Webasto
Feel the Drive

Marine Catalogue

2013

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Cover picture: Bavaria Virtess ©

Welcome to Webasto marine

Dear customers, dear partners!

Since its very start in the marine industry, Webasto has been investing heavily in the marine market. Leveraging on its core automotive technologies, Webasto has continuously enlarged its marine product portfolio in order to provide complete climate solutions for heating, cooling, light and fresh air on board.

This new Webasto marine catalogue is a key milestone in our positive growth and long term development plan. It not only features a completely new and easy to use modern design, it also presents an unprecedented number of new products in all our fields of expertise: Air-conditioning, heating, roof solutions, glazing and water management.

Due to its significant engineering capacity, Webasto has the unique ability to develop not only “ready-to-use” solutions, but also custom-made solutions for your special projects. Our financial strength and our understanding of your key strategic challenges of the future have positioned us as your suppliers of choice when it comes to complete comfort solutions.
For that reason we would like to thank you again for your feedback, your trust in our products and our marine team.

As part of our tradition of customer excellence, we systematically provide every Webasto marine partner with a complete set of tools and services: technical training, dealer portals, marine navigator, regular product information, marketing material etc. As you explore this catalogue and discover our new and unique product range and value-added accessories, please take advantage of all these other services as well. We are here to support your business. Take advantage of having ONE reliable partner for all your comfort solutions on board.

Your Webasto marine team

What’s new?

The new marine catalogue provides you with detailed information on our core products as well as our accessories and spare parts in order for you to build safe applications and provide your own customers with quick, professional assistance. This year will be a milestone in term of the scale and number of product launches in the Webasto marine history.

New BlueCool S-Series and C-Series:
- These new self-contained and chiller units provide very robust solutions in all climate circumstances with improved performance, increased efficiency, more compact design and new electronics.
- Unique diagnosis capabilities via simple USB connection.
- Complete portfolio of system accessories coming along with the new A/C units: soft start, self-priming pump, vibration dampers and more.

New accessories for extra silent heating applications:
- New silencer for combustion air intake.
- New silencer for heating air.
- New vibrations damping solution for fuel pumps.

Three new marine roof solutions:
Our success story continues with the 40-Series, the 80-Series double-curved and the 120-Series.

NEW

New BlueCool S-Series

New heating accessories

New BlueCool C-Series

New marine roof 40-Series

We are here to develop your business

Marine Navigator: Your Webasto encyclopedia

- All available documentation concerning products, technical information, sales and marketing support
- Useful tools for proper calculation and quotation
- The essential business development tool

Webasto quote generator

- All the Webasto expertise at your finger tips
- Accurate quotations documented professionally
- Quick response to your customer requests
- Fresh air calculation included
- Accurate calculation of the cooling or heating demand
- The Webasto Quote Generator also exists for professional roof quotations

Dealer portal

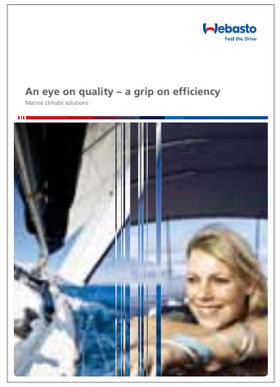
- **http://dealers.webasto.com**
- Easy access to complete Webasto documentation
- Powerful search and download tools
- Login-protected access to technical data and applications

Marine website

- **www.webasto-marine.com**
- Quick and appealing product guide
- International dealer locator
- Multi-lingual access
- CAD model downloads

Marine training program and technical guidelines

- Powerful product training – NEW Web-training
- Regular updates on new features
- Various modules adapted to audience
- Important guidelines for safe application engineering
- CAD model downloads



Marketing documentation and materials

- Marine marketing materials: product brochures, flyers, advertising templates, posters
- Marine engineering services brochure
- Product data sheets
- Dealer packages

This catalogue has been designed to help you in defining a complete comfort solution for boats and yachts.

Page header indicates which part and type of information you reached within each product section:
Product overview, scopes of delivery, accessories, etc.

Colored labels give you direct access to the product range

Page indication for fast access to accessories, etc.

Heating products

Which heater for your boat?

Along with specific marine installation kits we deliver innovative high-quality air and water heaters, which contribute to the enhancement of comfort on board. These two technologies offer economical, powerful and reliable solutions with heating outputs ranging from 2 kW up to 35 kW. Thus, there is a Webasto heating solution for every need.

Air heaters

- Short heating-up times thanks to effective output
- Available as a complete installation kit for quick and simple retrofitting
- Dehumidification of the cabins
- Silent operation
- Ideal for sailing and motor boats up to 45 feet
- Constant coziness thanks to an electronic thermostat
- Low operating costs
- Practical ventilation function
- Meet current requirements and standards relating to boats
- Simple to install
- Compact, space-saving design

or

Water heaters

- Heating comfort just like at home
- Even distribution of warmth by means of radiators
- Hot water for the shower and galley
- Silent operation
- Space-saving installation in the engine room
- Excellent possibilities for combining with Webasto BlueCool air conditioning systems
- Separate temperature control in every cabin
- Low fuel consumption
- Compact design
- Preheating of the engine possible to avoid cold starts
- Meet current requirements and standards relating to boats
- Robust aluminum casing, resistant to high temperature or salt

Air heaters

3 Heaters in 1 with the Air Top Evo M control!

- Available as an upgrade on all Webasto Air Top Evo heaters
- Multi mode operation to match your individual heating power demands:

ECO mode for reduced electrical power consumption

Power mode PLUS for +10 % increased heating power output (from 3,500 W to 3,900 W and from 5,000 W to 5,500 W)

Ventilation mode to provide fresh and cool air to your cabins on a hot day

- Easy connection of Webasto Telestart and Thermocall possible
- Elegant design and easy operation

Air heaters

Product overview

- Air Top Evo 2000 ST SEE PAGE 16

- Air Top Evo 3900 SEE PAGE 18
- Air Top Evo 5500 SEE PAGE 20

- HL 90 SEE PAGE 22

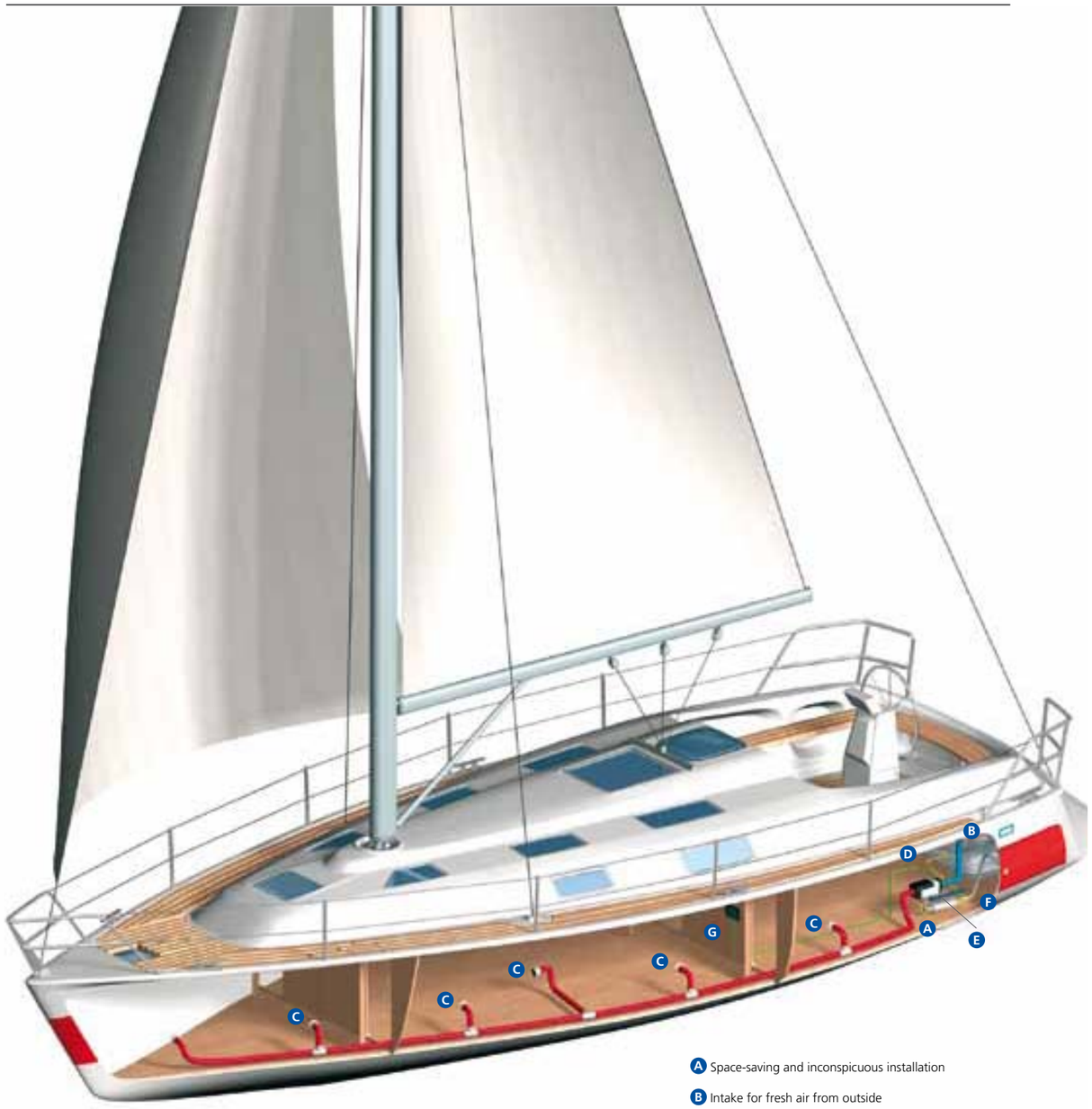
Technical specifications

	Air Top 2000 ST	Air Top Evo 3900*	Air Top Evo 5500*	HL 90
EC approval mark	e1*2001/56*0022*_	E1*2007/56*2006/119*0219*_	E1*2007/56*2006/119*0220*_	e1*2001/56*0017*_
Heat output	0.9 – 2.0 kW 3,000 – 7,000 BTU/h	1.5 – 3.5 (3.9) kW 5,100 – 12,000 (19,500) BTU/h	1.5 – 5.0 (5.5) kW 5,100 – 17,000 (18,700) BTU/h	6.5 – 9.0 kW 22,100 – 30,700 BTU/h
Fuel, Fuel consumption	Diesel, 0.12 – 0.24 l/h Diesel, 0.03 – 0.06 gal/h	Diesel, 0.17 – 0.42 (0.47) l/h Diesel, 0.04 – 0.11 (0.12) gal/h	Diesel, 0.17 – 0.60 (0.66) l/h Diesel, 0.04 – 0.15 (0.17) gal/h	Diesel, 0.86 – 1.20 l/h Diesel, 0.22 – 0.31 gal/h
Rated voltage	12 V	12 V, 24 V	12 V, 24 V	24 V
Rated power consumption	14 – 29 W	15 – 40 (55) W	15 – 95 (130) W	80 – 110 W
Rated current (for 12 V)	1.2 – 2.4 A	1.3 – 3.3 (4.6) A	1.3 – 7.9 (10.8) A	
Rated current (for 24 V)	–	0.6 – 1.7 (2.3) A	0.6 – 4.0 (5.4) A	3.3 – 4.6 A
Air Flow (against 0.5 mbar)	78 m^3/h 46 cfm	140 (155) m^3/h 77.7 (91) cfm	200 (220) m^3/h 117.7 (129.4) cfm	310 m^3/h 182 cfm
Dimensions (L x W x H)	311 x 120 x 121 mm 12.2 x 4.7 x 4.7 in	423 x 148 x 162 mm 16.6 x 5.8 x 6.3 in	423 x 148 x 162 mm 16.6 x 5.8 x 6.3 in	650 x 235 x 260 mm 25.5 x 9.2 x 10.2 in
Weight	2.6 kg, 5.73 lbs	5.9 kg, 13 lbs	5.9 kg, 13 lbs	13.3 kg, 29.3 lbs
Diameter air outlet	60 mm, 2.36 in	90 mm, 3.54 in	90 mm, 3.54 in	100 mm, 3.93 in
Diameter exhaust	22 mm, 0.87 in	24 mm, 0.94 in	24 mm, 0.94 in	38 mm, 1.49 in

* Air Top Evo 3900 and Air Top Evo 5500 deliver the boosting power of 3900 or 5500 W only in combination with the Air Top Evo M user interface.

Air heaters

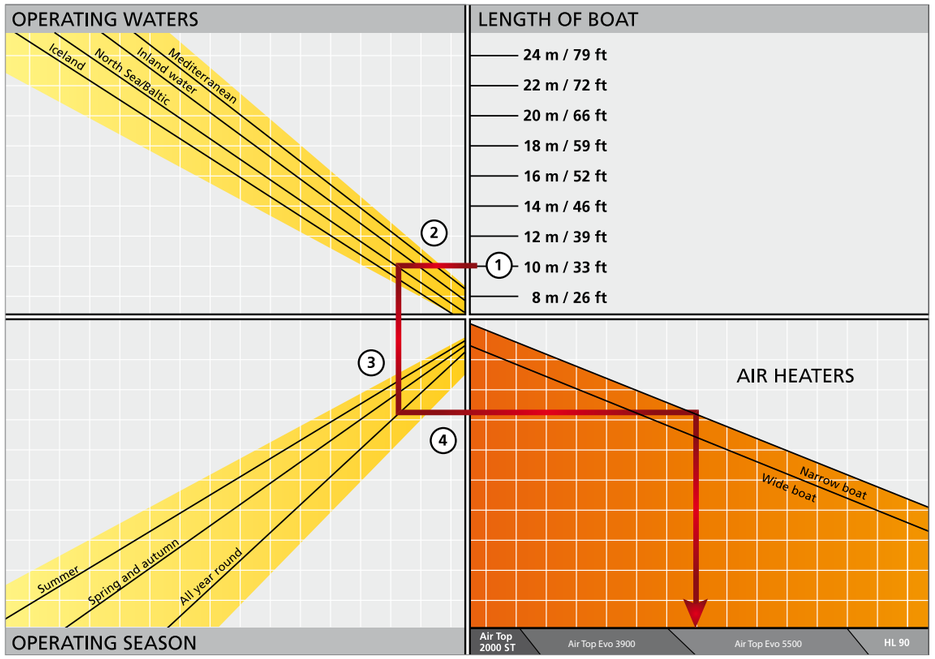
Installation example



- A Space-saving and inconspicuous installation
- B Intake for fresh air from outside
- C Outlets for even distribution of warm air
- D Safe and clean: the fuel system
- E Combustion-air intake
- F Stainless steel exhaust
- G Controls – simple and logical to use

Air heaters

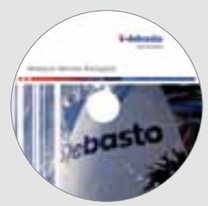
Selection tool



What's the best air heating system for my boat?

1. Select the length corresponding to your boat.
2. From there, trace a line to the left until you come to the line corresponding to the waters in which you plan to operate.
3. From there, trace a line vertically downwards until you come to the line corresponding to the season in which you plan to operate.
4. From there, trace a line to the right: You find the line corresponding to your type of boat in the upper s ection and trace
   a line vertically downwards – that´s the recommended system.

Our specialists can provide you with more information about this topic – for example about the influence of the water temperature in your operating waters on your choice of heating system. Simply contact one of our expert service points for individual advice, or consult the Marine Navigator CD.



Air heaters

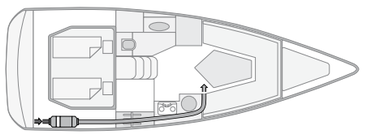
Air Top 2000 ST

Air Top 2000 ST – quiet comfort

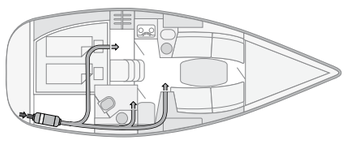
The quiet heater – the smallest air heater on the market. It offers excellent heat output and optimal economy.

The advantages of the Air Top 2000 ST:

- Quiet comfort
- Smallest heater on the market
- Excellent heat output
- Optimal economy



For small boats with only one main cabin, one non-closable outlet is fully sufficient.

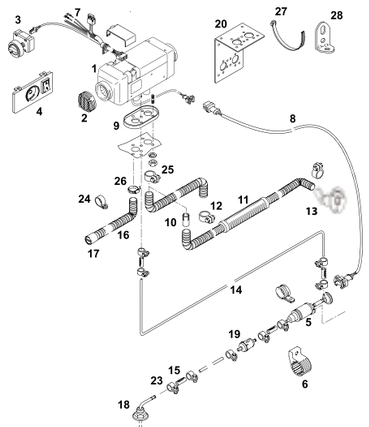


For this boat with two cabins and one head compartment one hot air outlet for each cabin is recommended. The main air duct should go into the salon and be non-closable.

Technical specifications

	Air Top 2000 ST
EC approval mark	e1*2001/56*0022*_
Heat output	0.9 – 2.0 kW 3,000 – 7,000 BTU/h
Fuel, Fuel consumption	Diesel, 0.12 – 0.24 l/h Diesel, 0.03 – 0.06 gal/h
Rated voltage	12 V
Rated power consumption	14 – 29 W
Rated current (for 12 V)	1,2 – 2,4 A
Rated current (for 24 V)	–
Air Flow (against 0.5 mbar)	78 m³/h 46 cfm
Dimensions (L x W x H)	311 x 120 x 121 mm 12.24 x 4.72 x 4.76 in
Weight	2.6 kg, 5.73 lbs
Diameter air outlet	60 mm, 2.36 in
Diameter exhaust	22 mm, 0.87 in

Scopes of delivery



Item	Qty	Description
1	1	heater 12 V
2	1	grille, clips open Ø 60
3	1	heater control element
4	1	panel with ventilation switch
5	1	metering pump
6	1	support for metering pump EPDM
7	1	wiring harness with fuse holder 12/24 V
8	1	wiring harness (metering pump) 7,000 lg
9	1	gasket
10	1	exhaust gas reducing bush 22/24
11	1	exhaust silencer, leakproof Ø 24; 1,800 lg
13	1	exhaust through hull
14	1	fuel hose: 5,000 lg
15	5	rubber fuel hose
16	1	combustion air silencer Ø 22; 800 lg
17	1	protecting cap
18	1	tank extracting device
19	1	fuel filter
20	1	heater bracket stainless steel
21		temperature sensor, external, 2.5 m
	1	**bag (with mech. mounting hardware) consisting of:**
23	10	hose clamp (stainless) Ø 14
24	1	pipe clip Ø 30
25	2	hose clamp Ø 26 – 28
26	1	hose clamp (stainless) Ø 16 – 27
27	17	cable tie
28	2	angle bracket
29		various washers, nuts, screws

1

Order number

9009780G

Air Top 2000 ST Marine 12 V Diesel

The Marine heater kits include high quality stainless steel parts and accessories, long wiring harness, external temperature sensor and a noise suppression support for the dosing pump.

2

Air distribution

For the distribution of the hot air in your boat you need hoses, distributors and outlets. Please compose your air distribution system individually.

SEE PAGE 53

3

Fuel supply

For the installation of the air heater in the engine compartment the fuel supply system has to be fire-resistant according to EN ISO 7840. Please order the adequate components additionally (fuel lines, fuel supply kit, rubber hose, fuel pump protection).

SEE PAGE 51

4

Exhaust system (optional)

Depending on the installation position and length of the exhaust pipe you may need a condensation water drain and an exhaust pipe insulation additionally.

SEE PAGE 48

5

Accessories (optional)

For extension of your heater system you find comfort control elements as well as other installation and system components in the accessories section.

SEE PAGE 43

Air heaters

Air Top Evo 3900

Air Top Evo 3900 – the smart multi mode heater

High output, compact and quiet, the heater is ideally suited for the most rigorous requirements. It can be upgraded with the new multi mode user interface to offer additional operation modes depending on individual heating requirements.

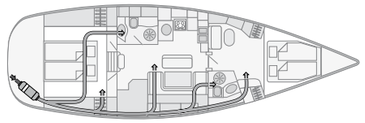
Up to 8 Air Top heaters can be combined into one system for increased heating demand (up to 31.2 kW). The whole system can be operated via one central user interface.

The advantages of the Air Top Evo 3900:

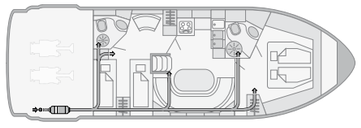
- High output
- Compact and quiet
- Upgrade with multi mode user interface possible
- Suited for most rigorous requirements

New in 2013 kits:

- Improved air intake silencer
- Vibration dampers for fuel line



Each cabin and head compartment has its own air outlet. One outlet should be non-closable. The temperature sensor as well as the main air outlet is in the salon. The fresh air is taken in via the rear locker from outside.



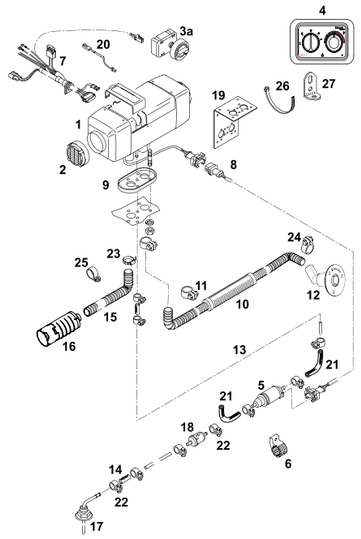
In motor boats, the heater is usually placed in the engine compartment. The fresh air has to be taken in from outside the engine room. Special attention needs to be paid to a fire-resistant fuel supply system. One of the outlets should be non-closable.

Technical specifications

	Air Top EVO 3900*
EC approval mark	E1*2007/56*2006/119*0219*_
Heat output	1.5 – 3.5 (3.9) kW 5,100 – 12,000 (13,400) BTU/h
Fuel, Fuel consumption	Diesel, 0.17 – 0.42 (0.47) l/h Diesel, 0.04 – 0.11 (0.12) gal/h
Rated voltage	12 V, 24 V
Rated power consumption	15 – 40 (55) W
Rated current (for 12 V)	1,3 – 3,3 (4.6) A
Rated current (for 24 V)	0,6 – 1,7 (2.3) A
Air Flow (against 0.5 mbar)	140 (155) m^3/h 77.7 (91) cfm
Dimensions (L x W x H)	423 x 148 x 162 mm 16.65 x 5.83 x 6.38 in
Weight	5.9 kg, 13 lbs
Diameter air outlet	90 mm, 3.54 in
Diameter exhaust	24 mm, 0.94 in

* Air Top Evo 3900 and Air Top Evo 5500 deliver the boosting power of 3900 or 5500 W only in combination with the Air Top Evo M user interface.

Scopes of delivery



Item	Qty	Description
1	1	heater 12 or 24 V
2	1	grille
3a	1	standard heater control element
4	1	EVO M control element
5	1	metering pump * 12 or 24 V
6	1	support for metering pump EPDM
7	1	wiring harness (heater); 9,500 lg
8	1	wiring harness (metering pump) 7,000 lg
9	1	gasket
10	1	exhaust silencer leakproof 1,800 lg
11	1	hose clamp Ø 28 – 35
12	1	exhaust through hull
13	1	fuel hose 12 V: 5,000 lg.; 24 V: 8,000 lg
14	5	rubber fuel hose
15	1	Combustion air intake hose 300lg
16	1	Combustion air intake silencer
17	1	tank extracting device
18	1	fuel filter
19	1	heater bracket stainless steel
20	1	temperature sensor, external 2.5 m
21	2	vibration damper for fuel hose
	1	**bag (with mech. mounting hardware) consisting of:**
22	10	hose clamp (stainless steel) Ø 14
23	1	hose clamp Ø 16 – 27 (combustion air)
24	2	hose clamp Ø 26 – 28 (exhaust)
25	1	pipe clip (stainless steel) Ø 30
26	17	cable tie
27	2	angle bracket
28		various washers, nuts, screws

1

Order numbers

9018439D
Air Top Evo 3900 Marine 12V Diesel
9018440D
Air Top Evo 3900 Marine 24 V Diesel
9018495D
Air Top Evo 3900 Marine 12 V Diesel
with Air Top Evo M control
9018496D
Air Top Evo 3900 Marine 24 V Diesel
with Air Top Evo M control

The Marine heater kits include high quality stainless steel parts and accessories, long wiring harness, external temperature sensor and a noise suppression support for the dosing pump.

2

Air distribution

For the distribution of the hot air in your boat you need hoses, distributors and outlets. Please compose your air distribution system individually.

SEE PAGE 54

3

Fuel supply

For the installation of the heater in the engine compartment the fuel supply system has to be fire-resistant according to EN ISO 7840. Please order the adequate components additionally (fuel lines, fuel supply kit, rubber hose, fuel pump protection).

SEE PAGE 51

4

Exhaust system (optional)

Depending on the installation position and length of the exhaust pipe you may need a condensation water drain and an exhaust pipe insulation additionally.

SEE PAGE 48

5

Accessories (optional)

For extension of your heater system you find comfort control elements as well as other installation and system components in the accessories section.

SEE PAGE 43

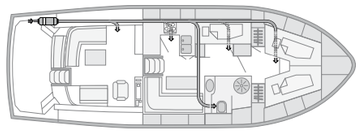
Air heaters

Air Top Evo 5500

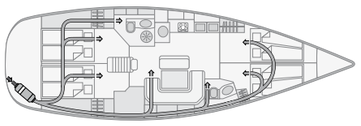
Air Top Evo 5500 – for extreme conditions

Extremely powerful, compact and quiet, this heater ensures a comfortable climate for larger yachts even under the harshest conditions, and satisfies the most demanding requirements. It can be upgraded with the new multi mode user interface to offer additional operation modes depending on individual heating requirements.

Up to 8 Air Top heaters can be combined into one system for increased heating demand (up to 44 kW). The whole system can be operated via one central user interface.



Each of this five cabin yacht has an individual air outlet. The air duct to the salon as well as the front should have at least 80 mm Ø to ensure a good air flow and one of the outlets should be non-closable. The fresh air is taken in via the rear locker from outside.



With the heater in the engine compartment, the fuel supply system must be designed to be fire-resistant. The air outlet to the salon has to be non-closable. Air outlets for the other cabins or the head compartment may be closable to enable individual heat regulation.

The advantages of the Air Top Evo 5500:

- Extremely powerful
- Compact and quiet
- Suitable for larger yachts even under the harshest conditions
- Upgrade with multi mode user interface possible

New in 2013 kits:

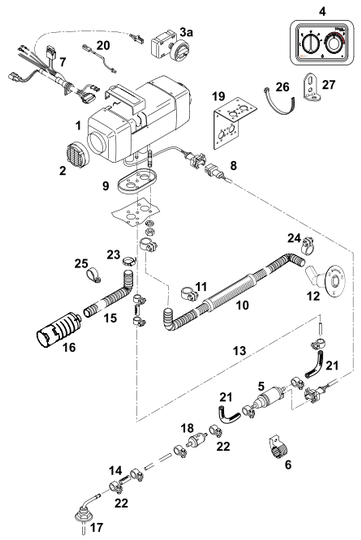
- Improved air intake silencer
- Vibration dampers for fuel line

Technical specifications

	Air Top EVO 5500*
EC approval mark	E1*2007/56*2006/119*0220*_
Heat output	1.5 – 5.0 (5.5) kW 5,100 – 17,000 (18,700) BTU/h
Fuel, Fuel consumption	Diesel, 0.17 – 0.60 (0.66) l/h Diesel, 0.04 – 0.15 (0.17) gal/h
Rated voltage	12 V, 24 V
Rated power consumption	15 – 95 (130) W
Rated current (for 12 V)	1,3 – 7,9 (10.8) A
Rated current (for 24 V)	0,6 – 4,0 (5.4) A
Air Flow (against 0.5 mbar)	200 (220) m³/h 117.7 (129.4) cfm
Dimensions (L x W x H)	423 x 148 x 162 mm 16.65 x 5.83 x 6.38 in
Weight	5.9 kg, 13 lbs
Diameter air outlet	90 mm, 3.54 in
Diameter exhaust	24 mm, 0.94 in

* Air Top Evo 3900 and Air Top Evo 5500 deliver the boosting power of 3900 or 5500 W only in combination with the Air Top Evo M user interface.

Scopes of delivery



Item	Qty	Description
1	1	heater 12 or 24 V
2	1	grille
3a	1	standard heater control element
4	1	EVO M control element
5	1	metering pump * 12 or 24 V
6	1	support for metering pump EPDM
7	1	wiring harness (heater); 9,500 lg
8	1	wiring harness (metering pump) 7,000 lg
9	1	gasket
10	1	exhaust silencer leakproof 1,800 lg
11	1	hose clamp Ø 28 – 35
12	1	exhaust through hull
13	1	fuel hose 12 V: 5,000 lg.; 24 V: 8,000 lg
14	5	rubber fuel hose
15	1	Combustion air intake hose 300lg
16	1	Combustion air intake silencer
17	1	tank extracting device
18	1	fuel filter
19	1	heater bracket stainless steel
20	1	temperature sensor, external 2.5 m
21	2	vibration damper for fuel hose
	1	**bag (with mech. mounting hardware) consisting of:**
22	10	hose clamp (stainless steel) Ø 14
23	1	hose clamp Ø 16 – 27 (combustion air)
24	2	hose clamp Ø 26 – 28 (exhaust)
25	1	pipe clip (stainless steel) Ø 30
26	17	cable tie
27	2	angle bracket
28		various washers, nuts, screws

1

Order numbers

9018441E
Air Top Evo 5500 Marine 12 V Diesel
9018442E
Air Top Evo 5500 Marine 24 Diesel
9018497E
Air Top Evo 5500 Marine 12 V Diesel
with Air Top Evo M control
9018498D
Air Top Evo 5500 Marine 24 V Diesel
with Air Top Evo M control

The Marine heater kits include high quality stainless steel parts and accessories, long wiring harness, external temperature sensor and a noise suppression support for the dosing pump.

2

Air distribution

For the distribution of the hot air in your boat you need hoses, distributors and outlets. Please compose your air distribution system individually.

SEE PAGE 53

3

Fuel supply

For the installation of the air heater in the engine compartment the fuel supply system has to be fire-resistant according to EN ISO 7840. Please order the adequate components additionally (fuel lines, fuel supply kit, rubber hose, fuel pump protection).

SEE PAGE 51

4

Exhaust system (optional)

Depending on the installation position and length of the exhaust pipe you may need a condensation water drain and an exhaust pipe insulation additionally.

SEE PAGE 48

5

Accessories (optional)

For extension of your heater system you find comfort control elements as well as other installation and system components in the accessories section.

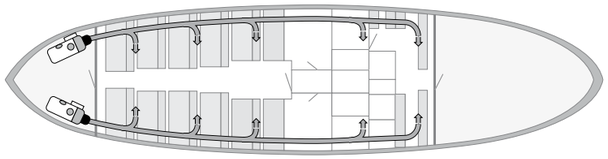
SEE PAGE 43

Air heaters

HL 90

HL 90 – the most powerful air heater

The powerful heater for passenger and commercial boats.



For this large 20m passenger boat two powerful HL 90 heaters are necessary to heat the large cabin volume. The main air ducts go along the sides of the vessel with several outlets. The heaters are installed in separate service compartments in the aft.

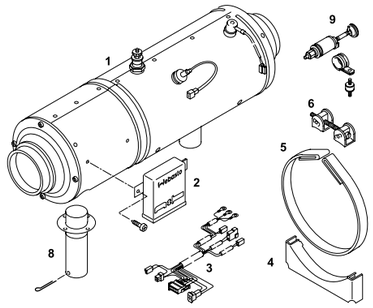
The advantages of the HL 90 air heater:

- Powerful heater for large cabin volumes
- Short heating-up times thanks to effective output
- Low operating costs
- Powerful fan allows long air ducts
- Dehumidification of the cabins
- Simple to install
- Compact, space-saving design
- Meet current requirements and standards relating to boats

Technical specifications

	HL 90
EC approval mark	e1*2001/56*2004/78*0017*_
Heat output	6.5 – 9.0 kW 22,100 – 30,700 BTU/h
Fuel, Fuel consumption	Diesel, 0.86 – 1.20 l/h Diesel, 0.22 – 0.31 gal/h
Rated voltage	24 V
Rated power consumption	94 – 160 W
Rated current (for 24 V)	3,9 – 6,7 A
Air Flow (against 0.5 bar)	280 m^3/h 165 cfm
Dimensions (L x W x H)	650 x 235 x 260 mm 25.5 x 9.2 x 10.2 in
Weight	13.3 kg, 29.3 lbs
Diameter air outlet	100 mm, 3.93 in
Diameter exhaust	38 mm, 1.49 in

Scopes of delivery



Item	Qty	Description
1	1	heater 24 V
2	1	electronic control unit 24 V
3	1	wiring harness (heater – electronic control unit)
4	2	support
5	2	tigthening strap
6	2	turnbuckle
	2	**bags consisting of:**
8	1	intake pipe assy
9	1	metering pump assy

1

Order number

38622C

HL 90 24 V

2

Combustion air system

Please compose the adequate system components for your boat individually.

SEE PAGE 47

3

Exhaust system

Please compose the adequate system components for your boat individually.

SEE PAGE 48

4

Fuel supply

Please compose the adequate system components for your boat individually. For the installation of the air heater in the engine compartment the fuel supply system has to be fire-resistant according to EN ISO 7840.

SEE PAGE 51

5

Control element

Please order an adequate control element.

SEE PAGE 45

6

Air distribution

For the distribution of the hot air in your boat you need hoses, distributors and outlets. Please compose your air distribution system individually.

SEE PAGE 53

7

Accessories (optional)

For extension of your heater system you find comfort control elements as well as other installation and system components in the accessories section.

SEE PAGE 43

Water heaters

Thermo 90 ST:
The renowned

NEW

Greater comfort with our innovative Webasto Thermo Call App.
Run your water or air heater easily with a smartphone.

Water heaters

- Thermo Top E
- Thermo Top C
- Thermo 50

SEE PAGE 30

- Thermo 90 ST
- Thermo 90 ST Chiller

SEE PAGE 32

- DBW 2010/2016

SEE PAGE 34

- Thermo 230/300/350

SEE PAGE 36

Water heaters

Product overview

	Part no.		EC approval mark	Heat output		Fuel, Fuel consumption	Rated Voltage (V)		Rated power consumption		Flow rate of circulating pumps	Dimensions heater (L x W x H)	Dimensions control unit with mounting (L x W x H)	Weight heater incl. fuel pump
	12 V Diesel	24 V Diesel		part load	full load				part load	full load				
Thermo Top E Marine	9009334C	_	e1*2001/56*0003*_	2.5 kW 8,500 BTU/h	4.2 kW 14,300 BTU/h	Diesel, 0.30 – 0.49 l/h Diesel, 0.08 – 0.12 gal/h	12		32 W 2.7 amps	37 W 3.1 amps	500 l/h against 0.14 bar 2.2 gal/min	214 x 106 x 168 mm 8.4 x 4.2 x 6.6 in	95 x 61 x 61 mm 3.7 x 2.4 x 2.4 in	3.2 kg 7.1 lbs
Thermo Top C Marine	9009335C	–	e1*2001/56*0002*_	2.5 kW 8,500 BTU/h	5.2 kW 17,700 BTU/h	Diesel, 0.30 – 0.61 l/h Diesel, 0.08 – 0.16 gal/h	12		32 W 2.7 amps	42 W 3.5 amps	500 l/h against 0.14 bar 2.2 gal/min	214 x 106 x 168 mm 8.4 x 4.2 x 6.6 in	95 x 61 x 61 mm 3.7 x 2.4 x 2.4 in	3.2 kg 7.1 lbs
Thermo 50 Marine	_	9009338C	e1*2001/56*0004*_	2.2 kW 7,500 BTU/h	5.0 kW 17,100 BTU/h	Diesel, 0.27 – 0.60 l/h Diesel, 0.07 – 0.17 gal/h	24		34 W 1.4 amps	50 W 2.1 amps	500 l/h against 0.14 bar 900 l/h against 0.10 bar 2.2 gal/h against 0.14 bar 4 gal/h against 0.10 bar	237 x 106 x 193 mm 9.3 x 4.2 x 7.6 in	–	3.2 kg 7.1 lbs
Thermo 90 ST Marine	9010410C	9010411C	e1*2001/56*0019*_	1.8 – 7.6 kW 6,100 – 26,000 BTU/h	9.1 kW 31,000 BTU/h	Diesel, 0.19 – 0.9 l/h Diesel, 0.05 – 0.24 gal/h	12, 24		37 – 83 W 3.0 – 6.9 amps at 12 V 1.5 – 3.5 amps at 24 V	90 W 7.5 amps (12 V Boost) 3.8 amps (24 V Boost)	700 l/h against 0.3 bar 3.1 gal/min	314 (352*) x 133 x 232 mm 13.9 x 5.2 x 9.1 in	117 x 150 x 44 mm 4.6 x 5.9 x 1.7 in	4.8 kg 10.5 lbs
Thermo 90 ST Chiller	9010412E	9010413E	e1*2001/56*0019*_	1.8 – 7.6 kW 6,100 – 26,000 BTU/h	9.1 kW 31,000 BTU/h	Diesel, 0.19 – 0.9 l/h Diesel, 0.05 – 0.24 gal/h	12, 24		37 – 83 W 3.0 – 6.9 amps at 12 V 1.5 – 3.5 amps at 24 V	90 W 7.5 amps (12 V Boost) 3.8 amps (24 V Boost)	pump from chiller A/C system is used	314 (352*) x 133 x 232 mm 13.9 x 5.2 x 9.1 in	117 x 150 x 44 mm 4.6 x 5.9 x 1.7 in	4.8 kg 10.5 lbs
DBW 2010	9023677A	9023679A	e1*2001/56*2004/78*0006_	11.6 kW 40,000 BTU/h		Diesel, 1.5 l/h Diesel, 0.4 gal/h	12, 24		60 W 5.0 amps at 12 V 2.5 amps at 24 V		1,600 l/h against 0.15 bar 7 gal/min	584 x 205 x 228 mm 23 x 8.1 x 9 in	111 x 117 x 49 mm 4.4 x 4.6 x 2 in	14.5 kg 33 lbs
DBW 2016	9012936A	9012935A	e1*2001/56*2004/78*0006_	16.0 kW 54,600 BTU/h		Diesel, 1.9 l/h Diesel, 0.5 gal/h	12, 24		90 W 7.5 amps at 12 V 3.8 amps at 24 V		1,600 l/h against 0.15 bar 7 gal/min	584 x 205 x 228 mm 23 x 8.1 x 9 in	111 x 117 x 49 mm 4.4 x 4.6 x 2 in	14.5 kg 33 lbs
Thermo 230	–	85312B	e1*2001/56*0007*_	23.0 kW 80,000 BTU/h		Diesel, 2.5 l/h Diesel, 0.8 gal/h	24		65 W 2.7 amps at 24 V		5,200 l/h against 0.15 bar 6,000 l/h against 0.4 bar 23 gal/min against 0.15 bar 26.4 gal/h against 0.4 bar	610 x 246 x 220 mm 24 x 9.7 x 8.7 in	–	19.0 kg 42 lbs
Thermo 300	–	85313B	e1*2001/56*0008*_	30.0 kW 104,000 BTU/h		Diesel, 3.3 l/h Diesel, 0.87 gal/h	24		110 W 4.6 amps at 24 V		5,200 l/h against 0.15 bar 6,000 l/h against 0.4 bar 23 gal/min against 0.15 bar 26.4 gal/h against 0.4 bar	610 x 246 x 220 mm 24 x 9.7 x 8.7 in	–	19.0 kg 42 lbs
Thermo 350	–	85314C	e1*2001/56*0009*_	35.0 kW 119,400 BTU/h		Diesel, 3.7 l/h Diesel, 0.98 gal/h	24		140 W 5.8 amps		5,200 l/h against 0.15 bar 6,000 l/h against 0.4 bar 23 gal/min against 0.15 bar 26.4 gal/h against 0.4 bar	610 x 246 x 220 mm 24 x 9.7 x 8.7 in	–	19.0 kg 42 lbs
Water station T50	77054500	77056400	e1*2001/56*0002*_	2.6 kW 8,800 BTU/h	5.2 kW 17,700 BTU/h	Diesel, 0.29 – 0.59 l/h Diesel, 0.08 – 0.16 gal/h	12, 24		22 – 34 W 1.8 – 2.8 amps at 12 V 0.9 – 1.4 amps at 24 V	32 – 50 W 2.6 – 4.2 amps at 12 V 1.3 – 2.1 amps at 24 V	–	390 x 235 x 310 mm 15.4 x 9.3 x 12.2 in	–	15.0 kg 33.1 lbs
Water station T90S	77054700	77054750	e1*2001/56*0019*_	1.8 – 7.6 kW continuous 9.1 kW boost mode 6,100 – 26,000 BTU/h continous 31,000 BTU/h boost mode		Diesel, 0.19 – 0.9 l/h Diesel, 0.05 – 0.24 gal/h	12, 24		37 W 3.1 amps at 12 V 1.6 amps at 24 V	83/90 W* * boost mode 7/7.5 amps at 12 V 3.5/3.8 amps at 24 V	–	390 x 235 x 310 mm 15.4 x 9.3 x 12.2 in	–	16.5 kg 36.4 lbs

Thermo Top E Marine
Thermo Top C Marine
Thermo 50 Marine

Thermo 90 ST Marine

DBW 2010/ 2016

Thermo 230/300/350

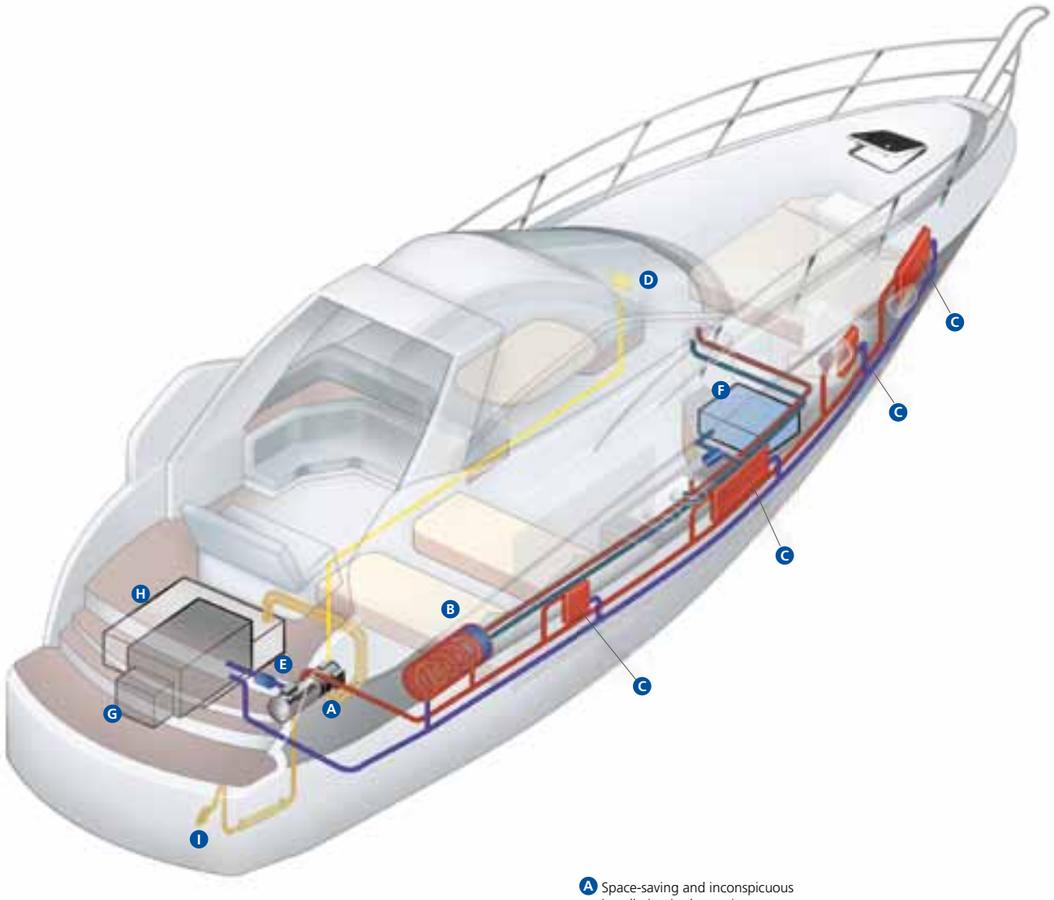
Water stations T 50/T 90 S

Water stations
DBW 2010/ 2016
Thermo 230/300/350

Webasto water stations consist of a Webasto water heater unit, integrated in a complete system, to produce continuously hot water for various uses.

Water heaters

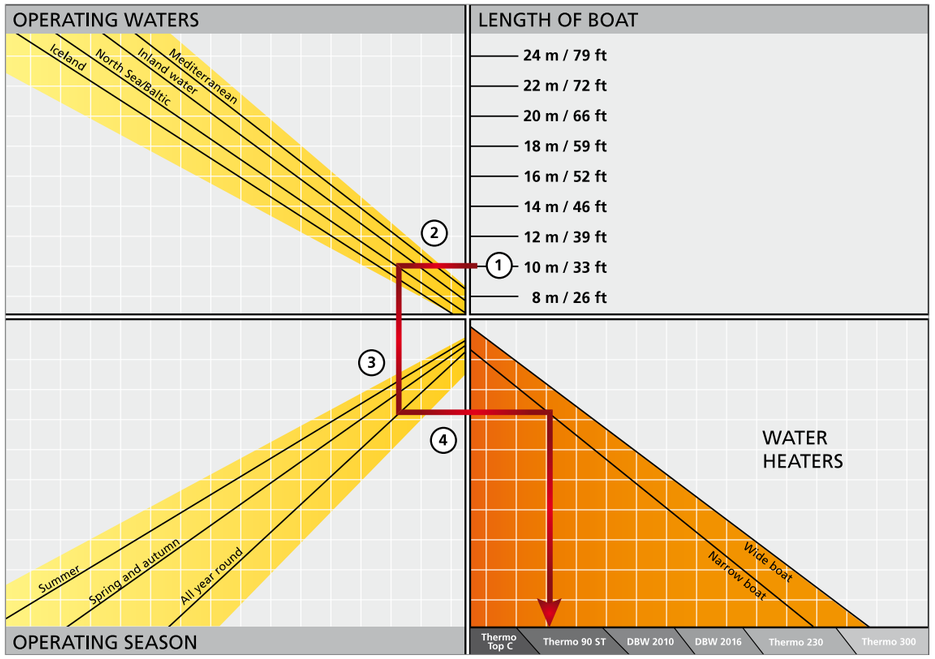
Installation example



- A Space-saving and inconspicuous installation in the engine room
- B Boiler for heating hot water – for extra comfort
- C One radiator for each cabin allows an individual temperature control
- D Controls – simple and logical to use
- E Circulating pump
- F Fresh water tank
- G Engine
- H Fuel tank
- I Stainless steel exhaust

Water heaters

Selection tool



What's the best water heating system for my boat?

1. Select the length corresponding to your boat.
2. From there, trace a line to the left until you cometo the line corresponding to the waters in which you plan to operate.
3. From there, trace a line vertically downwards until you come to the line corresponding to the season in which you plan to operate.
4. From there, trace a line to the right: Select the line corresponding to your type of boat in the lower section and then trace a line vertically downwards – that's the recommended system.

Our specialists can provide you with more information about this topic – for example about the influence of the water temperature in your operating waters on your choice of heating system. Simply contact one of our expert service points for individual advice, or consult the Marine Navigator CD.

Water heaters

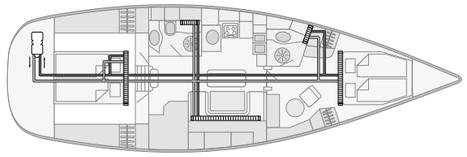
Thermo Top C / Thermo Top E / Thermo 50

Thermo Top water heaters

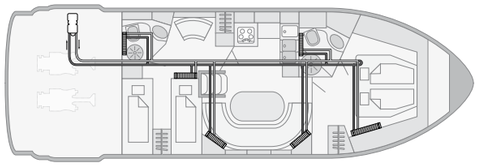
This compact 5 kW unit is ideal for the majority of marine applications. Compact design, variable temperature control, service friendly technology and low noise levels.

Thermo Top E Comfort Classic – the heater for integration into the BlueComfort Classic AC system

For a BlueComfort Classic system, you need to order the Thermo Top E Comfort Classic heater and combine it into one system with the air-conditioning unit. This heater model has special temperature settings both for the air-conditioning unit as well as for a boiler integration.



The Thermo Top C is placed in the locker compartment of the boat. Radiators are used to heat up the boat, because electrical autonomy in this size of boat is often very important and radiators do not consume electricity of the battery.



The Thermo Top in the engine compartment is able to heat the entire boat. Each cabin has individually sized convectors to match the heating requirements.

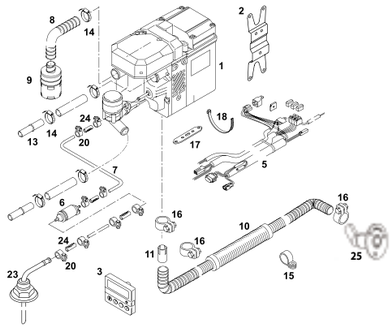
The advantages of Webasto's water heaters:

- Heating comfort just like at home
- Even distribution of warmth by means of radiators
- Hot water for the shower and galley
- Silent operation
- Space-saving installation in the engine room
- Excellent possibilities for combining with Webasto BlueCool air conditioning systems
- Separate temperature control in every cabin
- Low fuel consumption
- Compact design
- Preheating of the engine possible to avoid cold starts
- Meet current requirements and standards relating to boats
- Robust aluminum casing, resistant to high temperature or salt

Technical specifications

	Thermo Top E	Thermo Top C	Thermo 50
EC approval mark	e1*2001/56*0003*_	e1*2001/56*0002*_	e1*2001/56*0004*_
Heat output	4.2 kW, 14,300 BTU/h	5.2 kW, 17,700 BTU/h	5.0 kW, 17,100 BTU/h
Fuel, Fuel consumption	Diesel, 0.30 – 0.49 l/h Diesel, 0.08 – 0.12 gal/h	Diesel, 0.29 – 0.59 l/h Diesel, 0.08 – 0.16 gal/h	Diesel, 0.28 – 0.63 l/h Diesel, 0.07 – 0.17 gal/h
Rated voltage	12 V	12 V	24 V
Rated power consumption	32 – 37 W 2.7 – 3.1 amps	32 – 42 W 2.7 – 3.5 amps	34 – 50 W 1.4 – 2.1 amps
Flow rate of circulating pump (against 0.14 bar)	500 l/h against 0.14 bar 2.2 gal/min	500 l/h against 0.14 bar 2.2 gal/min	500 l/h against 0.14 bar; 900 l/h against 0.10 bar 2.2 gal/h against 0.14 bar; 4 gal/h against 0.10 bar
Dimensions of heater (L x W x H)	214 x 106 x 168 mm 8.4 x 4.2 x 6.6 in	214 x 106 x 168 mm 8.4 x 4.2 x 6.6 in	237 x 106 x 193 mm 9.3 x 4.2 x 7.6 in
Weight heater	3.2 kg, 7.1 lbs	3.2 kg, 7.1 lbs	3.2 kg, 7.1 lbs

Scopes of delivery



Item	Qty	Description
1	1	heater 12 V (including circulating pump and electronic control unit)
2	1	heater bracket
3	1	operating control set (not with 9019718A)
5	1	wiring harness
6	1	metering pump + EPDM support
7	1	fuel hose Øi 1,5/Øa 5; 6,000 lg
8	1	air-intake hose HMA Øi 22/Øa 25; 400 mm lg
9	1	air-intake silencer
10	1	exhaust silencer leak-proof Ø 24;1, 800 mm lg
11	1	exhaust reducer
	1	bag (mounting hardware) consisting of:
13	2	connection pipe, plastic Ø 18 x 27
14	7	hose clamp (chrome) Ø 16 – 27
15	2	pipe clip Ø 25
16	3	pipe clip Ø 24 – 27
18	30	cable tie 178 lg
23	1	tank extracting device
25	1	exhaust through hull
	1	**bag (accessories) consisting of:**
20	8	hose clamp (steel) Ø 14
24	4	fuel hose 5 X 50
	1	water hose Ø 20; 2,200 lg

1

Order numbers

9009335C
Thermo Top C Marine 12 V Diesel
9009334C
Thermo Top E Marine 12 V Diesel
9019718A
Thermo Top E Comfort Classic 12 V Diesel
9009338C
Thermo 50 Marine 24 V Diesel

2

Water system

For the distribution of heat in your boat you may need extra hoses, valves, expansion tank, convectors, air handlers etc. Please compose your water system individually.

SEE PAGE 61

3

Fuel supply

For the installation of the heater in the engine compartment the fuel supply system has to be fire-resistant according to EN ISO 7840. Please order the adequate components additionally (fuel lines, fuel supply kit, rubber hose, fuel pump protection).

SEE PAGE 51

4

Exhaust system

Depending on the installation position and length of the exhaust pipe you may need a condensation water drain and an exhaust pipe insulation additionally.

SEE PAGE 48

5

Accessories (optional)

For extension of your heater system you find comfort control elements as well as other installation and system components in the accessories section.

SEE PAGE 43

Water heaters

Thermo 90 ST

Thermo 90 ST – state-of-the art controller and easy service

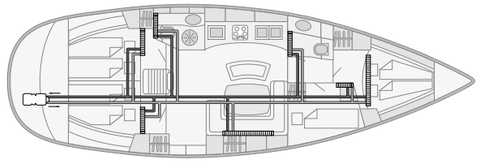
This device is ideal for daily use: infinitely variable power adjustment, high heat output, compact dimensions, service-friendly technology and an extremely low noise level.

Thermo 90 ST Chiller – the heater for integration into an AC system

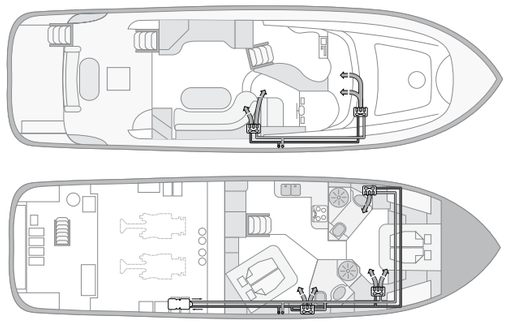
If you want to build a BlueComfort system with a Thermo 90 heater, use the Thermo 90 ST Chiller version. It comes with a special electronic control unit and without the water pump which is not needed.

The advantages of the Thermo 90 ST:

- Ideal for daily use
- Infinitely variable power adjustment
- High heat output
- Compact dimensions
- Service friendly technology
- Extremely low noise level



This 44' sailing yacht uses convectors for all cabins to heat the boat. Convectors are noiseless and do not consume any electrical power off the battery, therefore resulting in a very high electrical autonomy.

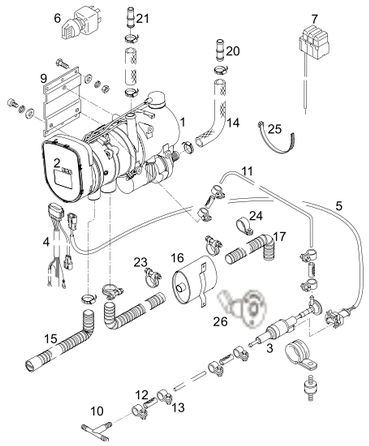


In this 40' motor yacht electrical fan blowers are used to heat up the boat. They are very compact and may be easily installed in small spaces, blowing hot air through air ducts into each cabin. The windscreen has a separate blower to demist and defrost.

Technical specifications

	Thermo 90 ST
EC approval mark	e1*2001/56*0019*_
Heat output	1.8 – 7.6 kW Boost Mode 9.1 kW 6,100 – 26,000 BTU/h (Boost Mode) 31,000 BTU/h
Fuel, Fuel consumption	Diesel, 0.19 – 0.9 l/h Diesel, 0.05 – 0.24 gal/h
Rated voltage	12 V
Rated power consumption	12 V, 24 V 3.0 – 6.9 amps at 12 V 1.5 – 3.5 amps at 24 V
Flow rate of circulating pump (against 0.3 bar)	700 l/h against 0.3 bar 3.1 gal/min
Dimensions of heater (L x W x H)	352 x 133 x 232 mm 13.9 x 5.2 x 9.1 in
Weight heater	4.8 kg, 10.5 lbs

Scopes of delivery



Item	Qty	Description
1	1	heater 12 or 24 V including circulating pump and electronic control unit (no circulating pump with Thermo 90 ST Chiller)
2	1	electronic control unit
3	1	metering pump
4	1	wiring harness (heater, 570 mm lg)
5	1	wiring harness (metering pump, 5,000 mm lg)
6	1	switch with lamp 12 or 24 V (not with 9010412D and 9010413D)
7	1	fuse holder with wiring harness
9	1	heater bracket
10	1	T-piece + fuel hoses & hose clamps (8 x 5 x 8)
11	1	hose Ø 5 x 1,5; 6,000 mm lg
12	4	fuel hose Øi 4,5/Øa 10,5; 50 mm lg
12	2	fuel hose Øi 8 / Øa 12; 70 mm lg
13	8	hose clamp (steel; Ø 10)
13	4	hose clamp (steel; Ø 12)
14	1	bent hose Øi 20/Øa 29; 2,200 mm lg
15	1	air intake silencer PAK Øi 30,5/Øa 38; 1,160 mm lg
16	1	exhaust silencer Øa 38
17	1	flexible pipe (inoxyd.) Øi 38/Øa 42; 1,600 mm lg (1 x 1,000 mm + 1 x 600 mm)
20	2	connection pipe Ø 18 x 20
21	2	connection pipe Ø 20 x 20
22	7	hose clamp Ø 23 … 35
23	3	hose clamp Ø 39 … 42
24	2	pipe clip Ø 42
25	15	cable tie 178 mm lg
26	1	exhaust through hull
27		various washers, nuts, screws

1

Order numbers

9010410C
Thermo 90 ST Marine 12 V Diesel
9010411C
Thermo 90 ST Marine 24 V Diesell
9010412E
Thermo 90 ST Chiller 12 V Diesel
9010413E
Thermo 90 ST Chiller 24 V Diesel

2

Water system

For the distribution of heat in your boat you may need extra hoses, valves, expansion tank, convectors, air handlers etc. Please compose your water system individually.

SEE PAGE 61

3

Fuel supply

For the installation of the heater in the engine compartment the fuel supply system has to be fire-resistant according to EN ISO 7840. Please order the adequate components additionally (fuel lines, fuel supply kit, rubber hose, fuel pump protection).

SEE PAGE 51

4

Exhaust system (optional)

Depending on the installation position and length of the exhaust pipe you may need a condensation water drain and an exhaust pipe insulation additionally.

SEE PAGE 48

5

Control element

Please order an adequate control element. For the Thermo 90 ST Chiller no control element is needed. The heater is activated via the air conditioning control.

SEE PAGE 45

6

Accessories (optional)

For extension of your heater system you find comfort control elements as well as other installation and system components in the accessories section.

SEE PAGE 43

Water heaters

DBW 2010/2016

DBW 2010 / 2016 water heater – the robust classic

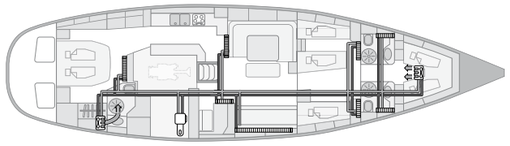
The most robust device on the market has proven itself through many years of use. The water heating system is also suitable for demanding applications with high heat output of 11.6 kW.

Expert recommendation: DBW 2010 water station

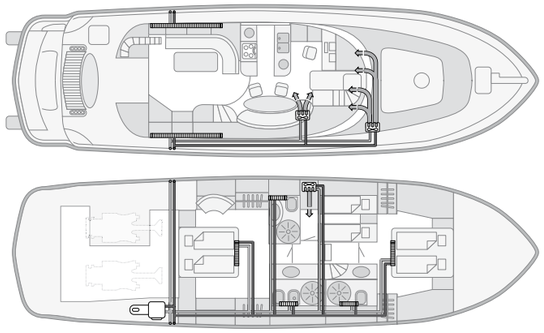
Used as a central unit, the Webasto water station is premounted on a tray for easy installation and comes with a soundproofed housing as well as a high performance circulation pump. In addition, the domestic water is heated in the Webasto calorifier as needed.

The advantages of the DBW 2010/2016:

- Most robust device on the market
- Especially suitable when high heat output required



In this 64' sailing yacht the heater is installed in the technical compartment. Mainly convectors are used as heat exchangers. Fan blowers are only used in cabins with space restrictions or where quick heating up or air circulation is required.

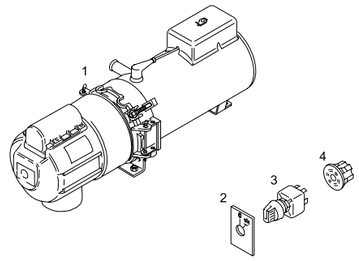


The heater in this 50' motor yacht provides heating for both decks. A combination of convectors and fan blowers is used. For heating sanitary water as well, a Webasto water station could be used to easily integrate a calorifier.

Technical specifications

	DBW 2010	DBW 2016
EC approval mark	e1*2001/56*2004/78*0006*_	e1*2001/56*2004/78*0006*_
Heat output	11.6 kW, 45,000 BTU/h	16.0 kW, 54,600 BTU/h
Fuel, Fuel consumption	Diesel, 1.5 l/h Diesel, 0.4 gal/h	Diesel, 1.9 l/h Diesel, 0.5 gal/h
Rated voltage	12 V, 24 V	12 V, 24 V
Rated power consumption	60 W 5.0 amps at 12 V 2.5 amps at 24 V	90 W 7.5 amps at 12 V 3.75 amps at 24 V
Flow rate of circulating pump (against 0.15 bar)	1,600 l/h against 0.15 bar 7 gal/min	1,600 l/h against 0.15 bar 7 gal/min
Dimensions of heater (L x W x H)	584 x 205 x 228 mm 23 x 8.1 x 9 in	584 x 205 x 228 mm 23 x 8.1 x 9 in
Weight heater	14.5 kg, 33 lbs	14.5 kg, 33 lbs

Scopes of delivery



Item	Qty	Description
1	1	heater 12 or 24 V
	4	hose clamps Ø 10
11	1	hose clamp Ø 29
	1	gauge (for checking of spark setting)
	1	**bag (with electrical hardware) consisting of:**
2	1	plate (to item 6)
3	1	switch with lamp 12 or 24 V
4	1	central plug (to item 6)
	4	plug connector
	1	connector housing
	2	insert, male
	16	insert, female

1

Order numbers

9023677A
DBW 2010 12 Volt Diesel
9023679A
DBW 2010 24 Volt Diesel
9012936A
DBW 2016 12 Volt Diesel
9012935A
DBW 2016 24 Volt Diesel

2

Water system

In addition, the water pump U 4810 is needed.

SEE PAGE 44

For the distribution of heat in your boat you may need extra hoses, valves, expansion tank, convectors, air handlers etc. Please compose your water system individually.

SEE PAGE 61

3

Fuel supply

Please compose the adequate system components for your boat individually. For the installation of the heater in the engine compartment the fuel supply system has to be fire-resistant according to EN ISO 7840.

SEE PAGE 51

4

Exhaust system

Please order exhaust hose, the exhaust silencer and skin fitting additionally. Depending on the installation position and length of the exhaust pipe you may need a condensation water drain and an exhaust pipe insulation additionally.

SEE PAGE 48

5

Accessories (optional)

For extension of your heater system you find comfort control elements as well as other installation and system components in the accessories section.

SEE PAGE 43

Water heaters

Thermo 230/300/350

Thermo 230 / 300 / 350 – for high heating power demands

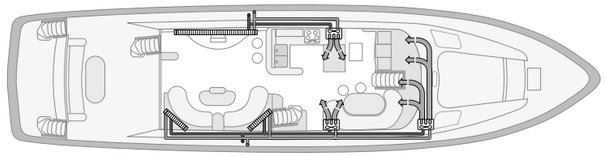
The device is suitable for very large boats. The heater has the power to keep every part of your boat warm and challenges even extreme weather conditions. In case one heater is not sufficient (e.g. very large boats) two heaters can be combined.

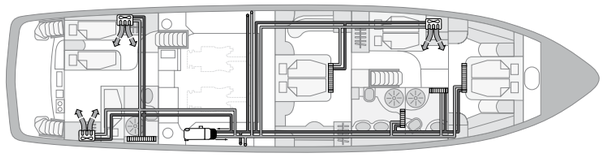
Expert recommendation: Thermo 230 water station

The powerful and proven Thermo 230 water station is particularly well suited for heating up large boats and yachts. It is warm and cozy on board with sufficient hot water for comfortable relaxation.

The advantages of the Thermo 230/300/350:

- Suitable for very large boats
- Challenges even extreme weather conditions



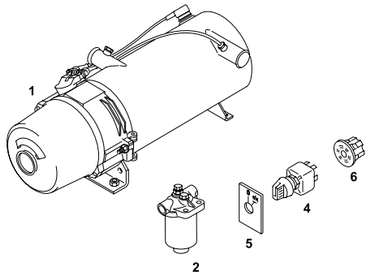


Five separate heating circuits branch off from the Thermo 230 heater in the engine room.This allows a precise water flow regulation for each segment of the boat. A combination of convectors and fan blowers is used. For the windscreen a separate fan blower ensures to quickly demist and defrost.

Technical specifications

	Thermo 230	Thermo 300	Thermo 350
EC approval mark	e1*2001/56*0007*_	e1*2001/56*0008*_	e1*2001/56*0009*_
Heat output	23.0 kW, 80,000 BTU/h	30.0 kW, 104,000 BTU/h	35.0 kW, 119,400 BTU/h
Fuel, Fuel consumption	Diesel, 2.5 l/h Diesel, 0.8 gal/h	Diesel, 3.3 l/h Diesel, 0.87 gal/h	Diesel, 3.7 l/h Diesel, 0.98 gal/h
Rated voltage	24 V	24 V	24 V
Rated power consumption	65 W 2.7 amps at 24 V	110 W 4.6 amps at 24 V	140 W 5.8 amps at 24 V
Flow rate of circulating pump (against 0.15 / 0.4 bar)	5,200 l/h against 0.15 bar; 6,000 l/h against 0.4 bar 23 gal/min against 0.15 bar; 26.4 gal/h against 0.4 bar	5,200 l/h against 0.15 bar; 6,000 /h against 0.4 bar 23 gal/min against 0.15 bar; 26.4 gal/h against 0.4 bar	5,200 l/h against 0.15 bar; 6,000 l/h against 0.4 bar 23 gal/min against 0.15 bar; 26.4 gal/ h against 0.4 bar
Dimensions of heater (L x W x H)	610 x 246 x 220 mm 24 x 9.7 x 8.7 in	610 x 246 x 220 mm 24 x 9.7 x 8.7 in	610 x 246 x 220 mm 24 x 9.7 x 8.7 in
Weight heater	19.0 kg, 42 lbs	19.0 kg, 42 lbs	19.0 kg, 42 lbs

Scopes of delivery



Item	Qty	Description
1	1	heater 24 V
2	1	fuel filter
	1	**bag (with mechanical connecting parts) consisting of:**
	2	double pipe socket M 14 x 1,5
	4	nipple
	4	union nuts
	2	gasket rings etc.
	1	**bag (with electrical hardware) consisting of:**
4	1	switch with lamp 24 V
5	1	plate (to item 4)
6	4	central plug (to item 4)
	8	plug connector, 2 pole
	1	plug connector, 6 pole
	1	plug connector, 8 pole
	14	plug connector, 8 pole
	8	flat spring contacts

1

Order numbers

85312B
Thermo 230 24 Volt Diesel
85313B
Thermo 300 24 Volt Diesel
85314C
Thermo 350 24 Volt Diesel

2

Water system

In addition a water pump U 4814, U 4852 or U 4854 is needed.

SEE PAGE 44

For the distribution of heat in your boat you may need extra hoses, valves, expansion tank, convectors, air handlers etc. Please compose your water system individually.

SEE PAGE 61

3

Fuel supply

Please compose the adequate system components for your boat individually. For the installation of the heater in the engine compartment the fuel supply system has to be fire-resistant according to EN ISO 7840.

SEE PAGE 51

4

Exhaust system

Please order exhaust hose, the exhaust silencer and skin fitting additionally. Depending on the installation position and length of the exhaust pipe you may need a condensation water drain and an exhaust pipe insulation additionally.

SEE PAGE 48

5

Accessories (optional)

For extension of your heater system you find comfort control elements as well as other installation and system components in the accessories section.

SEE PAGE 43

Marine water stations

Plug & heat central heating units

The Webasto marine water stations are sophisticated robust solutions, designed to be used everyday, in every area and under all circumstances. The water stations have compact dimensions in all capacities (11.6 kW to 35 kW) and come with optional brackets for floor or wall mounting. The units are assembled on a stainless steel tray, fitted in a modern enclosure and operate very quietly.

Four versions in five different capacities (from 11.6 kW to 35 kW):

- Central heating
- Central heating + hot sanitary water through boiler
- Central heating + hot sanitary water through integrated plate heat exchanger
- Central heating for air-conditioner integration

The advantages of the water stations:

- Compact dimensions, robust construction
- Pre-mounted for easy installation
- Operate on 12 / 24 V battery power
- Winter mode with freeze protection
- Central heating and hot sanitary water in one system
- Circulation pump, fuel filter, dedicated electronics etc. already integrated

Water station example

Buffer tank

20 liter stainless steel buffer tank

- Included in scopes of delivery
- Fully insulated
- 800 W/230 V electric heating element for freeze protection

Robust, compact casing

Controls

Control elements

- (1) Standard control element included in scopes of delivery
- (2) Programmable thermostat module as option. Fits bticino cover frames

Thanks to high heat output, large amounts of continuous hot water (at 60° C) can be reached:
16 kW => 4.5 liter/min.; 23 kW => 6.5 liter/min.; 30 kW => 8.5 litre/min. at 60° C.

Technical specifications

Type of marine water stations	Function	Part no.	Voltage (V)	Heat output	Fuel consumption	Electrical power consumption	Dimensions L x W x H	Weight
DBW 2010	CH	3391617A	12	11.6 kW 40,000 BTU/h	1.5 l/h 0.4 gal/h	185 W 15.4 Amps	800 x 520 x 270 mm 31.5 x 20.5 x 10.6 inch	38 kg 84 lbs
DBW 2010	BC	3391618A	12	11.6 kW 40,000 BTU/h	1,.5 l/h 0.4 gal/h	185 W 15.4 Amps	800 x 520 x 270 mm 31.5 x 20.5 x 10.6 inch	38 kg 84 lbs
DBW 2010	CH	3391620A	24	11.6 kW 40,000 BTU/h	1.5 l/h 0.4 gal/h	185 W 7.7 Amps	800 x 520 x 270 mm 31.5 x 20.5 x 10.6 inch	38 kg 84 lbs
DBW 2010	BC	3391621A	24	11.6 kW 40,000 BTU/h	1.5 l/h 0.4 gal/h	185 W 7.7 Amps	800 x 520 x 270 mm 31.5 x 20.5 x 10.6 inch	38 kg 84 lbs
DBW 2016	CH	3391623A	12	16 kW 54,000 BTU/h	1.9 l/h 0.5 gal/h	215 W 17.9 Amps	800 x 520 x 270 mm 31.5 x 20.5 x 10.6 inch	38 kg 84 lbs
DBW 2016	BC	3391624A	12	16 kW 54,000 BTU/h	1.9 l/h 0.5 gal/h	215 W 17.9 Amps	800 x 520 x 270 mm 31.5 x 20.5 x 10.6 inch	38 kg 84 lbs
DBW 2016	T	3391823A	12	16 kW 54,000 BTU/h	1.9 l/h 0.5 gal/h	215 W 17.9 Amps	800 x 520 x 270 mm 31.5 x 20.5 x 10.6 inch	42 kg 92 lbs
DBW 2016	CH	3391626A	24	16 kW 54,000 BTU/h	1.9 l/h 0.5 gal/h	215 W 9 Amps	800 x 520 x 270 mm 31.5 x 20.5 x 10.6 inch	38 kg 84 lbs
DBW 2016	BC	3391627A	24	16 kW 54,000 BTU/h	1.9 l/h 0.5 gal/h	215 W 9 Amps	800 x 520 x 270 mm 31.5 x 20.5 x 10.6 inch	38 kg 84 lbs
DBW 2016	T	3391824A	24	16 kW 54,000 BTU/h	1.9 l/h 0.5 gal/h	215 W 9 Amps	800 x 520 x 270 mm 31.5 x 20.5 x 10.6 inch	42 kg 92 lbs
Thermo 230	CH	3391629A	24	23 kW 80,000 BTU/h	2.5 l/h 0.8 gal/h	190 W 7.9 Amps	800 x 520 x 270 mm 31.5 x 20.5 x 10.6 inch	44 kg 97 lbs
Thermo 230	T	3391630A	24	23 kW 80,000 BTU/h	2.5 l/h 0.8 gal/h	190 W 7.9 Amps	800 x 520 x 270 mm 31.5 x 20.5 x 10.6 inch	48 kg 106 lbs
Thermo 230	C	3391631A	24	23 kW 80,000 BTU/h	2.5 l/h 0.8 gal/h	190 W 7.9 Amps	800 x 520 x 270 mm 31.5 x 20.5 x 10.6 inch	44 kg 97 lbs
Thermo 300	CH	3391633A	24	30 kW 104,000 BTU/h	3.3 l/h 0.87 gal/h	235 W 9.8 Amps	800 x 520 x 270 mm 31.5 x 20.5 x 10.6 inch	44 kg 97 lbs
Thermo 300	T	3391825A	24	30 kW 104,000 BTU/h	3.3 l/h 0.87 gal/h	235 W 9.8 Amps	800 x 520 x 270 mm 31.5 x 20.5 x 10.6 inch	48 kg 106 lbs
Thermo 350	CH	3391635A	24	35 kW 119,400 BTU/h	3.7 l/h 0.98 gal/h	265 W 11 Amps	800 x 520 x 270 mm 31.5 x 20.5 x 10.6 inch	44 kg 97 lbs

Fuel = Diesel CH = central heating BC = central heating + boiler control T = central heating + tap C = central heating chiller integration

Marine water stations

Compact solutions for quick hot water production

The Webasto water station acts as a central unit for the heating of the vessel's warm water heating system (such as radiators & fan heat exchangers). Additionally, domestic warm water is heated on demand using a Webasto calorifier. The switch from central heating to domestic warm water heating is done automatically.

The Webasto calorifier quickly and efficiently heats the domestic warm water by a separate coil from the engine and a coil from the Webasto water heater circuit.
The additional electrical 230 V immersion heater ensures the provision of domestic warm water at shore connection.

The Webasto water stations consist of a Webasto water heater unit (e. g. Thermo Top C/Thermo 90 S), completely integrated into a stainless steel body. This provides a quick and easy installation of the system (Plug & Heat).

Advantages of the Webasto plug & heat system:

- Pre-mounted heating unit in stainless steel housing
- Direct connection to the Webasto boiler
- Product package includes a fully prefitted wiring harness, exhaust and installation kit
- Simple to install
- Low-noise operation
- Compact design
- Stainless steel calorifier with high quality insulation
- May be mounted horizontally or vertically

Thermo 90 water station
This robust piece of equipment has proven itself through many years of use. The water heating system is especially suitable for demanding applications thanks to a high heat output of 9.1 kW.

Scopes of delivery

Thermo 50 / 90 water stations
Heater fitted in stainless steel enclosure
Control panel
Heat-only panel
Control cable length = 10 m
Exhaust silencer
Flexible exhaust pipe stainless steel length = 1.8 m
Exhaust insulation length = 1 m
Through hull fitting
Complete fuel system (mecanyl)

Type	Part no.	Voltage (V)	Heat output		Fuel consumption		Fuel	Electr. power consumption		Dimensions L x W x H	Weight
			part load	full load	part load	full load		part load	full load		
Thermo 50	77054500	12	2.6 kW 8,877 BTU/h	5.2 kW 17,753 BTU/h	0.29 l/h 0.08 gal/h	0.59 l/h 0.16 gal/h	Diesel	22 W 1.9 Amps (12 V)	32 W 2.7 Amps (12 V)	390 x 235 x 310 mm 15.4 x 9.3 x 12.3 inch	15.0 kg 33.1 lbs
Thermo 50	77054600	24	2.2 kW 7,506 BTU/h	5.0 kW 17,060 BTU/h	0.28 l/h 0.074 gal/h	0.63 l/h 0.17 gal/h	Diesel	34 W 1.5 Amps (24 V)	50 W 2.1 Amps (24 V)	390 x 235 x 310 mm 15.4 x 9.3 x 12.3 inch	15.0 kg 33.1 lbs
Thermo 90	3392585A	12	1.8 – 7.6 kW inf. variable 61,452 – 25,946 BTU/h	9.1 kW booster setting 31,067 BTU/h	0.19 l/h 0.05 gal/h 1.1 l/h 0.30 gal/h booster setting	0.9 l/h 0.24 gal/h 1.1 l/h 0.30 gal/h booster setting	Diesel	37 W 3.1 Amps	83 W 7 Amps 90 W 7.5 Amps booster setting	390 x 235 x 310 mm 15.4 x 9.3 x 12.3 inch	16.5 kg 36.4 lbs
Thermo 90	3392955A	24	1.8 – 7.6 kW inf. variable 61,452 – 25,946 BTU/h	9.1 kW booster setting 31,067 BTU/h	0.19 l/h 0.05 gal/h 1.1 l/h 0.30 gal/h booster setting	0.9 l/h 0.24 gal/h 1.1 l/h 0.30 gal/h booster setting	Diesel	37 W 1.6 Amps	83 W 3.5 Amps 90 W 3.75 Amps booster setting	390 x 235 x 310 mm 15.4 x 9.3 x 12.3 inch	16.5 kg 36.4 lbs

Isotemp hot water boilers

Isotemp water heaters
The Isotemp water heaters deliver high water heating performances thanks to thick insulation and smart design. Indeed, the engine water heat exchanger as well as the electrical heat element are positioned in the lowest part of the tank where the water is coldest in order to ensure an equal heating of all the water in the tank.
The water in-and outlets are especially designed to minimize the mixture of cold and hot water.

Isotemp Double Coil boilers are the perfect option to be integrated into Webasto Water Heating Systems. Select among three models:
Basic 24 TCT, Basic 40 TCT or Basic 75 TCT.

Product specifications:

- Large range from 15 liters to 75 liters
- 4 product lines: Basic, Slim, Square, Spa
- Extra long, corrugated coils for high heat exchange efficiency
- Special 6.0 or 7.0 bar safety valve; simple winter drain
- Ultra-thick insulation for lowest temperature loss
- Electrical plug and play
- Immersion heating element especially designed to heat also the water at the bottom of the tank
- Thermostat mixing valve available as an option
- Immersion heating element optional available in 750,1200, 2000, 3000 W

Square 16

Slim

Spa

Article number	Type	Volume (l)	L x diameter D (mm)	Weight (kg)	Max. pressure (bar)	Immersion heater
601531S000000	Slim 15	15	520 x 295	10.5	7.0	230 V/750 W
602031S000000	Slim 20	20	645 x 295	11.5	7.0	230 V/750 W
602531S000000	Slim 25	25	765 x 295	13.5	7.0	230 V/750 W
602431B000000	Basic 24	24	470 x 395	14.0	7.0	230 V/750 W
603031B000000	Basic 30	30	535 x 395	17.0	7.0	230 V/750 W
604031B000000	Basic 40	40	640 x 395	20.0	7.0	230 V/750 W
605031B000000	Basic 50	50	760 x 395	23.0	7.0	230 V/750 W
607531B000000	Basic 75	75	1050 x 395	29.0	7.0	230 V/750 W
Double coil						
602431BDT0000	Basic 24 TCT	24	470 x 395	14.0	7.0	230 V/750 W
604031BDT0000	Basic 40 TCT	40	640 x 395	20.0	7.0	230 V/750 W
607531BDT0000	Basic 75 TCT	75	1050 x 395	29.0	7.0	230 V/750 W
Spa						
6P1531SPA0003	SPA 15	15	450 x 310	7,3	6	230V/750W*
6P2031SPA0003	SPA 20	20	550 x 310	8,3	6	230V/750W*
6P2531SPA0003	SPA 25	25	650 x 310	9,5	6	230V/750W*
6P3031SPA0003	SPA 30	30	535 x 390	11,7	6	230V/750W*
6P4031SPA0003	SPA 40	40	640 x 390	13,3	6	230V/750W*
Square			Dimension L x H x W (mm)			
601631Q000000	Square 16	16	400 x 180 x 560	16.0	5.5	230 V/750 W

* 115V versions and 1200W electrical heating coils available on request

Accessories for heating systems

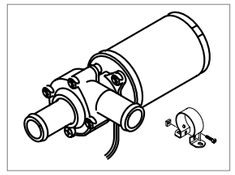
Circulating pumps

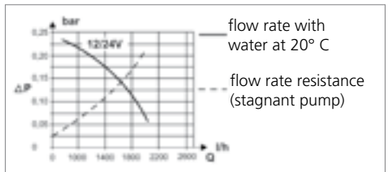
Technical features

These circulating pumps are suitable for hot water circulation. They are not designed for sea water use.

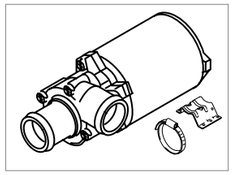
Model	Rated voltage (V)	Rated power consumption	Flow rate	Dimensions L x W x H	Diameter water connection	Weight	Part no. 12 V	Part no. 24 V
U 4840 for DBW 2010	12/24	25 W 2.1/1.1 A	1,600 l/h, 422 gal/h against 0.15 bar	173 x 81 x 77 mm 6.9 x 3.2 x 3.1 inch	18 mm 0.8 inch	0.8 kg 1.8 lbs	9024186A	9024187A
U 4814 for Thermo 230 /300/350	12/24	104 W 8.7/4.4 A	5,200 l/h, 1,370 gal/h against 0.2 bar	221 x 100 x 105 mm 8.8 x 4 x 4.2 inch	38 mm 1.5 inch	2.1 kg 4.7 lbs	43149B	43150C
Aquavent 5000 S (U 4854) for Thermo 230 /300/350	24	104 W 4.4 A	5,200 l/h, 1,370 gal/h against 0.2 bar	249 x 100 x 105 mm 9.9 x 4 x 4.2 inch	38 mm 1.5 inch	2.2 kg 4.9 lbs	–	1303320A
Aquavent 6000 SL (U 4856) for Thermo 230 /300/350	24	210 W 8.8 A	6,000 l/h, 1,583 gal/h against 0.4 bar	229 x 115 x 110 mm 8.6 x 4.6 x 4.3 inch	38 mm 1.5 inch	2.6 kg 6 lbs	–	SPH2710194A

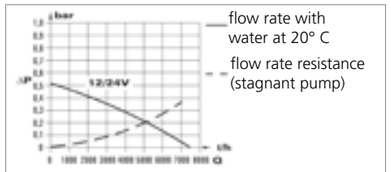
U 4840



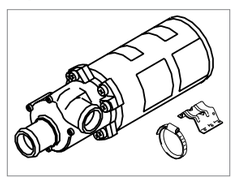


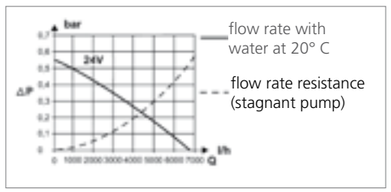
U 4814



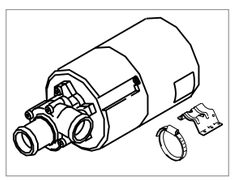


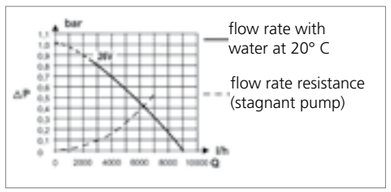
Aquavent 5000 S (U 4854)





Aquavent 6000 SC (U4856)





Control elements

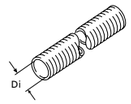
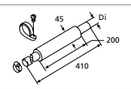
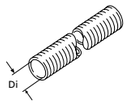
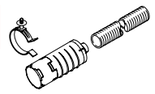
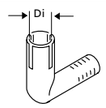
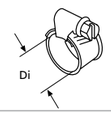
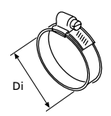
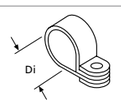
		Air Top ST	Air Top Evo	Thermo Top C	Thermo 50	Thermo 90 ST	DBW 2010/2016	Thermo 230/300/350	Part no.
	**Air Top Evo M control**								
	12/24 V Marine version		■						1313184A
	– to be used only in combination with Webasto Air Top Evo heaters								
	– Multi mode operation to match your individual heating power demands								
	ECO mode for reduced electrical power consumption								
	Power mode PLUS for +10 % increased heating power output (from 3,500 W to 3,900 W and from 5,000 W to 5,500 W)								
	Ventilation mode to provide fresh and cool air to your cabins on a hot day								
	– Easy connection of Webasto Telestart and Thermo Call possible								
	– Interchangeable bezels provide flexible design options								
	**Air Top standard control element**								
1	12 V standard (1)	■	■						82819B
2	panel with ventilation switch for ST heaters (2)	■	■						92240A
	additional adapter cable harness for EVO heaters								1313908A
	– dimensions: cut-out size: L = 74 mm, L = 55 mm visible: L = 120 mm, L = 82 mm								
	**Combi timer**								
	12 V	■	■						88206A
	24 V	■	■						88205A
	– three programmable pre-set times								
	– continuous heating possible								
	**Thermo Top digital timer**								
	12 V			■					
	– three programmable pre-set times								35968B
	– installation dimensions (L x W): 53 x 46 mm								
	– continuous heating possible								
	**Comfort digital timer**								
	12 V				■	■			88204A
	24 V				■	■			88195A
	– individual wake up function								
	– installation dimensions incl. connector (L x W x H): 84 x 40 x 51 mm								
	– continuous heating possible								
	**Electrical room thermostat**								
	10 to 30 V				■	■	■	■	34875A
	– installation dimensions (L x W x H): 89 x 44 x 42 mm								

Control elements

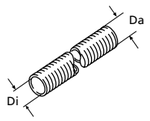
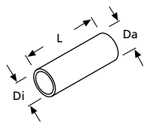
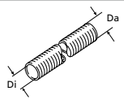
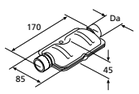
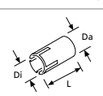
	Air Top Evo	Thermo Top C	Thermo 50	Thermo 90 ST	DBW 2010/2016	Thermo 230/300/350	Part no.
	**Telestart T91 Holiday**						
	12 V	■	■	*	*	*	*	9018150A
	– range remote control 1,000 m							
	– feedback signal							
	– smallest remote control on the market							
	– permanent heating possible							
	* on request							
	**Telestart T100 HTM**						
	Telestart set	■	■	*	*	*	*	9010148B
	– automatic heating time calculation							
	– range remote control 1,000 m							
	– digital display with indication of current temperature							
	* on request							
	**Switch with light bulb**						
	12 V				■	■	■	109995
	24 V			■	■	■	■	109999

* connection adaptation on request

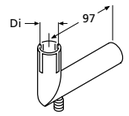
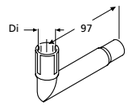
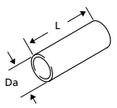
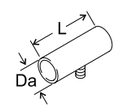
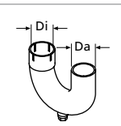
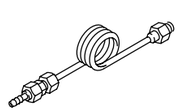
Combustion air system

	Air Top 2000 ST	Air Top Evo	HL 90	Thermo Top C	Thermo 50	Thermo 90 S/ST	DBW 2010/2016	DBW 2020/300/350	Thermo 230/300/350	Part no.
	**Flexible pipe**									
	Di = 18; L = 1,000					■				19733C
	Di = 22; PAK (per m)	■			■					466115
	Di = 25; PAK (per m)		■							91562A
	Di = 30; PAB (per m)					■				254177
	Di = 30; PAK (per m)			■		■				357901
	Di = 30,5; KAK (per m)									21446A
	Di = 55; PAK (per m)							■		441376
	Di = 80; PAK (per m)									39851
	**Air intake silencer, set**									
	Di = 22	■								1313514A
	bag with mounting parts									
	**Air intake silencer**									
	Di = 22; L = 800	■								83174A
	Di = 25; L = 650		■							90416C
	Di = 30; L = 1.160			■		■				22931B
	with safety cap									
NEW 	**Air Intake Silencer**									
	including flexible HMA tube 300 lg; D1a = 24; D2a = 52		■							9025956A
	**Elbow**									
	Di = 22; synthetic material	■								65000A
	Di = 25, synthetic material		■							91563A
	for combustion air									
	**Hose clamp**									
	Di = 20 … 27; stainless steel	■			■	■				1303080A
	Di = 28 … 35; stainless steel		■	■			■			9014771A
	worm thread steel									
	**Hose clamp**									
	Di = 40 … 47; stainless steel							■	■	67370A
	Di = 48 … 55; stainless steel								■	67371A
	Di = 70 … 90; stainless steel							■		92659A
	worm thread steel									
	**Pipe clip**									
	Di = 25; stainless steel	■				■				405256
	Di = 29; steel		■							362891
	Di = 33; stainless steel			■			■			499021

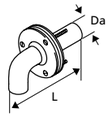
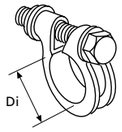
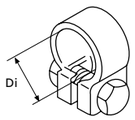
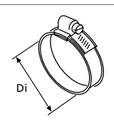
Exhaust system

			Air Top 2000 ST	Air Top Evo	HL 90	Thermo Top C	Thermo 50	Thermo 90 S / ST	DBW 2010 / 2016	DBW 2020 / 300 / 350	Thermo 230 / 300 / 350	Part no.
	**Flex. exhaust pipe (inox), 2 layers**											
	Di = 22, Da = 26	(per m); SS	■			■	■					9021447A
	Di = 24, Da = 27.8	(per m); SS		■								90394A
	Di = 30, Da = 34	(per m); SS										141488
	Di = 38, Da = 42	(per m); SS			■			■	■			353221
	Di = 40, Da = 44	(per m); SS										371394
	Di = 70, Da = 75	(per m); SS									■	479721
	Di = 80, Da = 85	(per m); SS								■		371416
	Di = 100	(per m); SS										371424
	**Insulation hose**											
	Di = 72, Da = 120; L = 1.250		■	■		■	■	■	■			9016230A
	Di = 72, Da = 120; L = 1.700		■	■		■	■	■	■			9016231A
	Di = 72, Da = 120; L = 1.850		■	■		■	■	■	■			1313978A
	**Flexible heat protection pipe**											
	Di = 28, Da = 32 (per m)		■			■	■					21543A
	Di = 43, Da = 45 (per m)			■	■			■	■			20463B
	aluminium/glass fibre heat protection											
	**Flexible pipe**											
	Di = 28, Da = 38, L = 324		■			■	■					64568A
	glass fibre heat protection											
	**Exhaust silencer**											
	Di = 24, Da= 54; L = 1,800		■	■		■	■					9014067A
	Di = 38, Da= 54; L = 1,000							■	■			92642A
	stainless steel											
	gas-tight, extra silent											
	specially for boats and ships											
	**Exhaust silencer**											
	Da = 22; steel		■			■	■					20844E
	Da = 22; stainless steel		■			■	■					86450C
	**Exhaust gas reducing bush**											
	Di = 22/Da = 24; L = 40		■									92641A
	stainless steel											

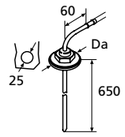
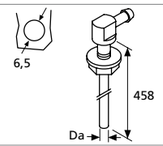
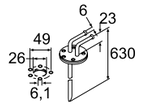
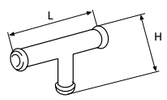
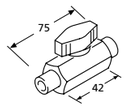
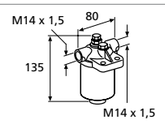
Exhaust system

			Air Top 2000 ST	Air Top Evo	HL 90	Thermo Top C	Thermo 50	Thermo 90 S / ST	DBW 2010 / 2016	DBW 2020 / 300 / 350	Thermo 230 / 300 / 350	Part no.
	**Exhaust silencer**											
	Di = 38							■	■			9012440B
	stainless steel with bracket											
NEW	**Insulation sleeve for exhaust silencer**											
	glas fiber heat protection											9027041A
	550 x 440 mm with snap fastener							■	■			
	for part 9012440B											
	**Elbow**											
	Di = 24			■								91564B
	stainless steel											
	with condensation water drain											
	**Elbow**											
	Di = 24			■								92643A
	stainless steel											
	without condensation water drain											
	**Connection pipe**											
	Da = 24; L = 50			■								92264A
	stainless steel											
	**Connection pipe**											
	Da = 24; L = 65			■								92164A
	DA = 38; L = 65			■								92644A
	stainless steel											
	**Exhaust pipe**											
	Di = 38, Da = 38; 180° stainless steel				■			■	■			370169
	Di = 70, PAK (per m)									■		479721
	**Condensation water drain**											
	to 91564A + 92164A			■								92621A
	installation bag											
	for installation in flex tube											
	stainless steel											

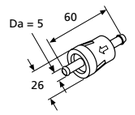
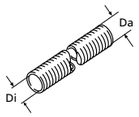
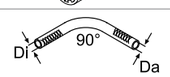
Exhaust system

		Air Top 2000 ST	Air Top Evo	HL 90	Thermo Top C	Thermo 50	Thermo 90 S / ST	DBW 2010 / 2016	DBW 2020 / 300 / 350	Thermo 230 / 300 / 350	Part no.
NEW 	**Through hull double walled straight**										
	Da = 24; stainless steel	■	■		■						9018377A
	Da = 38; stainless steel					■	■	■			9018378A
	Da = 70 mm; stainless steel									■	3393270A
	**Through hull double walled bended**										
	Da = 24; stainless steel	■	■		■						9018379A
	Da = 38; stainless steel					■	■	■			9018380A
	**Through hull**										
	Da = 24; L = 105; stainless steel		■								92282A
	**Hose clamp**										
	Di = 39 … 42; galvanized steel			■			■	■			9002255B
	Di = 68 … 71; galvanized steel									■	1302375A
	**Hose clamp**										
	Di = 24 … 26; stainless steel	■			■	■					70910C
	Di = 26 … 28; stainless steel		■								91383B
	**Hose clamp / reduce wrap**										
	Di = 70 … 90								■	■	92659A
	worm thread; stainless steel										
	**Insulating lagging**										
	B = 60; L = 1 m; glass fibre	■	■	■	■	■	■	■	■	■	9015393A
	B = 60; L = 50 m; glass fibre	■	■	■	■	■	■	■	■	■	9015392A

Fuel supply

		Air Top 2000 ST	Air Top Evo	HL 90	Thermo Top C	Thermo 50	Thermo 90 S / ST	DBW 2010 / 2016	DBW 2020 / 300 / 350	Thermo 230 / 300 / 350	Part no.
	**Tank extracting device (bag)**										
	Da = 5,5					■	■	■			35320A
	Da = 8							■	■	■	353213
	only for fitting in metal tank										
	**Tank extracting device**										
	Da = 5; thread M6	■	■	■	■	■		■			1300823C
	for plastic tank, also for fitting in metal tank, bag with clips and hose section, screw needs to be tightened from below										
	**Tank extracting device with return**										
	Da = 6							■	■	■	394157
	with sealing, only for fitting in metal tank										
	**T-piece**										
	6 x 5 x 6; L = 50; H = 26	■	■	■	■	■	■				211532
	8 x 5 x 8; L = 50; H = 28										211540
	8 x 6 x 8; L = 50; H = 28							■			137952
	copper										
	**Fuel cock**										
	operation pressure max. 25 bar							■	■	■	88028C
	**Fuel filter**										
	with replaceable strainer							■	■	■	140708
	**Strainer**										
	for 140708							■	■	■	97457A

Fuel supply

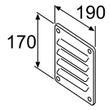
		Air Top 2000 ST	Air Top Evo	HL 90	Thermo Top C	Thermo 50	Thermo 90 S/ST	DBW 2010/2016	DBW 2020/300/350	Thermo 230/300/350	Part no.
	Connecting parts (bag)										
	for 140708, 93075A, 9001819A, 9002975B, 9001818B							■	■	■	219495
	**Fuel filter**										
	Da = 5 synthetic material transparent	■	■	■	■	■	■				487171
	**Flexible pipe**										
	Di = 14.5; Da = 16.5; (per m); glass fibre – aluminum	■	■	■	■	■	■	■	■	■	15570A
	Di = 28; Da = 32; (per m); glass fibre – aluminum heat protection										21543A
	**Metering pump mounting**										
	very quiet mounting	■	■	■	■		■				9001441B
NEW 	**Fuel line decoupling kit**										
	Bag with two 90° elbows, Di = 4,5; Da = 10,5	■	■								9026570A

Fuel supply systems which are installed in the engine room of a boat need to be fire resistant according to EN ISO 7840.
Please select the required parts from the items listed below.

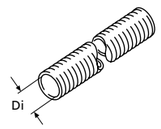
 EN ISO 7840	**Fuel pump damper protection**										
	fuel pump damper protection; required to protect fuel pump damper when installed in the engine room to fulfill EN ISO 7840	■					■				1311330A
 EN ISO 7840	**Fuel supply kit**										
	includes fuel hose, 4 x rubber connection hose, hose clamps and metal connections from metal to rubber hose EN ISO 7840	■	■	■	■	■	■	■	■	■	66958B
 EN ISO 7840	**Rubber connection hose**										
	fire resistant; Di = 5 mm; L = 50 EN ISO 7840	■	■	■	■	■	■	■	■	■	64891A
 EN ISO 7840	**Fuel hose stainless steel**										
	Di = 1.5; Da = 5; L = 5,000 EN ISO 7840	■	■	■	■	■	■	■	■	■	64892A

Warm air system

Air intake

		Air Top 2000 ST	Air Top Evo	HL 90	Part no.
	**Louvre plate**				
	W = 170; L = 190, air return entry aluminium	■	■	■	128228
	**Screen for heaters suction and exit**				
	D = 60; synthetic material	■			67492A
	D = 90; synthetic material		■		89141A

Ducting



				Air Top 2000 ST	Air Top Evo	HL 90	Part no.
Flexible pipe							
Di = 55;	APK,	black, logo (per m)		■			1311862A
Di = 60;	APK,	black, logo (per m)		■	■	■	1311884A
Di = 80;	APK,	black, logo (per m)			■	■	1311885A
Di = 90;	APK,	black, logo (per m)			■	■	1311886A
Di = 55;	APK,	black, logo (25 m roll)		■			1311891B
Di = 60;	APK,	black, logo (25 m roll)		■	■	■	1311892B
Di = 80;	APK,	black, logo (25 m roll)			■	■	1311893B
Di = 90;	APK,	black, logo (25 m roll)			■	■	1311894B
Di = 55;	PAPK,	grey, logo (per m)		■			1311895A
Di = 60;	PAPK,	grey, logo (per m)		■	■	■	1311897A
Di = 80;	PAPK,	grey, logo (per m)			■	■	1311899A
Di = 90;	PAPK,	grey, logo (per m)			■	■	1311901A
Di = 55;	PAPK,	grey, logo (25 m roll)		■			1311896B
Di = 60;	PAPK,	grey, logo (25 m roll)		■	■	■	1311898B
Di = 80;	PAPK,	grey, logo (25 m roll)			■	■	1311900B
Di = 90;	PAPK,	grey, logo (25 m roll)			■	■	1311902B
Di = 100;	PAK,	black (per m)				■	398527
Di = 100;	AA,	silver (per m)				■	254533

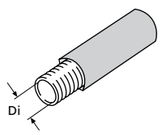
Hose specification

APK: Aluminium, Paper, Plastic – black, with white Webasto logo

PAK: Paper, Aluminium, Plastic – black, without logo

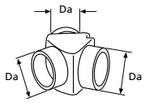
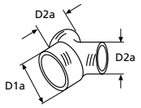
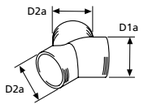
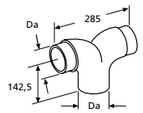
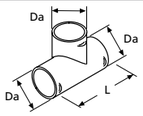
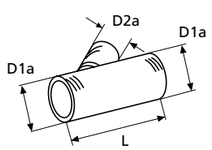
PAPK: Paper, Aluminium, Paper, Plastic – grey, with red and blue Webasto logo, extra strong 4 layer design

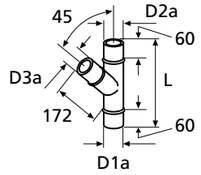
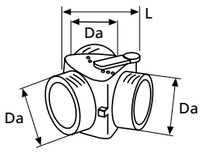
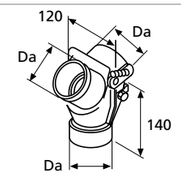
AA: Aluminium, Aluminium – silver



Insulated hoses							
Di = 80;	PAK,	L = 12 m roll			■		9021059D
Di = 90;	PAK,	L = 12 m roll			■		9021082D
fitted with a 10 mm EPDM insulation "Armaflex" to minimize heat losses saves up to 150 W heating energy per 1 m hose length							

Distributor

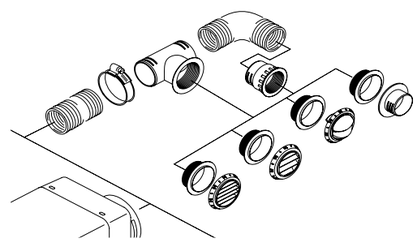
		Air Top 2000 ST	Air Top Evo	HL 90	Part no.
	**Y-piece**				
	Da = 55; synthetic material	■			429627
	Da = 80; synthetic material		■		100548
	**Y-piece**				
	D1a = 80, D2a = 55; synthetic material		■		495689
	To be used in the secondary flow only!				
	**Y-piece**				
	D1a = 60, D2a = 60; synthetic material		■	■	1312124B
	D1a = 90, D2a = 80; synthetic material		■		91000A
	D1a = 90, D2a = 90; synthetic material		■	■	9009261D
	D1a = 80, D2a = 60; synthetic material		■	■	9009262B
	**T-piece**				
	Da = 100; synthetic material			■	129232
	**T-piece**				
	Da = 60; L = 110; synthetic material	■	■	■	9009266C
	Da = 60; L = 110; synthetic material		■	■	9009265C
HADS 	**T-piece**				
	60, 60, 60; synthetic material	■	■	■	9009268B
	90, 60, 90; synthetic material		■	■	9009239B
HADS 	**End cap**				
	D60; synthetic material	■	■	■	9009319D
	D90; synthetic material		■	■	9009271D
	**Branch pipe**				
	D1a = 60, D2a = 60; L =146	■	■	■	9009264B
	D1a = 90, D2a = 60; L = 185		■	■	9009263B
	synthetic material				

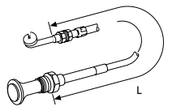
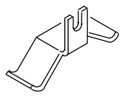
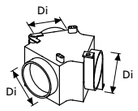
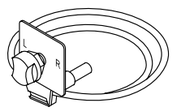
		Air Top 2000 ST	Air Top Evo	HL 90	Part no.
	**Branch pipe**				
	D1a = 80, D2a = 60, D3a = 60; L = 350		■		252727
	To be used in the secondary flow only!				
	D1a = 80, D2a = 80, D3a = 60; L = 350		■		252778
	D1a = 80, D2a = 80, D3a = 80; L = 370		■		252786
	D1a = 100, D2a = 100, D3a = 80; L = 320			■	252824
	galvanized material				
	**Distributor with remote control flap valve**				
	Da = 55; L = 95	■			101374
	Da = 80; L = 124		■		100567
	synthetic material				
	**Flap valve**				
	Da = 100; synthetic material			■	252514

Quick-fit Hot Air Ducting System (HADS):

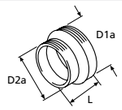
- High temperature resistance from -40° C up to +140° C
- PA6.6 GF30 glass fibre reinforced synthetic material
- Super easy fitting, no need for tools or screws
- Multiple combination possibilities to suit any application

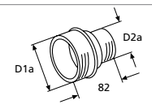
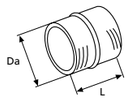
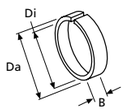
Webasto provides perfectly fitting, high quality components for an easy installation and high flexibility.



		Air Top 2000 ST	Air Top Evo	HL 90	Part no.
	**Control cable**				
	L = 850	■	■	■	107812
	L = 1,500	■	■	■	108932
	for part no. 252514, 101374, 100567				
	synthetic material				
	**Support**				
	for part no. 107812, 108932	■	■	■	109006
	synthetic material				
	**Distributor with control flap**				
	Da = 60	■	■		9009642A
	Da = 90		■		9009641A
	synthetic material				
	**Control device for distributor**				
	bowden cable, 2 m long	■	■	■	9008255A
	for part no. 9009641A, 9009642A				
	synthetic material				

Adaptors

		Air Top 2000 ST	Air Top Evo	HL 90	Part no.
	**Adapter for heater connection**				
	D1a = 90, D2a = 80; L = 40		■		89111B
	synthetic material				
	**Reducer for air hose**				
	D1a = 60, D2a = 55; L = 35		■		29852A
	D1a = 90, D2a = 80; L = 45		■		89075A
	synthetic material				

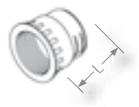
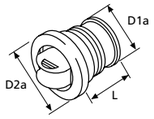
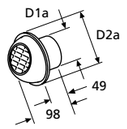
		Air Top 2000 ST	Air Top Evo	HL 90	Part no.
	**Reducer pipe**				
	D1a = 80, D2a = 55		■		495654
	To be used in the secondary flow only!				
	synthetic material				
	**Hose connector**				
	Da = 55; L = 55	■	■	■	9009270B
	Da = 60; L = 50	■	■	■	9009258C
	Da = 80; L = 75		■	■	495646
	Da = 90; L = 50		■	■	9009259C
	synthetic material				
HADS 	**Reduction adapter for molds**				
	Di = 90, Da = 80		■	■	9009270B
	Di = 90, Da = 60		■	■	9011011C
	synthetic material				
	**Elbow 90°**				
	D = 90		■	■	9009260C
	synthetic material				
HADS 	**Wall feed-through**				
	Da = 60; synthetic material	■	■	■	9009249C
	Da = 90; synthetic material		■	■	9009250C
	**Adaptor ring**				
	Di = 55, Da = 60; B = 17	■	■		92971A
	Di = 70, Da = 80; B = 17		■		366153
	to 429570 + 92966A				
	synthetic material				

Outlets

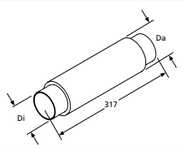
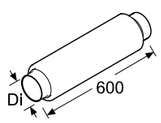
		Air Top 2000 ST	Air Top Evo	HL 90	Part no.
HADS 	**Air outlet, closeable**				
	D60 black	■	■	■	9012300A
	D60 white	■	■	■	9012301A
	D60 grey	■	■	■	9012302A
	D90 black	■	■	■	9012291A
	D90 white	■	■	■	9012292A
	D90 grey	■	■	■	(9012293A)
	synthetic material; L = 30				
HADS 	**Air outlet, 90°**				
	D60 black	■	■	■	9012297A
	D60 white	■	■	■	9012298A
	D60 grey	■	■	■	9012299A
	D90 black		■	■	9012288A
	D90 grey		■	■	9012290A
	D90 white		■	■	9012289A
	synthetic material; L = 30				

Warm air system

Outlets

		Air Top 2000 ST	Air Top Evo	HL 90	Part no.
HADS	**Air outlet, 45°**				
	D60 black	■	■	■	9012294A
	D60 white	■	■	■	9012295A
	D60 grey	■	■	■	9012296A
	D90 black		■	■	9012285A
	D90 grey		■	■	9012286A
	D90 white		■	■	9012287A
	synthetic material; L = 30				
HADS	**Hose connector for above threaded air outlets**				
	D60; synthetic material; L = 30	■	■	■	9009239B
	D90; synthetic material; L = 30		■	■	9009240B
	Air outlet, closeable				
	D1a = 55, D2a = 100; L = 65	■			1311639A
	D1a = 70, D2a = 100; L = 65		■		92966A
	to be used in the secondary flow only!				
	synthetic material				
	Air outlet				
	D1a = 60, D2a = 92	■			398551
	D1a = 80, D2a = 120		■		264091
	rotating				
	synthetic material				

Silencer

	Air ducting silencer				
	Di = 90, Da = 122, L = 317		■		9026691A
	synthetic material				
	to be used on air inlet or air outlet side				
	Air ducting silencer				
	Di = 90, L = 640, L = 100		■		67789A
	bitumen – aluminium – synthetic material				

Blower heat exchangers

The blower modules are the ideal combination for Webasto water heaters. Thanks to their powerful blowers, the cabins of boats and yachts can be heated up quickly. Most models have an adjustable blower speed to fine-tune the air flow according to individual needs. In addition to their compact dimensions they ensure an easy installation.

The product range

Florida 3 – extra-silent single speed 3 kW model with very low power consumption

Florida 5 – Compact 3-speed 5 kW model with blower speed and heat output regulation

Florida 5 – Compact 3-speed 5 kW model without controls

Whisperer – Very compact and silent 1,8 kW model with single speed axial fan

Madera 4 – Lightweight and variable 4 kW model, 3 blower speeds, choice of air outlet

Madera 8 – Lightweight and variable 7,3 kW model, 3 blower speeds, choice of air outlet

BB4 – Compact 2,5 kW model with 3-speed blower regulation and metal casing

BB8 – Powerful 8 kW model with 3-speed blower regulation and robust metal casing

Blower speed control

The blower speed control is the perfect match for all blower heat exchangers. It provides temperature regulated automatic blower speed control or manual 5-speed blower regulation. With a variable temperature setting, everybody can find his perfect comfort climate.

Blower speed control – temperature-regulated blower speed control for the blower modules Florida 5 without controls, BB4, BB8. With separate mounting also possible for Madeira 4 and Madeira 8

Scopes of delivery
Control element
Electronic PWM module
Temperature sensor (5 meters)

Blower heat exchangers

Model	Part no.	Colour	Voltage (V)	Heat output at Q100 (kW)	Air flow at free discharge (m^3/h)	Water connection diam. (mm)	Electrical power consumption (W)	Dimensions W x H x D (mm)	Weight (kg)
Florida 3 No Noise	3200740A	light grey	12	3	120	16	12	269 x 198 x 141	1.4
	3200741A	light grey	24	3	120	16	12	269 x 198 x 141	1.4
Florida 5 with controls	3200679A	light grey	12	5.2	285	16	120	269 x 198 x 218	2
	3200680A	light grey	24	5.2	285	16	120	269 x 198 x 218	2
Florida 5 without controls	3200681A	light grey	12	5.2	285	16	120	269 x 198 x 218	2
	3200682A	light grey	24	5.2	285	16	120	269 x 198 x 218	2
Whisperer	3200673A	Inox (front)	12	1.8	120	16	8,4	210 x 210 x 125	1.2
	3200674A	Inox (front)	24	1.8	120	16	8,4	210 x 210 x 125	1.2
BB4	71174000	blue	12	2.5	190	16	38	310 x 150 x 150	3.5
	71174500	blue	24	2.5	190	16	38	310 x 150 x 150	3.5
BB8	71172000	blue	12	8	525	16	65	480 x 170 x 305	12
	71173000	blue	24	8	525	16	65	480 x 170 x 305	12
Madera 4	71174550	light grey and dark grey	12	4.6	200	16	70	275 x 115 x 203	1.8
	71174552	light grey and dark grey	24	4.6	200	16	70	275 x 115 x 203	1.8
Madera 8	71174554	light grey and dark grey	12	7.3	300	16	150	376 x 115 x 250	3.1
	71174556	light grey and dark grey	24	7.3	300	16	150	376 x 115 x 250	3.1
Outlet versions									
Air grille 90 x 90 mm*	71174560	black							
Air hose connector diam. 55 mm*	71174561	black							

when ordering the Madera 4 or Madera 8, please specify the type and amount of desired air outlets. Madera 4 requires 2 and Madera 8 requires 4 outlets.

Control elements									
Blower speed control	3391288A		12/24					123 x 80 x 40	0.4

*please refer to pictures of Madeira 4 and Madeira 8 for example of air grille and hose connectors, see previous page

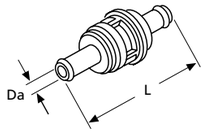
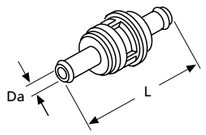
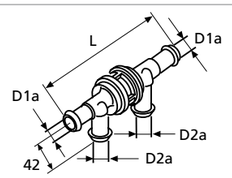
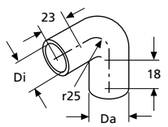
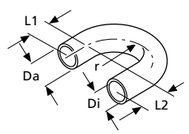
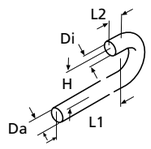
Water system

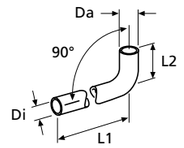
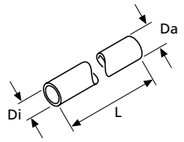
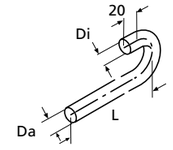
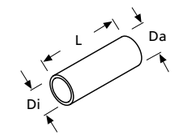
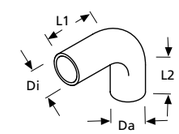
Accessories: Water system

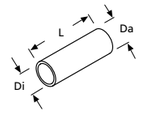
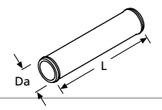
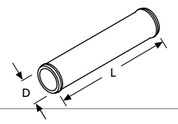
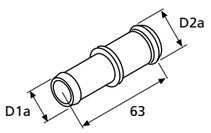
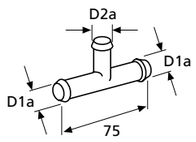
Webasto offers the full range of high-quality Hep_20 products.

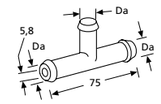
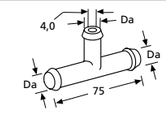
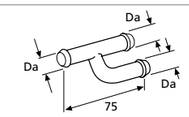
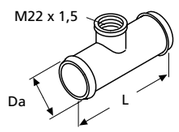
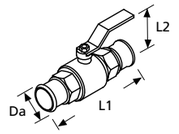
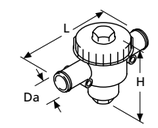
- Cabling ability – Hep_2O provides faster, safer and more cost effective installation
- Less jointing – Hep_2O flexible polybutylene pipe system requires less jointing, thus saves time and materials
- Joint security – the Hep_2O push-fit piping offers reliable jointing and safe assembly
- High resistance to impact and vibration – solder free, and the Hep_2O system is extremely strong and resistant to denting and accidental damage from impact or vibration
- Corrosion free – Hep_2O completely eliminates electrolytic corrosion and is highly resistant against aggressive salt-water and other corrosive media

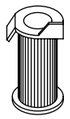
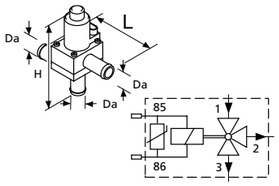
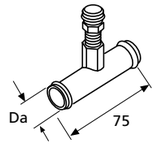
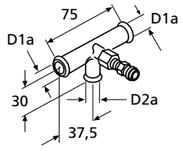
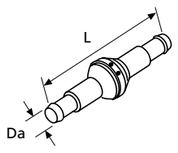
For the complete overview of Hep_2O parts please refer to the water pipe section for BlueCool accessories in this catalogue.

		Thermo Top C/ E/50	Thermo 50	Thermo 90 S/ST	DBW 2010/2016	DBW 2020/300/350	Thermo 230/300/350	Part no.
	**Check valve**							
	Da = 15; L = 104	■		■	■			12781A
	with leak hole							
	SM							
	**Check valve**							
	Da = 15; L = 104	■	■	■	■			12754A
	Da = 18; L = 90	■	■	■	■			109557
	Da = 18; L = 100	■	■	■	■			12706A
	without leak hole							
	SM							
	**Check valve**							
	D1a = 18, D2a = 18; L = 146	■	■	■	■			12780A
	SM							
	D1a = 20, D2a = 20; L = 162	■	■	■				19873A
	St/Ms							
	with leak hole							
	**Bent hose 90°**							
	Di = 18; Da = 25	■	■		■			431397
	**Bent hose 180°**							
	Di = 18, Da = 25; L1 = 18, L2 = 18; r = 25	■	■		■			403474
	**Hose**							
	Di = 15, Da = 25; L1 = 580, L2 = 17, H = 75	■	■	■	■			249416
	Di = 18, Da = 25; L1 = 576, L2 = 17, H = 75	■	■	■	■			436267
	Di = 18, Da = 25; L1 = 1100, L2 = 17, H = 75	■	■	■	■			29420A
	Di = 18, Da = 25; L1 = 60, L2 = 17, H = 95	■	■	■	■			98454A
	Di = 20, Da = 29; L1 = 89, L2 = 20, H = 98	■	■	■	■			84926A

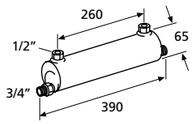
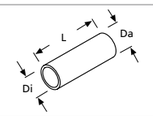
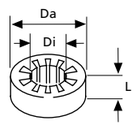
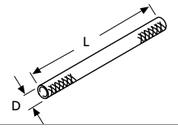
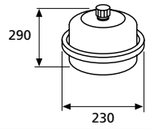
		Thermo Top C/ E/50	Thermo 50	Thermo 90 ST	DBW 2010/2016	Thermo 230/300/350	Part no.
	**Hose**						
	Di = 15, Da = 22; L1 = 1.020, L2 = 50	■	■	■	■		248371
	Di = 18, Da = 25; L1 = 125, L2 = 90	■	■	■	■		9001322A
	Di = 18, Da = 25; L1 = 500, L2 = 47.5	■	■	■	■		98453A
	Di = 18, Da = 27; L1 = 1.020, L2 = 50	■	■	■	■		436259
	Di = 20, Da = 27; L1 = 70, L2 = 56.5	■	■	■	■		9004570B
	Di = 20, Da = 27; L1 = 130, L2 = 56.5	■	■	■	■		65696C
	Di = 20, Da = 27; L1 = 187, L2 = 46.5	■	■	■	■		98450A
	Di = 20, Da = 27; L1 = 360, L2 = 46.5	■	■	■	■		98451B
	Di = 20, Da = 27; L1 = 615, L2 = 56.5	■	■	■	■		9003479B
	Di = 22, Da = 29; L1 = 225, L2 = 57	■	■	■	■		9001918A
	Di = 22, Da = 29; L1 = 1.020, L2 = 50	■	■	■	■		21488A
	**Hose**						
	Di = 15, Da = 22; L = 2,750	■		■			406074
	Di = 18, Da = 25; L = 58	■	■		■		65187B
	Di = 18, Da = 27; L = 2,000	■	■		■		369136
	Di = 20, Da = 27; L = 380	■		■			98414B
	Di = 38, Da = 50; L = 82					■	19621A
	Di = 38, Da = 50; L = 130					■	84082A
	**Hose**						
	Di = 18, Da = 25; L = 110	■	■		■		9003810B
	Di = 20, Da = 27; L = 70	■		■	■		9003400B
	Di = 20, Da = 27; L = 190	■		■	■		65697B
	**Hose**						
	Di = 38, Da = 47						
	L = 65					■	87820A
	L = 82					■	89242A
	L = 110					■	65082A
	L = 130					■	9006271A
	silicone						
	**Bent hose**						
	Di = 38, Da = 47; L1 = 70, L2 = 90					■	91917A
	Di = 38, Da = 47; L1 = 70, L2 = 105					■	91916A
	Di = 38, Da = 47; L1 = 80, L2 = 90					■	87817A
	silicone						

		Thermo Top C/ E/50	Thermo 50	Thermo 90 ST	DBW 2010/2016	Thermo 230/300/350	Part no.
	**Hose**						
	Di = 28, Da = 37; L = 180					■	65216A
	silicone						
	**Connection pipe**						
	Da = 38 x 1.5, L = 150				■		97029A
	**Connection pipe**						
	Da = 15; L = 75	■	■				131650
	**Connection pipe**						
	D1a = 15; D2a = 18	■	■		■		66933A
	D1a = 15; D2a = 20	■		■			1314326B
	D1a = 17; D2a = 20	■	■	■			64738B
	D1a = 18; D2a = 18	■	■		■		1314327B
	D1a = 18; D2a = 20	■	■	■	■		1314328B
	D1a = 18; D2a = 22	■	■		■		66932A
	D1a = 20; D2a = 20	■	■	■			66934C
	D1a = 20; D2a = 22	■	■	■			19867B
	Plastic						
	**T-piece**						
	D1a = 15; D2a = 18	■		■	■		138207
	D1a = 18; D2a = 8	■	■	■	■		65068B
	D1a = 18; D2a = 15	■	■				138215
	D1a = 18; D2a = 18	■	■		■		355240
	D1a = 20; D2a = 8	■	■	■	■		64769B
	D1a = 20; D2a = 10	■	■	■	■		9006023A
	D1a = 20; D2a = 15	■	■	■	■		138223
	D1a = 20; D2a = 20	■	■	■			21081A

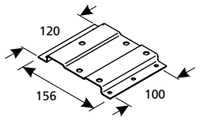
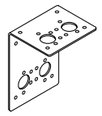
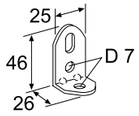
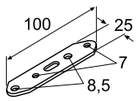
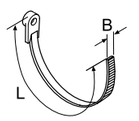
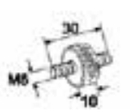
		Thermo Top C/ E/50	Thermo 50	Thermo 90 ST	DBW 2010/2016	Thermo 230/300/350	Part no.
	**T-piece with restrictor**						
	Da = 20	■	■	■	■		9000545A
	**T-piece with restrictor**						
	Da = 18	■	■	■	■		88593A
	**Connection pipe**						
	Da = 18	■	■	■	■		123858
	**Pipe socket**						
	Da = 19; L = 100				■		369632
	Da = 38; L = 100					■	138169
	**Manual stop valve**						
	Da = 38; L1 = 165; L2 = 85					■	90736A
	Ms						
	chrome plated casing						
	**Shut off valve with filter**						
	Da = 38; H = 131					■	91800C
	2/2 ways water filter, plastic casing						

		Thermo Top C/ E/50	Thermo 50	Thermo 90 ST	DBW 2010/2016	Thermo 230/300/350	Part no.
	**Strainer**						
	Da = 38					■	66532B
	for 2/2 way-water filter						
	**Solenoid valve**						
	Da = 18; H = 101; L = 84	■	■	■	■		9014606A
	for 12 V, 3/2 ways; plastic casing						
	open without power						
	**Bleed valve**						
	Da = 15	■		■	■		112392
	Da = 18	■	■	■	■		105848
	Da = 20	■		■	■		98464B
	**T-piece with bleed valve**						
	D1a = 15, D2a = 15	■		■	■		488526
	D1a = 18, D2a = 15	■	■		■		488534
	**One way valve**						
	Da = 18; L = 90	■	■		■		453137
	Da = 20; L = 120	■	■	■			15685A
	without leak hole						

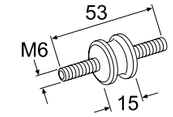
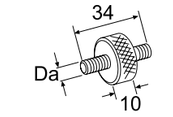
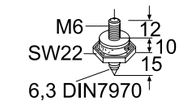
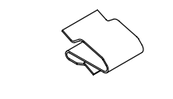
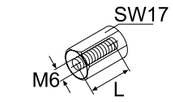
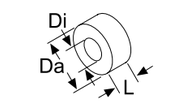
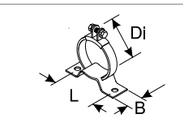
Water system

		Thermo Top C/ E/50	Thermo 50	Thermo 90 ST	DBW 2010/2016	Thermo 230/300/350	Part no.
	**Instant water heater with insulated cover**						
	max. 23.3 kW; max. 10 bar; 2 kg	■	■	■	■	■	434043
	copper						
	with pipe connections						
	max. 23.3 kW; max. 10 bar; 2 kg	■	■	■	■	■	434035
	without pipe connections						
	**Flexible pipe (heat protection hose)**						
	GA-A28; Di = 28, Da = 35; L = (per m)	■	■	■	■	■	21543A
	for insulation and kink-free installation						
	Gf/Al						
	**Connection pipe**						
	Di = 25, Da = 45; L = 20	■	■	■	■		1312780A
	Di = 22, Da = 46; L = 20	■	■	■	■		9000920A
	Di = 20,5, Da = 40; L = 20	■	■	■	■		1312785A
	chafing guard						
	**Woven protection hose**						
	D = 26 … 30; L = 1,500	■	■	■	■		1301317B
	chafing guard						
	for polyester water hoses						
	**Expansion tank**						
	8 l	■	■	■	■	■	351725
	preset pressure: 0.5 bar						
	total volume of system: 157 l max.						
NEW 	**Header tank**						
	5 l vertical (L = 252, H = 343, W = 120)	■	■	■			9024038A
	5 l horizontal (L = 343, H = 252, W = 120)	■	■	■			9024039A
	net content 3 liter						
	made of polypropylene for high temperature resistance						
	tank kit includes 3 stainless steel mounting brackets						
	**Header tank**						
	10 l; pipe connection 20, with level indicator, HBT: 300 x 270 x 120	■	■	■	■		79289500
	12 l; pipe connection 38, HBT: 330 x 230 x 230					■	79289000
	**Buffer tank**						
	to enlarge the water/glycol volume of the heating circuit, stainless steel, with 800 W/230 V electrical heating element water thermostat set to 65° C 20 l; L x D (in mm) = 630 x 295						3391438A

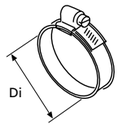
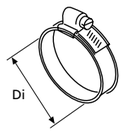
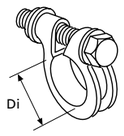
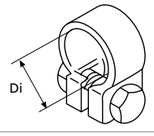
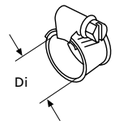
Mounting parts

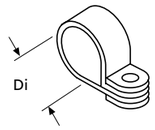
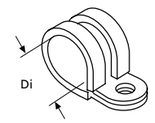
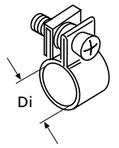
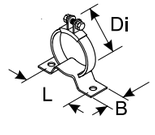
		Air Top 2000 ST	Air Top Evo	HL 90	Thermo Top C/ E/50	Thermo 50	Thermo 90 S/ST	DBW 2010/2016	DBW 2020/300/350	Thermo 230/300/350	Part no.
	**Heater bracket**										
	stainless steel						■				9009203A
	**Heater bracket**										
	stainless steel	■	■								92223C
	**Angle bracket**										
	stainless steel	■	■	■	■	■	■	■	■	■	9000802B
	steel	■	■	■	■	■	■	■	■	■	242780
	**Mounting strip**										
	stainless steel	■	■	■	■	■	■	■	■	■	9000801B
	steel	■	■	■	■	■	■	■	■	■	242888
	**Cable strip**										
	L = 178; B = 5.3	■	■	■	■	■	■	■	■	■	1301888A
	bag of 30 pieces										
	**Cable strip**										
	L = 400; B = 7.6; 1 piece	■	■	■	■	■	■	■	■	■	92647A
	L = 400; B = 7.6; 10 pieces	■	■	■	■	■	■	■	■	■	9007917A
	**Anti-vibration mount**										
							■				472670

Mounting parts

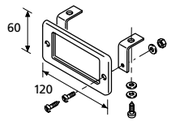
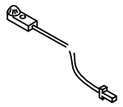
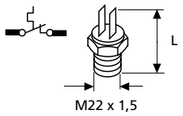
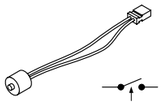
		Air Top 2000 ST	Air Top Evo	HL 90	Thermo Top C/ E/50	Thermo 50	Thermo 90 S/ST	DBW 2010/2016	DBW 2020/300/350	Thermo 230/300/350	Part no.
	**Anti-vibration mount**										
	for dosing pump						■				9014765A
	**Anti-vibration mount**										
	Da = M6	■	■	■	■						9023020A
	Da = M8						■				15500B
	for dosing pump										
	**Anti-vibration mount**										
	self-tapping screw	■	■	■	■	■	■	■			9024084A
	**Cable clamp**										
	fastening cables and fuel lines	■	■	■	■	■	■	■	■	■	9009015A
	bag of 50 pieces										
	**Spacer nut**										
	M6; L = 20	■	■	■	■	■	■	■	■	■	1310148A
	M6; L = 30	■	■	■	■	■	■	■	■	■	1310149A
	M6; L = 40	■	■	■	■	■	■	■	■	■	1310150A
	M8; L = 15	■	■	■	■	■	■	■	■	■	28897B
	GS										
	**Spacer washer**										
	DI = 8, Da = 20; AIL = 5	■	■	■	■	■	■	■	■	■	1314706A
	DI = 8, Da = 20; AIL = 8	■	■	■	■	■	■	■	■	■	1314711A
	DI = 8, Da = 20; AIL = 10	■	■	■	■	■	■	■	■	■	1314705A
	DI = 8, Da = 20; AIL = 15	■	■	■	■	■	■	■	■	■	1314710A
	DI = 8, Da = 20; AIL = 20	■	■	■	■	■	■	■	■	■	1314707A
	DI = 8, Da = 20; AIL = 30	■	■	■	■	■	■	■	■	■	1314708A
	DI = 8, Da = 20; AIL = 40	■	■	■	■	■	■	■	■	■	1314709A
	**Mounting / fastening bracket**										
	DI = 86; B = 25; L = 111	■	■	■	■	■	■	■	■	■	253685
	DI = 106; B = 25; L = 135	■	■	■	■	■	■	■	■	■	253715

Clamps

		Air Top 2000 ST	Air Top Evo	Thermo Top C/ E/50	Thermo 50	Thermo 90 ST	DBW 2010/2016	Thermo 230/300/350	Part no.
	**Hose clamp**								
	Di = 27 ... 31; stainless steel	■	■	■	■	■	■	■	67859A
	Di = 32 ... 39; stainless steel	■	■	■	■	■	■	■	67369A
	Di = 40 … 47; stainless steel	■	■	■	■	■	■	■	67370A
	Di = 48 … 55; stainless steel	■	■	■	■	■	■	■	67371A
	Di = 60 ... 80; stainless steel	■	■	■	■	■	■	■	1310877
	Di = 70 … 90; stainless steel	■	■	■	■	■	■	■	92659A
	Di = 72 ... 79; stainless steel	■	■	■	■	■	■	■	67372A
	Di = 80 ... 87; stainless steel	■	■	■	■	■	■	■	67475A
	Di = 90 ... 100; stainless steel	■	■	■	■	■	■	■	1310875
	Di = 98 ... 120; stainless steel	■	■	■	■	■	■	■	67373A
	Di = 100 ... 120; stainless steel	■	■	■	■	■	■	■	1310876
	**Hose clamp**								
	Di = 16 ... 24	■	■	■	■	■	■	■	18574B
	Di = 25 ... 40	■	■	■	■	■	■	■	1312003A
	Di = 40 ... 60	■	■	■	■	■	■	■	285560
	Di = 50 ... 70	■	■	■	■	■	■	■	139645
	Di = 60 ... 80	■	■	■	■	■	■	■	139661
	Di = 70 ... 90	■	■	■	■	■	■	■	1312547A
	Di = 80 ... 95	■	■	■	■	■	■	■	91565B
	Di = 100 ... 120	■	■	■		■	■	■	139653
	steel								
	**Hose clamp**								
	Di = 39 … 42					■			9002255B
	Di = 68 … 71							■	1302375A
	steel								
	**Pipe clip**								
	Di = 24 … 26	■		■	■		■		70910C
	Di = 26 … 28		■						91383B
	stainless steel								
	**Hose clamp**								
	Di = 20 … 27; stainless steel	■	■	■	■	■	■	■	243744
	Di = 28 … 35; stainless steel	■	■	■	■	■	■	■	417866
	Di = 16 ... 24; stainless steel	■	■	■	■	■	■	■	139696
	Di = 40 ... 50; stainless steel	■	■	■	■	■	■	■	139726

		Air Top 2000 ST	Air Top Evo	Thermo Top C/ E/50	Thermo 50	Thermo 90 ST	DBW 2010/2016	Thermo 230/300/350	Part no.
	**Pipe clip without rubber coat**								
	Di = 18; W = 20 mm	■	■	■	■	■	■	■	29143A
	Di = 24; W = 15 mm	■	■	■	■	■	■	■	67546A
	Di = 25; W = 15 mm	■	■	■	■	■	■	■	405256
	Di = 33; W = 15 mm	■	■	■	■	■	■	■	499021
	Di = 35; W = 20 mm	■	■	■	■	■	■	■	9000884A
	Di = 38; W = 20 mm	■	■	■	■	■	■	■	29917A
	Di = 42; W = 12 mm	■	■	■	■	■	■	■	126830
	Di = 42; W = 20 mm	■	■	■	■	■	■	■	35455A
	Di = 42; W = 15 mm	■	■	■	■	■	■	■	90433A
	Di = 52; W = 15 mm	■	■	■	■	■	■	■	9002762B
	**Pipe clip with rubber coat**								
	Di = 05; W = 12 mm	■	■	■	■	■	■	■	9002439A
	Di = 10; W = 15 mm	■	■	■	■	■	■	■	63299A
	Di = 15; W = 15 mm	■	■	■	■	■	■	■	63538A
	Di = 29; W = 15 mm	■	■	■	■	■	■	■	63539A
	Di = 34; W = 20 mm	■	■	■	■	■	■	■	63840B
	Di = 38; W = 15 mm	■	■	■	■	■	■	■	63188A
	**Hose clamp**								
	Di = 8; stainless steel	■	■	■	■	■	■	■	1310761A
	Di = 9; stainless steel	■	■	■	■	■	■	■	1310771A
	Di = 10; stainless steel	■	■	■	■	■	■	■	1312773A
	Di = 12; stainless steel	■	■	■	■	■	■	■	1312774A
	Di = 14; stainless steel	■	■	■	■	■	■	■	1312775A
	**Mounting / fastening bracket**								
	Di = 40 ... 50; L = 74; W = 25	■	■	■	■	■	■	■	1310582A
	Di = 86; L = 111; W = 25	■	■	■	■	■	■	■	253685
	Di = 106; L = 135; W = 25	■	■	■	■	■	■	■	253715

Electronics

		Air Top 2000 ST	Air Top Evo	Thermo Top C/ E/50	Thermo 50	Thermo 90 ST	DBW 2010/2016	Thermo 230/300/350	Part no.
	**Mounting kit**								
	for digital timer 1522, 1529, 1531								474630
	and electric thermostat 34875A								
	**Temperature sensor external 12, 24 V**								
	ca. 2.5 m	■	■						9014694A
	ca. 5 m	■	■						9005004B
	**Thermostat (control thermostat)**								
	35 – 42° C; opener, L = 38						■	■	408298
	50 – 55° C; opener, L = 38						■	■	79430500
	62 – 70° C; opener, L = 39,6						■	■	261130
	71 – 76° C; opener, L = 39,6						■	■	43292A
	73 – 78° C; opener, L = 39,6			■	■				43308A
	gasket ring, Cu, 22 x 278						■	■	217336
	**Thermostat**								
	closer 40° C			■	■	■	■		109867

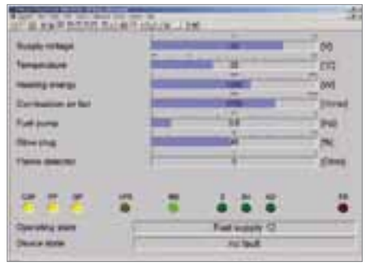
Service and diagnosis

Spare part lists

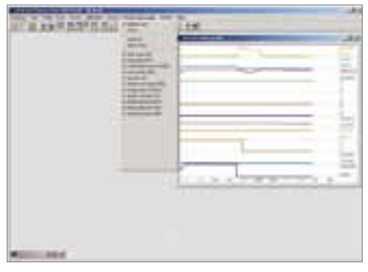
All spare parts lists and other useful information about our heating systems are available on our Dealer Portal at **http://dealers.webasto.com** and on our **Marine Navigator CD**.

Heater diagnosis module

Webasto provides a complete set of diagnosis tools to service and repair its heaters. The diagnosis module includes a hardware unit and various connecting adaptors for each heater model. For more details and the latest diagnosis visit our Dealer Portal at **http://dealers.webasto.com**



Screenshots from Webasto diagnosis software



Cooling products

Which is the right air-conditioning system for your boat?

Our large product portfolio from compact air-conditioning systems up to large chiller systems leaves no wish unfulfilled. With our wide power range we provide cooling capacities from 5,000 BTU/h up to 572,000 BTU/h.

BlueCool self-contained units

- Perfect solution for vessels with one to three cabins
- Very compact
- Easy to retrofit
- Extremely efficient

or

BlueCool chiller systems

- Large power range to fit any size of boat or superyacht
- Best in marine A/C: Ability to provide adequate cooling wherever it is needed
- Ideal basis for our integrated BlueComfort solutions
- Uses minimal space in cabins since air handlers are smaller than self-contained units

How to choose the right air-conditioner

Example: You own a yacht and would like to aircondition a room of 5 m (length) x 5 m (width) x 2 m (height).

Step 1: Define the category of the cabin — **Category 2**
Determine the **category of the cabin**. We give an example for a cabin with an average glass area, for example a deck saloon.

Step 2: Define the net volume — **40 m³**
Determine the **net volume of the room** (5 m x 5 m x 2 m = 50 m³; subtract 20 % for furniture in the room; 50 m³ – 10 m³ = 40 m³; If you want to air condition the whole boat, please calculate the **sum of your rooms**.

Step 3: Define your climate region — **Normal region**
Determine the **climate region** where you spend most of your time. For example the Mediterrean Sea is a "normal region" in the climate category.

Step 4: Identify your cooling requirements — **20,000 BTU / h**
Result: You need an air conditioning system with a 20,000 BTU/h **cooling performance**.

Step 5: Decide between a self-contained and chiller system — **BlueCool S20**
Depending on the demands you can decide on a **self-contained or chiller system** with a cooling capacity of 20,000 BTU/h.

Step 1

	Category 1 portlights only, cabin(s) all below deck [400 BTU / m³]		
	region: normal	cold	hot
Volume of the rooms [m³]*	4,000	3,000	5,000
10	8,000	6,000	10,000
20	12,000	9,000	15,000
30	16,000	12,000	20,000
40	20,000	15,000	25,000
50	24,000	18,000	30,000
60	28,000	21,000	35,000
70	32,000	24,000	40,000
80	36,000	27,000	45,000
90	40,000	30,000	50,000
100	44,000	33,000	55,000
110	48,000	36,000	60,000
120	52,000	39,000	65,000
130	56,000	42,000	70,000
140	60,000	45,000	75,000
150	64,000	48,000	80,000
160	68,000	51,000	85,000
170	72,000	54,000	90,000
180	76,000	57,000	95,000
190	80,000	60,000	100,000
200			

Step 2

Step 3

Step 4

For precise BTU calculation, please refer to our dedicated BTU calculation tool, available on the Marine Navigator.

The right cooling capacity

	Category 1 portlights only, cabin(s) all below deck (400 BTU / m³)		
Volume of the rooms (m³) (L x W x H)	region: normal	cold	hot
10	4,000	3,000	5,000
20	8,000	6,000	10,000
30	12,000	9,000	15,000
40	16,000	12,000	20,000
50	20,000	15,000	25,000
60	24,000	18,000	30,000
70	28,000	21,000	35,000
80	32,000	24,000	40,000
90	36,000	27,000	45,000
100	40,000	30,000	50,000
110	44,000	33,000	55,000
120	48,000	36,000	60,000
130	52,000	39,000	65,000
140	56,000	42,000	70,000
150	60,000	45,000	75,000
160	64,000	48,000	80,000
170	68,000	51,000	85,000
180	72,000	54,000	90,000
190	76,000	57,000	95,000
200	80,000	60,000	100,000

	Category 2 average glass area, cabins partly below deck (500 BTU / m³)		
Volume of the rooms (m³) (L x W x H)	region: normal	cold	hot
10	5,000	3,750	6,250
20	10,000	7,500	12,500
30	15,000	11,250	18,750
40	20,000	15,000	25,000
50	25,000	18,750	31,250
60	30,000	22,500	37,500
70	35,000	26,250	43,750
80	40,000	30,000	50,000
90	45,000	33,750	56,250
100	50,000	37,500	62,500
110	55,000	41,250	68,750
120	60,000	45,000	75,000
130	65,000	48,750	81,250
140	70,000	52,500	87,500
150	75,000	56,250	93,750
160	80,000	60,000	100,000
170	85,000	63,750	106,250
180	90,000	67,500	112,500
190	95,000	71,250	118,750
200	100,000	75,000	125,000

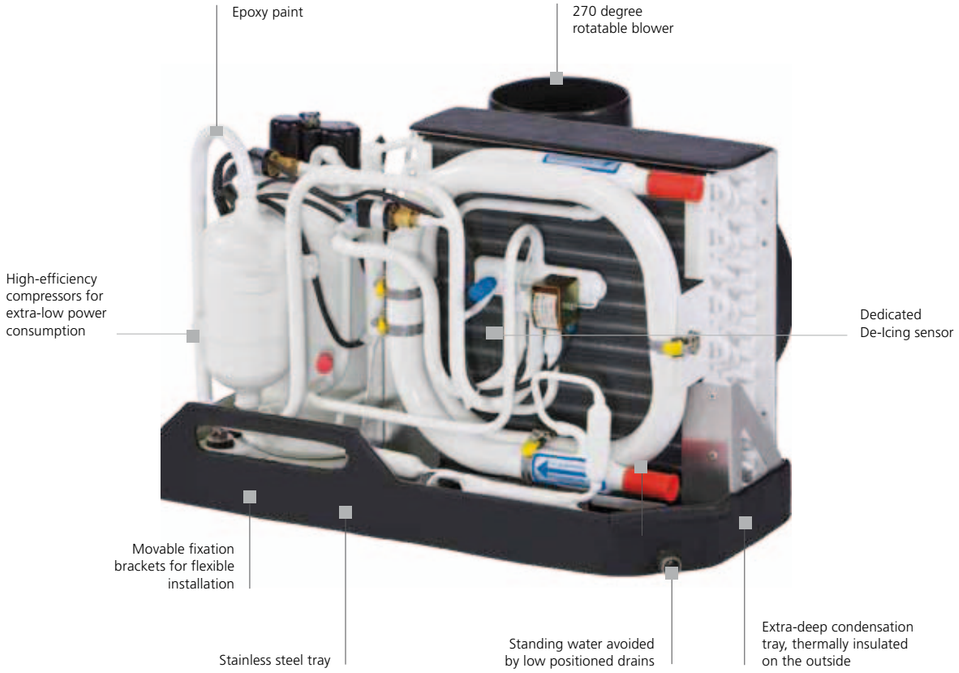
	Category 3 glass area above average, saloon above deck (600 BTU / m³)		
Volume of the rooms (m³) (L x W x H)	region: normal	cold	hot
10	6,000	4,500	7,500
20	12,000	9,000	15,000
30	18,000	13,500	22,500
40	24,000	18,000	30,000
50	30,000	22,500	37,500
60	36,000	27,000	45,000
70	42,000	31,500	52,500
80	48,000	36,000	60,000
90	54,000	40,500	67,500
100	60,000	45,000	75,000
110	66,000	49,500	82,500
120	72,000	54,000	90,000
130	78,000	58,500	97,500
140	84,000	63,000	105,000
150	90,000	67,500	112,500
160	96,000	72,000	120,000
170	102,000	76,500	127,500
180	108,000	81,000	135,000
190	114,000	85,500	142,500
200	120,000	90,000	150,00

	Category 4 very large glass areas, saloon and wheel house above deck (750 BTU / m³)		
Volume of the rooms (m³) (L x W x H)	region: normal	cold	hot
10	7,500	5,625	9,375
20	15,000	11,250	18,750
30	22,500	16,875	28,125
40	30,000	22,500	37,500
50	37,500	28,125	46,875
60	45,000	33,750	56,250
70	52,500	39,375	65,625
80	60,000	45,000	75,000
90	67,500	50,625	84,375
100	75,000	56,250	93,750
110	82,500	61,875	103,125
120	90,000	67,500	112,500
130	97,500	73,125	121,875
140	105,000	78,750	131,250
150	112,500	84,375	140,625
160	120,000	90,000	150,000
170	127,500	95,625	159,375
180	135,000	101,250	168,750
190	142,500	106,875	178,125
200	150,000	112,500	187,500

For extreme climatic conditions such as the Persian Gulf with sea-water temperatures of 32° C and air temperatures of 40° C, you have to add 25 to 30 % onto the calculated figure. On BlueCool Premium units it is also recommended that the condenser is increased in size.

BlueCool self-contained units

New BlueCool S-Series



NEW

The new BlueCool S-Series:

- Efficiency increased up to 15 %
- Continuous operation even under tropical conditions
- Overall size is reduced up to 20 %
- New electronics with USB diagnosis
- Quiet operation
- Robust design
- Soft start devices available as an option

BlueCool self-contained units

- BlueCool Classic SC5

SEE PAGE 84

- BlueCool S-Series S8 – S27

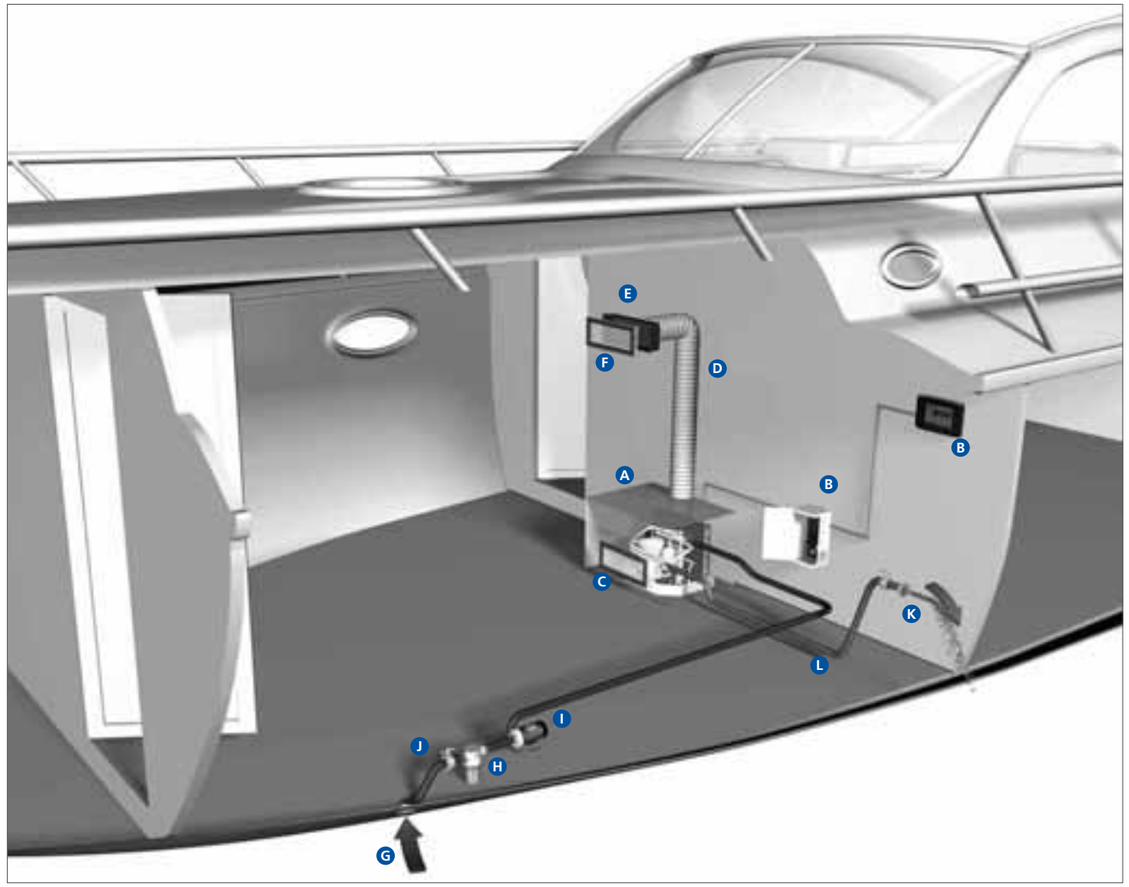
SEE PAGE 84

Self-contained air-conditioners:

- Stand alone unit
- Heating via reverse cycle integrated
- Extremely compact
- All components on one tray
- Seven sizes available
- Lowest power consumption
- Including electronics, blower and controls
- Evaporator temperature control in real time mode

BlueCool self-contained units

Installation example



Installation of a BlueCool self-contained unit is quite simple:
Each cabin has its own self-contained unit A
providing cool air to this cabin. It is controlled by an Air Control unit B
which is also located in this cabin.
The generated heat is transferred into the sea via the sea water circuit G to L.

Webasto BlueCool self-contained units

Webasto BlueCool self-contained air-conditioning units are systems with one hermetically encapsulated compressor. The cooling circuit includes not only the compressor but also a condenser, a throttle element (capillary tube) as well as an evaporator. Self-contained units are extremely compact. All components (compressor, condenser, evaporator and blower) required for cooling a cabin, a salon, a lounge or another room are mounted on a stainless steel tray. Webasto self-contained units are available in different power ratings. This means you are sure to find the ideal system for the specific needs of almost all room sizes requiring cooling in a yacht.

BlueCool self-contained units

Application guidelines

For a complete self-contained unit, please select the following:

Core unit

Please select the core unit according to the required cooling capacity, the available voltage and whether cool only or heating via reverse cycle is needed.

A Air-conditioning SEE PAGE 84
B Display and control unit SEE PAGE 106

Position **A** and **B** as well as the following components are included in the scope of delivery:

- Electric cable and control box
- Installation manual
- Remote air temperature sensor 3 m
- Display cable 4.5 m
- Operating manual

Air system

Please order separately the air ducting system for the application consisting of:

C Return air grille SEE PAGE 113
D Air ducting SEE PAGE 114
E Transition box SEE PAGE 114
F Supply air grille SEE PAGE 113

Sea water circuit

Please order separately the components for the sea water circuit consisting of:

G Sea water inlet SEE PAGE 126
H Sea water strainer SEE PAGE 126
I Sea water pump SEE PAGE 108
J Closing valve SEE PAGE 120
K Overboard discharge SEE PAGE 126
L Water hose SEE PAGE 116

BlueCool Classic & S-Series

Product overview

Technical data	BlueCool Classic	BlueCool S-Series					
Type	**SC5**	**S8**	**S10**	**S13**	**S16**	**S20**	**S27**
Order numbers	WBCL005101G	WBCL120001A	WBCL120002A	WBCL120003A	WBCL120004A	WBCL120005A	WBCL120006A
Cooling capacity* (BTU/h)	5.000	8.000	10.000	13.000	16.000	20.000	27.000
Cooling capacity* (kW)	1,5	2,4	2,9	3,8	4,7	5,9	7,9
Voltage (V)	230	230	230	230	230	230	230
Frequency (Hz)	50	50	50	50	50	50	50
Current draw running ** (A)	2,1	2,4 - 3,5	2,6 - 4,0	3,6 - 6,3	4,9 - 7,2	5,9 - 8,9	7,0 - 10,5
Current draw start *** (A)	5	9,7	10,3	14,3	21,8	21,8	46,5
Current draw RMS40**** (A)	12,4	20	20	27,3	38,7	45,6	62,3
Locked Rotor Amperage LRA (A)	-	18,7	18,7	24	37	43	62
Max. circuit breaker(A)	8	16	16	16	16	16	20 (comp. only)
Air flow (free blowing) (m³/h) (cfm/h)	275 162	275 162	400 235	500 294	625 368	625 368	2 x 550 2 x 324
Seawater connection (mm), (Inch)	 16"	19 3/4"	19 3/4"	19 3/4"	19 3/4"	19 3/4"	19 3/4"
Minimal seawater flow (l/min)	5	8	10	12	14	17	21
Recommended seawater pump +	WB250	WB350	WB350	WB350/WB500G	WB500/WB500G	WB500/WB500G	WB1000/WB1000G
Dimensions (LxDxH) (mm), (Inch)	424 x 285 x 278 16,7 x 11,2 x 10,9	313 x 400 x 301 12.3 x 15.7 x 11.9	310 x 475 x 310 12.2 x 18.7 x 12.2	355 x 500 x 320 14,0 x 19.8 x 12.6	"360 x 540 x 330 14.2 x 21.3 x 13	340 x 590 x 370 13.4 x 21.3 x 14.6	510 x 570 x 390 20.1 x 22.4 x 15.4
Blower connection (mm), (Inch)	100 4"	"100 4"	100 4"	125 5"	125 5"	125 5"	2x125 2 x 5"
Weight (kg)	21	20	22	27	31	34	46

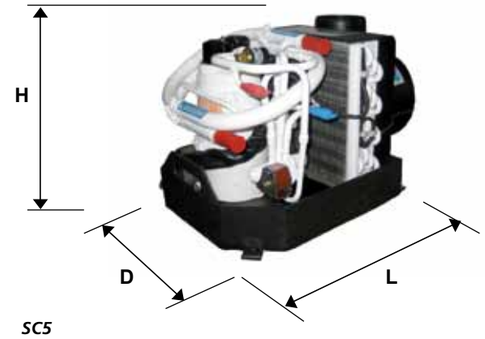
* BTU / h are based on 7 °C evaporating temperature and 38 °C condensing temperature
** Amperage values for core unit depend on compressor load. Max values at tropical conditions at 230V/50Hz
*** Starting amperage RMS (Root Mean Square) for core unit for first 300 ms
**** Starting amperage RMS (Root Mean Square) for core unit for first 40 ms
+ Recommendation only. Pump size shall be adapted to application constraints in order to always ensure minimal sea water flow.

Soft start device available as an option

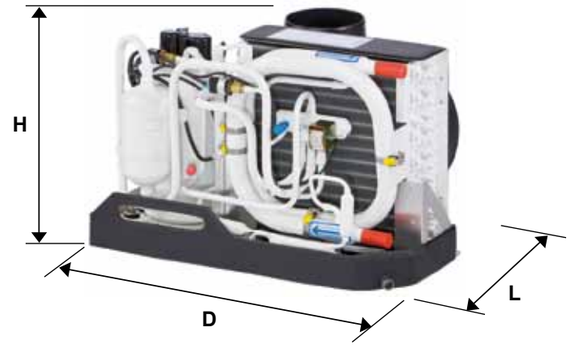
Plug and Play from outside

BlueCool Classic & S-Series

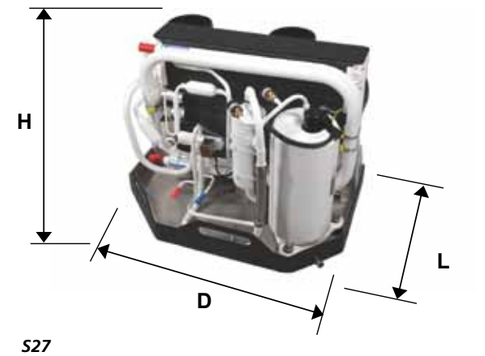
Product overview



SC5



S8 - S20



S27

BlueCool chiller systems

New BlueCool C-Series

NEW

The new BlueCool C-Series:

- Improved performance and up to 15 % higher efficiency
- Continuous cooling capacity even in tropical conditions
- Even more compact design
- New improved electronics for easy installation and diagnosis via USB cable
- Optional CAN-Bus for optimized adaptation to boat systems
- Compressor noise is reduced by up to 25 %
- Easy sea water and chilled water connections at one side
- Strong stainless steel tray and condensate drain
- Cooling and heating via reverse cycle function as standard
- Vibration dampers available as an option
- Soft start devices available as an option

BlueCool chiller systems

- BlueCool C-Series C16M to C108Q

SEE PAGE 90

- BlueCool Premium CH30 Mono to CH 572 QTT

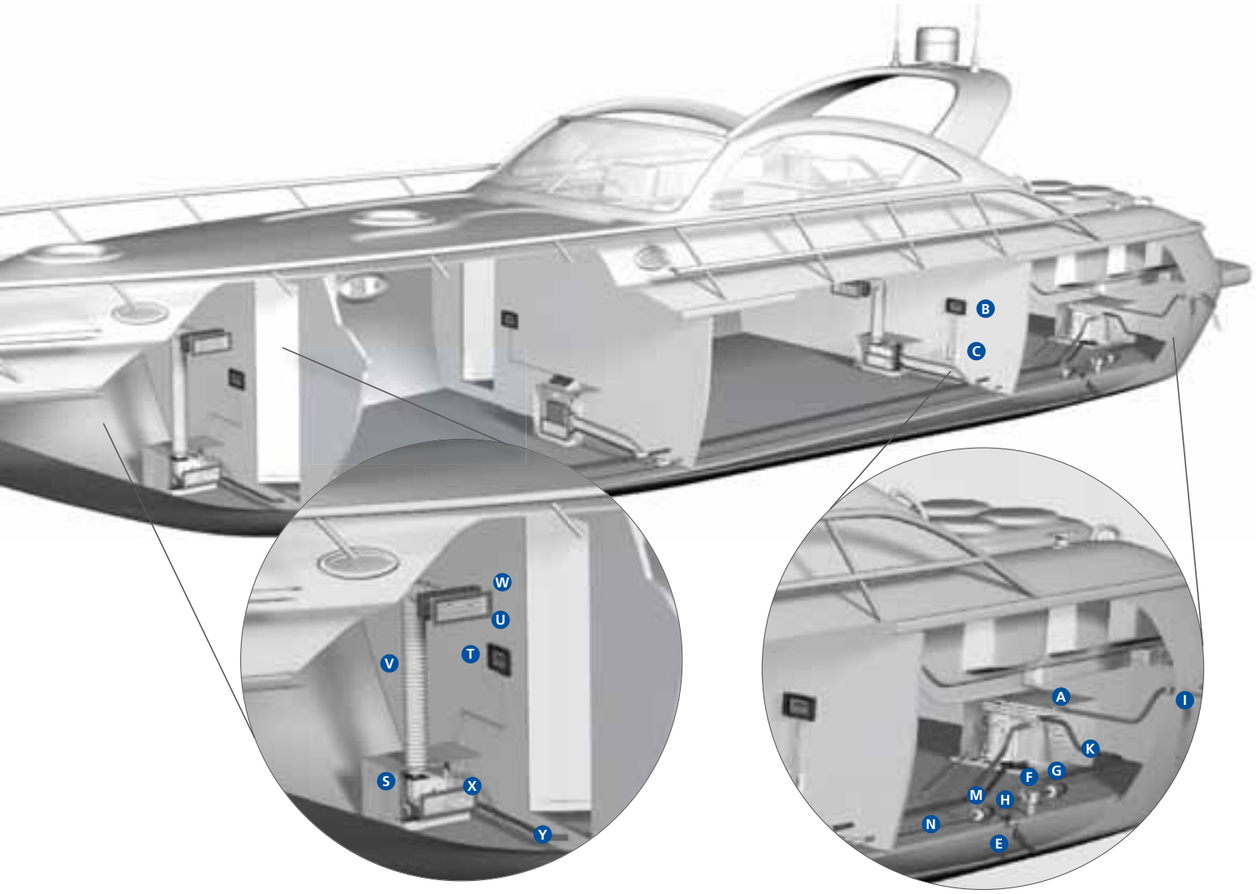
SEE PAGE 92

Webasto chiller solutions

- Largest BTU range on the market
- Largest air handler range on the market
- Fully independent cooling loops in multiple compressor units
- Power continuously adapted to demand
- Soft start option
- Electronic silencer for noise-sensitive applications
- Very robust stainless steel design for heavy duty use

BlueCool chiller systems

Installation example



For larger boats with several cabins a chiller system is the best choice. The chiller A/C unit (A) is typically placed in the engine room providing chilled water/glycol to all cabins via the chilled water circuit (M) to (R). In each cabin one or several air handlers (S) are fitted depending on cooling capacity and space requirements. The "Chiller Control" (B) controls the A/C system itself. For each cabin one "Cabin Control" (T) is needed to individually control the air handler in this cabin. As a result you get full temperature control in each cabin providing maximum comfort on board.

Chiller air-conditioning systems

Whenever three or more independent volumes in a yacht need to be air-conditioned, it becomes worth considering a central chiller system. To distribute cooling capacity over several independently operating air handlers from one single central cooling unit, the most flexible and simple solution is to install a chilled water circulation system between the central unit and the air handlers. This mixed water/glycol circuit is maintained at approx. +4° C. All Webasto chiller units are equipped with high efficiency multi-plate heat exchangers.

BlueCool chiller systems

Application guidelines

For a complete chiller system, please select the following:

Core unit

Please select the core unit according to the required cooling capacity, the available voltage and whether cool only or heating via reverse cycle is needed.

(A) Air-conditioning unit SEE PAGE 90-95

Position **A** as well as the following components are included in the scope of delivery:

- Electric cable and control box
- Installation manual
- Operating manual

Control elements for core unit

Please select the control elements for the core unit separately

(B) Display chiller control (Master control unit) SEE PAGE 106

(C) Display cable SEE PAGE 107

(D) Remote air temperature sensor SEE PAGE 107

Sea water circuit

Please order separately the components for the sea water circuit consisting of:

(E) Sea water inlet SEE PAGE 126

(F) Sea water strainer PAGE 126

(G) Sea water pump SEE PAGE 108

(H) Closing valve PAGE 120

(I) Overboard discharge SEE PAGE 126

(K) Water hose PAGE 116

Chilled water circuit

Please add the required components for the chilled water circuit consisting of:

(M) Circulation pump SEE PAGE 108

(N) Piping or hosing system with insulation SEE PAGE 121

(O) 3-way-valve (optional) SEE PAGE 120

(P) Turn ball valve SEE PAGE 120

(Q) Expansion tank SEE PAGE 120

(R) T-pieces SEE PAGE 122

Cabin accessories necessary for each single cabin

Please add for every single cabin the following components and accessories:

(S) Air handler SEE PAGE 98

(T) Cabin control (Air control, display cable, temperature sensor and control box) SEE PAGE 106

(U) Supply air grille SEE PAGE 113

(V) Air ducting SEE PAGE 113

(W) Transition box SEE PAGE 114

(X) Return air grille SEE PAGE 114

(Y) Water hoses for condensation drain SEE PAGE 121

BlueCool C-Series

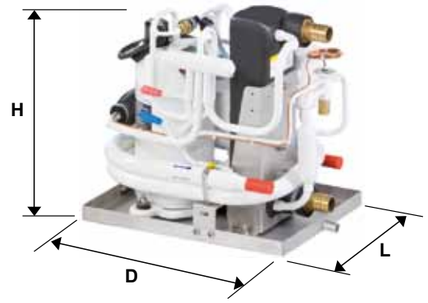
Product overview

Technical data	BlueCool C-Series							
Type	C16 M	C20 M	C27 M	C32 T	C40 T	C55 T	C81R	C108 Q
Order numbers	WBCL1205001A	WBCL1205002A	WBCL1205003A	WBCL1207001A	WBCL1207002A	WBCL1207003A	WBCL1207004A	WBCL1207005A
Cooling capacity* (BTU/h)	16.000	20.000	27.000	32.000	40.000	55.000	81.000	108.000
Cooling capacity* (kW)	4,7	5,9	7,9	9,4	11,7	16,1	23,7	31,7
Voltage (V)	230	230	230	230	230	230	230	230
Frequency ++ (Hz)	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Current draw running ** (A)	4,4 - 6,0	6,9 - 8,0	8,6 - 9,2	8,8 - 12,0	13,8 - 16,0	17,2 - 18,4	25,8 - 27,6	34,4 - 36,8
Current draw start *** (A)	21	20,8	45	27	28,8	54,2	63,4	72,6
Current draw RMS40**** (A)	37,9	44,6	61,1	43,9	52,6	70,3	79,5	88,7
Locked Rotor Amperage LRA (A) (comp. only)	37	43	62	74	86	124	186	248
Max. circuit breaker(A)	16	16	20	2 x 16	2 x 16	2 x 20	3 x 20	4 x 20
Chilled water connection (mm),	19	19	19	19	19	25	25	37
(Inch)	3/4"	3/4"	3/4"	3/4"	3/4"	1"	1"	1 1/2"
Minimal chilled water flow (l/min)	13	16	19	26	32	38	57	76
Recommended chilled water pump	WB500	WB500	WB1000	WB1000	WB1500	WB1500	WB2000	WB3500
Seawater connection (mm),	19	19	19	19	19	25	25	32
(Inch)	3/4"	3/4"	3/4"	3/4"	3/4"	1"	1"	1 1/4"
Minimal seawater flow (l/min)	14	17	21	28	34	42	63	84
Recommended seawater pump +	WB500/WB500G	WB500/WB500G	WB1000	WB1000	WB1500/WB1000G	WB1500/WB2000	WB2000/2500G	WB3000G
Dimensions (LxDxH) (mm),	385 x 290 x 350	440 x 320 x 365	440 x 340 x 400	530 x 400 x 490	530 x 400 x 490	530 x 400 x 550	750 x 420 x 550	530 x 800 x 550
(Inch)	15,2 x 11,4 x 13,8	17,3 x 12,6 x 14,4	17,3 x 13,4 x 15,7	20,9 x 15,7 x 19,3	20,9 x 15,7 x 19,3	20,9 x 15,7 x 21,7	29,5 x 16,5 x 21,7	20,9 x 31,5 x 21,7
Weight (kg)	30	30	40	77	80	90	140	185

General note: Values in this table given for 50 Hz only. 60 Hz data available on request.
* BTU / h are based on 7 °C evaporating temperature and 38 °C condensing temperature
** Amperage values for core unit depend on compressor load. Max values at tropical conditions at 230V/50Hz
*** Starting amperage RMS (Root Mean Square) for core unit for first 300 ms
**** Starting amperage RMS (Root Mean Square) for core unit for first 40 ms
+ Recommendation only. Pump size shall be adapted to application constraints in order to always ensure minimal sea water flow.
++ BlueCool C-Series systems are tested and approved by Webasto for 50/60 Hz operation.

BlueCool C-Series

Product overview



Mono
C16M-C27M

Twin
C32T-C55T

The new BlueCool C-Series:

- Improved performance and up to 15 % higher efficiency
- Continuous cooling capacity even in tropical conditions
- Even more compact design
- New improved electronics for easy installation and diagnosis via USB cable
- Optional CAN-Bus for optimized adaptation to boat systems
- Compressor noise is reduced by up to 25 %
- Easy sea water and chilled water connections at one side
- Strong stainless steel tray and condensate drain
- High quality Epoxy paint protection
- Vibration dampers available as an option
- Soft start devices available as an option

BlueCool Premium

Product overview

BlueCool Premium Mono chiller					
Type	**CH30-Mono**	**CH36-Mono**	**CH42-Mono**	**CH48-Mono**	**CH60-Mono**
230 V Cool only	-	-	-	-	-
230V Reverse cycle	WBCL005207B	WBCL005209B	WBCL005211B	WBCL005213B	-
400V/3 Ph Cool Only	-	-	-	-	-
400V/3 Ph Reverse Cycle	WBCL009750B	WBCL009752B	WBCL009754B	WBCL009756B	WBCL005238B
208V/ 3Ph Cool Only	-	-	-	-	-
208V/ 3Ph Reverse Cycle	-	-	-	-	-
Cooling capacity*(BTU/h)	30.000	36.000	42.000	48.000	60.000
Cooling capacity*(kW)	8,7	10,5	12,3	14	17,6
Voltage(V) - Phase	230 / 400 V - 1 / 3	230 / 400 V - 1 / 3	230 / 400 V - 1 / 3	230 / 400 V - 1 / 3	400 V - 3
Frequency ++ (Hz)	50/60	50/60	50/60	50/60	50/60
Current draw running**(A)	10,6 (230 V) 3,5 (400 V)	12,8 (230 V) 4,3 (400 V)	14,5 (230 V) 4,8 (400 V)	16,7 (230 V) 5,5 (400 V)	7,1 (400 V)
Current draw Start ***(A)	24.2 (230 V) 8 (400 V)	27,1 (230 V) 9 (400V)	35,3 (230 V) 11,7 (400V)	44,4 (230 V) 14,8 (400V)	15,7 (400V)
Locked Rotor Amperage LRA(A)	59 (230 V) 28 (400V)	66 40	76 (230V) 36 (400V)	85 (230V) 54 (400V)	57 (400V)
Chilled water connection (mm), (Inch)	20 mm	20 mm	20 mm	20 mm	25 mm
Min. chilled water flow (l/min)	25	30	33	38	50
Seawater connection (mm), (Inch)	20 mm 3/4"	20 mm 3/4"	20 mm 3/4"	20 mm 3/4"	25 mm 1"
Min. seawater flow (l/min)	19	22	27	30	38
Recommended seawater pump +	WB1000	WB1000	WB1000 WB1500	WB1000 WB1500	WB1500
Dimensions (LxDxH)(mm), (Inch)	411 x 355 x 410 16.2 x 14 x 16.1	480 x 422 x 515 18.9 x 16.6 x 20.3	480 x 422 x 535 18.9 x 16.6 x 21.1	480 x 422 x 585 18.9 x 16.6 x 23	535 x 530 x 600 21.1 x 20.9 x 23.6
Weight (kg)	55	66	68	70	75

BlueCool Premium Twin chiller				
Type	**CH60-TWIN**	**CH72-TWIN**	**CH84-TWIN**	**CH96-TWIN**
230 V Cool only	-	-	-	-
230V Reverse cycle	-	WBCL005217	WBCL005223	WBCL005224
400V/3 Ph Cool Only				
400V/3 Ph Reverse Cycle	WBCL009758	WBCL009760	WBCL009762	WBCL009764
208V/ 3Ph Cool Only	-	-	-	-
208V/ 3Ph Reverse Cycle	-	-	-	-
Cooling capacity*(BTU/h)	60.000	72.000	84.000	96.000
Cooling capacity*(kW)	17,6	21,1	24,6	28,1
Voltage(V) - Phase	400 V - 3	230 / 400 V - 1 / 3	230 / 400 V - 1 / 3	230 / 400 V - 1 / 3
Frequency ++ (Hz)	50/60	50/60	50/60	50/60
Current draw running**(A)	21,3 (230 V) 7,1 (400 V)	25,6 (230 V) 8,5 (400 V)	29 (230 V) 9,6 (400 V)	33,3 (230 V) 11 (400 V)
Current draw Start ***(A)	39,1 (230 V) 13 (400 V)	46,6 (230 V) 15,5 (400 V)	53,1 (230 V) 17,6 (400 V)	62,1 (230 V) 17,6 (400 V)
Locked Rotor Amperage LRA(A)	118 (230 V) 56 (400 V)	132 (230 V) 80 (400 V)	152 (230 V) 72 (400 V)	190 (230 V) 108 (400 V)
Chilled water connection (mm), (Inch)	25 mm 1"	25 mm 1"	25 mm 1"	25 mm 1"
Min. chilled water flow (l/min)	50	60	66	76
Seawater connection (mm), (Inch)	25 mm 1"	25 mm 1"	25 mm 1"	25 mm 1"
Min. seawater flow (l/min)	38	46	56	64
Recommended seawater pump +	WB1500 WB2000	WB2500G WB 3000G	WB2500G WB 3000G	WB2500G WB 3000G
Dimensions (LxDxH)(mm), (Inch)	680 x 432 x 572 26.8 x 17 x 22.5	681 x 432 x 572 26.8 x 17 x 22.5	680 x 415 x 630 26.8 x 16.4 x 24.9	680 x 432 x 630 26.8 x 17 x 24.8
Weight (kg)	95	100	105	130

General note: Values in this table given for 50 Hz only. 60 Hz data available on request.
* BTU / h are based on 7 °C evaporating temperature and 38 °C condensing temperature
** Amperage values for core unit depend on compressor load. Max values at tropical conditions at 50Hz

*** Starting amperage RMS (Root Mean Square) for core unit for first 300 ms
+ Recommendation only. Pump size shall be adapted to application constraints in order to always ensure minimal sea water flow.
++ BlueCool Premium systems are tested and approved by Webasto for 50/60 Hz operation.

BlueCool Premium

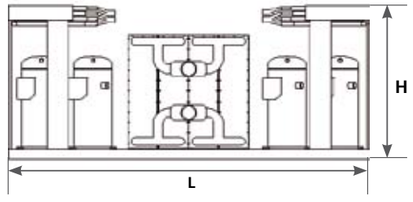
Product overview

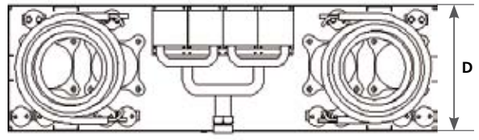
CH30 to 60 Mono
30,000 to 60,000 BTU/h

CH260 to 96 Twin
60,000 to 96,000 BTU/h

CH108 to 252 Triple
108,000 to 252,000 BTU/h

CH120 to 572 Quattro
120,000 to 572,000 BTU/h





BlueCool Premium:

- Wide product range for medium and large size boats
- Scroll compressors for heavy duty applications
- Low starting surge through staged compressor starts 208 V, 230 V and 400 V systems available
- Many customization options with different electronics, tropical versions, vibration damping and many other features
- Fully independent cooling circuits in multiple compressor units provide high system availability
- Power output continuously adapted to cooling demand
- Very robust stainless steel design for heavy duty use

BlueCool Premium

Product overview

BlueCool Premium

Product overview

Webasto engineers and quotes custom manufactured chiller systems upon request. Please contact us for a tailored solution to fit your individual needs.

BlueCool Premium Triple chiller						
Type	**CH108-TRI**	**CH126-TRI**	**CH144-TRI**	**CH180-TRI**	**CH216-TRI**	**CH252-TRI**
230 V Cool only	WBCL006807A	WBCL006808A	WBCL005252	-	-	-
230V Reverse cycle	WBCL006811A	WBCL006812A	WBCL005262	-	-	-
400V/3 Ph Cool Only	WBCL006809A	WBCL006810A	WBCL009768	WBCL009769	WBCL009770	WBCL009771
400V/3 Ph Reverse Cycle	WBCL006813A	WBCL006814A	WBCL009977	WBCL009978	WBCL009979	WBCL009980
208V/ 3Ph Cool Only	-	-	-	WBCL005253	WBCL005254	WBCL005255
208V/ 3Ph Reverse Cycle	-	-	-	WBCL005263	WBCL005264	WBCL005265
Cooling capacity*(BTU/h)	108.000	126.000	144.000	180.000	216.000	252.000
Cooling capacity*(kW)	31,7	37	42,2	52,8	63,3	73,8
Voltage(V) - Phase	230 / 400 V - 1 / 3	230 / 400 V - 1 / 3	230 / 400 V - 1 / 3	208 / 400 V - 3 / 3	208 / 400 V - 3 / 3	208 / 400 V - 3 / 3
Frequency ++ (Hz)	50/60	50/60	50/60	50/60	50/60	50/60
Current draw running**(A)	38,7 (230 V) 12,8 (400 V)	43,5 (230 V) 14,4 (400 V)	50,0 (230 V) 16,6 (400 V)	21,2 (400 V)	26,5 (400 V)	30,3 (400 V)
Current draw Start ***(A)	59,4 (230 V) 19,7 (400 V)	67,6 (230 V) 22,5 (400 V)	78,7 (230 V) 26,1 (400 V)	29,8 (400 V)	40,9 (400 V)	46,7 (400 V)
Locked Rotor Amperage LRA(A)	198 (230 V) 120 (400 V)	228 (230 V) 108 (400 V)	255 (230 V) 162 (400 V)	171 (400 V)	228 (400 V)	228 (400 V)
Chilled water connection (mm), (Inch)	1 1/2" M BST	1 1/2" M BST	1 1/2" M BST	1 1/2" M BST	2" M BST	2" M BST
Min. chilled water flow (l/min)	88	104	115	138	158	180
Seawater connection (mm), (Inch)	1 1/4" F BST	1 1/4" F BST	1 1/4" F BST	1 1/2" F BST	2" F BST	2" F BST
Min. seawater flow (l/min)	68	82	92	106	125	145
Recommended seawater pump +	WB3000G WB3500	WB3000G WB3500	WB3000G WB3500	WB5500	WB5500	WB5500
Dimensions (LxDxH)(mm), (Inch)	1,090 x 540 x 650 42.9 x 21.3 x 25.2	1,090 x 540 x 650 42.9 x 21.3 x 25.2	1,310 x 540 x 680 51.6 x 21.3 x 26.8	1,310 x 540 x 718 51.6 x 21.3 x 28.3	1,310 x 540 x 850 51.6 x 21.3 x 33.5	1,310 x 540 x 850 51.6 x 21.3 x 33.5
Weight (kg)	150	180	190	210	250	260

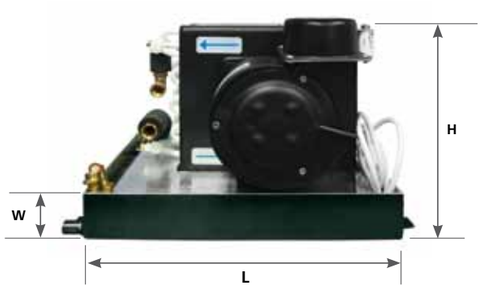
BlueCool Premium Quattro chiller										
Type	**CH120-QTT**	**CH144-QTT**	**CH168-QTT**	**CH240-QTT**	**CH288-QTT**	**CH336-QTT**	**CH384-QTT**	**CH448-QTT**	**CH504-QTT**	**CH572-QTT**
230 V Cool only	WBCL006815A	WBCL006819A	WBCL006823A	-	-	-	-	-	-	-
230V Reverse cycle	WBCL006817A	WBCL006821A	WBCL006825A	-	-	-	-	-	-	-
400V/3 Ph Cool Only	WBCL006816A	WBCL006820A	WBCL006824A	WBCL005503	WBCL005504	WBCL005505	WBCL005506	WBCL005507	WBCL005508	WBCL005509
400V/3 Ph Reverse Cycle	WBCL006818A	WBCL006822A	WBCL006826A	WBCL005266	WBCL005267	WBCL005268	WBCL009999A	WBCL005510A	-	-
208V/ 3Ph Cool Only	-	-	-	WBCL009772	WBCL009773	WBCL009774	-	-	-	-
208V/ 3Ph Reverse Cycle	-	-	-	WBCL009981	WBCL009982	WBCL009983	-	-	-	-
Cooling capacity*(BTU/h)	120000	144.000	168.000	240.000	288.000	336.000	384.000	448.000	504.000	572.000
Cooling capacity*(kW)	35	42,2	49,2	70	85	99	112	132	148	168
Voltage(V) - Phase	230 / 400 V-1 / 3	230 / 400 V-1 / 3	230 / 400 V-1 / 3	208 / 400 V-3 / 3	208 / 400 V-3 / 3	208 / 400 V-3 / 3	400 V-3	400 V-3	400 V-3	400 V-3
Frequency ++ (Hz)	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Current draw running**(A)	"42,5 (230 V) 14,1 (400 V)"	"51,2 (230 V) 17,0 (400 V)"	"58,0 (230 V) 19,2 (400 V)"	28,1 (400 V)	35,3 (400 V)	40,1 (400 V)	43,3 (400 V)	48,8 (400 V)	48,8 (400 V)	60,9 (400 V)
Current draw Start ***(A)	"56,2 (230 V) 18,6 (400 V)"	"65,6 (230 V) 21,7 (400 V)"	"79,0 (230 V) 26,1 (400 V)"	36,7 (400 V)	49,7 (400 V)	56,5 (400 V)	61,6 (400 V)	68,6 (400 V)	68,6 (400 V)	85,8 (400 V)
Locked Rotor Amperage LRA(A)	"236 (230 V) 112 (400 V)"	"264 (230 V) 160 (400 V)"	"304 (230 V) 144 (400 V)"	228 (400 V)	304 (400 V)	304 (400 V)	396 (400 V)	492 (400 V)	508 (400 V)	668 (400 V)
Chilled water connection (mm),	1 1/2" M BST	1 1/2" M BST	1 1/2" M BST	2" M BST	2 1/2" M	2 1/2" M	2 1/2" M	2 1/2" M	2 1/2" M	2 1/2" M
Min. chilled water flow(l/min)	100	115	132	175	220	245	275	310	360	420
Seawater connection (mm), (Inch)	1 1/4" F BST	1 1/4" F BST	1 1/4" F BST	1 1/2" F BST	2" F BST	2" F BST	2" F BST	2" F BST	2" F BST	2" F BST
Min. seawater flow (l/min)	80	92	100	140	162	180	200	240	270	325
Recommended seawater pump +	WB3000G	WB5500	WB5500	WB5500	WB5500 WB7400"	WB5500 WB7400	WB7400	WB7400 WB9800	WB7400 WB9800	"WB7400 WB9800"
Dimensions (LxDxH) (mm), (Inch)	1,090 x 540 x 650 42.9 x 21.3 x 25.2	1,090 x 540 x 650 42.9 x 21.3 x 25.2	1,090 x 540 x 650 42.9 x 21.3 x 25.2	1,730 x 540 x 740 68.1 x 21.3 x 29.1	1,720 x 500 x 780 67.8 x 19.7 x 30.8	1,730 x 540 x 740 68.1 x 21.3 x 29.1	2,030 x 610 x 900 79.9 x 24 x 35.4	2,030 x 610 x 975 79.9 x 24 x 38.4	2,030 x 610 x 1,000 79.9 x 24 x 39.4	2,030 x 610 x 1,000 79.9 x 24 x 39.4
Weight (kg)	190	210	230	270	350	350	450	670	670	725

General note: Values in this table given for 50 Hz only. 60 Hz data available on request.
* BTU / h are based on 7 °C evaporating temperature and 38 °C condensing temperature
** Amperage values for core unit depend on compressor load. Max values at tropical conditions at 50Hz
*** Starting amperage RMS (Root Mean Square) for core unit for first 300 ms

+ Recommendation only. Pump size shall be adapted to application constraints in order to always ensure minimal sea water flow.
++ BlueCool Premium systems are tested and approved by Webasto for 50/60 Hz operation.

Accessories for cooling systems

Air handlers



All air handlers now with insulated condensation trays!

Compact air handlers

Model	Air flow	Amp draw * (Running Watts)	Ø Hose ring	Net weight	Ø Chilled water hose (mm)	Performance	Dimensions (H x L x W)	Part no. 230 V	Part no. 115 V
AH-CO05	275 m³/h 165 cfm	0.35 (80)	100 mm 3.9 inch	5 kg 11 lbs	16	4,500 BTU/h 1.3 kW	265 x 340 x 260 mm 10.4 x 13.4 x 10.2 inch	WBCL000744XX0B	WBCL0063000000B
AH-CO06	275 m³/h 165 cfm	0.35 (80)	100 mm 3.9 inch	7.5 kg 16.5 lbs	16	6,000 BTU/h 1.7 kW	291 x 444 x 259 mm 11,5 x 17,5 x 10,2 inch	WBCL000745XX0B	WBCL0063010000B
AH-CO09	430 m³/h 253 cfm	0.57 (130)	100 mm 3.9 inch	9 kg 20 lbs	16	9,000 BTU/h 2.6 kW	334 x 484 x 289 mm 13,1 x 19,1 x 11,4 inch	WBCL000746XX0B	WBCL0063020000B
AH-CO12	500 m³/h 300 cfm	0.65 (150)	125 mm 4.9 inch	9.5 kg 21 lbs	16	12,000 BTU/h 3.5 kW	353 x 484 x 289 mm 13,9 x 19,1 x 11,4 inch	WBCL000747XX0B	WBCL0063030000B
AH-CO16	625 m³/h 368 cfm	0.87 (200)	125 mm 4.9 inch	12.5 kg 27.5 lbs	16	16,000 BTU/h 4.6 kW	368 x 559 x 289 mm 14,5 x 22,0 x 11,4 inch	WBCL000748XX0B	WBCL0063040000B
AH-CO20	625 m³/h 368 cfm	0.87 (200)	125 mm 4.9 inch	14 kg 31 lbs	20	20,000 BTU/h 5.6 kW	403 x 559 x 289 mm 15,9 x 22,0 x 11,4 inch	WBCL000790XX0B	WBCL0063050000B
AH-CO24	2 x 500 m³/h 2 x 300 cfm	1.3 (300)	2 x 125 mm 2 x 4.9 inch	25 kg 55 lb	20	24,000 BTU/h 7 kW	403 x 621 x 289 mm 15,9 x 24,4 x 11,4 inch	WBCL000329XX0B	WBCL0063060000B
AH-CO30	2 x 550 m³/h 2 x 324 cfm	1.7 (400)	2 x 125 mm 2 x 4.9 inch	24 kg 53 lb	20	30,000 BTU/h 8.8 kW	403 x 707 x 289 mm 15,9 x 27,8 x 11,4 inch	WBCL000330XX0B	
AH-CO48	2 x 900 m³/h 2 x 530 cfm	2.7 (620)	2 x 125 mm 2 x 4.9 inch	40 kg 88 lbs	20	48,000 BTU/h 14 kW	489 x 974 x 389 mm 19,3 x 38,3 x 15,3 inch	WBCL000789XX0B	

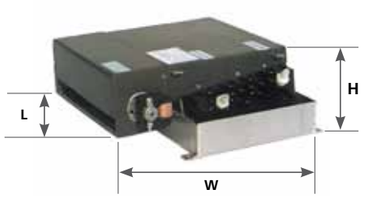
* has to be doubled for 115V versions

Note: All Webasto air handlers are optionally available with electric heating elements for superior heating performance independent from chiller unit.

Electric heating capacities are

Cooling capacity	Electric heating capacity
4.000 – 6.000 BTU/h	500 W
9.000 – 12.000 BTU/h	1000 W
16.000 – 20.000 BTU/h	1.500 W
24.000 – 30.000 BTU/h	2.250 W
48.000 BTU /h	4.000 W

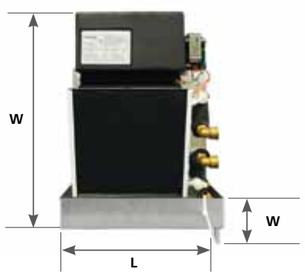
Air handlers



Cross flow air handlers / H

Model	Air flow	Amp draw * (Running Watts)	Air output dimensions		Net weight	Ø Chilled water hose (mm)	Performance	Dimensions (H x L x W)	Part no. 230 V	Part no. 115 V
			height	length						
AH-TH04	150 m³/h 88 cfm	0.13 (30)	40 mm 1.6 inch	180 mm 7.1 inch	5 kg 11 lbs	16	4,000 BTU/h 1.1 kW	176 x 441 x 343 mm 6,9 x 17,4 x 13,5 inch	WBCL000750XXXB	WBCL00631300XB
AH-TH06	190 m³/h 112 cfm	0.17 (40)	40 mm 1.6 inch	240 mm 9.4 inch	7 kg 15.5 lbs	16	6,000 BTU/h 1.7 kW	176 x 441 x 393 mm 6,9 x 17,4 x 15,5 inch	WBCL000752XXXB	WBCL00631200XB
AH-TH09	250 m³/h 147 cfm	0.2 (46)	40 mm 1.6 inch	302 mm 11.9 inch	8 kg 18 lbs	16	9,000 BTU/h 2.6 kW	176 x 467 x 442 mm 6,9 x 18,4 x 17,4 inch	WBCL000753XXXB	WBCL00631100XB
AH-TH12	250 m³/h 147 cfm	0.2 (46)	40 mm 1.6 inch	302 mm 11.9 inch	9 kg 20 lbs	16	12,000 BTU/h 3.5 kW	176 x 518 x 442 mm 6,9 x 20,4 x 17,4 inch	WBCL000765XXXB	WBCL00631000XB

* has to be doubled for 115V versions

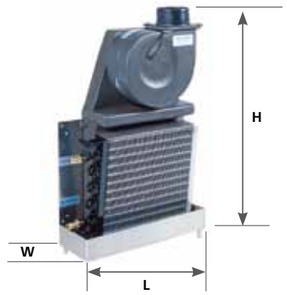


Cross flow air handlers / V

Model	Air flow	Amp draw * (Running Watts)	Air output dimensions		Net weight	Ø Chilled water hose (mm)	Performance	Dimensions (H x L x W)	Part no. 230 V	Part no. 115 V
			height	length						
AH-TV04	150 m³/h 88 cfm	0.13 (30)	180 mm 7.1 inch	40 mm 1.6 inch	5 kg 11 lbs	16	4,000 BTU/h 1.1 kW	472 x 355 x 157 mm 18,6 x 14,0 x 6,2 inch	WBCL000760XXXB	WBCL00635400XB
AH-TV06	190 m³/h 112 cfm	0.17 (40)	240 mm 9.4 inch	40 mm 1.6 inch	7 kg 16.5 lbs	16	6,000 BTU/h 1.7 kW	492 x 405 x 162 mm 19,4 x 15,9 x 6,4 inch	WBCL000762XXXB	WBCL00635500XB
AH-TV09	250 m³/h 147 cfm	0.2 (46)	302 mm 11.9 inch	40 mm 1.6 inch	8.5 kg 19 lbs	16	9,000 BTU/h 2.6 kW	502 x 456 x 157 mm 19,8 x 18,0 x 6,2 inch	WBCL000763XXXB	WBCL00635600XB
AH-TV12	250 m³/h 147 cfm	0.2 (46)	302 mm 11.9 inch	40 mm 1.6 inch	9.5 kg 21 lbs	16	12,000 BTU/h 3.5 kW	553 x 456 x 163 mm 21,8 x 18,0 x 6,4 inch	WBCL000766XXXB	WBCL00635700XB

* has to be doubled for 115V versions

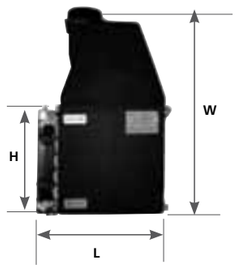
Air handlers



SlimLine / V air handlers

Model	Air flow	Amp draw * (Running Watts)	Ø Hose ring	Net weight	Ø Chilled water hose (mm)	Performance	Dimensions (H x L x W)	Part no. 230 V	Part no. 115 V
AH-SV05	275 m³/h 165 cfm	0.35 (80)	100 mm 3.9 inch	6.5 kg 14.5 lbs	16	4,500 BTU/h 1.3 kW	619 x 355 x 157 mm 24,4 x 14,0 x 6,2 inch	WBCL000740XX0B	WBCL006350000B
AH-SV06	275 m³/h 165 cfm	0.35 (80)	100 mm 3.9 inch	8 kg 18 lbs	16	6,000 BTU/h 1.7 kW	639 x 405 x 162 mm 25,2 x 15,9 x 6,4 inch	WBCL000741XX0B	WBCL006351000B
AH-SV09	430 m³/h 253 cfm	0.57 (130)	100 mm 3.9 inch	10 kg 22 lbs	16	9,000 BTU/h 2.6 kW	704 x 456 x 172 mm 27,7 x 18,0 x 6,8 inch	WBCL000742XX0B	WBCL006352000B
AH-SV12	500 m³/h 300 cfm	0.65 (150)	125 mm 4.9 inch	11 kg 24.5 lbs	16	12,000 BTU/h 3.5 kW	755 x 456 x 172 mm 29,7 x 18,0 x 6,8 inch	WBCL000743XX0B	WBCL006353000B
AH-SV16	625 m³/h 368 cfm	0.87 (200)	125 mm 4.9 inch	15 kg 33 lbs	16	16,000 BTU/h 4.6 kW	776 x 524 x 218 mm 30,6 x 20,6 x 8,6 inch	WBCL000791XX0B	WBCL006360000B
AH-SV20	625 m³/h 368 cfm	0.87 (200)	125 mm 4.9 inch	16 kg 35.5 lbs	20	20,000 BTU/h 5.6 kW	823 x 534 x 218 mm 32,4 x 21,0 x 8,6 inch	WBCL000792XX0B	WBCL006361000B
AH-SV24	2 x 500 m³/h 2 x 300 cfm	1.3 (300)	2 x 125 mm 2 x 4.9 inch	30 kg 66 lbs	20	24,000 BTU/h 7 kW	788 x 579 x 227 mm 31,0 x 22,8 x 8,9 inch	WBCL000793XX0B	WBCL006362000B

* has to be doubled for 115V versions



SlimLine / H air handlers

Model	Air flow	Amp draw * (Running Watts)	Ø Hose ring	Net weight	Ø Chilled water hose (mm)	Performance	Dimensions (H x L x W)	Part no. 230 V	Part no. 115 V
AH-SH05	275 m³/h 165 cfm	0.35 (80)	100 mm 3.9 inch	7 kg 15.5 lbs	16	4,500 BTU/h 1.3 kW	175 x 343 x 588 mm 6,9 x 13,5 x 23,1 inch	WBCL000950XX0B	WBCL006370000B
AH-SH06	275 m³/h 165 cfm	0.35 (80)	100 mm 3.9 inch	8 kg 18 lbs	16	6,000 BTU/h 1.7 kW	175 x 393 x 588 mm 6,9 x 15,5 x 23,1 inch	WBCL000951XX0B	WBCL006371000B
AH-SH09	430 m³/h 253 cfm	0.57 (130)	100 mm 3.9 inch	10 kg 22 lbs	16	9,000 BTU/h 2.6 kW	175 x 442 x 669 mm 6,9 x 17,4 x 26,3 inch	WBCL000952XX0B	WBCL006372000B
AH-SH12	500 m³/h 300 cfm	0.65 (150)	125 mm 4.9 inch	11 kg 24.5 lbs	16	12,000 BTU/h 3.5 kW	175 x 442 x 720 mm 6,9 x 17,4 x 28,3 inch	WBCL000953XX0B	WBCL006373000B
AH-SH16	625 m³/h 368 cfm	0.87 (200)	125 mm 4.9 inch	15 kg 33 lbs	16	16,000 BTU/h 4.6 kW	242 x 507 x 756 mm 9,5 x 20,0 x 29,8 inch	WBCL000954XX0B	WBCL006374000B
AH-SH20	625 m³/h 368 cfm	0.87 (200)	125 mm 4.9 inch	16 kg 35.5 lbs	20	20,000 BTU/h 5.6 kW	242 x 520 x 811 mm 9,5 x 20,5 x 31,9 inch	WBCL000955XX0B	WBCL006375000B
AH-SH24	2 x 500 m³/h 2 x 300 cfm	1.3 (300)	2 x 125 mm 2 x 4.9 inch	30 kg 66 lbs	20	24,000 BTU/h 7 kW	254 x 565 x 775 mm 10,0 x 22,2 x 30,5 inch	WBCL000956XX0B	WBCL006376000B

* has to be doubled for 115V versions

Air handlers

Air handlers accessories

The electronic silencer

- Significant reduction of blower noise, making the air handler more silent than a whisper
- Works with all our air handler models due to a simple integration into the power supply
- Easy to install and retrofit as an upgrade
- Allows fine-tuning of installed applications where necessary
- Further noise reduction can be obtained by using our new extra-silent air ducting

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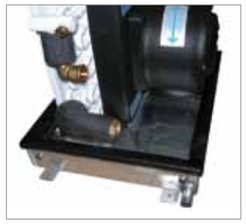
(2)

(1)

Additional components

Description	Part no.
(1) Remote bleeder kit Adaptor kit for easy bleeding of the air handler	WBCL010125D
(2) Electronic silencer: to be mounted afterwards for significant reduction of noise impact suitable for 4.5 to 6,000 BTU/h	WBCL010160C
(2) Electronic silencer to be mounted afterwards for significant reduction of noise impact suitable for 9 to 12,000 BTU/h	WBCL010161C
(2) Electronic silencer to be mounted afterwards for significant reduction of noise impact suitable for 16 to 24,000 BTU/h	WBCL010162C



Antisplash option

Webasto offers the widest range of air handlers with plenty of options. For clear identification when ordering, please use the following codification: WBCL000752 X X X B

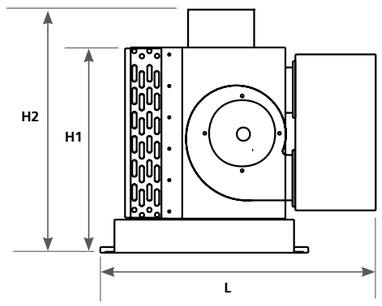
Identifies 3-way valve option*	Identifies electric heating option*	Identifies Antisplash option and blower position option for Cross Flow models
0 = without valve 1 = with valve	0 = without heating 1 = with heating	0 = without Antisplash and standard blower position 1 = without Antisplash and lateral blower position 2 = with Anti-splash and standard blower position 3 = with Anti-splash and lateral blower position
Example: **WBCL000752000** = standard unit	**Example:** **WBCL000752010** = unit equipped with electric heating element	**Example:** **WBCL000762001=** unit without Antisplash but with lateral blower position
WBCL000752100 = unit with 3-way valve mounted	**WBCL000752110** = unit equipped with 3-way valve and electric heating element	**WBCL000762113 =** unit equipped with 3-way-valve, electric heating element, antisplash and lateral blower position

* Only available for 230 V air handler versions

Fresh air and air extraction units

Features and functioning principles

- Regulate fresh-air entry into the vessel by temperature differential outside/inside and combined air extraction control
- Basic regulation by adjustable temperature differential outside/inside with programmable extreme limits and short cycle limits
- 2-stage integrated reheat (AC electrical) provided
- Electronic controller provides two separate blower outlets: one for fresh-air input and one for extraction air out. Different speed settings possible for both outlets. All speed settings including the maximum speed completely re-programmable. A manual control for the speed is possible
- Special flow regulators allow easy and precise balancing of outputs per volume
- Integrated Solenoid 3-way valve control
- Special start-up procedure to eliminate residual moisture in system
- Three temperature read-outs:
  - Outside air temperature
  - Chilled water circuit temperature
  - Treated air input temperature
- Air flow regulators to be specified according to application



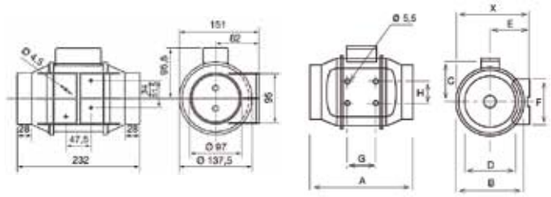
Fresh air unit	Performance	Air flow	Electronic heating capacity	Length (L)	Height (H1)	Height (H2)	Depth (D)	Weight	Part no.
Fresh Air 24	24,000 BTU /h 7 kW	900 m³/h 530 cfm	2 x 1000 W	700 mm 27.6 inch	430 mm 16.9 inch	540 mm 21.3 inch	585 mm 23 inch	35 kg 77 lbs	WBCL005241B
Fresh Air 24 SP	24,000 BTU /h 7 kW	1,800 m³/h 1,060 cfm	2 x 1000 W	700 mm 27.6 inch	430 mm 16.9 inch	540 mm 21.3 inch	585 mm 23 inch	35 kg 77 lbs	WBCL005242B
Fresh Air 48	48,000 BTU /h 14 kW	1,800 m³/h 1,060 cfm	4 x 1000 W	850 mm 33.5 inch	512 mm 20.2 inch	565 mm 22.2 inch	925 mm 36.41 inch	45 kg 100 lbs	WBCL005240B
Fresh Air 2 x 24	48,000 BTU /h 14 kW	1,800 m³/h 1,060 cfm	2 x 1000 W	940 mm 37 inch	490 mm 19.3 inch	570 mm 22.4 inch	620 mm 24.4 inch	48 kg 106 lbs	WBCL000218B

Air extraction unit	Performance	Air flow	Electronic heating capacity	Length (L)	Height (H1)	Height (H2)	Depth (D)	Weight	Part no.
Extract 900	–	900 m³/h 530 cfm	–	515 mm 20.3 inch	435 mm 17.1 inch	– –	585 mm 23 inch	18 kg 40 lbs	WBCL000216
Extract 1800	–	1,800 m³/h 1,060 cfm	–	515 mm 20.3 inch	435 mm 17.1 inch	– –	615 mm 24.2 inch	21 kg 46 lbs	WBCL000219

Blower modules and air flow regulators

Inline blower modules

- Provide fresh air to or extract air from the cabins
- Special fan design provides a high air flow at low noise
- Low electrical power consumption
- Removable engine body allows easy maintenance
- Speed controllable motor, two speed, Class B, IP44



Model 160

Model 250 & 350

Model	X	A	Ø B	C	Ø D	E	F	G	H
250	188	303	176	115	97	100	90	80	60
350	188	258	176	115	123	100	90	80	60

Model	Speed level	Speed (r.p.m.)	Electrical power consumption (W)	Air flow at free discharge	Maximum operating temperature	Sound pressure level* (dB(A))	Power supply	Ø Duct	Weight	Part no.
Inline extractor blower 160	II	2,500	20	180 m³/h, 106 cfm	40	24	~230 V 50 Hz	100 mm 4 inch	1.4 kg 3.1 lbs	WBCL010152A
	I	2,200	12	140 m³/h, 82 cfm	40	21				
Inline extractor blower 250	II	2,200	24	240 m³/h, 141 cfm	40	31	~230 V 50 Hz	100 mm 4 inch	2.0 kg 4.4 lbs	WBCL010157A
	I	1,850	18	180 m³/h, 106 cfm	40	26				
Inline extractor blower 350	II	2,250	30	360 m³/h, 212 cfm	40	33	~230 V 50 Hz	125 mm 5 inch	2.0 kg 4.4 lbs	WBCL010158A
	I	1,900	22	280 m³/h, 165 cfm	40	28				
Inline extractor blower 500	II	2,500	50	580 m³/h, 341 cfm	60	33	~230 V 50 Hz	150 mm 6 inch	2.7 kg 5.9 lbs	WBCL10229A
	I	1,900	44	430 m³/h, 253 cfm	60	29				

* Sound pressure level radiated at 3 meters at free air conditions with rigid ducts at the inlet and at the outlet

Air flow regulators

- Independent regulation of desired fresh-/extract air flow
- Eliminates the influence of alternating back pressure, caused by e.g. blocked air filters
- Continous air flow ensures high comfort inside the cabin
- No electrical or pneumatic wiring
- Direct insertion into the air duct, which allows an easy application

Model	Ø D of ducting	Air flow limit	Part. No
Air Flow Regulator 15	80 mm, 3.1 inch	15 m³/h, 8.5 cfm	WBCL005243
Air Flow Regulator 30	80 mm, 3.1 inch	30 m³/h, 17.5 cfm	WBCL005244
Air Flow Regulator 45	80 mm, 3.1 inch	45 m³/h, 26.5 cfm	WBCL005245
Air Flow Regulator 60	80 mm, 3.1 inch	60 m³/h, 35 cfm	WBCL005246
Air Flow Regulator 90	100 mm, 4 inch	90 m³/h, 53 cfm	WBCL005247
Air Flow Regulator 120	125 mm, 5 inch	120 m³/h, 70.5 cfm	WBCL005248
Air Flow Regulator 160	125 mm, 5 inch	160 m³/h, 94 cfm	WBCL005249

Options for A/C units

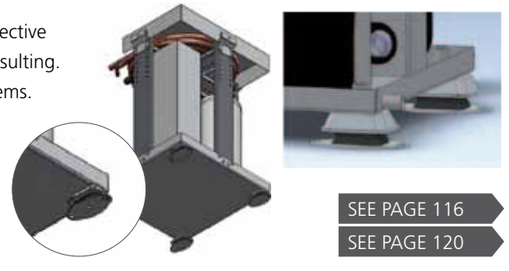
Electric control box for superyacht applications
Webasto also offers an electric control box for superyacht applications according to MCA standards. Due to high customisation, please contact us directly in order to choose the right solution.

Soft start-up option
- Reduce compressor starting current by up to 40%
- Eliminate the damaging effects of high starting torque surges
- Fast and reliable start – pressure equalization not necessary

Soft start-up option	Part no.
400 V, 15 A, 3 Phase	WBCL 000830
400 V, 25 A, 3 Phase	WBCL 000831
230 V, 25 A, 1 Phase	WBCL009445A

New generation of soft start options to be released in 2013. For more information please contact us.

Further options:
- For extremely hot environments, Webasto offers special solutions for effective air conditioning on board. Please contact us directly for professional consulting.
- Webasto also can provide all accessories for completely pressurized systems.
- Bleeding valves for pumps
- Water flow regulator
- 3-way valve for air handler and heater integration
- Mounting on silent blocks



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ControlPad: Innovation to touch

The next generation of control elements
This stand-alone comfort control system provides a central interface for the complete Webasto climate system. Operation and service of comfort systems has never been easier.

Technical specifications
- 5.7“ TFT colour display
- VGA resolution (640 x 480 pixel)
- Sunlight-readable (350 cd/m²)
- Connection ports for 2x CAN, Ethernet 10/100 Mbit, RS-232 and RS-422
- Waterproof front side (IP67) and housing (IP66)
- CE and RINA Certification
- Dimensions: 189 x 149 x 91 mm (L x W x H)*

Comfort of all cabins can be controlled centrally
User-friendly interface with intuitive touch-screen panel
Easy access to all system information for quick and easy service


Ease of operation

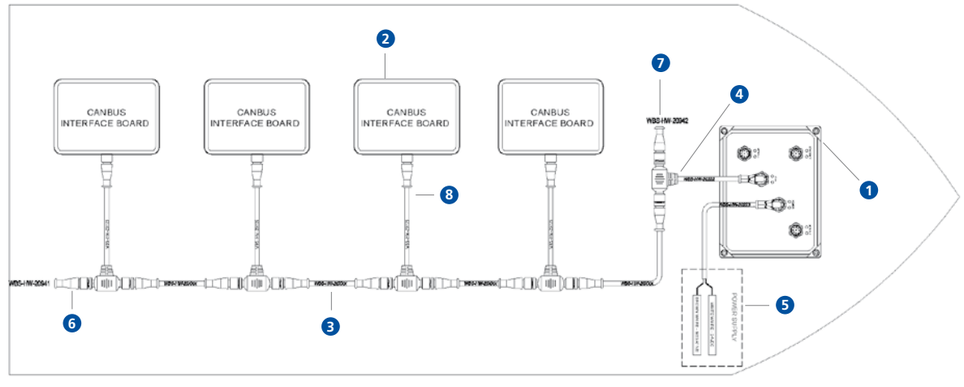

Customised to yacht


Fast commissioning


Multilingual menu


System information at a glance


Self-explaining diagnosis



	Item	Part no.
1	BlueComfort ControlPad 5.7''	WBCL010126A
2	CANbus interface Kit	WBCL010127A
3	Main CANbus network cable M/F – 5 m	WBCL010250A
3	Main CANbus network cable M/F – 10 m	WBCL010251A
3	Main CANbus network cable M/F – 15 m	WBCL010252A
3	Main CANbus network cable M/F – 20 m	WBCL010253A

	Item	Part no.
3	Main CANbus network cable M/F – 30 m	WBCL010254A
4	Drop CANbus to connect touch panel – 2 m	WBCL010255A
5	Power supply cable for touch panel – 2 m	WBCL010256A
6	Main CANbus network Female ending	WBCL010257A
7	Main CANbus network Male ending	WBCL010258A
8	Drop CANbus cable to connect interface card	WBCL010259A

Air-conditioning control elements

The Webasto digital control panel is part of a complete electronic control system including the A/C controller card and connecting cables/sensors. The digital display adapts its functionality to the type of A/C system where it is connected to.
The following information and parameters can be read out or progammed:

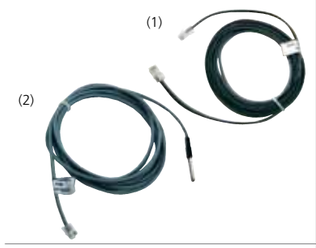
Self-contained systems
- Automatic/manual cycles witching cool/heat
- Cool cycle/heat cycle only operation
- Calibration of all temperature read-outs
- Automatic blanking of display
- Fine-tuning of all blower speed settings
- Choice between thermostatic and continuous blower control
- Automatic dehumidification cycle in absence of user
- Direct read-out of evaporator temperature
- Choice between manual blower speed control and automatic by temperature differential
- Optional infra-red remote control
- Access code possible for programming access

Air handlers
- Automatic/manual cycle switching cool/heat
- Cool cycle/heat cycle only operation
- Calibration of all temperature read-outs
- Automatic blanking of display
- Fine-tuning of all blower speed settings
- Choice between thermostatic and continuous blower control
- Direct read-out of air handler temperature
- Access code possible for programming access

Chiller systems
- Cool cycle/heat cycle only operation
- Automatic/manual cycle switching cool/heat
- Direct control over external heat-source integrated in the chilled water circuit
- Calibration of temperature read-outs
- Fine tuning of blower speed settings
- Choice between thermostatic and continuous blower control
- Can control multiple compressors with staged compressor start-up
- Directly controls chilled water circulation pump
- Modification of the high and low set-points chilled water circuit temperature
- Modification low-voltage cut-out settings
- Manual or automatic compressor start-up rotation to equalize running hours
- Direct control over each compressor running status directly from digital display
- All safety controls are micro-processor controlled with direct display of all error codes

Customize the Design: In order to provide best customizing possibilities, Webasto control units for air-conditioning are compatible with bezels of the Vimar series IDEA as well as the Bticino series LIVING INTERNATIONAL.

Electronic controls

		Blue Cool self-contained units	BlueCool chiller systems	Air handlers	Part no.
	**Digital controls**				
	Digital Control Panel including Bezel	■	■	■	WBCL000833C
	Cabin control kit V3 115 V, 4.5 m display cable*		■		WBCL000850B
	Cabin control kit V3 230 V, 4.5 m display cable*		■		WBCL000373F
	Cabin control kit V3 230V, 6 m display cable*				WBCL000374F
	Cabin control kit V3 230 V, 4.5 m display cable, for electric heating option 500 – 1,500 W*		■		WBCL000396D
	Cabin control kit V3 230 V, 4.5 m display cable, for electric heating option 1,750 – 4,500 W*		■		WBCL000397D
	Fresh Air control kit V3 230 V, 4.5 m display cable, for 24,000 BTU/h				WBCL000217G
	Fresh Air control kit V3 230 V, 4.5 m display cable, for 48,000 BTU/h				WBCL000221G
	* includes: alu box with PCB, digital control panel with bezel, display cable, water temperature and remote air temp. sensor 3 m				
	**Remote control**				
	IR Remote control	■			WBCL000854A
	**Mechanical controls**				
	Electronic thermostat 230 V with 3 speed control (3)		■		WBCL000394D
	Mechanical thermostat 230 V with integrated 3 speed blower control (1)		■		WBCL000392D
	Mechanical thermostat 115 V with integrated 3 speed blower control (1)		■		WBCL000851C
	Mechanical blower speed control without thermostat (2)		■		WBCL010231A
	Wall mounting frame for WBCL000394D				WBCL009655
	**Electrical accessories for controls**				
	Display cable between A/C control unit and digital control panel – 4.5 m (1)	■			WBCL000815B
	Display cable between A/C control unit and digital control panel – 6 m (1)	■			WBCL000808B
	Display cable between A/C control unit and digital control panel – 12 m (1)	■			WBCL000809B
	Remote air temperature sensor with 3 m cable (2)	■	■		WBCL000813B
	Remote air temperature sensor with 6 m cable (2)	■	■		WBCL000810B
	Remote air temperature sensor with 12 m cable (2)	■	■		WBCL000812B
	Composite water temperature sensor with 3 m cable (2)*	■	■		WBCL000368C
	Composite water temperature sensor with 6 m cable (2)*	■	■		WBCL000369C
	*For former V2 cards please use metallic water sensors. Please refer to the spare part section.				
	**Relay box for AC units with one pump**				
	Relay box for 2 units – one pump – 230 V	■			WBCL001127B
	Relay box for 3 units – one pump – 230 V	■			WBCL001128B
	Relay box for 4 units – one pump – 230 V	■			WBCL001129B
	Relay box for 5 units– one pump – 115 V	■			WBCL001182B
	Relay box for 6 units – one pump – 115 V	■			WBCL001183B
	Relay box for 7 units – one pump – 115 V	■			WBCL001184B

Please contact us if you want to combine more A/C units with one pump.

Self-priming pumps

Model	Dimensions L x W x H	Max. output	Running power consumption	Connection in, out	Weight	Part no. 115 V	Part no. 230 V	Part no. 400 V
WB200 • *	195 x 130 x 130 mm 7.7 x 5.2 x 5.2 inch	12/3.2 (l/min) 3.2/0.9 (gpm)	25 W 0.2 Amps (230 V)	5/8", 16 mm	1.2 kg 2.7 lbs		WBCL001103B	
WB500G	254 x 120 x 185 mm 10,0 x 4,7 x 7,3 inch	18 (l/min) 4.7 (gpm)	250 W 1.2 Amps (230 V)	G 1/2" F G 1/2" F	6.2 kg	WBCL001306A	WBCL001305A	
WB1000G	260 x 120 x 143 mm 10.3 x 4.8 x 5.7 inch	60 (l/min) 15.8 (gpm)	370 W 1.7 Amps (230 V)	G 3/4" F G 3/4" F	6.5 kg 14.4 lbs	WBCL001307A	WBCL001092A	
WB2800G	350 x 160 x 185 mm 13.7 x 6.3 x 7.3 Inch inch	100 (l/min) 26.4 (gpm)	370 W 1.7 Amps (230 V)	G 1" F G 1" F	19 kg 41.9 lbs		WBCL001093A	
WB4000*	504 x 215 x 270 mm 19.7 x 8.5 x 10.7 inch	250 (l/min) 66 (gpm)	730 W, 3.3 Amps (230 V) 1.6 Amps (400 V)	G 2" F G 1 1/2" F	9 kg 19.9 lbs		WBCL001160*	WBCL001161
WB5600*	530 x 215 x 270 mm 20.9 x 8.5 x 10.7 inch	300 (l/min) 80 (gpm)	1,200 W, 5.4 Amps (230 V) 2.2 Amps (400 V)	G 2" F G 1 1/2" F	12.2 kg 26.9 lbs		WBCL001162*	WBCL001163
WB8000*	592 x 215 x 302 mm 23.4 x 8.5 x 11.9 inch	500 (l/min) 132 (gpm)	1,600 W 2.9 Amps (400 V)	G 2" F G 2" F	19 kg 41.9 lbs			WBCL001164
WB10500*	592 x 215 x 302 mm 23.4 x 8.5 x 11.9 inch	667 (l/min) 176 (gpm)	3,000 W 5.3 Amps (400 V)	G 2" F G 2" F	21 kg 46.3 lbs			WBCL001165

• contains straight hose nipple 5/8", 16 mm and 90° adaptor for hose nipple

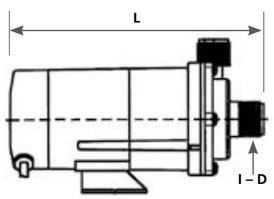
* can only be used for sea water cooling, not for chilled water circulation

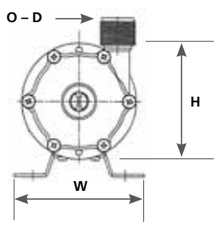
For a stable operation of A/C systems it is essential to have a robust sea water flow in order to cool the condenser and avoid high pressure cut outs of the A/C unit. The sea water pump has to provide this water flow through the A/C unit.

As soon as a significant amount of air is being sucked into the sea water circuit most standard circulation pumps do not have the technical capability to evacuate these air bubbles once they enter into the pump chamber. As a result, the sea water flow stops and the A/C system will shut off. Self priming pumps do have this capability to evacuate these air bubbles from the pump chamber thus ensuring a continuous A/C operation. Therefore they are the best choice for all those boats and applications where there is a certain risk that air bubbles might enter via the through hull fitting.

Please note that even though the sea water intake fitting is mounted below the sea water line it may happen during heeling, high boat speed or during reversing the boat that air is being sucked into the sea water intake. For such applications it is highly recommended to use self priming sea water pumps instead of standard circulation pumps.

The pump models WB500G, WB1000G and WB2800G have to be pre-filled before the first start-up and after long downtimes.





Model WB200

Model WB500G/1000G/2800G

Model WB4000/5600/8000/10500

Pumps

Model	Dimensions L x W x H	Max. output ***	Running power consumption	Connection in, out	Weight	Part no. 115 V	Part no. 230 V	Part no. 400 V
Magnetic Drive Pumps 50/60Hz								
WB250	180 x 95 x 109 mm 7.1 x 3.7 x 4.3 inch	16 (l/min) 4.2 (gpm)	26 W, 0.36 Amps (115 V) 0.18 Amps (230 V)	Ø 14 mm Ø 14 mm	1.6 kg 3.3 lbs	WBCL001301	WBCL001104	
	179 x 95 x 114 mm 7.1 x 3.7 x 4.3 inch	16 (l/min) 4.2 (gpm)	26 W 0.2 Amps (230 V)	G 3/4" M G 3/4" M	1.6 kg 3.3 lbs		WBCL010799B*	
WB350	209 x 106 x 105 mm 8.2 x 4.2 x 4.2 inch	27 (l/min) 7.1 (gpm)	40 W, 0.48 Amps (115 V) 0.24 Amps (230 V)	Ø 18 mm Ø 17 mm	2 kg 4.4 lbs	WBCL001302	WBCL001105	
	203 x 106 x 107 mm 8.1 x 4.2 x 4.2 inch	27 (l/min) 7.1 (gpm)	45 W 0.24 Amps (230 V)	G 3/4" M G 3/4" M	2 kg 4.4 lbs		WBCL0010800A*	
WB500	248 x 120 x 130 mm 9.8 x 4.8 x 5.2 inch	32 (l/min) 8.4 (gpm)	60 W 0.4 Amps (230 V)	G 3/4" M G 3/4" M	3.5 kg 7.8 lbs		WBCL001101A	
	248 x 120 x 130 mm 9.8 x 4.8 x 5.2 inch	32 (l/min) 8.4 (gpm)	60 W 0.4 Amps (230 V)	G 3/4" M G 3/4" M	3.5 kg 7.8 lbs		WBCL0010810A*	
WB1000	250 x 120 x 130 mm 9.9 x 4.8 x 5.2 inch	45 (l/min) 11.8 (gpm)	90 W, 1 Amps (115 V) 0.52 Amps (230 V)	G 3/4" M G 3/4" M	3.9 kg 8.6 lbs	WBCL001303	WBCL001106	
	250 x 120 x 130 mm 9.9 x 4.8 x 5.2 inch	45 (l/min) 11.8 (gpm)	90 W, 1 Amps (115 V) 0.52 Amps (230 V)	G 3/4" M G 3/4" M	3.9 kg 8.6 lbs		WBCL0010820B*	
WB1500	258 x 130 x 155 mm 10.2 x 5.2 x 6.1 inch	86 (l/min) 22.7 (gpm)	235 W, 2.42 Amps (115 V) 1.21 Amps (230 V)	G1" M G1" M	6 kg 13.2 lbs	WBCL001304	WBCL001107	
	258 x 130 x 155 mm 10.2 x 5.2 x 6.1 inch	86 (l/min) 22.7 (gpm)	235 W, 2.42 Amps (115 V) 1.21 Amps (230 V)	G1" M G1" M	6 kg 13.2 lbs		WBCL0010830A*	
WB2000	322 x 156 x 175 mm 12.7 x 6.2 x 6.9 inch	115 (l/min) 30.3 (gpm)	345 W 1.93 Amps (230V)	G 1" M G 1" M	8,5 kg 18.8 lbs		WBCL001108	
	322 x 156 x 175 mm 12.7 x 6.2 x 6.9 inch	115 (l/min) 30.3 (gpm)	345 W 1.93 Amps (230 V)	G 1" M G 1" M	8,5 kg 18.8 lbs		WBCL0010840A*	
WB3500	423.5 x 149 x 210 mm 16.7 x 5.9 x 8.3 inch	280 (l/min) 74 (gpm)	370 W, 2.4 Amps (230 V) 1.1 Amps (400 V)	G 1 1/2" M 1 1/2" M	14 kg 30,9 lbs		WBCL001109	WBCL001111
WB5500	473 x 160 x 249 mm 18.9 x 6.3 x 9.8 inch	320 (l/min) 84.6 (gpm)	750 W, 4 Amps (230 V) 1.8 Amps (400 V)	G 1 1/2" M 1 1/2" M	22 kg 48.5 lbs		WBCL001110	WBCL001112
WB7400	478.5 x 260 x 274 mm 20.1 x 10.3 x 10.8 inch	450 (l/min) 118.8 (gpm)	1,500 W, 7.1 Amps (230 V) 3.1 Amps (400 V)	G 2" M G 1 1/2" M	25 kg 55.2 lbs		WBCL010121A	WBCL001138
WB9800	478.5 x 260 x 274 mm 22.1 x 10.3 x 10.8 inch	520 (l/min) 137.4 (gpm)	2,200 W 4.5 Amps (400 V)	G 2" M G 1 1/2" M	32 kg 70.5 lbs			WBCL001139
Bronze Pump 50 Hz								
WB7500**	382 x 190 x 250 mm 15.1 x 7.5 x 9.9 inch	400 (l/min) 105.7 (gpm)	2,000 W 4.5 Amps (400 V)	G 2" F G 1 1/4" F	23 kg 50.7 lbs			WBCL001136
Bronze Pump 60 Hz								
WB7500**	382 x 190 x 250 mm 15.1 x 7.5 x 9.9 inch	400 (l/min) 105.7 (gpm)	2,000 W 4.5 Amps (400 V)	G 2" F G 1 1/4" F	23 kg 50.7 lbs			WBCL001137
Bronze Pumps 50/60 Hz								
WB2500G	303 x 154 x 161 mm 11.9 x 6.1 x 6.4 inch	80 (l/min) 21.1 (gpm)	550 W 2.5 Amps (230 V)	G 1" F G 1" F	9 kg 19.9 lbs		WBCL001170	
WB3000G	303 x 174 x 181 mm 11.9 x 6.9 x 7.2 inch	125 (l/min) 33 (gpm)	1,100 W, 4.9 Amps (230 V) 2.8 Amps (400 V)	G 1" F G 1" F	10 kg 22.1 lbs		WBCL001171	WBCL001172
WB5500G	380 x 193 x 240 mm 15 x 7.6 x 9.5 inch	250 (l/min) 66 (gpm)	1,500 W, 6.7 Amps (230 V) 4.5 Amps (400 V)	G 1 1/2" F G 1 1/2" F	17 kg 37.5 lbs		WBCL001173	WBCL001174

* white painted version with threaded hose connections ** can only be used for chilled water circulation, not for sea water cooling.
*** Effective water output varies with back pressure. Please respect the pump curves on the next pages in order to ensure the minimum water flows required for your applications.
Note: F= Female thread in inch M = Male thread in inch

WB250 to WB1000

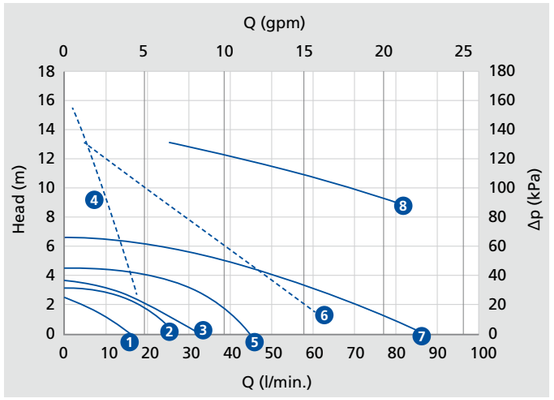
WB1500 to WB2000

WB3500 to 9800

WB2500G to 5500G

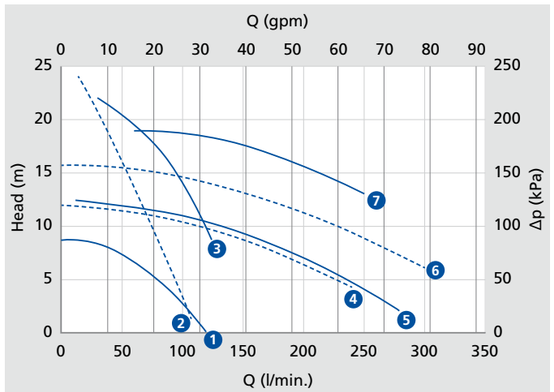
Pumps

50 Hz water pump curves



Centrifugal ----- Self-priming

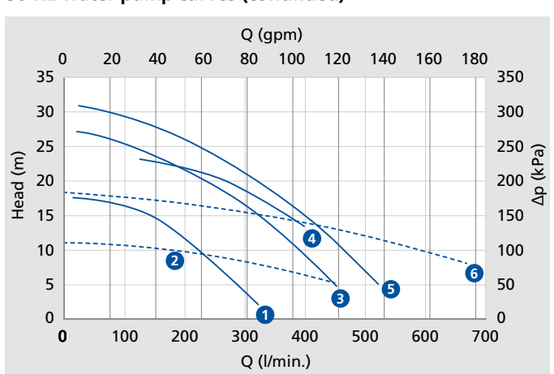
Graphic 1	50 Hz up to 100 l / min.
1	WB 250
2	WB 350
3	WB 500
4	WB 500 G
5	WB 1000
6	WB 1000 G
7	WB 1500
8	WB 2500 G



Centrifugal ----- Self-priming

Graphic 2	50 Hz up to 300 l / min.
1	WB2000
2	WB2800G
3	WB3000G
4	WB4000
5	WB3500
6	WB5600
7	WB5500G

50 Hz water pump curves (continued)

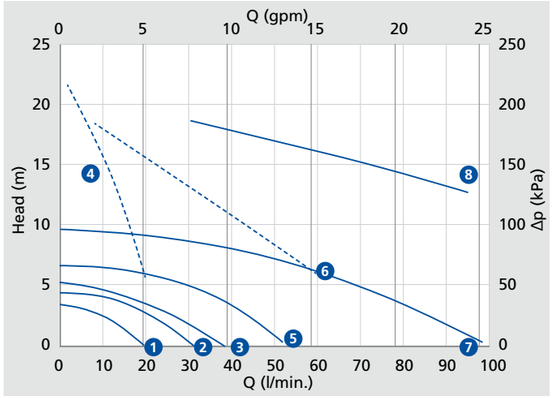


Centrifugal ----- Self-priming

Graphic 3	50 Hz up to 700 l / min.
1	WB 5500
2	WB 8000
3	WB 7400
4	WB 7500
5	WB 9800
6	WB 10500

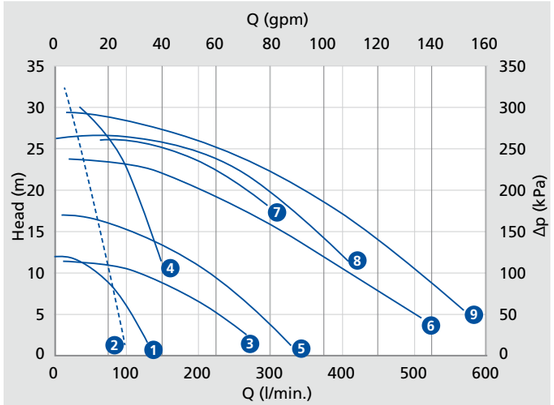
Pumps

60 Hz water pump curves



Centrifugal ----- Self-priming

Graphic 4	60 Hz up to 100 l / min.
1	WB 250
2	WB 350
3	WB 500
4	WB 500 G
5	WB 1000
6	WB 1000 G
7	WB 1500
8	WB 2500 G



Centrifugal ----- Self-priming

Graphic 5	60 Hz up to 700 l / min.
1	WB2000
2	WB2800G
3	WB3500
4	WB3000G
5	WB5500
6	WB7400
7	WB5500G
8	WB7500
9	WB9800

- The Head (m) stated in the pump curves (Graphic 1-5) represents the equivalent pressure drop between inlet and outlet of the pump. This pressure drop equals the total back pressure of the sea water system from sea water entry to overboard discharge. Please do not confuse it with the position of the pump position below the water line.
- Depending on pressure drop the effective water flow through the pump and thus the sea water system varies significantly.
- Always ensure that the minimum sea water flow through the A/C unit is respected. It should be measured during each commissioning of the sytem.
- Operating the pumps outside the limits of the pump curves may result in motor overload or cavitation. These cases are excluded from Webasto warranty.

Functioning principals

Minimum air grille sections

To obtain acceptable noise levels at maximal blower speed levels the requirements for grille and ducts sections should be observed. The size of the transition box behind the supply air-grille is also important.

Air handler or BlueCool S-Series model	Supply air grille		Return air grille		Duct diam. < 2 m duct length (mm)	Duct diam. > 2 m duct length (mm)
	Model (˝)	section (cm²)	Model (˝)	section (cm²)		
4,000; 4,500 BTU /h	1 x 8 x 4	150	1 x 12 x 5	325	80	100
6,000 BTU /h	1 x 10 x 4	190	1 x 11 x 8	490	100	125
9,000 BTU /h	1 x 12 x 4	235	1 x 11 x 8	490	100	125
12,000 BTU /h	1 x 10 x 5	250	1 x 14 x 7	550	125	150
16,000 BTU /h	1 x 12 x 6	390	1 x 14 x 10	800	125	150
or 16,000 BTU /h	2 x 10 x 4	380			125	150
20,000 BTU /h	1 x 12 x 6	390	1 x 14 x 10	800	125	150
24,000 BTU /h	2 x 10 x 5	500	1 x 14 x 12	1,000	2 x 125	2 x 150
30,000 BTU /h	2 x 12 x 5	650	2 x 14 x 10	1,600	2 x 125	2 x 150
48,000 BTU /h	4 x 10 x 5	1,000	2 x 14 x 12	2,000	2 x 125	2 x 150

Blower outlets

90° turns with flexible ducts directly from blower outlets should be avoided at all costs as they introduce severe restrictions in the air-flow. All WB blowers (except on 24,000 BTU/h models) can be rotated through 45° steps to obtain a straight-line outlet from the blower. This facility should be used whenever possible.

Return grille offset

It should be avoided to place a return air grille directly opposite the finned coil surface of an air-handler, because this will allow propagation of direct blower-motor noise through the grille. The grille should be offsetted to chicane the return air to the coil inlet. Direct noise propagation will be reduced in a significant manner.

Duct type

To avoid accidental crushing, flexible air-ducts should be of high quality with sufficiently strong steel spiral reinforcement. Spiral type ducts should be extended to their maximum length for the best interior smoothness. For very long duct sections smooth bore ducts (in PVC for example) should be preferred. This offers better smoothness than flexible spiral type ducting and hence reduces internal friction. For very short lengths non-insulated ducts can be used. For greater lengths it is advisable to use insulated type ducts to avoid condensation on the outside of the air-ducts.

Big luxury yacht

In general requirements for megayachts and big luxury vessels are even more stringent than the table here above. These special requirements can be obtained from Webasto on request.

In order to customise the wooden air grilles at page 107, please choose from the following wood options:

Example: WBCL0040040 = Teak air grille 12 x 5 WBCL0040042 = Mahogany air grille 12 x 5

Suffix	Wood type	Decription	Suffix	Wood type	Decription
0	Teak	Asian Teak	7	Maple	American soft Maple
1	Cherry	American Cherry	8	Beech	American Beech
2	Mahogany	Honduran Mahogany	9	Cedar	Spanish Cedar
3	Ash	American white Ash	10	Makore	African Cherry
4	Oak	American white Oak	11	Hickory	American Hickory
5	Walnut	American black Walnut	12	Jatoba	Brazilian Jatoba
6	Poplar	American Poplar			

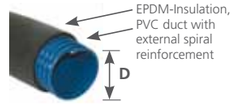
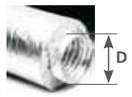
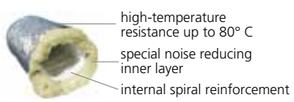
Note: Teak versions on stock. Other wood options may have longer lead times or extra shipping costs.

Air grille*	Model	L1	L2	W1	W2	Part no.
	8 x 4 TS (supply air)	202	230	100	128	WBCL004000X
	10 x 4 TS	252	281	100	128	WBCL004001X
	12 x 4 TS	304	332	100	128	WBCL004002X
	10 x 5 TS	252	281	125	152	WBCL004018X
	12 x 5 TS	304	332	125	152	WBCL004004X
	12 x 6 TS	304	332	152	179	WBCL004024
Wedge type supply air grille*	**Model**	**L1**	**L2**	**W1**	**W2**	**Part no.**
	10 x 5 WGT (supply air)	–	280	–	150	WBCL004023X
Air grille, closeable*	**Model**	**L1**	**L2**	**W1**	**W2**	**Part no.**
	8 x 4 TSC (supply air)	202	230	100	128	WBCL004005X
	10 x 4 TSC	252	281	100	128	WBCL004019X
	12 x 4 TSC	304	332	100	128	WBCL004006X
	10 x 5 TSC	252	281	125	152	WBCL004022X
	12 x 5 TSC	304	332	125	152	WBCL004025X
Air grille with filter*	**Model**	**L1**	**L2**	**W1**	**W2**	**Part no.**
	12 x 5 TR (return air)	304	332	125	152	WBCL004020X
	11 x 8 TR	280	306	204	230	WBCL004017X
	14 x 7 TR	177	205	355	381	WBCL004007X
	12 x 10 TR	304	332	254	281	WBCL004021X
	14 x 10 TR	354	382	254	281	WBCL004008X
	14 x 12 TR	354	382	304	332	WBCL004009X
Air grille (ABS)	**Model**	**L1**	**L2**	**W1**	**W2**	**Part no.**
	10 x 4 PS (ABS, supply air)	242	280	92	128	WBCL004030
	12 x 4 PS	292	332	92	128	WBCL004031
	10 x 5 PS	242	280	115	152	WBCL004032
	10 x 6 PS	242	280	138	174	WBCL004033
Air grille (ABS) with filter	**Model**	**L1**	**L2**	**W1**	**W2**	**Part no.**
	10 x 8 PR (ABS, return air)	242	281	190	232	WBCL004076
	10 x 10 PR	242	281	242	281	WBCL004077
	12 x 12 PR	292	332	292	332	WBCL004078
	14 x 10 PR	342	382	242	281	WBCL004080
	14 x 12 PR	342	382	292	332	WBCL004081
Round, adjustable plastic grille	**Model**					**Part no.**
	Black, 100 mm					WBCL004090
	Walnut brown, 100 mm					WBCL004091
	White, 100 mm					WBCL004092
	Off-white, 100 mm					WBCL004093
	White, 75 mm					WBCL004094
	White, 75 mm with hose ring					WBCL004095
	Black, 75 mm with hose ring					WBCL004096
	Black, 75 mm					WBCL004097

* Note: All teak grilles can be supplied in other wood qualities on demand. Please see table on the left page listing the special suffixes to the chosen grille item code in accordance with the wood type preference.

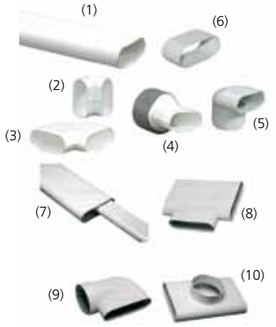
T-piece (inside, D2 direct to A/C unit)	Model	D1/D2/D3	L x H (mm)		Part no.
	100/100F/100	100/100F/100	220 x 185		WBCL001549
	100/125F/100	125/100F/100	220 x 185		WBCL001560
	125/125F/100	125/125F/100	220 x 185		WBCL001550
	125/125F/125	125/125F/125	220 x 185		WBCL001555
T-piece (outside, D2 connected to hose)	**Model**	**D1/D2/D3**	**L x H (mm)**		**Part no.**
	100/100M/100	100/100M/100	220 x 185		WBCL001551
	100/125M/100	100/125M/100	220 x 185		WBCL001552
Standard transition box	**Model**		**L x H (mm)**	**W (mm)**	**Part no.**
	8 x 4"		252 x 130	150	WBCL001501
	10 x 4"		304 x 130	150	WBCL001502
	12 x 4"		352 x 130	150	WBCL001503
	12 x 5"		352 x 130	180	WBCL001505
	10 x 5"		304 x 130	180	WBCL001506
	12 x 6"		352 x 130	200	WBCL001507
	10 x 6"		304 x 130	200	WBCL001508
Standard hose rings	**Model (mm)**	**D (mm)**		**W (mm)**	**Part no.**
	HR4 – 100	100		134	WBCL002502
	HR5 – 125	125		150	WBCL002503
	HR6 – 150	150		170	WBCL002504
	HR7 – 178	175		200	WBCL002509
Oval hose rings	**Model**	**D x W2 (mm)**	**L x H (mm)**	**W1/W2 (mm)**	**Part no.**
	HO4 – 100*	120 x 55	170	100/55	WBCL002505
	HO5 – 125*	150 x 65	195	110/65	WBCL002506
	HO6 – 150*	180 x 72	228	120/72	WBCL002507
	HO7 – 175*	200 x 84	255	140/84	WBCL002508
Transition box, round entry	**Model**	**D (mm)**	**L x H (mm)**	**W (mm)**	**Part no.**
	8 x 4LN/100*	100	250 x 130	150	WBCL001520
	10 x 4LN/100*	100	305 x 130	150	WBCL001521
	12 x 4LN/100*	100	360 x 130	150	WBCL001522
	10 x 5LN/125*	125	304 x 130	180	WBCL001523
Transition box, lateral oval entry	**Model**	**D x W2 (mm)**	**L x H (mm)**	**W (mm)**	**Part no.**
	8 x 4LT/OV100*	120 x 55	250 x 130	155	WBCL001510
	10 x 4LT/OV100*	120 x 55	305 x 130	155	WBCL001530
	10 x 4LT/OV125*	150 x 65	305 x 130	155	WBCL001529
	12 x 4LT/OV125*	150 x 65	305 x 130	180	WBCL001528

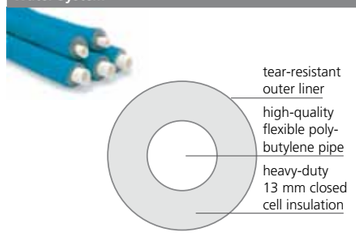
* equivalent diameter of air ducting in mm.

Transition box, back oval entry	Model	D x W2 (mm)	L x H (mm)	W (mm)	Part no.
	8 x 4AR/OV100*	120 x 55	250 x 180	155	WBCL001524
	10 x 4AR/OV100*	120 x 55	305 x 180	155	WBCL001525
	10 x 4AR/OV125*	150 x 65	305 x 180	155	WBCL001531
	10 x 5AR/OV125*	150 x 65	305 x 180	180	WBCL001526
	10 x 6AR/OV125*	150 x 65	305 x 180	205	WBCL001533
Y-piece	**Model**	**D/D1/D2**	**L x H (mm)**		**Part no.**
	YAS100	100/100/100	320 x 255		WBCL001562
	YAS125	125/125/125	360 x 300		WBCL001563
	YAS125/100	125/100/100	380 x 255		WBCL001561
	YAS125/125/100	125/125/100	380 x 300		WBCL001564
	YAS100/80/80	100/80/80	380 x 300		WBCL001548
	YAS125/80/100	125/80/100	380 x 300		WBCL001565
Insulated flexible air ducts	**Model (mm)**	**D**	**L (m)**		**Part no.**
	80	IN = 80; A = 105	L = 6		WBCL007460
	100	IN = 100; A = 128	L = 6		WBCL007461
	125	IN = 125; A = 145	L = 6		WBCL007462
Standard flexible air ducts	**Model (mm)**	**D (mm)**	**L (m)**		**Part no.**
	Cflex 102	102	10		WBCL001804
	Cflex 127	127	10		WBCL001805
	Cflex 150	152	10		WBCL001806
Insulated flexible air ducts	**Model**	**D (mm)**	**L (m)**		**Part no.**
	CflexIso 102	102	10		WBCL001807
	CflexIso 127	127	10		WBCL001808
	CflexIso 152	142	10		WBCL001809
Tubular hose insulation	**Model**	**D (mm)**	**L (m)**		**Part no.**
	Isosleeve 102	102	10		WBCL001810
	Isosleeve 127	127	10		WBCL001811
	Isosleeve 152	152	10		WBCL001812
	Isosleeve 180	180	10		WBCL001813
Extra silent insulated air ducts		**D (mm)**	**L (m)**		**Part no.**
		102	10		WBCL010155A
		127	10		WBCL010156A
		160	10		WBCL010206A

* equivalent diameter of air ducting in mm.

Air system

Oval ducts	Description	Model (mm)	L (m)	Part no.
	oval duct (1)	100 x 40	3	WBCL007100
	oval duct (1)	200 x 60	3	WBCL007106
	elbow 90° (2)	100 x 40	–	WBCL007105
	elbow 90° (2)	200 x 60	–	WBCL007108
	elbow. 90° – flat (3)	100 x 40	–	WBCL007104
	elbow 90° – flat (3)	200 x 60	–	WBCL007111
	junction oval/round (4)	100 x 40/100	–	WBCL007102
	junction oval/round (4)	100 x 40/80	–	WBCL007117
	junction oval/round (4)	200 x 60/125	–	WBCL007109
	junction oval/round (5)	100 x 40/100	–	WBCL007103
	junction oval/round (5)	200 x 60/125	–	WBCL007110
	junction oval (6)	100 x 40	–	WBCL007101
	junction oval (6)	200 x 60	–	WBCL007107
	reduction (7)	200 to 100	–	WBCL007112
	oval t (8)	200 x 60	–	WBCL007114
	adapter oval/round (9)	200 x 60/125	–	WBCL007115
	oval/round t (10)	200 x 60/125	–	WBCL007116

Water System	Chilled water pipes Webasto EasyPipe	Model	Packaging (mtr)	Part no.
	d15/D41 mm	15	50/25/15/10	WBCL010122A
	d22/D48 mm	22	25/15/10	WBCL010123A
	d28/D54 mm	28	25/15/10	WBCL010124A

Webasto EasyPipe

The solution to reduce installation time and save costs!

Benefits

- Easy assembly process, reliable application
- Pipes have pre-mounted insulation providing significant saving on installation time for boat builders
- Huge range of compatible quick-fitting components

Specifications

- Pipe material is high-quality polybutylene with a temperature range of -30° C up to 90° C at 6 bar
- Pipe insulation is high-quality closed cell polyethylen (PE-LD) with a temperature range of -30° C to 95° C and a lambda value of 0,0334 W/m° K
- O-ring sealed push fittings with stainless steel lockring
- Sold in rolls to be cut to length

Water System	Description	Model	Packaging (mtr)	Part no.
	Hep_2O® Barrier Pipe	15	L = 50	WBCL010300A
	Polybutylen pipe for warm + cold water	22	L = 50	WBCL010301A
	order pipe by unit (coil) not meter	28	L = 25	WBCL010302A
	Hep_2O® Barrier Pipe Blue Conduit	15	L = 50	WBCL010303A
	order pipe by unit (coil) not by meter	22	L = 50	WBCL010304A

Water system

	Description	Model	Packaging	Part no.
	Hep_2O® Barrier Pipe Red Conduit	15	L = 50 mtr	WBCL010305A
	order pipe by unit (coil) not by meter	22	L = 50 mtr	WBCL010306A
	straight connector	15	10 pieces	WBCL010307A
	straight connector	22	10 pieces	WBCL010308A
	straight connector	28	10 pieces	WBCL010309A
	elbow 90°	15	10 pieces	WBCL010325A
	elbow 90°	22	10 pieces	WBCL010326A
	elbow 90°	28	10 pieces	WBCL010327A
	equal tee	15 x 15 x 15	10 pieces	WBCL010337A
	equal tee	22 x 22 x 22	10 pieces	WBCL010338A
	equal tee	28 x 28 x 28	10 pieces	WBCL010342A
	end reduced tee	22 x 22 x 15	5 pieces	WBCL010339A
	double end reduced tee	22 x 15 x 22	5 pieces	WBCL010340A
	branch reduced tee	22 x 15 x 15	5 pieces	WBCL010341A
	branch reduced tee	28 x 15 x 28	5 pieces	WBCL010343A
	branch reduced tee	28 x 28 x 22	5 pieces	WBCL010344A
	branch reduced tee	28 x 22 x 28	5 pieces	WBCL010345A
	double spigot reducer	28 x 22	5 pieces	WBCL010347A
	socket reducer	22 x 15	10 pieces	WBCL010379A
	socket reducer	28 x 22	10 pieces	WBCL010380A
	straight tap connector	15 x 1/2"	10 pieces	WBCL010316A
	straight tap connector	15 x 3/4"	5 pieces	WBCL010317A
	straight tap connector	22 x 3/4"	5 pieces	WBCL010318A
	bent tap connector	15 x 1/2"	10 pieces	WBCL010328A

Water system

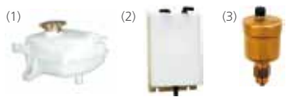
	Description	Model	Packaging (pieces)	Part no.
	brass female adaptor	15 x 1/2″	10	WBCL010310A
	brass female adaptor	22 x 3/4″	10	WBCL010312A
	brass female adaptor	28 x 1″	10	WBCL010314A
	brass male adaptor	15 x 1/2″	10	WBCL010311A
	brass male adaptor	22 x 3/4″	10	WBCL010313A
	brass male adaptor	28 x 1″	10	WBCL010315A
	brass elbow 90° female	15 x 1/2″	5	WBCL010329A
	brass elbow 90° female	22 x 3/4″	5	WBCL010331A
	brass elbow 90° female	28 x 1″	2	WBCL010333A
	brass elbow 90° male	15 x 1/2″	5	WBCL010330A
	brass elbow 90° male	22 x 3/4″	5	WBCL010332A
	brass elbow 90° male	28 x 1″	2	WBCL010334A
	brass spigot adaptor female	15 x 1/2″	10	WBCL010319A
	brass spigot adaptor female	22 x 3/4″	10	WBCL010321A
	brass spigot adaptor female	28 x 1″	10	WBCL010323A
	brass spigot adaptor male	15 x 1/2″	10	WBCL010320A
	brass spigot adaptor male	22 x 3/4″	10	WBCL010322A
	brass spigot adaptor male	28 x 1″	10	WBCL010324A
	brass ball valve	15	2	WBCL010353A
	brass ball valve	22	2	WBCL010354A
	shut-off valve hot/cold	15	5	WBCL010375A
	brass draincock	15	10	WBCL010352A

Water system

	Description	Model	Packaging (pieces)	Part no.
	wall plate	15 x 1/2″	5	WBCL010360A
	wall plate	22 x 3/4″	5	WBCL010361A
	stop end	15	10	WBCL010350A
	stop end	22	10	WBCL010351A
	cold forming bend fixture	15	5	WBCL010335A
	cold forming bend fixture	22	5	WBCL010336A
	pipe support sleeve	15	10	WBCL010362A
	pipe support sleeve	22	10	WBCL010364A
	pipe support sleeve	28	5	WBCL010366A
	copper pipe end protector	15	10	WBCL010363A
	copper pipe end protector	22	10	WBCL010365A
	wedge removal tool	15	10	WBCL010376A
	wedge removal tool	22	10	WBCL010377A
	wedge removal tool	28	5	WBCL010378A
	o-ring	15	10	WBCL010370A
	o-ring	22	10	WBCL010371A
	o-ring	28	10	WBCL010372A
	grab wedge	15	10	WBCL010367A
	grab wedge	22	10	WBCL010368A
	grab wedge	28	10	WBCL010369A
	pipe clips – screw type	15	10	WBCL010355A
	pipe clips – screw type	22	10	WBCL010356A
	pipe clips – screw type	28	10	WBCL010357A
	pipe clip – spacers	15	10	WBCL010358A
	pipe clip – spacers	22	10	WBCL010359A
	pipe clamp with clip for dia. 15 mm	40	1	WBCL002801
	pipe clamp with clip for dia. 22 mm	50	1	WBCL002802
	pipe clamp with clip for dia. 28 mm	63	1	WBCL002803

Water system

	Description	Model	Packaging (pieces)	Part no.
	demountable stop-end	15	10	WBCL010348A
	demountable stop-end	22	10	WBCL010349A
	obtuse bend 135° – single socket	15	10	WBCL010381A
	pipe cutter 10 – 28 mm standard		1	WBCL010373A
	pipe cutter 10 – 28 mm professional		1	WBCL010374A

	Expansion tank	Part no.
	model 2,5 liter (1)	WBCL002030
	model 8 liter (2)	WBCL002031
	automatic air bleeder (3) for chiller circuits, 5/8" = 15 mm	WBCL002035

	TA Hydronics flow regulators	Part no.
	model STAD-15 – diameter 15 mm (5/8")	WBCL002100
	model STAD-20 – diameter 20 mm (3/4")	WBCL002101
	model STAD-25 – diameter 25 mm (1")	WBCL002102
	model STAD-32 – diameter 32 mm (1,25")	WBCL002103
	model STAD-40 – diameter 40 mm (1,5")	WBCL002104
	model STAD-50 – diameter 50 mm (2")	WBCL002105

	3-Way valve	Part no.
	3-way valve 25 mm (1") without fitting (1)	WBCL009433
	3-way valve 15 mm (5/8") without fitting (1)	WBCL009434
	3-way valve 20 mm (3/4") without fitting (1)	WBCL009432
	3-way valve 15 mm (5/8") with fitting/piping (2)	see price list for details
	3-way valve 20 mm (3/4") with fitting/piping (2)	see price list for details

	Turn ball valve	Part no.
	1/4 turn ball valve – diameter 12 mm	WBCL002015
	1/4 turn ball valve – diameter 15 mm	WBCL002016
	1/4 turn ball valve – diameter 20 mm	WBCL002017
	1/4 turn ball valve – diameter 25 mm	WBCL002018

Important Note:
ALL Hep_2O FITTINGS ARE PRE-LUBRICATED – NO ADDITIONAL LUBRICATION REQUIRED.
If the fitting is demounted and remade, the use of Hep_2O Silicone Lubricant Spray (HX200) is recommended.
HX200 is the only lubricant recommended for use with Hep_2O.

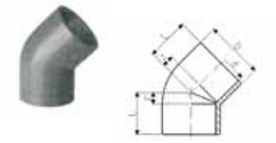
Water system

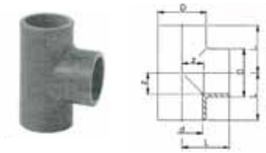
	Chilled water hoses and accessories	Part no.
	hose D12 with insulation 9 x 18 mm – 25 m (1)	WBCL002001
	hose D15 with insulation 9 x 22 mm – 25 m (1)	WBCL002002
	hose D20 with insulation 9 x 28 mm – 25 m (1)	WBCL002003
	hose D25 with insulation 9 x 35 mm – 25 m (1)	WBCL001999
	hose D12 without insulation – 25 m (2)	WBCL002004
	hose D15 without insulation – 25 m (2)	WBCL002005
	hose D20 without insulation – 25 m (2)	WBCL002006
	hose D25 without insulation – 25 m (2)	WBCL002000
	tubular insulation for D12; 9 x 18 mm – 2 m (4)	WBCL002007
	tubular insulation for D15; 9 x 22 mm – 2 m (4)	WBCL002008
	tubular insulation for D20; 9 x 28 mm – 2 m (4)	WBCL002009
	tubular insulation for D25; 9 x 35 mm – 2 m (4)	WBCL002829
	adhesive foam, 50 mm wide – 9.1 m roll (5)	WBCL001998
	t-piece 19-19-19 for hose D20 (3)	WBCL002011
	t-piece 19-15-19 for reduction D20 – D15 (3)	WBCL002012
	t-piece 19-12-19 for reduction D20 – D12 (3)	WBCL002013
	t-piece 15-12-15 for reduction D15 – D12 (3)	WBCL002014
	t-piece 15-15-15 for hose D15 (3)	WBCL002019
	t-piece 19-16-16 (3)	WBCL002023

ABS pipes	D (mm)	d (mm)	Weight (kg/m)	Length (m)	Part no.
	20	16.6	0.10	2.5	WBCL002510
	25	21.2	0.16	2.5	WBCL002511
	32	27.6	0.208	2.5	WBCL002512
	40	34.6	0.336	2.5	WBCL002513
	50	43.4	0.528	2.5	WBCL002514
	63	54.4	0.827	2.5	WBCL002515
	75	65.2	1.20	2.5	WBCL002516
	90	78.0	1.68	2.5	WBCL002517

ABS elbow long	d (mm)	D (mm)	Weight (kg)	Length (L) (mm)	Length (z) (mm)	Part no.
	20	27	0.027	58	40	WBCL002539
	25	35	0.038	71	50	WBCL002540
	32	38	0.051	88	64	WBCL002541
	40	54	0.194	109	80	WBCL002542
	50	61	0.206	131	100	WBCL002543
	63	76	0.387	163	126	WBCL002544
	75	90	0.585	194	150	WBCL002545
	90	113	0.75	231	180	WBCL002546

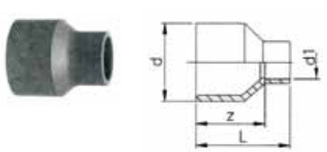
ABS elbow short	d (mm)	D (mm)	Weight (kg)	Length (L) (mm)	Length (z) (mm)	Part no.
	20	27	0.019	29	13	WBCL002559
	25	34	0.032	34	16	WBCL002560
	32	39	0.040	39	17	WBCL002561
	40	52	0.076	48	22	WBCL002562
	50	62	0.104	56	26	WBCL002563
	63	78	0.205	69	32	WBCL002564
	75	89	0.395	83	40	WBCL002565
	90	110	0.570	97	46	WBCL002566

ABS elbow 45°	d (mm)	D (mm)	Weight (kg)	Length (L) (mm)	Length (z) (mm)	Part no.
	20	27	0.019	24	8	WBCL002579
	25	33	0.029	29	10	WBCL002580
	32	41	0.046	34	12	WBCL002581
	40	51	0.082	40	14	WBCL002582
	50	63	0.121	41	10	WBCL002583
	63	78	0.115	51	14	WBCL002584
	75	87	0.200	61	17	WBCL002585
	90	109	0.521	72	21	WBCL002586

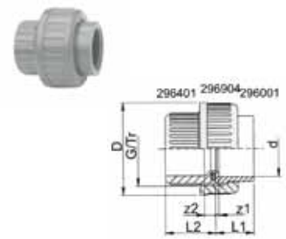
T-piece 90°	d (mm)	D (mm)	Weight (kg)	Length (L) (mm)	Length (z) (mm)	Part no.
	25	35	0.050	37	18	WBCL002600
	32	43	0.075	43	21	WBCL002601
	40	53	0.180	51	22	WBCL002602
	50	61	0.1404	58	27	WBCL002603
	63	77	0.265	72	34	WBCL002604
	75	92	0.442	84	40	WBCL002605
	90	110	0.755	97	46	WBCL002606

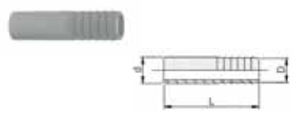
Y-piece 45°	d (mm)	D (mm)	Weight (kg)	Length (L) (mm)	(L1) (mm)	Length (z) (mm)	Part no.
	20	27	0.028	68	46	30	WBCL002614
	25	33	0.043	83	55	36	WBCL002615
	32	41	0.072	99	67	45	WBCL002616
	40	50	0.119	118	82	56	WBCL002617
	50	60	0.203	140	97	66	WBCL002618
	63	74	0.325	175	123	85	WBCL002619
	75	91	0.605	207	145	101	WBCL002620
	90	107	0.940	245	173	122	WBCL002621

ABS socket FF	d (mm)	D (mm)	Weight (kg)	Length (L) (mm)	Length (z) (mm)	Part no.
	20	27	0.010	38	6	WBCL002629
	25	33	0.017	44	7	WBCL002630
	32	41	0.025	51	7	WBCL002631
	40	50	0.045	60	8	WBCL002632
	50	62	0.070	66	4	WBCL002633
	63	78	0.130	80	5	WBCL002634
	75	93	0.268	95	8	WBCL002635
	90	104	0.242	107	5	WBCL002636

Reducer M–F long	d (mm)	D (mm)	Weight (kg / m)	Length (L) (mm)	Length (z) (mm)	Part no.
	32	20	0.016	45	30	WBCL002650
	40	25	0.023	55	36	WBCL002651
	50	25	0.041	63	44	WBCL002652
	63	32	0.077	76	54	WBCL002653
	75	40	0.115	88	62	WBCL002654
	90	63	0.218	112	74	WBCL002655

Reducer M–F short	d (mm)	D (mm)	Weight (kg)	Length (L) (mm)	Length (z) (mm)	Part no.
	20	16	0.003	16	2	WBCL002669
	25	20	0.005	19	3	WBCL002670
	32	25	0.009	22	4	WBCL002671
	40	20	0.016	26	10	WBCL002672
	40	25	0.016	26	7	WBCL002673
	40	32	0.012	26	4	WBCL002674
	50	25	0.025	31	12	WBCL002675
	50	32	0.035	31	9	WBCL002676
	50	40	0.038	31	5	WBCL002677
	63	32	0.060	38	16	WBCL002678
	63	40	0.067	38	12	WBCL002679
	63	50	0.044	36	7	WBCL002680
	75	50	0.105	44	13	WBCL002681
	75	63	0.076	44	7	WBCL002682
	90	50	0.135	51	20	WBCL002683
	90	63	0.188	51	14	WBCL002684
	90	75	0.133	51	7	WBCL002685

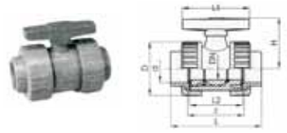
Adaptor unions	d (mm)	D (mm)	Weight (kg)	Length (L1) (mm)	Length (L2) (mm)	Part no.
	25	53	0.050	24	29	WBCL002700
	32	60	0.070	27	32	WBCL002701
	40	74	0.130	32	38	WBCL002702
	50	83	0.170	33	40	WBCL002703
	63	103	0.340	40	46	WBCL002704
	75	135	0.461	47	62	WBCL002705
	90	158	0.694	56	69	WBCL002706
	screw connection ABS / bronze					
	25	32	0.221	24	23	WBCL002709
	32	38	0.263	27	26	WBCL002710
	40	50	0.437	32	28	WBCL002711
	50	57	0.508	33	29	WBCL002712
	63	70	0.774	40	34	WBCL002713

Hose nipple	d (mm)	D (mm)	Weight (kg)	Length (L) (mm)	Part no.
	16	16	0.007	57	WBCL002720
	20	20	0.011	73	WBCL002721
	25	25	0.016	79	WBCL002722
	32	32	0.026	89	WBCL002723

Mixed threaded socket joint FF	d (mm)	Thread (")	Weight (kg / m)	Length (L) (mm)	Part no.
	25	3/4	0.030	40	WBCL002730
	32	1	0.040	45	WBCL002731
	40	1 1/4	0.069	51	WBCL002732
	50	1 1/2	0.100	59	WBCL002733
	63	2	0.162	69	WBCL002734

Screw bonded socket joint, reinforced MF	d (mm)	thread (“)	Weight (kg)	Length (L) (mm)	Length (z) (mm)	Part no.
	25	1/2	0.018	41	27	WBCL002740
	32	3/4	0.027	48	32	WBCL002741
	40	1	0.048	56	38	WBCL002742
	50	1 1/4	0.073	66	46	WBCL002743
	63	1 1/2	0.148	77	57	WBCL002744

Closing cap	d (mm)	D (mm)	Weight (kg)	Length (L) (mm)	Length (z) (mm)	Part no.
	25	37	0.013	30		WBCL002760
	32	44	0.020	34		WBCL002761
	40	55	0.034	41		WBCL002762
	50	64	0.034	44		WBCL002763
	63	80	0.086	54		WBCL002764
	75	87	0.115	65		WBCL002765
	90	112	0.215	77		WBCL002766

ABS-ball check valve	d (mm)	D (mm)	Weight (kg)	Length (L) (mm)	Height (H) (mm)	Part no.
	25	56	0.360	120	60	WBCL002790
	32	67	0.360	131	70	WBCL002791
	40	82	0.6	150	80	WBCL002792
	50	92	0.65	163	92	WBCL002793
	63	120	1.7	197	110	WBCL002794

ABS cold fusion glue	Description	Part no.
	special ABS glue, 0.75 l	WBCL002780

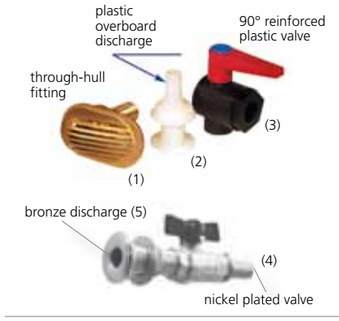
Pipe clamp with clip, 061 PP	d (mm)	Drilling (D) (mm)	Weight (kg)	L1 + L2 (mm)	Width (H3) (mm)	Height (H) (mm)	Part no.
	32	5.5	0.011	24 + 26,5	16	31	WBCL002800
	40	6.5	0.025	33.5 x 2	22	35	WBCL002801
	50	6.5	0.028	37 x 2	22	40	WBCL002802
	63	8.5	0.047	44.5 x 2	25	51.5	WBCL002803
	75	8.5	0.058	52 x 2	25	57.5	WBCL002804

Pipe clamp with clip, 060 PP	d (mm)	Drilling (D) (mm)	Weight (kg)	L1 + L2 (mm)	Width (H2) (mm)	Height (H) (mm)	Part no.
	90	9	0.163	89 + 71	32.5	105	WBCL002810
	110	9	0.179	94 + 80	32.5	115	WBCL002811
	125	11	0.300	116 + 91	35	130	WBCL002812

Pipe insulation closed, foam	d (mm)	D (mm)	Length (m)	pc. / box	For ABS:	Mln. Order	Part no.
 thickness: 13 mm	28	54	2	78	DN25	10	WBCL002830
	35	60	2	58	DN32	10	WBCL002831
	42	68	2	48	DN40	10	WBCL002832
	54	80	2	34	DN50	10	WBCL002833
	64	90	2	30	DN63	5	WBCL002834
	76	102	2	22	DN75	5	WBCL002835
	89	116	2	18	DN90	5	WBCL002836

Pipe insulation open, self-adhesive	d (mm)	D (mm)	Part no.
 self-adhesive strip pipe insulation – 50 mm length thickness: 13 mm	21	47	WBCL002849
	27	53	WBCL002850
	34	60	WBCL002851
	42	68	WBCL002852
	54	80	WBCL002853
	64	90	WBCL002854
	76	102	WBCL002855
	89	115	WBCL002856

Water system

	Sea water strainer	Part no.
	G 3/4" model 1160, height 105 mm, nickel-plated brass	WBCL010109A
	G 1" model 1164, height 144 mm, nickel-plated bronze	WBCL010110A
	G 1 1/4" model 1164, height 178 mm, nickel-plated bronze	WBCL010111A
	G 1" model 1162, height 151 mm, nickel-plated bronze	WBCL010112A
	G 1 1/4" model 1162, height 176 mm, nickel-plated bronze	WBCL010113A
	Screen filter element for model 1160	WBCL010268A
	**Sea-water strainer, 16 – 20 mm, with two nipples**	**Part no.**
	capacity in US gallons 350/1,000 US gallons/h	
	capacity in liters 25/50 l/min.	
	suitable for pump models WB250 – WB350/1000	
	H = height 140 mm	
	W = width 100 mm	
	D = diameter inlet/outlet 5/8" – 16 mm	WBCL001151
	D = diameter inlet/outlet 3/4" – 20 mm	WBCL001152
	screen-filter element 1.000 Microns	WBCL001154
	**Sea-water strainer, 25 mm, with two nipples**	**Part no.**
	capacity in US gallons 1.000 US gallons/h	
	capacity in liters 50 l/min.	
	suitable for pump models WB1000 to 2000	
	H = height 290 mm	
	W = width 144 mm	
	D = diameter inlet/outlet 1.25" – 32/40 mm	
	1" – 25 mm	WBCL001153
	screen-filter element 1000 Microns	WBCL001155
	**Through-hull kits 16, 20, 25 mm**	**Part no.**
	capacity in US gallons 350/1.000 – 25/50 l/min.	
	suitable for pump models WB250 – WB350/1000	
	D = diameter inlet/outlet, 5/8" – 16 mm kit, 1/2" – 16	
	D = diameter inlet/outlet, 3/4" – 20 mm kit, 3/4" – 20	
	5/8" – 16 mm – 1 plastic valve (1 + 2 + 3)	WBCL001125
	3/4" – 20 mm – 1 plastic valve (1 + 2 + 3)	WBCL001126B
	5/8" – 16 mm + 2 x 90° plastic valve (1 + 3 + 5)	WBCL001123
	3/4" – 20 mm + 2 x 90° plastic valve (1 + 3 + 5)	WBCL001124
	kit 5/8" – 16 mm – 1 nickel plated valve (1 + 4 + 2)	WBCL001175
	kit 3/4" – 20 mm – 1 nickel plated valve (1 + 4 + 2)	WBCL001176
	kit 5/8" – 16 mm – 2 nickel plated valves/bronze exit (1 + 4 + 5)	WBCL001177
	kit 3/4" – 20 mm – 2 nickel plated valves/bronze exit (1 + 4 + 5)	WBCL001178
	kit 1" – 25 mm – 1 nickel plated valve/plastic exit (1 + 4 + 2)	WBCL001179

Water system

	Air bleeder t-piece for chilled water system	Part no.
	model 1000S (for pump WB1000): t-piece 3/4", diameter shut-off valve outlet 1/2" – 16 mm	WBCL001121
	model 2000S (for pumps WB1500-2500): t-piece 1", diameter shut-off valve outlet 3/4" – 20 mm	WBCL001122
	**Chilled Water Circuit AC Calorifiers**	**Part no.**
	with safety thermostat	
	model 10 kW; 400 V; L = 675; H = 200; weight = 8 kg	WBCL002120
	model 15 kW; 400 V; L = 1015; H = 200; weight = 11 kg	WBCL002121
	model 20 kW; 400 V; L = 1015; H = 200; weight = 12 kg	WBCL002122
	model 30 kW; 400 V; L = 1590; H = 200; weight = 19 kg	WBCL002123
	model 40 kW; 400 V; L = 2130; H = 200; weight = 22 kg	WBCL002124
	**Air bleeder for seawater pumps**	**Part no.**
	model 350R (for pumps WB250 and WB350): t-piece 3/4", diameter supply and outlet 1/2" – 16 mm	WBCL001118
	model 1000R (for pump WB1000): t-piece 3/4", diameter supply and outlet 3/4" – 20 mm	WBCL001119
	model 2000R (for pumps WB1500 – 2500): t-piece 1", diameter supply and outlet 3/4" – 20 mm	WBCL001120

Webasto can provide all accessories for pressurized systems. Please contact us for further details.

Spare parts

Refrigerant circuit

Co-Axial Cupro Nickel Sea-Water Condenser; Type ES*	Part no.
ES-06: 5,000/9,000 BTU/h for SC05 – SC09 260 x 214 x 50 (L x H x W)	WBCL000660
ES-10: 12,000 BTU/h for SC12 360 x 214 x 50 (L x H x W)	WBCL000661
ES-16: 16,000/20,000 BTU/h for SC16 – SC20 and CH16-Mono – CH20-Mono 360 x 238 x 60 (L x H x W)	WBCL000662
ES-24: 24,000/30,000 BTU/h SC24 – SC30 and CH24-Mono – CH30-Mono 360 x 238 x 90 (L x H x W)	WBCL000663

Co-Axial Cupro Nickel Sea-Water Condenser for Chiller-Systems; Type S*	Part no.
cupro-nickel condenser S-2-I – 24,000 BTU/h	WBCL000652
cupro-nickel condenser S-3-I – 30,000/36,000 BTU/h	WBCL000653
cupro-nickel condenser S-3.5-I – 48,000 BTU/h	WBCL000654
cupro-nickel condenser S-4-I – 60,000 BTU/h	WBCL000655
cupro-nickel condenser S-5-I – 76,000 BTU/h	WBCL000659
cupro-nickel condenser S-6-I – 84,000 BTU/h	WBCL000665
cupro-nickel condenser S-7-I – 112,000 BTU/h	WBCL000668
cupro-nickel condenser S-8-I – 124,000 BTU/h	WBCL000666
cupro-nickel condenser S-10-I – 143,000 BTU/h	WBCL000667

Expansion Valves, suitable for R407C/R404A/R22	Part no.
TUBE 6: 5,7 kW; 12,000/16,000 BTU/h	WBCL000632
TUBE 7: 7,5 kW; 20,000/24,000/30,000 BTU/h	WBCL000633
TUBE 8: 11 kW; 36,000/42,000 BTU/h	WBCL000634
TCBE 1: 19 kW; 48,000/60,000 BTU/h	WBCL000636
TCBE 2: 23 kW; 72,000/84,000 BTU/h	WBCL000635
TRE 10-10Z: 35 kW; 96,000/112,000 BTU/h	WBCL009430
TRE 20-12,5Z: 44 kW; 126,000/143,000 BTU/h	WBCL009431

Capillary Tubes	Part no.
cap tube injection kit for SC5 – suitable for R407C – 230 V	WBCL002240
cap tube injection kit for SC7 – suitable for R407C – 230 V	WBCL002241
cap tube injection kit for SC5 – suitable for R22/R417A – 115 V	WBCL002242
cap tube injection kit for SC6.5 – suitable for R22/R417A – 115 V	WBCL002243
cap tube injection kit for SC9 – suitable for R22/R407C – 115/230 V	WBCL002244
cap tube injection kit for SC12 – suitable for R22/R407C – 115/230 V	WBCL002245
cap tube injection kit for SC16 – suitable for R22/R407C – 115/230 V	WBCL002246
cap tube injection kit for SC9 – suitable for R22/R407C – 115/230 V	WBCL002250A
cap tube injection kit for SC12 – suitable for R22/R407C – 115/230 V	WBCL002251A
cap tube injection kit for SC16 – suitable for R22/R407C – 115/230 V	WBCL002252A
cap tube injection kit for SC20 – suitable for R407C – 230 V	WBCL002247
cap tube injection kit for SC24 – suitable for R407C – 230 V	WBCL002248
cap tube injection kit for SC30 – suitable for R407C – 230 V	WBCL002249

* Rated condenser BTU-Capacity is per compressor, not per air condition unit!

Note: The spare part lists for the BlueCool S-Series and C-Series are available separately. Please contact us for further information.

Spare parts

Refrigerant circuit

Rotary compressors	Part no.
rotary compressor for SC5 – suitable for R407C – 230 V	WBCL002260
rotary compressor for SC7 – suitable for R407C – 230 V	WBCL002261
rotary compressor for SC9 – suitable for R407C – 230 V	WBCL002262
rotary compressor for SC12/CH12 – suitable for R407C – 230 V	WBCL002263
rotary compressor for SC16/CH16 – suitable for R407C – 230 V	WBCL002264
rotary compressor for SC20/CH20 – suitable for R407C – 230 V	WBCL002265
rotary compressor for SC24/CH24 – suitable for R407C – 230 V	WBCL002266
rotary compressor for SC30/CH30 – suitable for R407C – 230 V	WBCL002267
rotary compressor for SC5 – suitable for R22/R417A – 115 V	WBCL002268
rotary compressor for SC6.5 – suitable for R22/R417A – 115 V	WBCL002269
rotary compressor for SC9 – suitable for R22/R417A – 115 V	WBCL002270
rotary compressor for SC12/CH12 – suitable for R22/R417A – 115 V	WBCL002271
rotary compressor for SC16/CH16 – suitable for R22/R417A – 115 V	WBCL002272

Scroll compressors	Part no.
scroll compressor for CH60-MONO – suitable for R407C – 400 V – 3 Phase	WBCL002283
scroll compressor 30,000 BTU/h – suitable for R407C – 400 V – 3 Phase	WBCL009492
scroll compressor 36,000 BTU/h – suitable for R407C – 400 V – 3 Phase	WBCL009494
scroll compressor 42,000 BTU/h – suitable for R407C – 400 V – 3 Phase	WBCL009496
scroll compressor 48,000 BTU/h – suitable for R407C – 400 V – 3 Phase	WBCL009498
note: other scroll compressor versions available on demand	

Filters	Part no.
bi-flow filter/dryer 3/8" for CH – 12,000 – 36,000 BTU/h	WBCL002300
bi-flow filter/dryer 1/2" for CH – 42,000 – 60,000 BTU/h	WBCL002301
bi-flow filter/dryer 1/2" for CH – 72,000 – 84,000 BTU/h	WBCL002299A
bi-flow filter/dryer 5/8" for CH – 96,000 – 143,000 BTU/h	WBCL002302A

Run Capacitors for 230 V Rotary R407C compressors	Part no.
Run Capacitor 20µF for 5,000 BTU/h R407C compressors	WBCL000180
Run Capacitor 25µF for 7,000 – 9,000 BTU/h R407C compressors	WBCL000181
Run Capacitor 35µF for 12,000 and 20,000 BTU/h R407C compressors	WBCL000109
Run Capacitor 30µF for 16,000 BTU/h R407C compressors	WBCL000182
Run Capacitor 45µF for 24,000 BTU/h R407C compressors	WBCL000108
Run Capacitor 55µF for 30,000 BTU/h R407C compressors	WBCL000183

Run Capacitors for 115 V Rotary Compressors	Part no.
Run Capacitor 40µF for 5,000 – 6,500 BTU/h R417A compressors	WBCL000110
Run Capacitor 45µF for 9,000 BTU/h R417A compressors	WBCL000108
Run Capacitor 50µF for 12,000 BTU/h R417A compressors	WBCL000107
Run Capacitor 60µF for 16,000 BTU/h R417A compressors	WBCL000184

Hardstart Capacitors	Part no.
Hardstart Capacitor LDS-5 for 16,000 – 30,000 BTU/h	WBCL000001
Hardstart Capacitor LDS-6 for compressors 36,000 – 48,000 BTU/h	WBCL000027

Spare parts

Accumulators

	Filter accumulators	Part no.
	Filter Accumulator – 1/2'' solder ends – for 12,000 – 36,000 BTU/h compressors	WBCL002303
	Filter Accumulator – 5/8'' solder ends – for 42,000 – 60,000 BTU/h compressors	WBCL002304
	Suctionaccumulators for scroll compressors	**Part no.**
	Suction Accumulator – 5/8'' – for 30,000 to 42,000 BTU/h compressors	WBFD000536
	Suction Accumulator – 5/8'' – for 48,000 to 60,000 BTU/h compressors	WBFD000539

Air filters

Woven fabric air filter	Part no.
woven fabric for BlueCool Classic unit/air handler of 4,500 BTU/h	WBCL000910
woven fabric for BlueCool Classic unit/air handler of 6,000 BTU/h	WBCL000911
woven fabric for BlueCool Classic unit/air handler of 9,000 BTU/h	WBCL000912
woven fabric for BlueCool Classic unit/air handler of 12,000 BTU/h low profile	WBCL000913
woven fabric for BlueCool Classic unit/air handler of 12,000 BTU/h	WBCL000914
woven Fabric for BlueCool Classic unit/air handler of 16,000 BTU/h	WBCL000915
woven fabric for BlueCool Classic unit/air handler of 24,000 BTU/h	WBCL000916
woven fabric for BlueCool Classic unit/air handler of 30,000 BTU/h	WBCL000917
woven fabric for BlueCool Classic unit/air handler of 20,000 BTU/h	WBCL000918

Valves and switches

4-Way reversing valves	Part no.
cool/heat – 5 to 12,000 BTU/h – 230 V – DSF-4	WBCL002216A
cool/heat – 16 to 20,000 BTU/h – 230 V – DSF-9	WBCL002203
cool/heat – 24 to 30,000 BTU/h – 230 V – DSF-9B	WBCL002204
cool/heat – 36 to 42,000 BTU/h – 230 V – DSF-11	WBCL002205
cool/heat – 48 to 60,000 BTU/h – 230 V – DSF-11C	WBCL002206
cool/heat – 72 to 84,000 BTU/h – 230 V – SHF-20	WBCL002207
cool/heat – 96 to 143,000 BTU/h – 230 V – SHF-34	WBCL002215
cool/heat – 5 to 12,000 BTU/h – 115 V	WBCL002208
cool/heat – 16 to 20,000 BTU/h – 115 V	WBCL002209
coil 230 V – diam axis 11.3 mm	WBCL002213
coil 115 V – diam axis 11.3 mm	WBCL002214

Pressure switches	Part no.
KIT Pressure Safety Switch 350-250 PSI (green)	WBCL002235A
KIT Pressure Safety Switch 375-250 PSI (green)	WBCL002237A
KIT Pressure Safety Switch 16-30 PSI (black)	WBCL002236A

Contactors	Part no.
Contactor 2-Pole 30 A – 230 V coil (for all 230 V compressors except 48 k BTU/h)	WBCL000165
Contactor 2-Pole 40 A – 230 V coil (for 48,000 BTU/h compressor)	WBCL000260
Contactor 2-Pole 30 A – 115 V coil (for all 115 V compressors)	WBCL009666
Contactor 3-Pole 30 A – 230 V coil (for all 208 V & 400 V compressors)	WBCL009667A

Note: The spare part lists for the BlueCool S-Series and C-Series are available separately. Please contact us for further information.

Spare parts

Spare blowers

Centrifugal blowers; suitable for Self-contained units and air handler; 115 V	Part no.
2GRE15; 275 m³/h; 120 x 62R; suitable for 4,500/6,000 BTU/h air handler and 5,000/6,500 BTU/h self-contained systems	WBCL007030
2GRE20; 430 m³/h; 140 x 59R; suitable for 9,000 BTU/h air handler and self-contained systems	WBCL007031
2GRE35; 500 m³/h; 140 x 59R; suitable for 12,000/24,000 BTU/h air handler and 12,000 BTU/h self-contained systems	WBCL007032
2GRE45; 625 m³/h; 180 x 75R; suitable for 16,000/20,000 BTU/h air handler and 16,000 BTU/h self-contained systems	WBCL007033

Centrifugal blowers; suitable for selfcontained units and air handler; 230 V	Part no.
2GRE15; 275 m³/h; 120 x 62R; suitable for 4,500/6,000 BTU/h air handler and 5,000 / 7,000 BTU/h self-contained systems	WBCL007020
2GRE20; 430 m³/h; 140 x 59R; suitable for 9,000 BTU/h air handler and self-contained systems	WBCL007021
2GRE35; 500 m³/h; 140 x 59R; suitable for 12,000/24,000 BTU/h air handler and self-contained systems	WBCL007022
2GRE45; 625 m³/h; 180 x 75R; suitable for 16,000/20,000 BTU/h air handler and self-contained systems	WBCL007023
2GRF65; 900 m³/h; 180 x 70R; suitable for 48,000 BTU/h air handler, fresh air 24 special unit, fresh air 48 unit and extract air 48 unit	WBCL007024
2GRE45; 550 m³/h; 160 x 62R for fresh air 24 unit and extract air 24 unit	WBCL007025

Cross flow blowers; suitable for air handler; 115 V	Part no.
4,000 BTU/h; 150 m³/h	WBCL007010
6,000 BTU/h; 190 m³/h	WBCL007011
9,000/12,000 BTU/h; 250 m³/h	WBCL007012

Cross flow blowers; suitable for air handler; 230 V	Part no.
4,000 BTU/h; 150 m³/h	WBCL007016
6,000 BTU/h; 190 m³/h	WBCL007017
9,000/12,000 BTU/h; 250 m³/h	WBCL007018

Spare capacitors for blowers	Part no.
capacitor 2µF for 2GRE15; 120 x 62 R – 230 V	WBCL000017
capacitor 2,5µF for 2GRE20;140 x 59 R – 230 V	WBCL000009
capacitor 4µF for 2GRE35; 140 x 59 R – 230 V	WBCL000018
capacitor 12µF for 2GRF65; 180 x 70 R – 230 V	WBCL007041
capacitor 6µF for 2GRE45; 180 x 75 R – 230 V	WBCL000070
capacitor 8µF for 2GRE25; 140 – 115 V	WBCL000008
capacitor 18µF for 2GRE35;140 x 59 R – 115 V	WBCL000012
capacitor 24µF for 2GRE45; 180 x 75 R – 115 V	WBCL000016

Paint	Part no.
Epoxy paint, 400 ml	WBCL000300

Spare parts

Front covers for pumps	Part no.
front cover – hose nipples – pump WB250	WBCL001140
front cover – hose nipples – pump WB350	WBCL001141
front cover – threaded 3/4" – pump WB250	WBCL001158
front cover – threaded 3/4" – pump WB350	WBCL001159
front cover – threaded 3/4" – pump WB500/WB1000	WBCL001142
front cover – threaded 1" – pump WB1500	WBCL001143
front cover – threaded 1" – pump WB2000	WBCL001150A
front cover – threaded 1 1/4" – pump WB3500	WBCL001169A

Wet end sets for pumps	Part no.
wet end set – WB250 threaded	WBCL001194
wet end – WB350 threaded	WBCL001195
wet end – WB500 threaded	WBCL001196
wet end – WB1000 threaded	WBCL001197
wet end – WB1500 threaded	WBCL001198
wet end – WB2000 threaded	WBCL001199

Caps, O-rings and impellers for pumps	Part no.
Cap for self-priming chamber SC-4/7	WBCL010803B
O-ring for self-priming chamber SC-4/7	WBCL010801A
gasket for self-priming chamber SC-4	WBCL010804A
gasket for self-priming chamber SC-7	WBCL010805A
O-ring for WB250	WBCL010806A
impeller unit for WB250	WBCL010807A
O-ring for WB350	WBCL010808A
impeller unit for WB350	WBCL010809A
O-ring for WB500/WB1000	WBCL010810A
impeller unit for WB500	WBCL010811A
impeller unit for WB1000	WBCL010812A
O-ring for WB1500	WBCL010813A
impeller unit for WB1500	WBCL010814A
O-ring for WB2000	WBCL010815A
impeller unit for WB2000	WBCL010816A

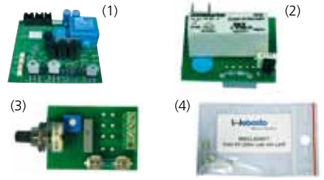
Pump electronics	Part no.
controller card for WB200 pump – 115/230 V	WBCL001116

Note: The spare part lists for the BlueCool S-Series and C-Series are available separately. Please contact us for further information.

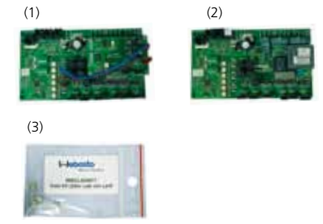
Spare parts

Electronic controls

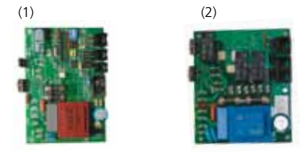
Digital controls	
Digital Display 2011-Series with bezel	WBCL000833B
plastic bezel Webasto for digital display	WBCL000877



BlueCool Classic/Select system	Part no.
TCC V2 – Classic card – 230 V	WBCL000823
TCC V2 – Classic card – 115 V	WBCL000840
TCC V3 – Classic/Select card – 2005 series – 230 V (1)	WBCL000828
TCC V3 – Classic/Select card – 2005 series – 115 V (1)	WBCL000829
blower speed controller for blower module – 230/115 V (3)	WBCL007480
on/off controller remote split-air blower modules (2)	WBCL000819
Fuse kit for TCC controller WBCL000828 (4)	WBCL000816
Display Cable 4.5 m	WBCL000815
Remote air temperature sensor with 3m cable	WBCL000813
Evaporator Temperature Sensor with 3 m cable	WBCL000368C
Evaporator Temperature Sensor with 6 m cable	WBCL000369C



BlueCool Premium system	Part no.
TECC V2 – chiller control card for 1 or 2 compressors – 230 V	WBCL000384
TECC V2 – chiller control card for 3 or 4 compressors – 230 V	WBCL000387
TECC V2 – chiller control card for 1 or 2 compressors – 115 V	WBCL000845
TECC V2 – chiller control card for 3 or 4 compressors – 115 V	WBCL000846
TECC V3 – chiller control card for 1 or 2 compressors – 230 V (2)	WBCL000864B
TECC V3 – chiller control card for 3 or 4 compressors – 230 V (1)	WBCL000866B
TECC V3 – chiller control card for 1 or 2 compressors – 115 V (2)	WBCL000865
TECC V3 – chiller control card for 3 or 4 compressors – 115 V (1)	WBCL000867
fuse kit for TECC/compressor/network controllers (3)	WBCL000367
metallic water temperature sensor with 3 m cable*	WBCL00368
metallic water temperature sensor with 6 m cable*	WBCL00369
* only to be used with V2 cards. Not to be used with V3 cards, please refer to composite water sensors.	



Cabin control	Part no.
electronic card V2 for WBCL000371 – 230 V (1)	WBCL000375
electronic card V3 for Cabin Control – 230 V 2)	WBCL000860
electronic card V3 for Cabin Control – 115 V (2)	WBCL000861
electronic card V2 for WBCL000392 & WBCL000394 – 230 V	WBCL000376
electronic card V2 for thermostat with 3 speed blower control – 115 V	WBCL000853
electronic card V3 for thermostat with 3 speed blower control – 230 V	WBCL000379
electronic card V3 for thermostat with 3 speed blower control – 115 V	WBCL000380
thermostat and speed selector with cable for WBCL000392B/000851B	WBCL000863
3 speed selector with cable for WBCL000394B	WBCL010208A

BlueCool fresh air system	Part no.
electronic controller card V2 for Fresh Air units – 230 V	WBCL000215
electronic controller card V3 for Fresh Air units – 230 V	WBCL000215B

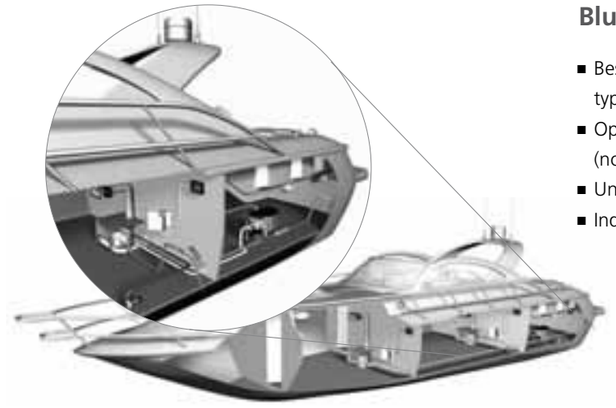
Integrated solutions

Integrated solutions

Webasto BlueComfort solutions combine an air-conditioning unit and a water heating unit into one integrated system. This allows yacht owners and sailors to expand the boating season as people can chose between heating and cooling at the push of a button.

Most air-conditioning systems have a reverse cycle function to enable heating with the A/C system. However, this requires mild sea water temperatures for efficient heating. Below 6° C sea water temperature the heat cycle becomes inefficient. To gain total autonomy from environmental conditions, an integrated water heater is the perfect solution.

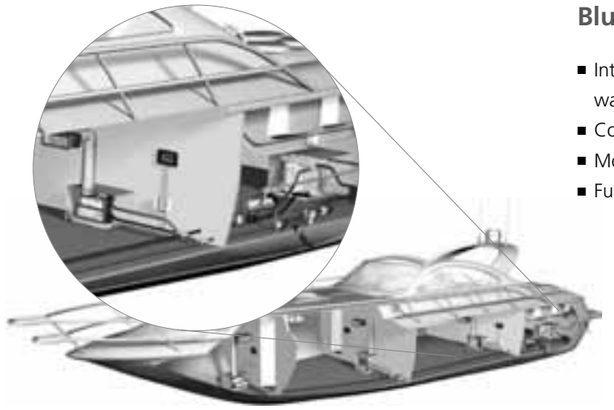
Webasto offers two system types:



The benefits of a self-contained A/C unit complemented by a compact, high efficient diesel heater.

BlueComfort Classic

- Best integrated solution for smaller boats which would typically choose a self contained system
- Opportunity to have heating on board while sailing (no need for generator running)
- Unrivalled dehumidification power in "reheat" mode
- Individual temperature control for each cabin



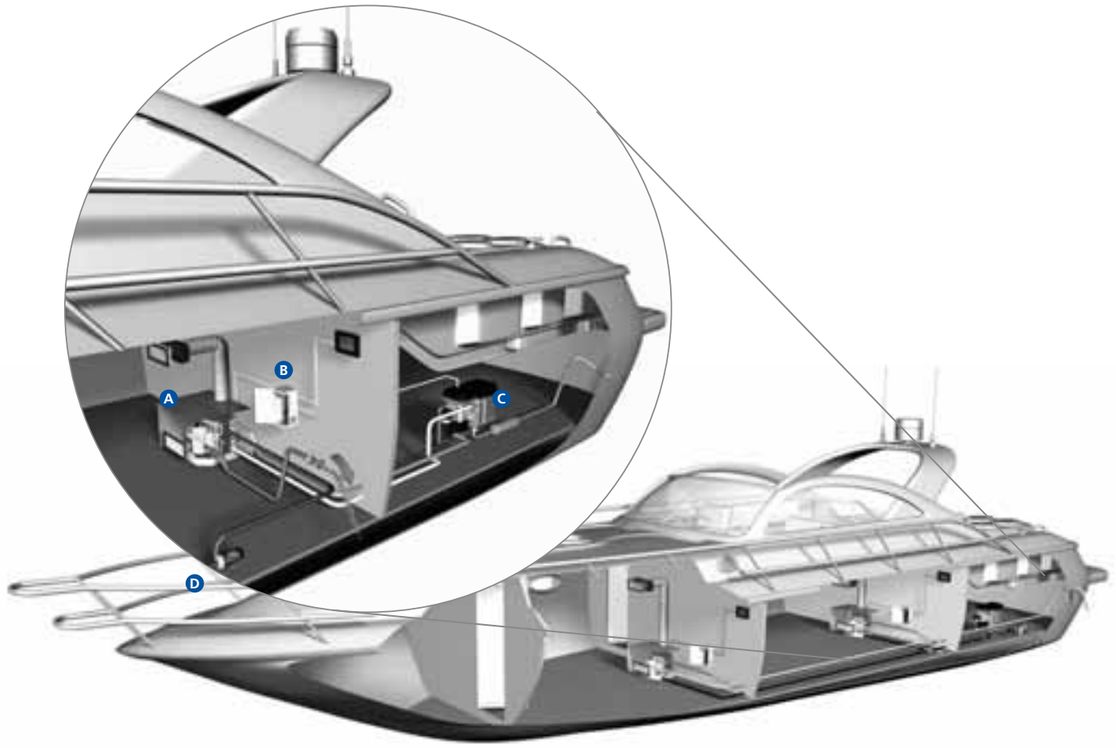
Best in class, when it comes to complete climate comfort: Chiller A/C unit and a powerful water heater.

BlueComfort Premium

- Integration of a chiller A/C unit and a diesel fired water heater into one system
- Comfort like at home in any weather condition
- Modular concept allowing multiple configurations
- Full range of solutions for any size of boat

BlueComfort Classic

Installation example



A Self-contained A/C unit

B Cabin Control

C Water Heater

D Sea Water Pump

BlueComfort Classic

Application guidelines

For a complete BlueComfort Classic system, please combine the following:

1. BlueComfort Classic air-conditioner

Core unit

Webasto BlueComfort Classic 16000, 230V WBCL010107D

The the following components are included in the scope of delivery:

- Electric cable and control box
- Installation manual
- Remote air temperature sensor 3 m
- Display cable 4.5 m
- Operating manual

Air system

Please order separately the air ducting system for the application consisting of:

- Return air grille SEE PAGE 113
- Transition box SEE PAGE 114
- Air ducting SEE PAGE 115
- Supply air grille SEE PAGE 113

Sea water circuit

Please order separately the components for the sea water circuit consisting of:

- Sea water inlet SEE PAGE 126
- Sea water pump SEE PAGE 108
- Overboard discharge SEE PAGE 126
- Sea water strainer SEE PAGE 126
- Closing valve SEE PAGE 120
- Water hose SEE PAGE 116

2. Water heater

Thermo Top E Comfort Classic
12 V Diesel 9019718A

You may combine multiple BlueComfort Classic units into one system. Then please choose a heater with the equivalent heating power (e.g. Thermo 90ST for two WBCC16 units)

3. BlueComfort accessories

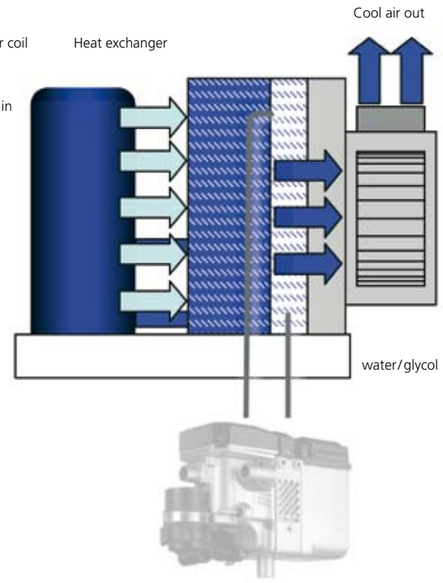
Do not forget to add an expansion/buffer tank. SEE PAGE 120

BlueComfort Classic

How does it work?

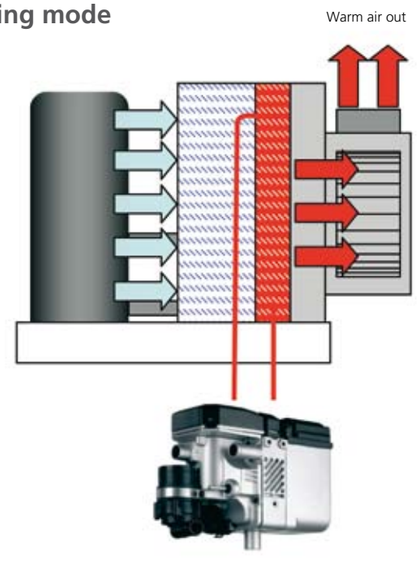
In a BlueComfort Classic system an A/C system and a water heater are integrated into one system.
The BlueComfort Classic units are equipped with a second heat exchanger which is connected to a diesel-fired water heater. In cooling mode, the water heater is off and only the A/C circuit is running. In heating mode the water heater is running, heating up the heat exchanger and thus the air passing through. In the "reheat" mode, the air is first cooled down and then heated up again, thus being dehumidified.

Cooling mode



The heater is not activated, only the A/C unit is running

Heating mode

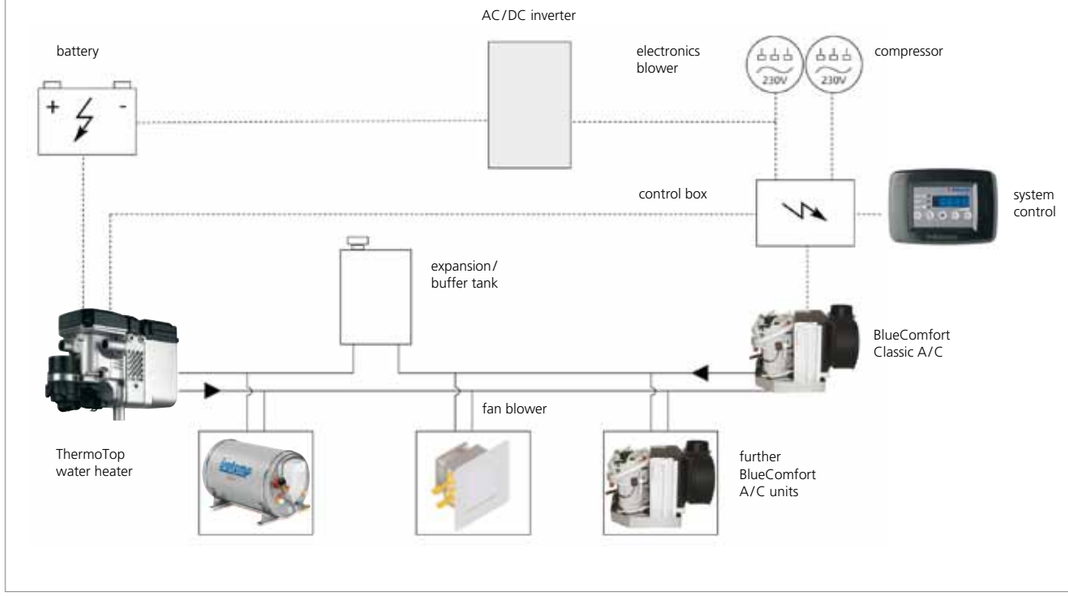


The heater is activated, the compressor is off, only the blower is running

BlueComfort Classic

System set up

Example of a system set up

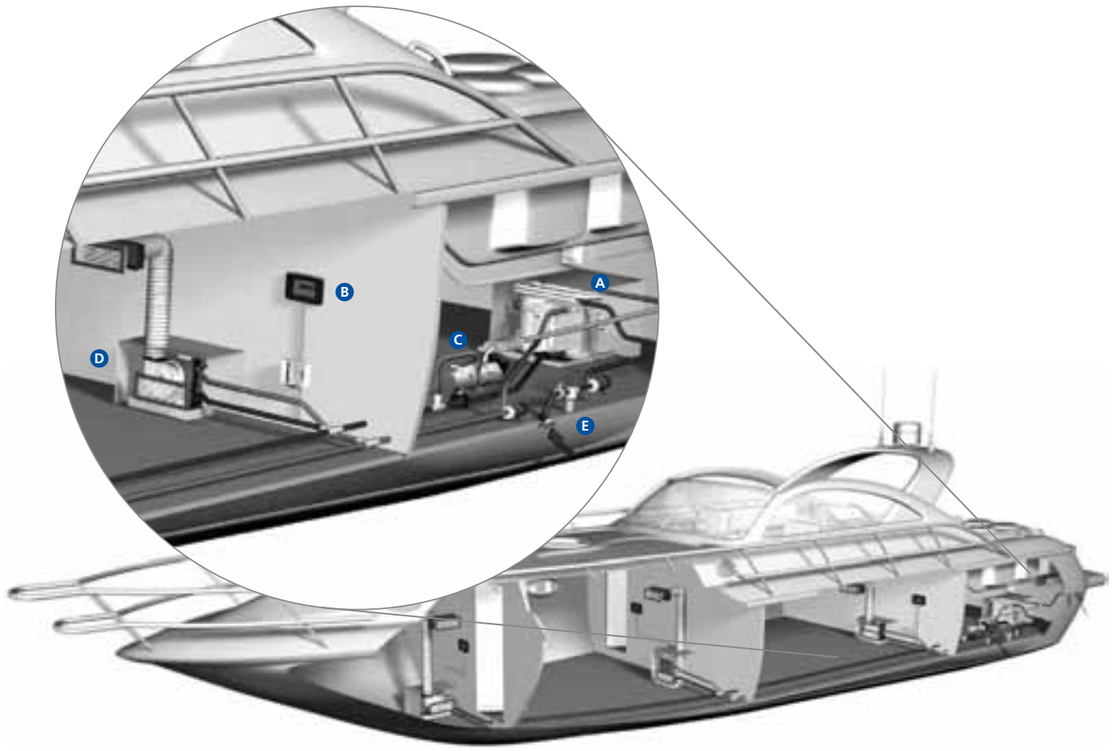


Technical specifications

	Webasto BlueComfort Classic 16
Performance in BTU/h, kW	16,000/4.7
Voltage	230 V 50/60 Hz
Power consumption/start	5.5/12 A
Net weight	34 kg
Recommended seawater pump	WB500
Blower output	625 m^3/h
Ø condenser water connection	16 mm
Dimensions (L x D x H) in mm	540 x 483 x 330
Ø air outlet	125 mm
Suggested breaker	20 A
Diameter hot water connection (in mm)	20

BlueComfort Premium

Installation example



- A Chiller A/C unit
- B Cabin Control
- C Heater
- D Air Handler
- E Sea Water Pump

BlueComfort Premium

Application guidelines

For a complete BlueComfort Premium system, please combine the following:

1. Chiller air-conditioner

Core unit

Please select the core unit according to the required cooling capacity, the available voltage and whether cool only or heating via reverse cycle is needed.

- Air-conditioning unit SEE PAGE 90

Position **A** as well as the following components are included in the scope of delivery:

- Electric cable and control box
- Operating manual
- Installation manual

Control elements for core unit

Please select the control elements for the core unit separately

- Display chiller contro (Master control unit) SEE PAGE 106
- Display cable SEE PAGE 107
- Remote air temperature sensor SEE PAGE 107

Sea water circuit

Please order separately the components for the sea water circuit consisting of:

- Sea water inlet SEE PAGE 126
- Sea water pump SEE PAGE 108
- Overboard discharge SEE PAGE 126
- Sea water strainer SEE PAGE 126
- Closing valve SEE PAGE 120
- Water hose SEE PAGE 116

Chilled water circuit

Please add the required components for the chilled water circuit consisting of:

- Circulation pump SEE PAGE 108
- 3-way-valve (optional) SEE PAGE 120
- Turn ball valve SEE PAGE 120
- T-pieces SEE PAGE 122
- Piping or hosing system with insulation SEE PAGE 121
- Expansion tank SEE PAGE 120

Cabin accessories necessary for each single cabin

Please add for every single cabin the following components and accessories:

- Air handler SEE PAGE 98
- Supply air grille SEE PAGE 113
- Air ducting SEE PAGE 114
- Transition box SEE PAGE 114
- Water hoses for condensation drain SEE PAGE 121
- Cabin control (Air control, display cable, temperature sensor and control box) SEE PAGE 106
- Return air grille SEE PAGE 113

2. Water heater

Select the right heater according to the table below

Chiller air-conditioning cooling capacity										
BTU / h	12,000	24,000	32,000	40,000	48,000	60,000	78,000	90,000	108,000	126,000
kW	3.5	7.0	9.3	11.7	14.0	17.6	23.0	26.5	31.7	37.0
Heater										
	Thermo 50				DBW 2010		DBW 2020		Thermo 3000	
		Thermo 90 ST				DBW 2016		Thermo 230		

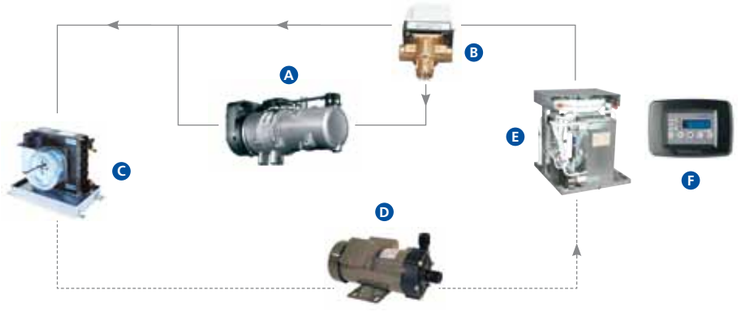
BlueComfort Premium

Basic integration

In a BlueComfort Premium system an A/C unit and a diesel-fired water heater are integrated into one system. The use of a water heater ensures full heating performance even at cooler sea water temperatures where the reverse cycle operation comes to its limits. In this integrated system the same water piping, air handlers, air ducting and cabin temperature control modules are used for both heating and A/C operation. For user friendliness, the main system is controlled via one control panel while each cabin has an individual temperature and blower speed control. The BlueComfort Premium system offers two integration options: the "Basic" and the "DeLuxe" integration depending on comfort requirements.

Basic integration

The Basic integration is simply **integrating a water heater with a 3 way valve into the chilled water system.** The valve ensures that no cold water is running through the heater which would cause condensation. Both the heater and the 3 way motor valve are controlled by the A/C electronic control. A special heater with a lower temperature setting or additional thermostats are needed in order to limit the water temperature to 60° C.



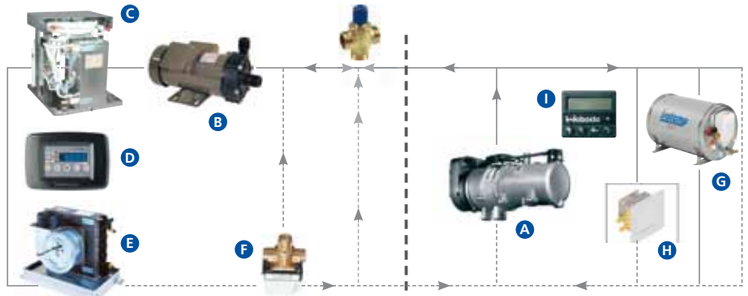
A	**Water heater**	Produces hot (60° C) water when system switches to heating
B	**3 way walve**	Switches between cooling or heating loop
C	**Air handler**	Warms up or cools down returning air
D	**Water pump**	Circulates the water
E	**A/C chiller unit**	Cools down the water when system switches to cooling
F	**Chiller control**	Controls the complete A/C system and the water heater
		Starts the compressor when cooling is necessary
		Starts the heater when heating is necessary

BlueComfort Premium

DeLuxe integration

DeLuxe Integration

The DeLuxe has all the features of the **Basic integration but additionally allows the integration of a water boiler as well as further fan blowers or radiators into the system.** It therefore provides the highest comfort in heating and sanitary water supply. The mixing valve limits the water temperature in the A/C loop to 60° C. A summer/winter switch allows heating of the boiler in summer while the A/C system is cooling the cabins at the same time.



For a perfect integration Webasto recommends Isotemp double coil boilers. Visit www.indelwebastomarine.com

A	**Water heater**	Produces hot (approx. 80° C) water when system switches to heating
B	**Water pump**	Circulates the water
C	**A/C chiller unit**	Cools down the water when system switches to cooling
D	**Chiller control**	Controls the complete A/C system and the water heater
		Starts the compressor when cooling is necessary
		Starts the heater when heating is necessary
E	**Air handler**	Warms up or cools down returning air
F	**3 way valve**	Switches between cooling or heating loop
G	**Water boiler**	Heats up the sanitary water
H	**Blowers or radiators**	can optionally be used in areas with extra high heating demand (e. g. windscreen for demisting)
I	**Summer / Winter switch**	Allows separate boiler operation in summer mode

BlueComfort accessories

For the chilled water system, the following key components are needed as well:

3 way motor valve	Basic Integration	DeLuxe Integration
	Thermo 90 ST chiller & DBW 2010/2016/2020 use 3/4" motor valve WBCL000776	Thermo 90 ST chiller & DBW 2010/2016/2020 use 3/4" motor valve WBCL000776
	Thermo 230/300/350 use 1 1/2" or 2" motor valve, e.g Belimo R340BL/R350BL + SR230A motor	Thermo 230/300/350 use 1 1/2"or 2" motor valve, e.g. Belimo R340BL/R350BL + SR230A motor
	3-way motorized valve 1 inch, 230V, special for BlueComfort applications WBCL000777	
Thermostatic mixing valve	**Basic Integration**	**DeLuxe Integration**
		Thermo 90 ST use 3/4" mixing valve
		DBW 2010/2016/2020 use 3/4" mixing valve
		Thermo 230/300/350 use 1 1/2" mixing valve

Roof solutions and windows

Webasto marine roofs

We can do a lot more for your roof project. Webasto can offer you uniquely customized roof solutions for your boat or yacht.

Large moveable surfaces of all kinds and sizes are our mission. Webasto has 30 years experience in advanced automotive roof systems which we apply to marine: kinematics, advanced materials, water management and sealing systems. We bring your ideas to reality and guarantee high quality and outstanding product know-how.

Webasto offers small series manufacturing at full series quality levels: Process-oriented assembly operations, from the pilot line through the design check to series production. Phased project approach and joint teams enable know-how transfer to your engineers.

Marine engineering services

The success of our projects is based on three fundamental elements:

1 **Product visualization:** Translate ideas into visual concepts.
Phased project approach allows frequent evaluation and limits the customers' risk.

2 **Product development:** Translate visual into technical concept.
Joint teams require strong customer involvement (marketing, R & D, manufacturing).

3 **Product validation:** Prepare drawing package for suppliers and assembly. Highly valuable know-how transfer ensures best outcome of the project investments at every stage.

	Activity	Deliverables
1	■ Input (of customer) ■ Ideas out of workshop ■ CAD data of customer ■ Application of product ■ Technical requirements ■ Technical constraints	■ Visuals of product ideas ■ Basic product description ■ Functionality / test specs ■ Technology / materials ■ Indication of piece price and investment
2	■ Evaluate various concepts ■ Customized adaptation of ■ semi-standard products ■ Creation of technical solution ■ Solutions to constraints	■ CAD presentation of product concept ■ Translation of functions into technical solutions ■ Translation of constraints into technical solutions ■ 3D CAD models ■ Updated cost price and investment ■ Detailed offer for phase 3
3	■ Product update ■ Review 3D mode ■ Make changes ■ Possibility to test prototypes	■ Design failure mode and effect analysis (D-FMEA) ■ Updated 3D CAD models ■ On request: prototyping and testing ■ Detailed offer for production

20-Series and 40-Series

Specifications

20-Series

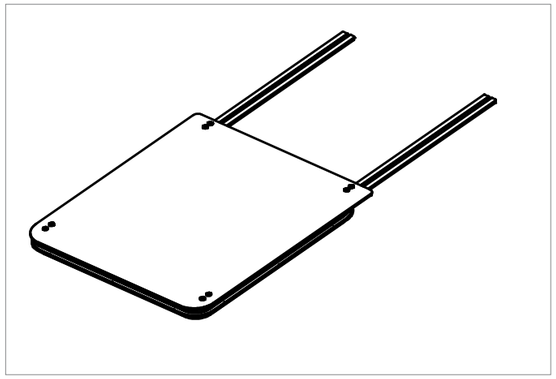
1 Select options:

Sunblind / Fly screen
Panel cover
Spoiler

2

Technical specifications

Frame material	Aluminium
Panal material	8 mm Tempered Safety Glass / Grey Tinted
Sliding rail material	Aluminum
Overall dimensions L X W (mm)	1.995 x 1.010 mm
Cut-out dimensions L X W (mm)	1.010 x 1955 mm
Height roof closed (mm)	50
Height roof tilted (mm)	79
Operation mode	Manual, steples locking
Opening Dimension L X W (mm)	800 x 800
Weight (kg)	45
Max. load (kg)	Acc. ISO 12216



40-Series

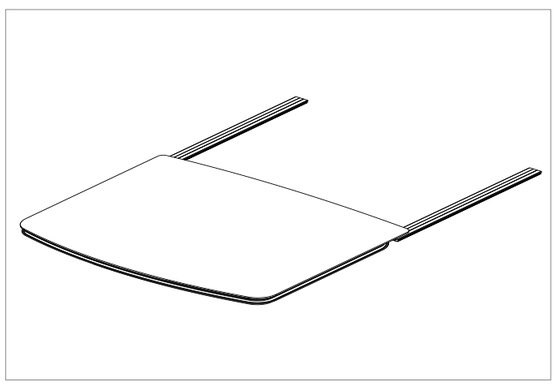
1 Select options:

Fixed panel
Sunblind / Fly screen

2

Technical specifications

Frame material	Aluminium
Panal material	8 mm Tempered Safety Glass / Grey Tinted
Sliding rail material	Aluminum
Overall dimensions L X W (mm)	1.870 x 1.379 mm
Cut-out length (L1)	915 mm
Cut-out width (W1)	1.320 mm
Corner radius (FRC, RCR)	80
Cross radius (R2)	7,620 mm
Front radius (R3)	2.032mm
Operation mode	Electrical 12 VDC
Opening dimension L X W (mm)	624 x 1.172 mm
Weight (kg)	approx. 65 kg



60-Series

Customization possibilities

4 steps to customize your roof

1 Select roof type:

Top Mount
Flush Integrated

2 Define dimensions:

Length
Width
Curvature

3 Select panel design:

Acrylic
Glass
Sandwich

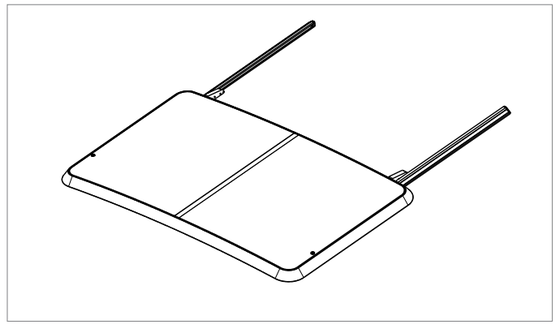
Select Frame finish:

Anodizing
Powder coating

4 Select options:

Motor cover
Fixed panel
Sunblind / Fly screeng

Size and curvature:



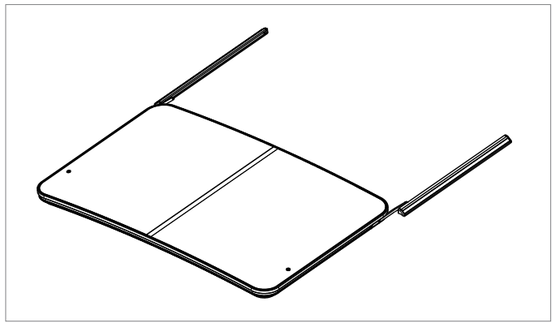


Figure 1

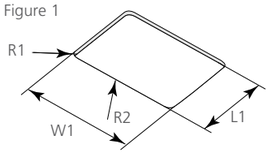


Figure 2

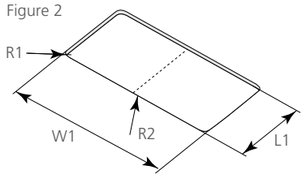
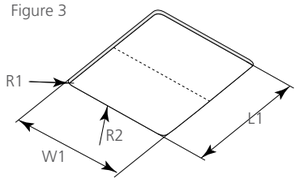


Figure 3



Maximum cut-out size dimensions customized roofs		max. length (L1)	max. width (W1)	corner curvature (R1)	min. cross curvature (R2)
Figure 1	Roof without cross beam	1,100	1,100	80	7,500
Figure 2	Roof with cross beam in sliding direction	1,100	1,800	80	7,500
Figure 3	Roof with cross beam perpendicular to sliding direction	1,500	1,100	80	7,500

80-Series and 120-Series

Customization possibilities

5 steps to customize your roof

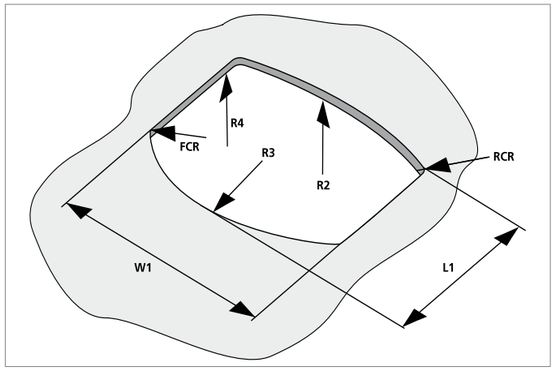
1 Select panel design: Acrylic, Glass, Sandwich

2 Select roof shape: Square, D-shape

3 Define dimensions: Length, Width, Curvature

4 Select design: : Glass color, Frame color

5 Select options: Fixed panel, Sunblind / Fly screen, 24 VDC (12VDC is standard)



Dimensions code	Discription	Glas	GRP	Sandwich
W1	Maximum width	2.750	2.750	2.750
L1	Maximum length	1.900	2.400	1.900
R2	Minimum cross radius	7.500	7.500	7.500
R3	Minimum front radius	2.500	2.500	2.500
R4	Minimum length radius	N.A.	5.000	N.A.
FCR	Front corner radius	Mitred or R =80	Mitred or R =80	Mitred or R =80
RCR	Rear corner radius	Mitred or R =80	Mitred or R =80	Mitred or R =80

Remark: All dimensions are in mm maximum dimension of glass and GRP panel is defined by maximum weight of 80/120 kg
Glass panel and Sandwich panel only have a cross radius (single bended)
Glass panel and Sandwich panel have fixed radius of: 7.500; 10.000; 15000; 30.000 mm

150-Series

Customization possibilities

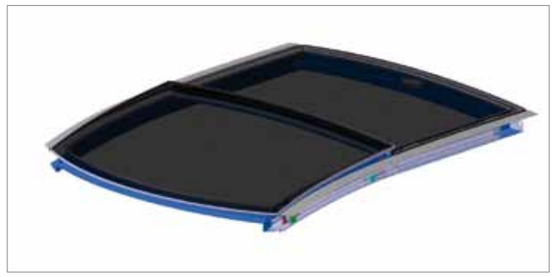
Everything is possible

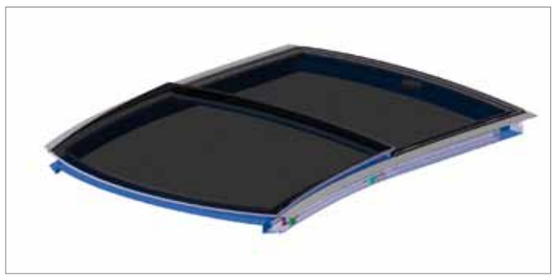
1 Select panel design: Glass, GRP, Sandwich

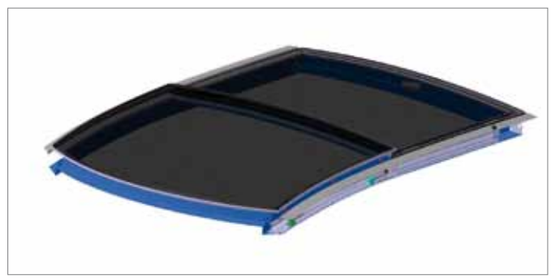
3 Define dimensions: Length, Width, Curvature

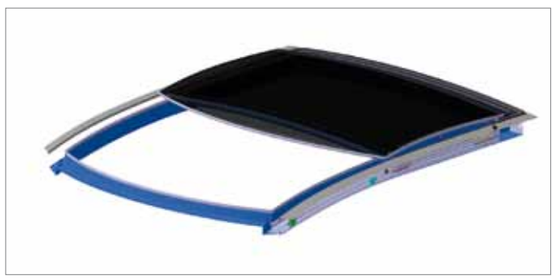
2 Technical specifications

- **Frame** Stainless steel construction. Laser cut & welded.
- **Seal** Inside seal fixed to GRP Hard Top for 100% water tightness
- **Mechanism frame** Tilting and sliding mechanism fixed to frame parts. Mechanism is including fixation brackets for the panel
- **Drive system** 24 VDC motor fixed onto the frame part and connected to mechanism
- **Panel** Front and rear panel
- **Cover** 2 side covers to cover the mechanisms.







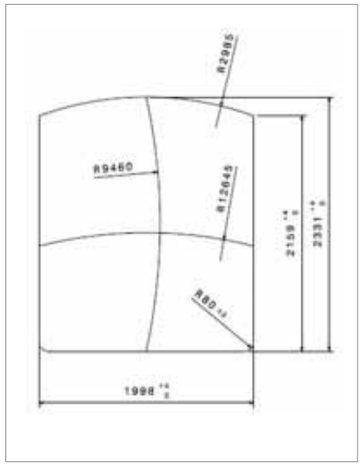


Soft Top

Specifications

3 Standard Sizes

1 **Standard sizes: 2 Fold, 3 Fold, 4 Fold:**



2 **Customization possibilities**

- Within the above 3 standard sizes it is possible to change width, front-, cross- and length-curvature. The overall length is directly related to the amount of folds and the front curvature and width.
- Color of inside and outside fabric

Some references

Webasto marine roofs

Arcoa Mystic 60' – Webasto marine roof 80-Series

Jeanneau NC 11 – Webasto marine roof 80-Series

Azimut 40S – Webasto marine roof 80-Series

Maritimo Yachts – Webasto marine roof 60-Series

Webasto windows

Outlook to new horizons

Light and fresh air are essentials on board a boat or a yacht. With Webasto marine windows shipyards profit from completely in line roof and window solutions from one supplier enhancing the comfort on board.

The design of the windows can be customized individually to the concept of each boat. The windows can withstand the harsh conditions of the marine environment and are fully tested on their robustness according to marine standards.

Affordable, customizable windows
Webasto offers windows for every need and application. Our customizable windows can be manufactured in various sizes, shapes and designs fulfilling the need of naval architects. All windows are pre-assembled and designed with a clamp frame for a plug and play installation, thus saving the shipyard time and money. The special designed sliding and hinged windows are designed to match the style of the fixed windows realizing a harmonic and high class overall design.

Fixed window

- Any shape to match the style of the boat.
- Aluminium extrusions, CNC bended to ensure a precise fit.
- Joins outside and inside soldered to ensure strength and watertightness.
- Glass fixed into a rubber seal.
- Wet sealing ensures long term watertightness of the window.

Sliding window

- Ideal for ventilation purpose especially in combination with the optional fly screen.
- Innovative opening and closing mechanism
- Same style and design as the fixed windows.
- Several shapes possible
- Same features and benefits as the fixed windows

Hinged window

- Often being used in the forward facing of the ship for maximum ventilation.
- Large opening ensures good visibility while sailing.
- Hinges are hidden to match the style of both fixed and sliding window
- Overall elegant design.
- Several shapes possible
- Same features and benefits as the fixed windows.

Impression of windows

Cross sections Fixed Windows

Inside view, corner standard radius

Outside view, corner standard radius

Outside view, Sliding window open

Outside view, Sliding window closed

Window specifications

1 Select glass:
Single
Double

2 Select window type:
Fixed
Sliding
Hinged

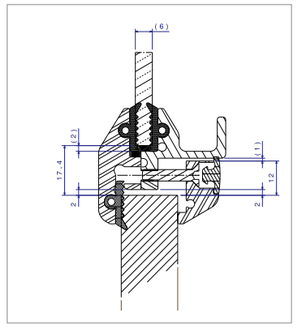
3 Select glass color:
Blank
Smoke Grey
Green

4 Select corner types:
Standard radius (R75,90,100,110)
Custom radius
Mitred

5 Select frame finish:
Anodizing
Powder coating

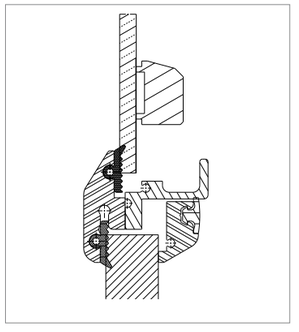
6 Select option
Fly screen for sliding window

Cross sections fixed windows



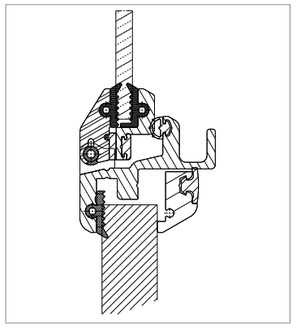
Single glass

Cross sections sliding windows

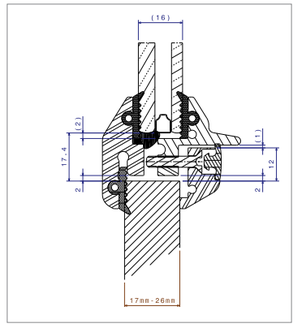


Single glass

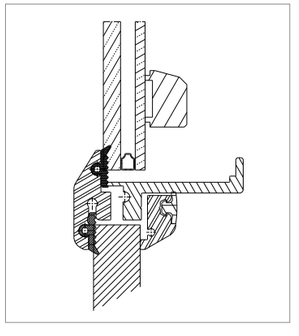
Cross sections hinged windows



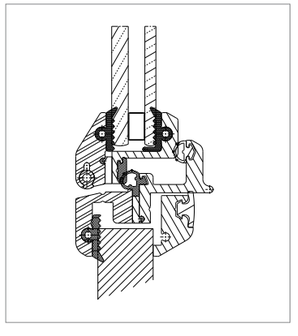
Single glass



Double glass



Double glass



Double glass

Abbreviation index

This catalogue is intended to present Webasto products from our marine segment and simplify the ordering procedure. Deliveries are subject exclusively to our terms and conditions of sale and supply.

Specifications subject to modification without prior notice. Errors excepted.

Abbreviations

Units of measurement

L	=	length (mm)
W	=	width (mm)
H	=	height (mm)
D	=	depth (mm)
C	=	capacity (litres)
D	=	diameter (mm)
Di	=	internal diameter (mm)
Da	=	external diameter (mm)

Electrical units

A	=	ampere
V	=	volt

Materials

Al	=	aluminium
Cu	=	copper
CS	=	chromium steel
SS	=	stainless steel
GF	=	glass fibre
RBR	=	rubber
GRP	=	glass fibre-reinforced plastic
Sm	=	plastic/synthetic materi al
BRS	=	brass
St	=	steel
GS	=	galvanized steel
AA	=	aluminium-aluminium
APK	=	aluminium-paper-plastic
BAS	=	bitumen-aluminium-plastic
PAB	=	paper-aluminium-bitumen
PHSAS	=	paper-high strength aluminium-plastic
PAPK	=	paper-aluminium-paper-plastic
PAK	=	paper-aluminium-plastic
SPS	=	plastic-paper-plastic
KAK	=	plastic-aluminium-plastic

Units and conversions

Metric		Imperial
1 kW	=	3412.14 Btu/h
292.99 W	=	1,000 Btu/h
0.454 Kg	=	1 lb
1 Kg	=	2.205 lb
25.4 mm	=	1 inch
100 mm	=	3.937 inch
3.785 L	=	1 gallon
1 L	=	0.264 gallon
63X L/min	=	X gph
X L/h	=	0.264X gph
1 m³/h	=	0.589 cfm
1 bar	=	14.504 psi
0.069 bar	=	1 psi
X° C	=	1.8X+32° F
(X-32)/1.8° C	=	X° F

Nomenclature

In order to define descriptive technical abbreviations for our air conditioner and our air handler units, Webasto introduced a special nomenclature for the price list.

Air-conditioning units nomenclature

Air-conditioning model abbreviations:

S = Self-Contained (BlueCool S-Series) C = Chiller (BlueCool C-Series)

Example: C55T-R-230V-REV-R410A = Chiller -55.000 - Twin - Rotary compresssor- 230V- Reversible - refrigerent R410A

C	55	T	-R	-230V	-REV	-R410A
Chiller	55,000 BTU/h	Twin	Rotary comp	Voltage	REV = reverse cycle	refrigerent

SC = Self-Contained (BlueCool Classic)

Example: CH60-TWIN-S400V-REV = Chiller 60000 Twin Scroll 400V reversible

SC	5	EU	-REV
Selfcontained	5,000 BTU / h	EU=230V US=115V	REV = reverse cycle

CH = Chiller (BlueCool Premium)

Example: CH60-TWIN-S400V-REV = Chiller 60000 Twin Scroll 400V reversible

CH	60	S	400V	-REV
Selfcontained	60,000 BTU / h	S=Scroll comp. R=Rotary comp.	Voltage	REV = reverse cycle COOL=Cool only

Air handler nomenclature

Air handler model abbreviations:

CO = Compact TH = Tan Horizontal TV = Tan Vertical SV = Slim Line Vertical SH = Slim Line Horizontal

There are 3 possible options that may be installed/mounted on a standard air handler unit at the factory before shipment:

Air handler option abbreviations:

FC = Danfoss – 3 WAY VALVE 15mm KIT

EH = AC 230 V HEAT FOR AIR HANDLER (Codes: WBCL000794 to WBCL000798) – AC Heat is abbreviated by EH + value of heating power, e. g. 1,000 for 1,000 W)

LAT = Lateral Exit/orientation of blower on a Crossflow unit – only available on Tangential/Crossflow models!

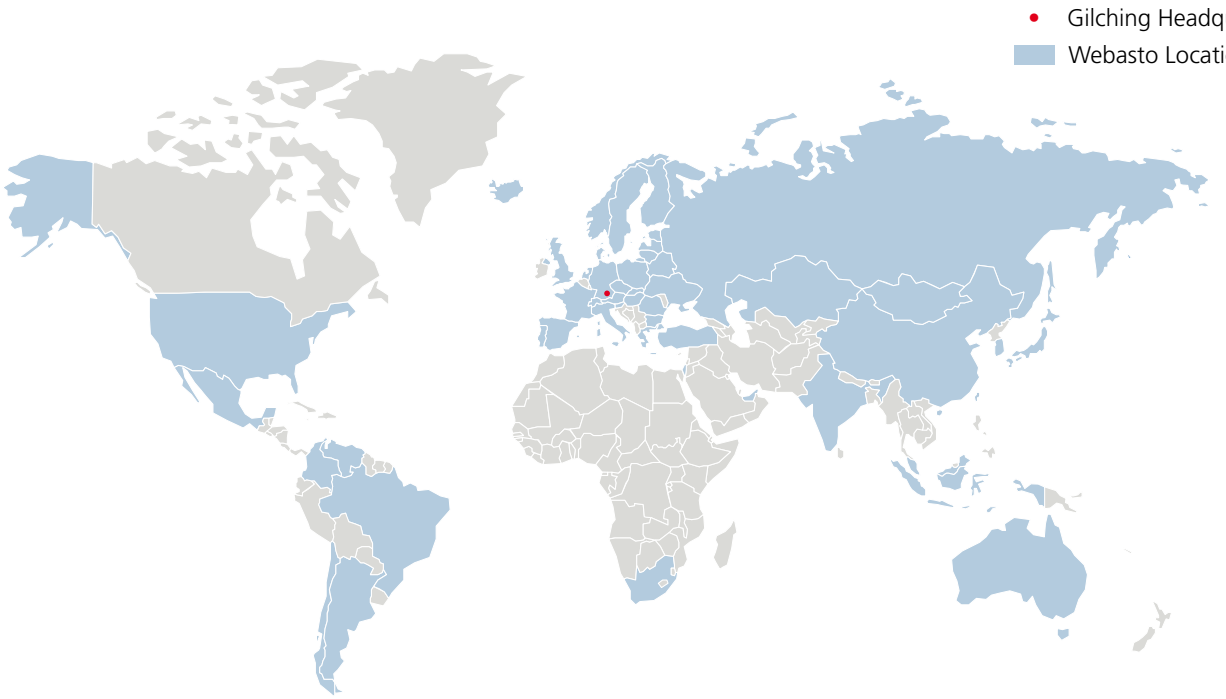
Example: TH12EU-FC-EH1000-LAT

TH	12	EU	FC	EH 1000	LAT	AS
Air Handler Style	12,000 BTU/h US = 115 V	EU = 230 V valve	FC = 3-way 1000 W	Electrical heat	Blower Orientation	Antisplash

More examples:

CO30EU-EH2250/TH4US-FC-LAT/TV9EU-FC-EH1000/SV16US/SH20EU-FC-EH1500

In General: codes are only added if option is included, e.g. FC for 3-way valve!



For over a century, Webasto has been continuously setting new technological standards – in both the original equipment sector and the aftermarket. As one of th e 100 biggest suppliers in the automotive industry worldwide, we develop and produce roof, convertible as well as heating, cooling and ventilation systems. Our products help provide a better atmosphere on the road, more comfort and security, as well as increased efficiency for cars, commercial and special vehicles, motor homes and boats. An outstanding network of production facilities and dealers guarantees high-quality products, installation standards and services worldwide.

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Webasto Thermo & Comfort SE
P.O. Box 1410
82199 Gilching
Germany

www.webasto-marine.com