)	30 lpm	30 lpm	30 lpm
Operational depth (for P version)	300 m	300 m	300 m
Emergency features	10 min x 2 divers	20 min x 2 divers	33 min x 2 divers
Warm up time	Less than 1 hour	Less than 1 hour	Less than 1 hour
Magma Boiler Main Dimensions			
Length	1700 mm	2000 mm	2400 mm
Height	1460 mm	1460 mm	1460 mm
Width	1400 mm	1400 mm	1400 mm
Weight	Total 800kg	Total 1000kg	Total 1200kg

MAGMA Series Overlook

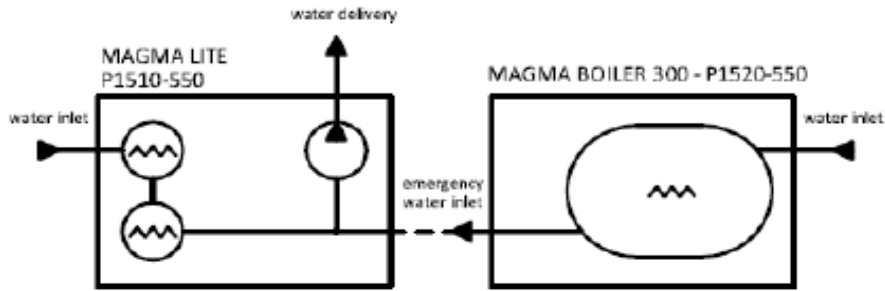


MAGMA Series – Examples of possible combinations

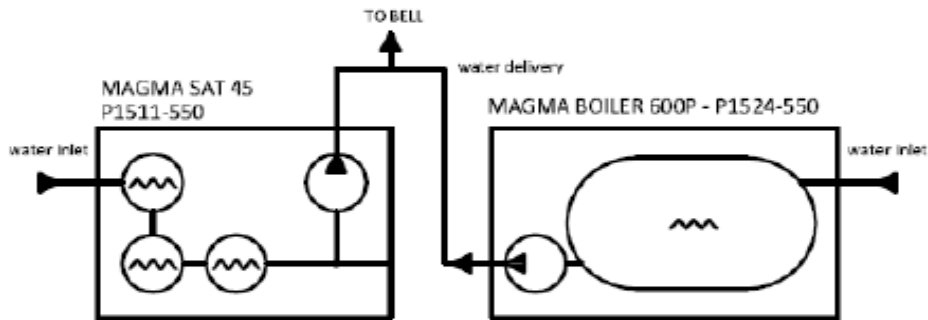
BASIC
SURFACE DIVING



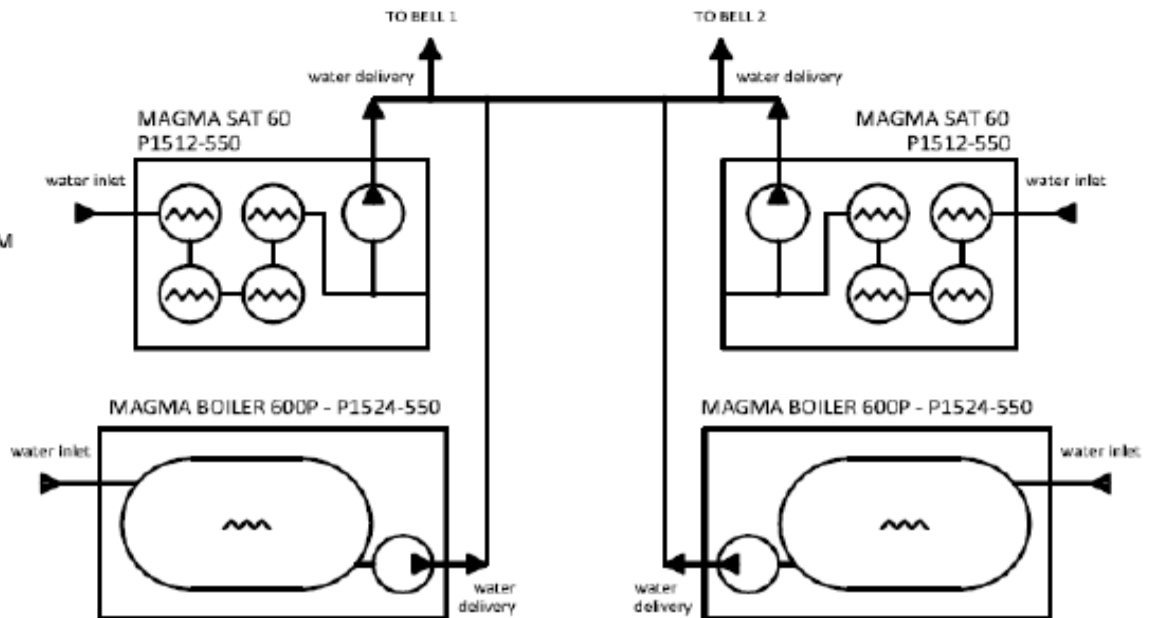
ADVANCED
SURFACE DIVING



SINGLE BELL
SATURATION SYSTEM



TWIN BELL
NORTH SEA DEEP
SATURATION SYSTEM



DRASS

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