SOLAR WATER HEATERS

VENMAN

ENERGY SAVING PRODUCTS

WWW.VENMAN.GR

CONTENTS

VENMAN COMPANY PROFILE

SOLAR WATER HEATER SYSTEMS

VENMAN

ENERGY SAVING PRODUCTS

VENMAN is the largest OEM/ODM in the field of solar thermal systems and water heating tanks in Greece.

Our company cooperates with the largest and finest brands in the Greek market. We are very active in the market and we produce and distribute a unique portfolio of high-quality products, playing a leading role in the developments and improvements of the industry. We are always exploring new options for expanding and developing our product range in order to offer a wider selection to our customers.

Our clients' needs are our top priority, trying always to establish a true partnership and mutual success.

Our long experience allows us to be present in all the developments and improvements which have taken place in the field of solar thermal systems.

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OUR GOAL IS TO CREATE INNOVATIVE PRODUCTS WITH MULTIPLE CAPABILITIES AND VERSATILITY TO ADDRESS ANY NEW REQUIREMENTS IN YOUR MARKET.

Quality and responsibility

Our products are manufactured according to strict quality specifications and receive international technical certifications. We are ISO certified since 2002 and during the manufacturing process all our products undergo precise testing, regular inspections and thorough checks, offering high levels of reliability and safety.

By offering top quality products, we strive to achieve perfection in all aspects of our business. Our goal, looking towards the future of solar heating, is for each generation of our products to be substantially better than the last one.

OUR VALUES

- **Trust**
  We conduct ourselves with integrity and stand by our commitments to our clients.
- **Safety**
  Our aim is for our products and services to inspire safety and security.
- **Knowledge**
  We conceptualize, listen and learn in order to evolve and develop.
- **We win along with our customers**
  Our customers remain always in the center of our activity.

OUR MISSION

- Address our clients' needs.
- Support our partners.
- Manufacture user-friendly and eco-friendly products.

Solutions we offer

By providing OEM services for 50 years, we have been able to create a full range of products to cover, practically, every need in the international market. At the same time, by offering ODM services, we are able to customize the product to your specific needs.

This way, we offer individual solutions based on the specific requirements for each heating technology application. Our technical department will assist you and will suggest solutions for any specific scenario or difficulty you encounter. Our manufacturing department is active in the following fields:

SOLAR WATER HEATERS

> Closed-circuit solar water heater tanks with a capacity ranging from 80 to 500 liters.
> Open circuit solar water heater tanks with a capacity ranging from 80 to 500 liters.
> Solar water heaters with heat pump connection and capacity ranging from 150 to 500 liters.

MOUNTING SYSTEMS

> DELTA mounting system for solar water heaters.
> Mounting system for solar water heaters based on inclined surfaces.
> Low height mounting system.

DHW HEATING & BUFFER TANKS FOR FORCED CIRCULATION SYSTEMS

> DHW heating tanks with a capacity ranging from 150 to 9000 liters.
> Buffer tanks with a capacity ranging from 80 to 9000 liters.
> COMBI tanks with a capacity ranging from 500 to 9000 liters.
> Tanks for heat pumps with a capacity ranging from 200 to 1000 liters.
> Horizontal DHW and Buffer tanks with a capacity ranging from 1000 to 9000 liters.

All of the above can be custom made up to 20000 liters.

SOLAR THERMAL COLLECTORS

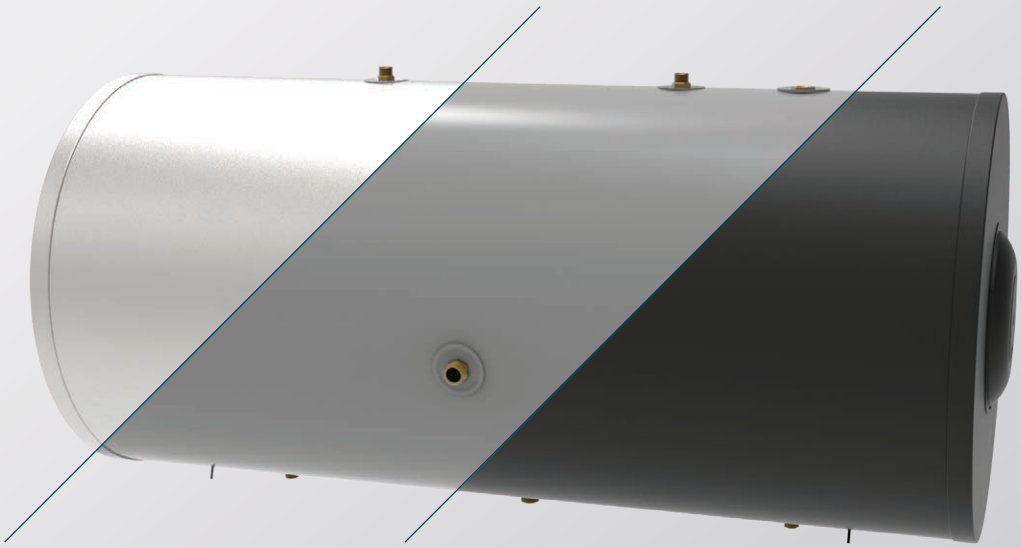
> Flat full face harp-type solar thermal collector with selective surface from 1,5m^2 to 2,5m^2.
> High efficiency flat full face laser harp-type solar thermal collector with hybrid insulation and surface from 2m^2 to 2,5m^2.

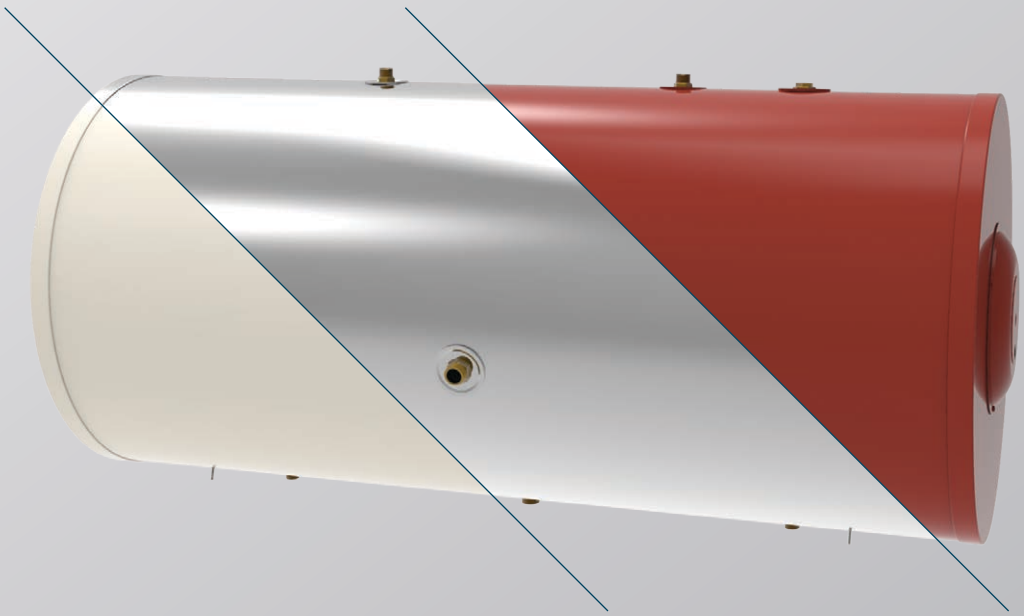
SAFETY PRODUCTS AND PARTS FOR SOLAR WATER HEATERS

> Closed circuit expansion tank without membrane.
> Temperature and pressure safety valves for solar water heaters.
> Special collectors' covers against overheating.
> Special anti-freeze liquid for closed thermal circuits with an INS HT1 certificate (*non-toxic monopropylene glycol*).

Our integrated product range has been designed to cover every need, from everyday domestic use to heavy industrial use. Our annual production capacity covers a minimum of 140,000 tanks or 42,000,000 liters. In addition to the top technical and operational specifications offered by our products, you also benefit from their ability to meet different requirements.

WE HAVE THE ABILITY TO ADAPT THE PRODUCT TO ANY SPECIFIC NEEDS OFFERING CUSTOMISED SOLUTIONS FOR EVERY HEATING TECHNOLOGY APPLICATION





Venman in numbers

3	7	10	8
PRODUCTION UNITS	MANUFACTURE LINES	ASSEMBLING LINES	PACKAGING LINES

150,000

ANNUAL PRODUCTS'
PRODUCTION

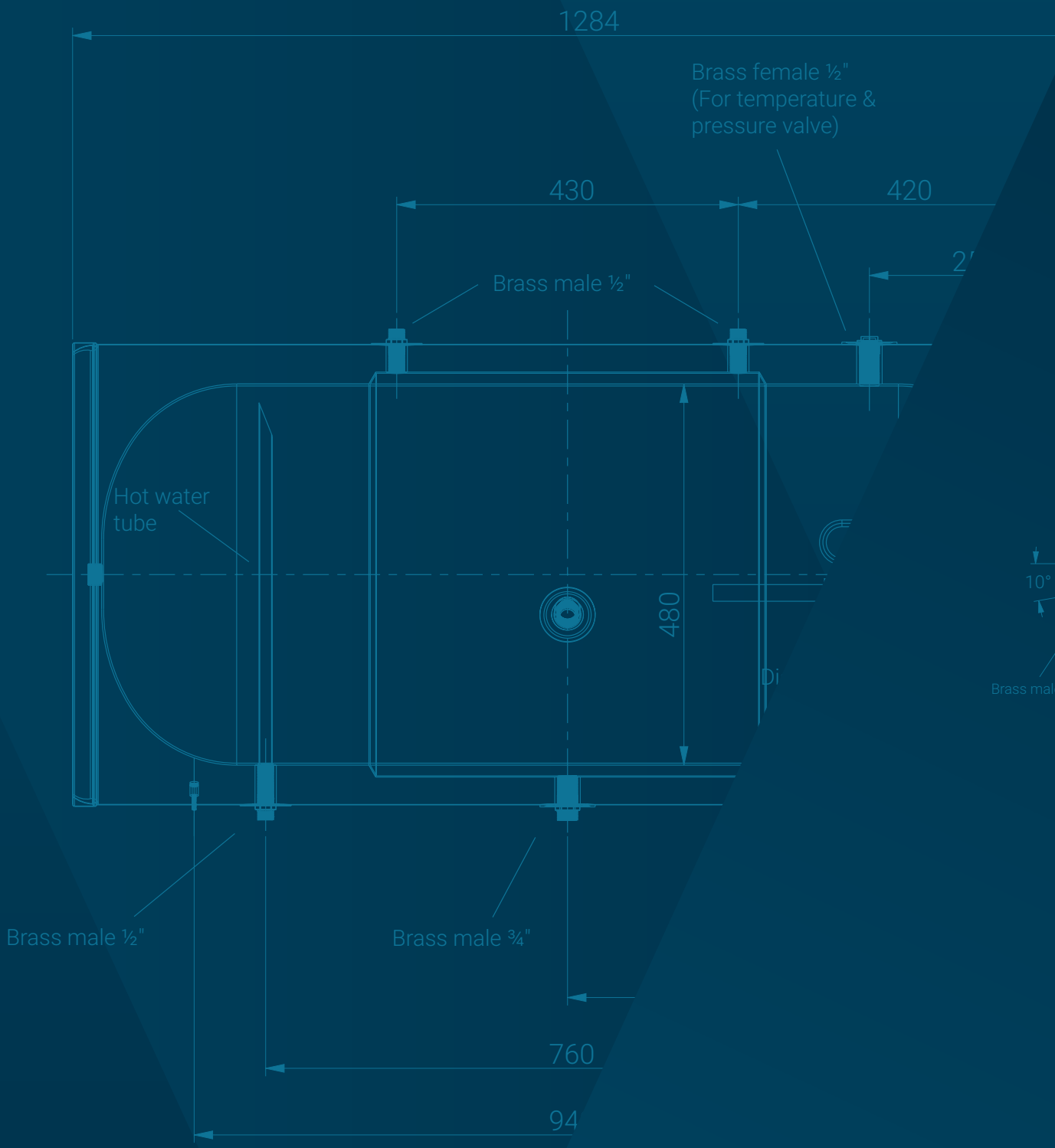
200

COOPERATION WITH COMPANIES
AROUND THE WORLD

40

COUNTRIES OF WORLDWIDE PRESENCE
OF VENMAN PRODUCTS

VENMAN supports successful brands in several international markets. Our manufacturing capabilities in combination with our many years of experience in Greece and abroad allow us to create distinct products which earn an increasing market share internationally and domestically.



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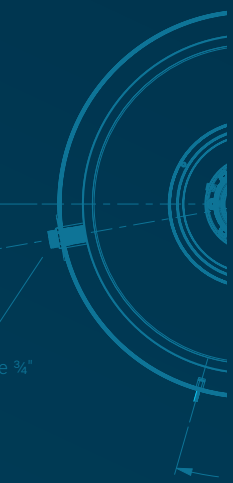
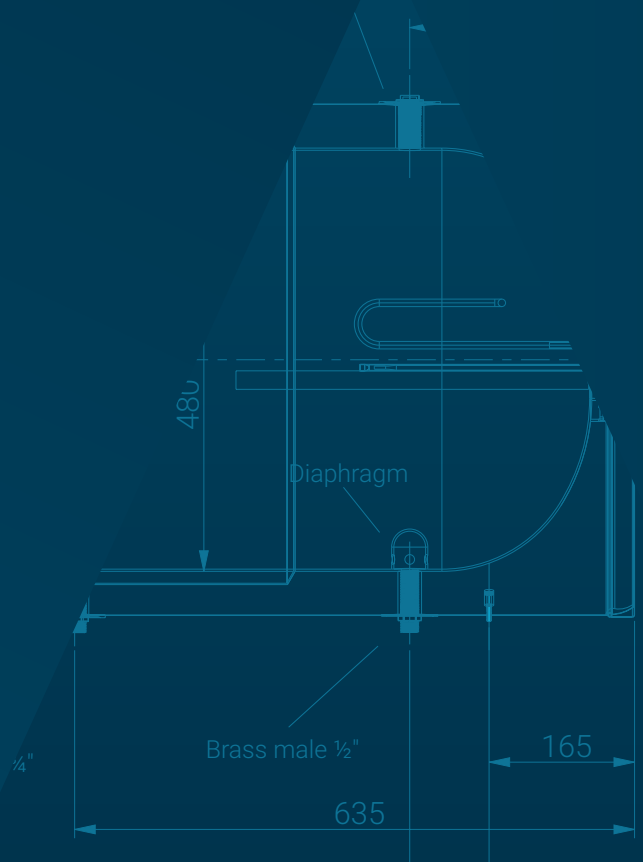


VENMAN

ENERGY SAVING PRODUCTS

THERMOSIPHONIC **TANKS**

Following the trends and needs of the market, VENMAN has created a new line of thermosiphonic tanks. This brand new line will provide solutions to modern demands for even more money saving solar systems. In the following pages you can see all the technical features of the products.



ECO-F
Type

TECHNICAL SPECIFICATIONS

Main Tank's Material	Cold-rolled sheet metal in the storage tank (*EN 10130:2007*) and the jacket (heat exchanger) (*EN 10130:2007*)
Internal Anti-corrosion Protection	a) LIQUID enamel (*DIN 4753-3*), totally safe for public health and b) magnesium anode (*EN 12438*)
Welding	MIG
Insulation	Hard polyurethane foam 48kg/m^3 (*DIN 53420*)
Maximum Working Pressure for the Main Tank	10 bar
Test pressure for the Main Tank	15 bar (*EN 12976-1*)
Maximum Working Pressure for the Jacket (*exchanger*)	3,2 bar
Test Pressure for the Jacket (*exchanger*)	5 bar (*EN 12976-1*)
Maximum Working Temperature of the Main Tank	95°C
Heating Element	Optional, upon request
External Cover	Pre-painted galvanized sheet metal / galvanized sheet metal with coating Zn-Mg / Stainless steel 0,5mm

	ECO-F model	**80 lt**	**120 lt**	**150 lt**	**200 lt**	**250 lt**	**300 lt**
	Gross Capacity (lt)	78	116	144	199	242	295
A	Tank's Length (mm)	945	1065	1285	1285	1555	1785
B	External Diameter (mm)	Ø 460	Ø 500	Ø 500	Ø 580	Ø 580	Ø 580
C	Main Tank's Diameter (mm)	Ø 360	Ø 400	Ø 400	Ø 480	Ø 480	Ø 480
	Jacket's Capacity (lt)	4,7	6	8	9	12	19
D	Flange Diameter (mm)	Ø 140	Ø 140	Ø 140	Ø 140	Ø 140	Ø 140
	Weight (kg)	37	46	58	68	82	100

AVAILABLE EXTERNAL MATERIALS

INOX

MAGNELIS

ALUMINIUM*

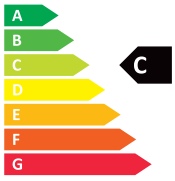
AVAILABLE COLOURS *(PRE-PAINTED GALVANIZED STEEL SHEET)*

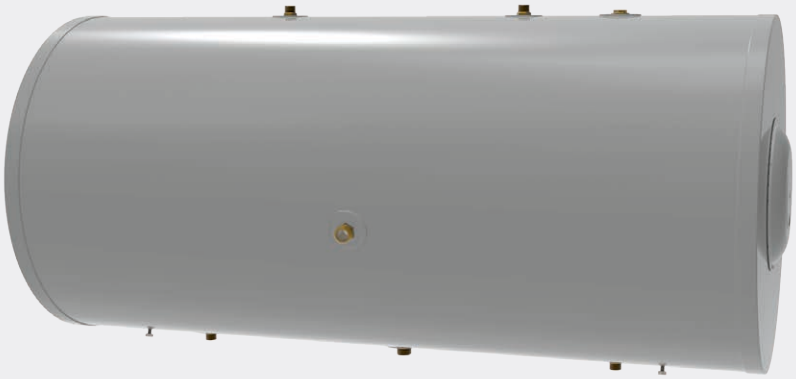
RAL 9006 RAL 9007

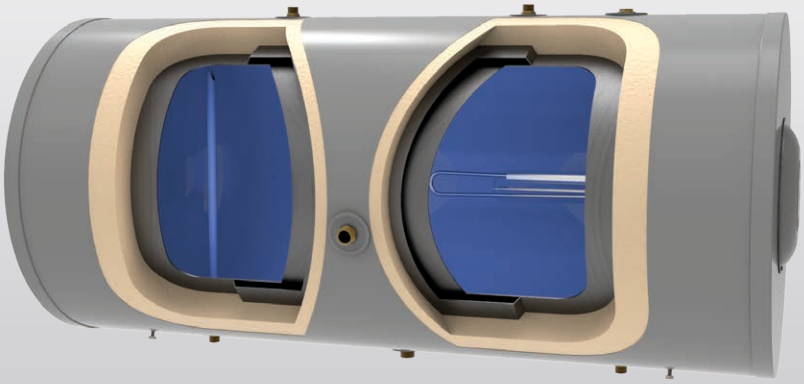
RAL 9010 RAL 1015*

RAL 9005*

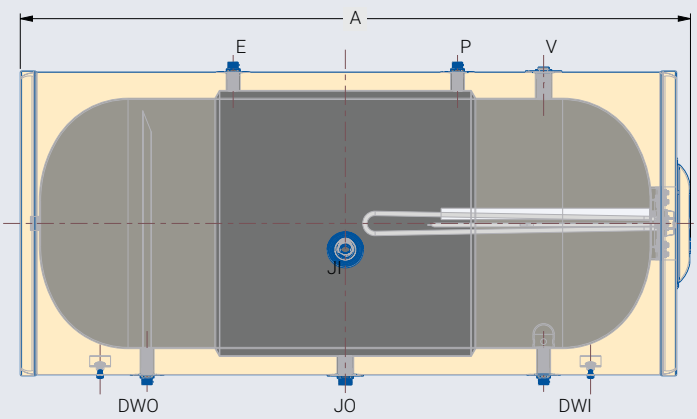
** Upon request*

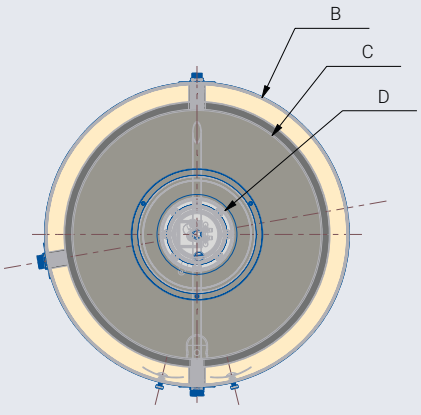






E	Pressure valve position protecting closed circuit		
P	Inlet to fill exchanger's solution and (optional) expansion vessel position		
V	Pressure and temperature valve position protecting main tank		
DWO	Domestic hot Water Outlet	**JO**	Closed circuit cold water outlet
DWI	Domestic cold Water Inlet	**JI**	Closed circuit hot water inlet





It can also be produced as open-circuit systems

ECO-F BT
Type

TECHNICAL SPECIFICATIONS

Main Tank's Material	Cold-rolled sheet metal in the storage tank (*EN 10130:2007*) and the jacket (heat exchanger) (*EN 10130:2007*)
Internal Anti-corrosion Protection	a) LIQUID enamel (*DIN 4753-3*), totally safe for public health and b) magnesium anode (*EN 12438*)
Welding	MIG
Insulation	Hard polyurethane foam 48kg/m^3 (*DIN 53420*)
Maximum Working Pressure for the Main Tank	10 bar
Test pressure for the Main Tank	15 bar (*EN 12976-1*)
Maximum Working Pressure for the Jacket (*exchanger*)	3,2 bar
Test Pressure for the Jacket (*exchanger*)	5 bar (*EN 12976-1*)
Maximum Working Temperature of the Main Tank	95°C
Heating Element	Optional, upon request
External Cover	Pre-painted galvanized sheet metal / galvanized sheet metal with coating Zn-Mg / Stainless steel 0,5mm

	ECO-F BT model	**120 lt**	**150 lt**	**150 lt BTS**	**200 lt**	**250 lt**	**300 lt**
	Gross Capacity (lt)	116	144	159	199	242	295
A	Tank's Length (mm)	1090	1310	1010	1310	1580	1810
B	External Diameter (mm)	Ø 500	Ø 500	Ø 580	Ø 580	Ø 580	Ø 580
C	Main Tank's Diameter (mm)	Ø 400	Ø 400	Ø 480	Ø 480	Ø 480	Ø 480
	Jacket's Capacity (lt)	6	8	9	9	12	19
D	Flange Diameter (mm)	Ø 140	Ø 140	Ø 140	Ø 140	Ø 140	Ø 140
	Weight (kg)	46	58	55	68	82	100

BTS 150 lt *

AVAILABLE EXTERNAL MATERIALS

INOX

MAGNELIS

ALUMINIUM*

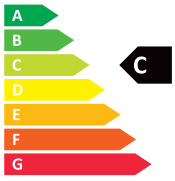
AVAILABLE COLOURS *(PRE-PAINTED GALVANIZED STEEL SHEET)*

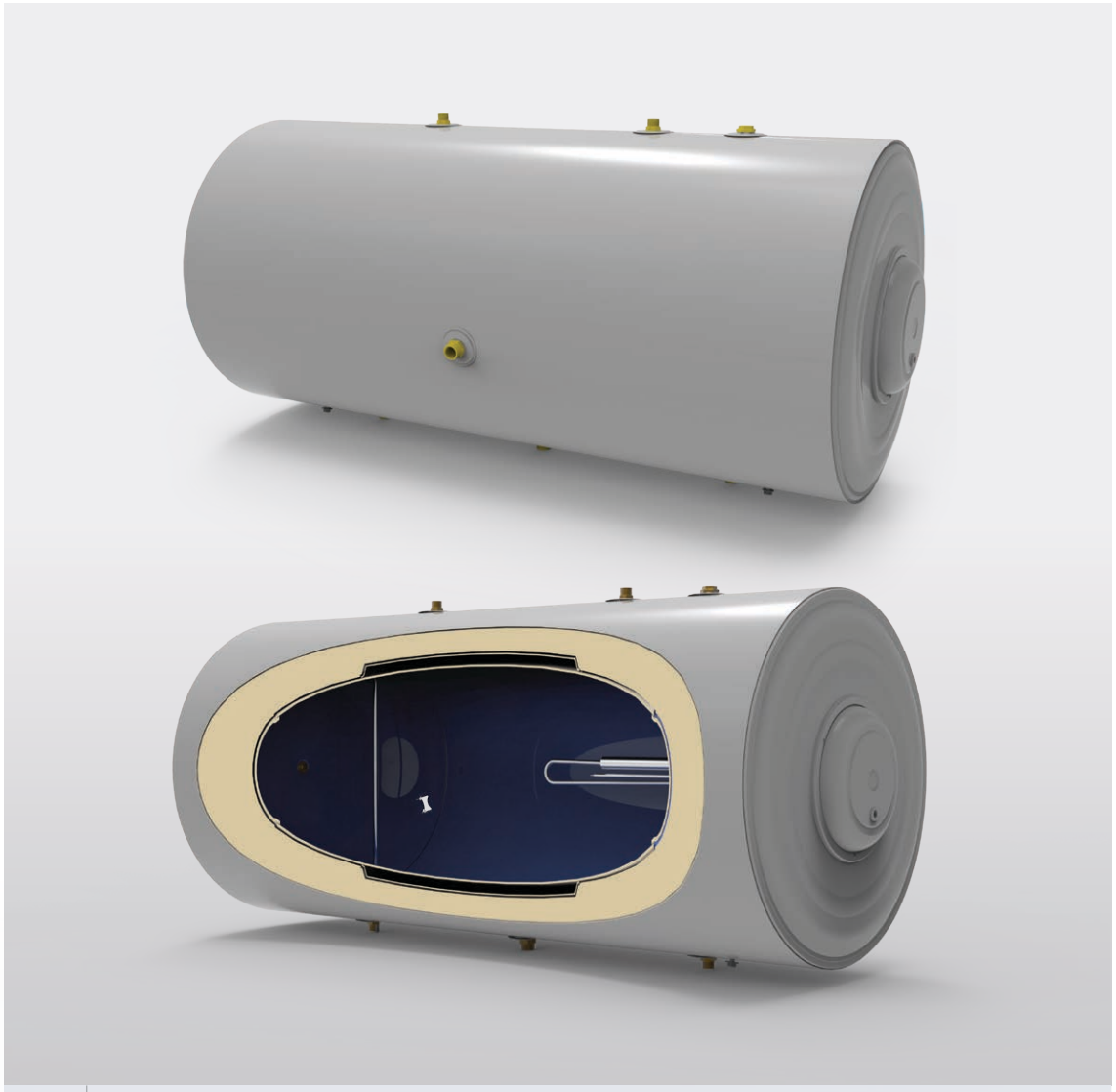
RAL 9006 RAL 9007

RAL 9010 RAL 1015*

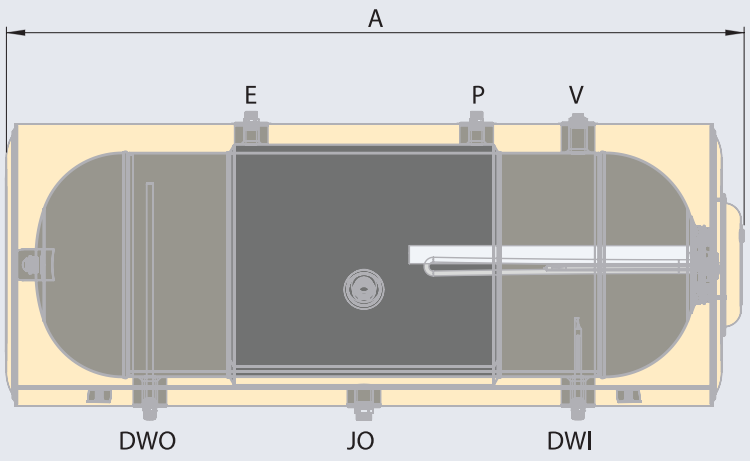
RAL 9005*

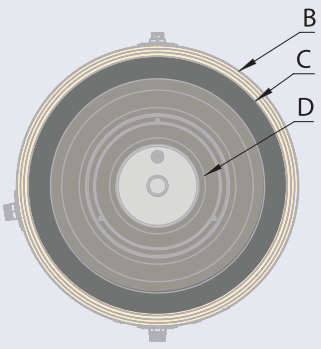
** Upon request*





E	Pressure valve position protecting closed circuit		
P	Inlet to fill exchanger's solution and (optional) expansion vessel position		
V	Pressure and temperature valve position protecting main tank		
DWO	Domestic hot Water Outlet	**JO**	Closed circuit cold water outlet
DWI	Domestic cold Water Inlet	**JI**	Closed circuit hot water inlet





It can also be produced as open-circuit systems

ECO-SXF
Type

TECHNICAL SPECIFICATIONS

Main Tank's Material	Cold-rolled sheet metal in the storage tank (*EN 10130:2007*) and the jacket (heat exchanger) (*EN 10130:2007*)
Internal Anti-corrosion Protection	a) LIQUID enamel (*DIN 4753-3*), totally safe for public health and b) magnesium anode (*EN 12438*)
Welding	MIG
Insulation	Hard polyurethane foam 48kg/m^3 (*DIN 53420*)
Maximum Working Pressure for the Main Tank	10 bar
Test pressure for the Main Tank	15 bar (*EN 12976-1*)
Maximum Working Pressure for the Jacket (*exchanger*)	3,2 bar
Test Pressure for the Jacket (*exchanger*)	5 bar (*EN 12976-1*)
Maximum Working Temperature of the Main Tank	95°C
Heating Element	Optional, upon request
External Cover	Pre-painted galvanized sheet metal / galvanized sheet metal with coating Zn-Mg / Stainless steel 0,5mm

	ECO-SXF model	**120 lt**	**150 lt**	**200 lt**	**300 lt**	**500 lt**
	Gross Capacity (lt)	116	144	199	295	502
A	Tank's Length (mm)	1058	1330	1330	1805	1737
B	External Diameter (mm)	Ø 500	Ø 500	Ø 580	Ø 580	Ø 750
C	Main Tank's Diameter (mm)	Ø 400	Ø 400	Ø 480	Ø 480	Ø 640
	Jacket's Capacity (lt)	6	8	9	19	24
D	Flange Diameter (mm)	Ø 140	Ø 140	Ø 140	Ø 140	Ø 140
	Weight (kg)	48	60	70	102	132

AVAILABLE EXTERNAL MATERIALS

INOX

MAGNELIS

ALUMINIUM*

AVAILABLE COLOURS *(PRE-PAINTED GALVANIZED STEEL SHEET)*

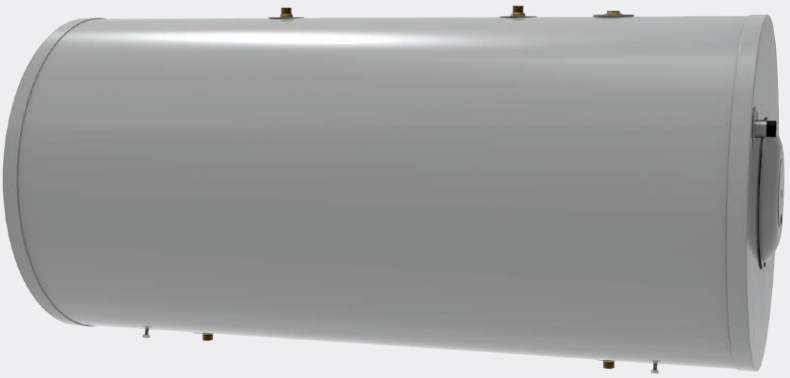
RAL 9006 RAL 9007

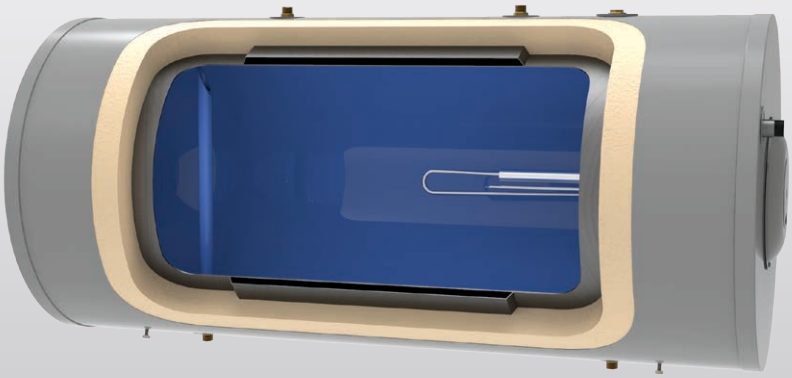
RAL 9010 RAL 1015*

RAL 9005*

** Upon request*

A B C D E F G **C**





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P	Inlet to fill exchanger's solution and (optional) expansion vessel position		
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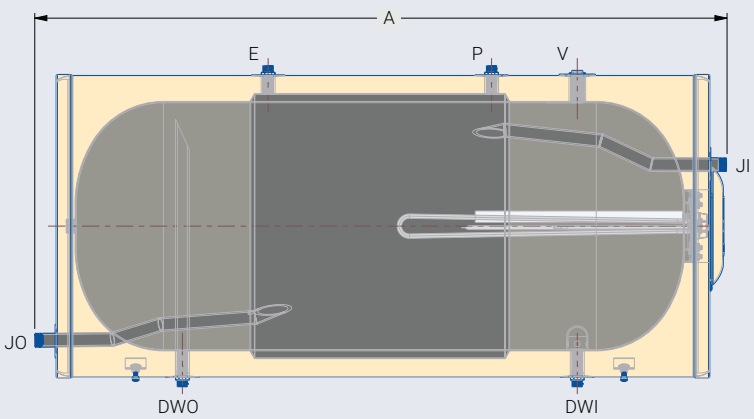
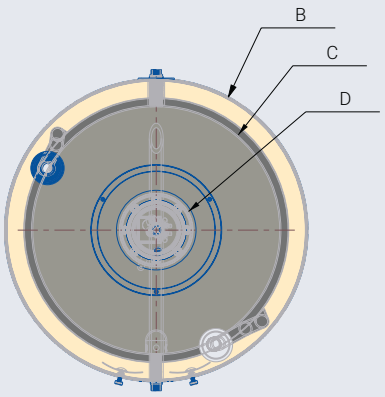




It can also be produced as open-circuit systems

VHP-TT
Type

TECHNICAL SPECIFICATIONS

Main Tank's Material	Cold-rolled sheet metal in the storage tank (*EN 10130:2007*) and the jacket (heat exchanger) (*EN 10130:2007*)
Internal Anti-corrosion Protection	a) LIQUID enamel (*DIN 4753-3*), totally safe for public health and b) magnesium anode (*EN 12438*)
Welding	MIG
Insulation	Hard polyurethane foam 48kg/m^3 (*DIN 53420*)
Maximum Working Pressure for the Main Tank	10 bar
Test pressure for the Main Tank	15 bar (*EN 12976-1*)
Maximum Working Pressure for the Jacket (*exchanger*)	3,2 bar
Test Pressure for the Jacket (*exchanger*)	5 bar (*EN 12976-1*)
Maximum Working Temperature of the Main Tank	95°C
Heating Element	Optional, upon request
External Cover	Pre-painted galvanized sheet metal / galvanized sheet metal with coating Zn-Mg / Stainless steel 0,5mm

ADVANTAGES

> Exchanger of big surface and power for the proper function of the heat pump.
> One solid structure between tank and exchanger, with homogeneous surface for both of it.
> Free flange which helps the easily maintenance.

	VHP-TT model	**150 lt**	**200 lt**	**300 lt**	**500 lt**
	Gross Capacity (lt)	144	199	295	502
A	Tank's Length (mm)	1285	1285	1785	1737
B	External Diameter (mm)	Ø 500	Ø 580	Ø 580	Ø 750
C	Main Tank's Diameter (mm)	Ø 400	Ø 480	Ø 480	Ø 640
	Jacket's Capacity (lt)	8	9	19	24
	Coil Surface 1" (m^2)	1,6	2,1	3,1	4
	Coil Capacity 1" (lt)	9,92	13,22	19,83	24,45
	Coil max Pressure (bar)	25	25	25	25
	Coil max Temperature (°C)	100	100	100	100
D	Flange Diameter (mm)	Ø 140	Ø 140	Ø 140	Ø 140
	Weight (kg)	84	99	130	189

AVAILABLE EXTERNAL MATERIALS

INOX

MAGNELIS

ALUMINIUM*

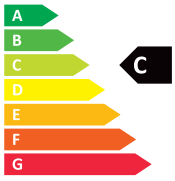
AVAILABLE COLOURS
(PRE-PAINTED GALVANIZED STEEL SHEET)

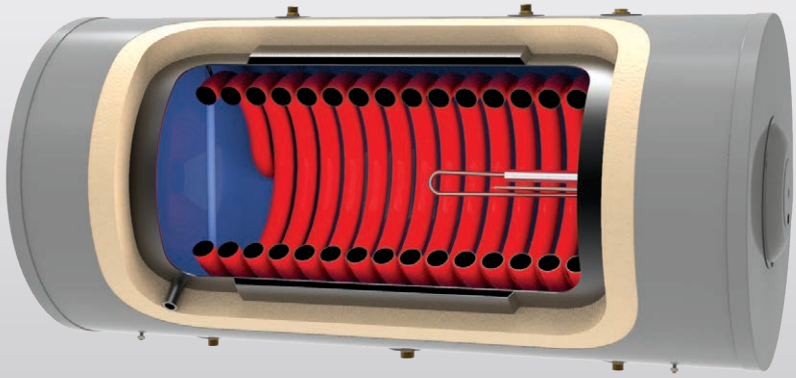
RAL 9006 RAL 9007

RAL 9010 RAL 1015*

RAL 9005*

** Upon request*





E	Pressure valve position protecting closed circuit		
P	Inlet to fill exchanger's solution and (optional) expansion vessel position		
V	Pressure and temperature valve position protecting main tank		
DWO	Domestic hot Water Outlet	**JO**	Closed circuit cold water outlet
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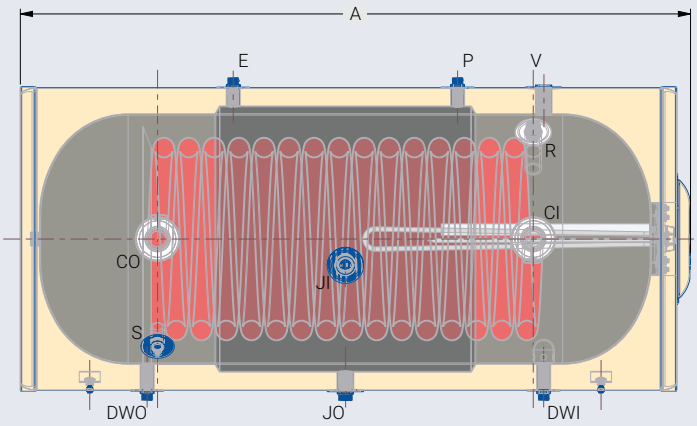

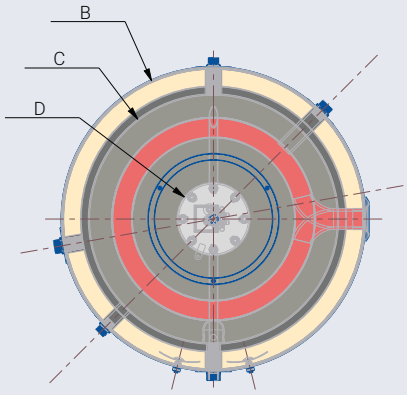

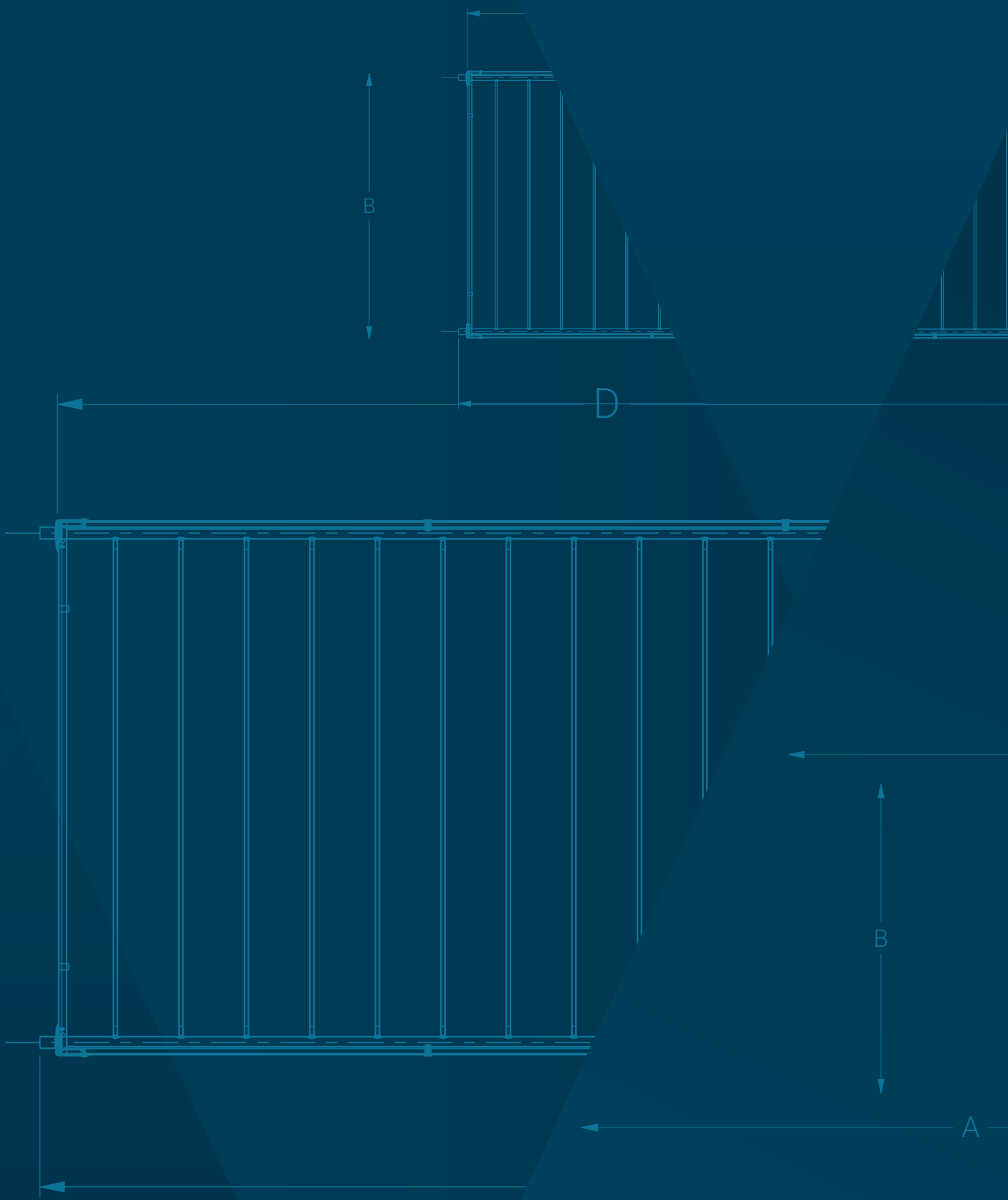

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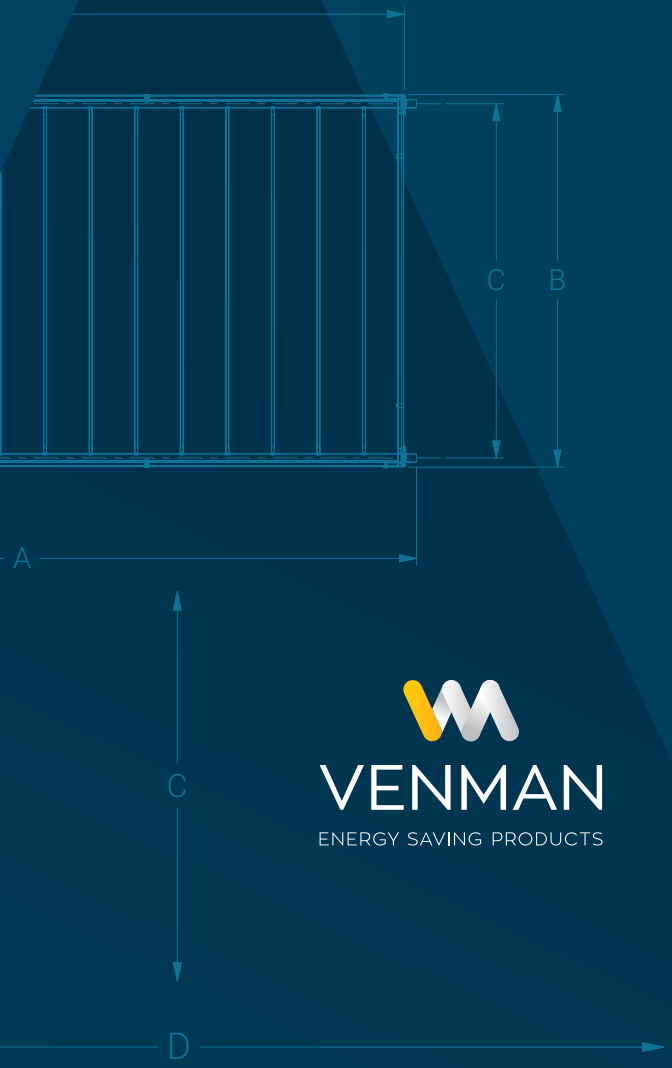


VENMAN
ENERGY SAVING PRODUCTS

SOLAR THERMAL COLLECTORS

VENMAN flat solar thermal collectors have an undivided selective coating or Strip, powerful insulation and have been designed with high thermal capacity and low pressure drop. Further down you will find all the technical features of the available models.

H81
Collector

TECHNICAL SPECIFICATIONS

TECHNICAL DATA	MEASUREMENT UNIT (SI)	COLLECTOR'S CHARACTERISTICS H81 - FULL FACE			
TYPE		**H81 – 15**	**H81 – 20**	**H81 – 22**	**H81 – 25**
Extrenal dimensions (*height × width × thickness*)	mm	1460×960×80	1960×960×80	1960×1040×80	1960×1210×80
Gross area	m^2	1,40	1,88	2,04	2,37
Aperture area	m^2	1,35	1,83	2,01	2,33
Absorber capacity	L	1,30	1,60	1,70	1,90
Compact Tray / thickness	mm	Pre-painted galvanized metal sheet / 0.5			
Glass		Clear, tempered / 3,2mm			
Insulation (*Back and side*) thickness / density	mm / Kg/m^3	Mineral glass wool 30mm / density 24 kg/m^3. Product specifically designed for collectors, with very low conductivity to avoid losses. It is certified that it prevents glass fogging of the collector.			
Absorber		Copper harp-type, Full Face Aluminum Selective Surface. Laser welding.			
Absorbtion	%	95			
Emission	%	5			
Header copper tube Ø / thickness	mm	Ø 22 / 0,70			
Riserer copper tube Ø / thickness	mm	Ø 8 / 0,40			
Number of vertical risers	No.	10	10	10	11
Maximum operating pressure	Bar	10			
Heat transfer mean		Antifreeze and water solution (*monopropylene glycol*)			
Layout		Vertical			
Weight (*empty & packed*)	Kg	26	33	34	41

AVAILABLE ABSORBER TYPE

DARK BLUE SELECTIVE

LIGHT BLUE SELECTIVE

BLACK NON-SELECTIVE

AVAILABLE EXTERNAL MATERIALS

MAGNELIS

ALUMINIUM

PRE-PAINTED GALVANIZED STEEL SHEET

AVAILABLE COLOURS

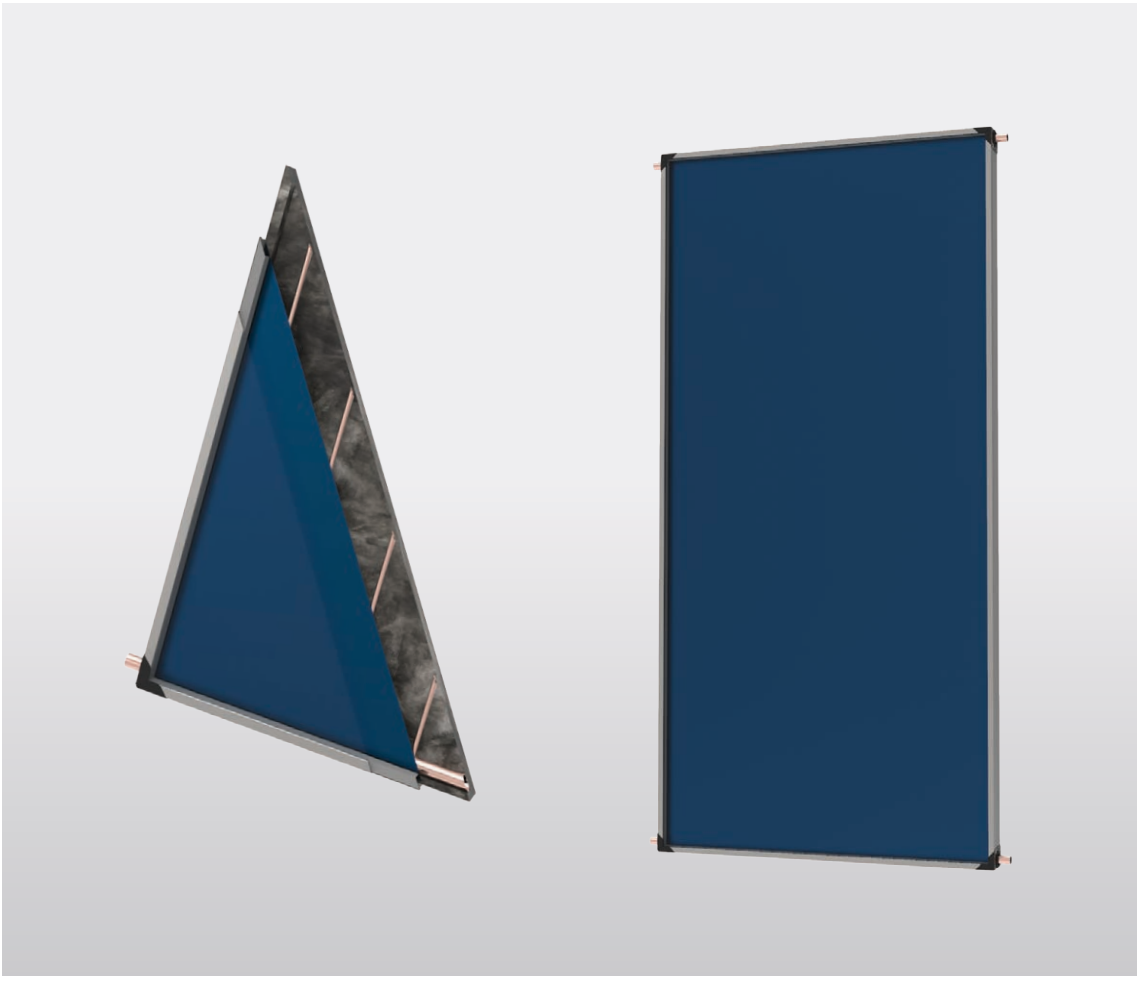
> PRE-PAINTED GALVANIZED STEEL SHEET

RAL 9006 RAL 9007

RAL 9010

> ALUMINIUM

RAL 9005 RAL 9006

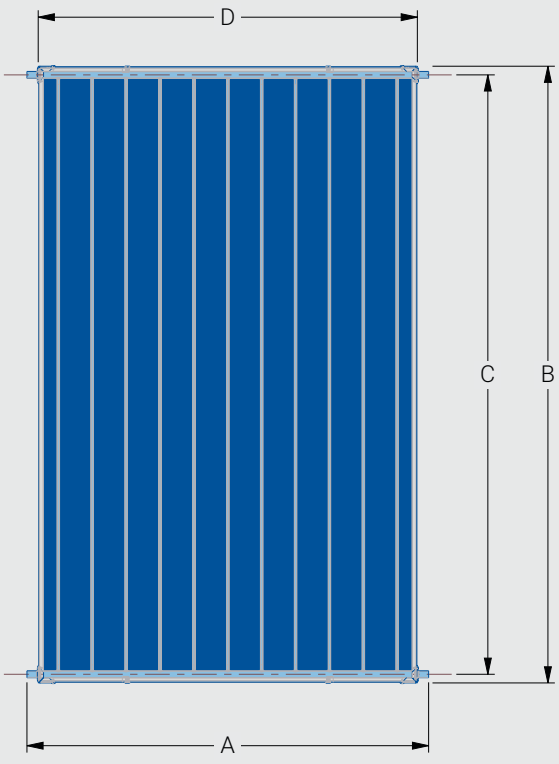


H81 – 15	
A	1030 mm
B	1460 mm
C	1405 mm
D	960 mm

H81 – 20	
A	1030 mm
B	1960 mm
C	1910 mm
D	960 mm

H81 – 22	
A	1110 mm
B	1960 mm
C	1910 mm
D	1040 mm

H81 – 25	
A	1280 mm
B	1960 mm
C	1910 mm
D	1210 mm



It can also be produced as open-circuit systems

H81 MP
Collector

TECHNICAL SPECIFICATIONS

TECHNICAL DATA	MEASUREMENT UNIT (SI)	COLLECTOR'S CHARACTERISTICS H81 MP - FULL FACE	
TYPE		**H81 MP – 20**	**H81 MP – 25**
Extrenal dimensions (*height × width × thickness*)	mm	1970×965×80	1970×1220×80
Gross area	m^2	1,90	2,40
Aperture area	m^2	1,80	2,29
Absorber capacity	L	1,60	1,90
Compact Tray / thickness	mm	Pre-painted galvanized metal sheet / 0.5	
Glass		Low iron, mat prismatic, extra clear, tempered / 3,2mm	
Insulation (*Back and side*) thickness / density	mm / Kg/m^3	Mineral glass wool 30mm / density 24 kg/m^3. Product specifically designed for collectors, with very low conductivity to avoid losses. It is certified that it prevents glass fogging of the collector.	
Absorber		Copper harp-type, Full Face Aluminum Selective Surface. Laser welding.	
Absorbtion	%	95	
Emission	%	5	
Header copper tube Ø / thickness	mm	Ø 22 / 0,70	
Riserer copper tube Ø / thickness	mm	Ø 8 / 0,40	
Number of vertical risers	No.	10	11
Maximum operating pressure	Bar	10	
Heat transfer mean		Antifreeze and water solution (*monopropylene glycol*)	
Layout		Vertical	
Weight (*empty & packed*)	Kg	33	41

AVAILABLE ABSORBER TYPE

DARK BLUE SELECTIVE

LIGHT BLUE SELECTIVE

BLACK NON-SELECTIVE

AVAILABLE EXTERNAL MATERIALS

MAGNELIS

ALUMINIUM

PRE-PAINTED GALVANIZED STEEL SHEET

AVAILABLE COLOURS

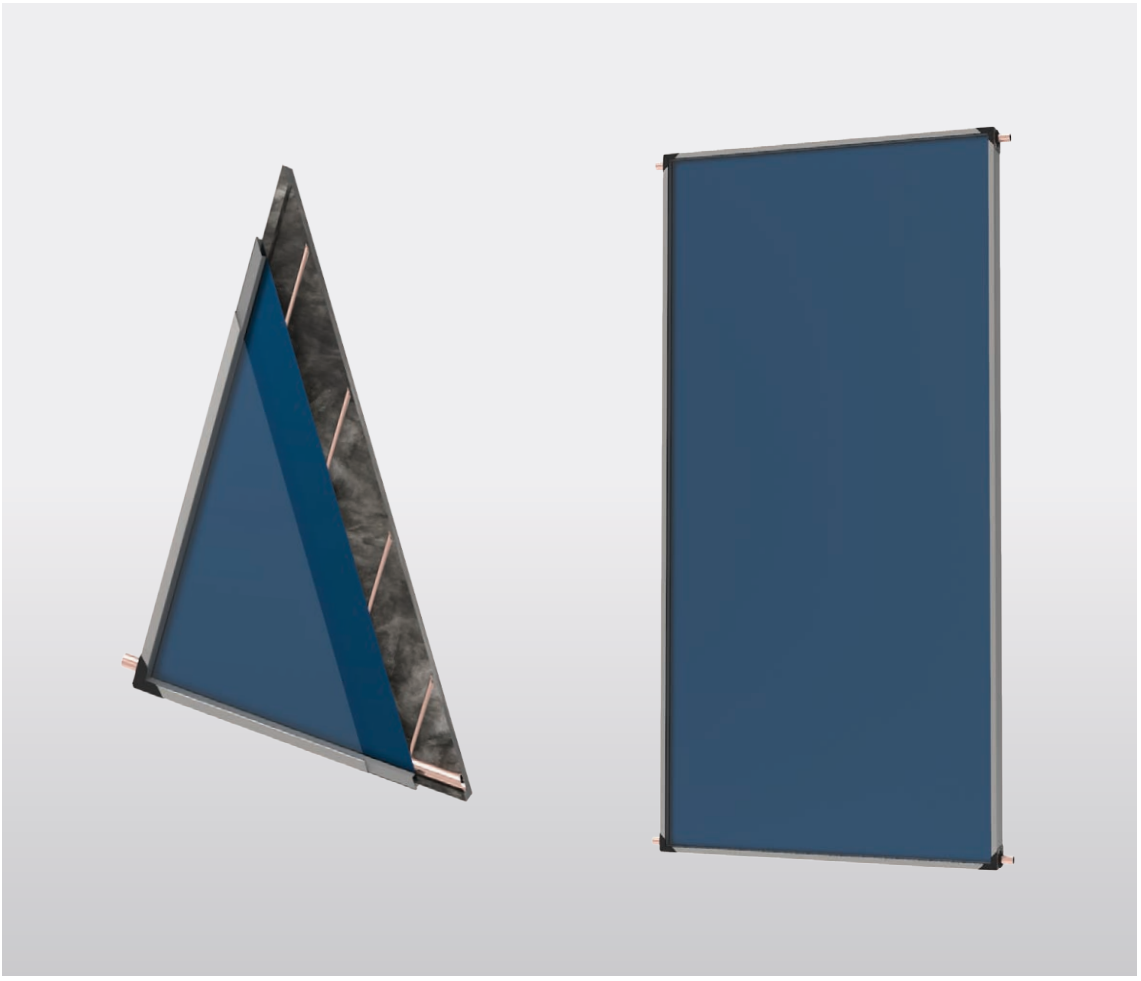
> *PRE-PAINTED GALVANIZED STEEL SHEET*

RAL 9006 RAL 9007

RAL 9010

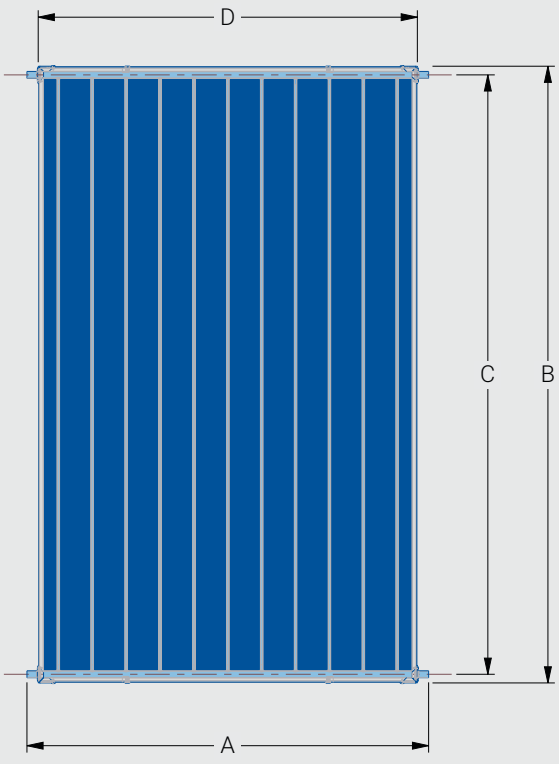
> *ALUMINIUM*

RAL 9005 RAL 9006



H81 MP – 20	
A	1030 mm
B	1970 mm
C	1910 mm
D	965 mm

H81 MP – 25	
A	1280 mm
B	1970 mm
C	1910 mm
D	1220 mm



It can also be produced as open-circuit systems

H81
Horizontal Collector

TECHNICAL SPECIFICATIONS

TECHNICAL DATA	MEASUREMENT UNIT (SI)	COLLECTOR'S CHARACTERISTICS H81 - FULL FACE	
TYPE		**H81 – 20**	**H81 – 25**
Extrenal dimensions (*height × width × thickness*)	mm	960×1960×80	1210×1960×80
Gross area	m^2	1,88	2,38
Aperture area	m^2	1,83	2,33
Absorber capacity	L	1,93	2,13
Frame / thickness	mm	Pre-painted galvanized metal sheet / 0,5	
Glass		Clear, tempered / 3,2mm	
Insulation (*Back and side*) thickness / density	mm / Kg/m^3	Mineral glass wool 30mm / density 24 kg/m^3. Product specifically designed for collectors, with very low conductivity to avoid losses. It is certified that it prevents glass fogging of the collector.	
Absorber		Copper harp-type, Full Face Aluminum Selective Surface. Laser welding.	
Absorbtion	%	95	
Emission	%	5	
Header copper tube Ø / thickness	mm	Ø 22 / 0,70	
Riserer copper tube Ø / thickness	mm	Ø 8 / 0,40	
Number of vertical risers	No.	16	17
Maximum operating pressure	Bar	10	
Heat transfer mean		Antifreeze and water solution (*monopropylene glycol*)	
Layout		Horizontal	
Weight (*empty & packed*)	Kg	33	42

AVAILABLE ABSORBER TYPE

DARK BLUE SELECTIVE

LIGHT BLUE SELECTIVE

BLACK NON-SELECTIVE

AVAILABLE EXTERNAL MATERIALS

MAGNELIS

ALUMINIUM

PRE-PAINTED GALVANIZED STEEL SHEET

AVAILABLE COLOURS

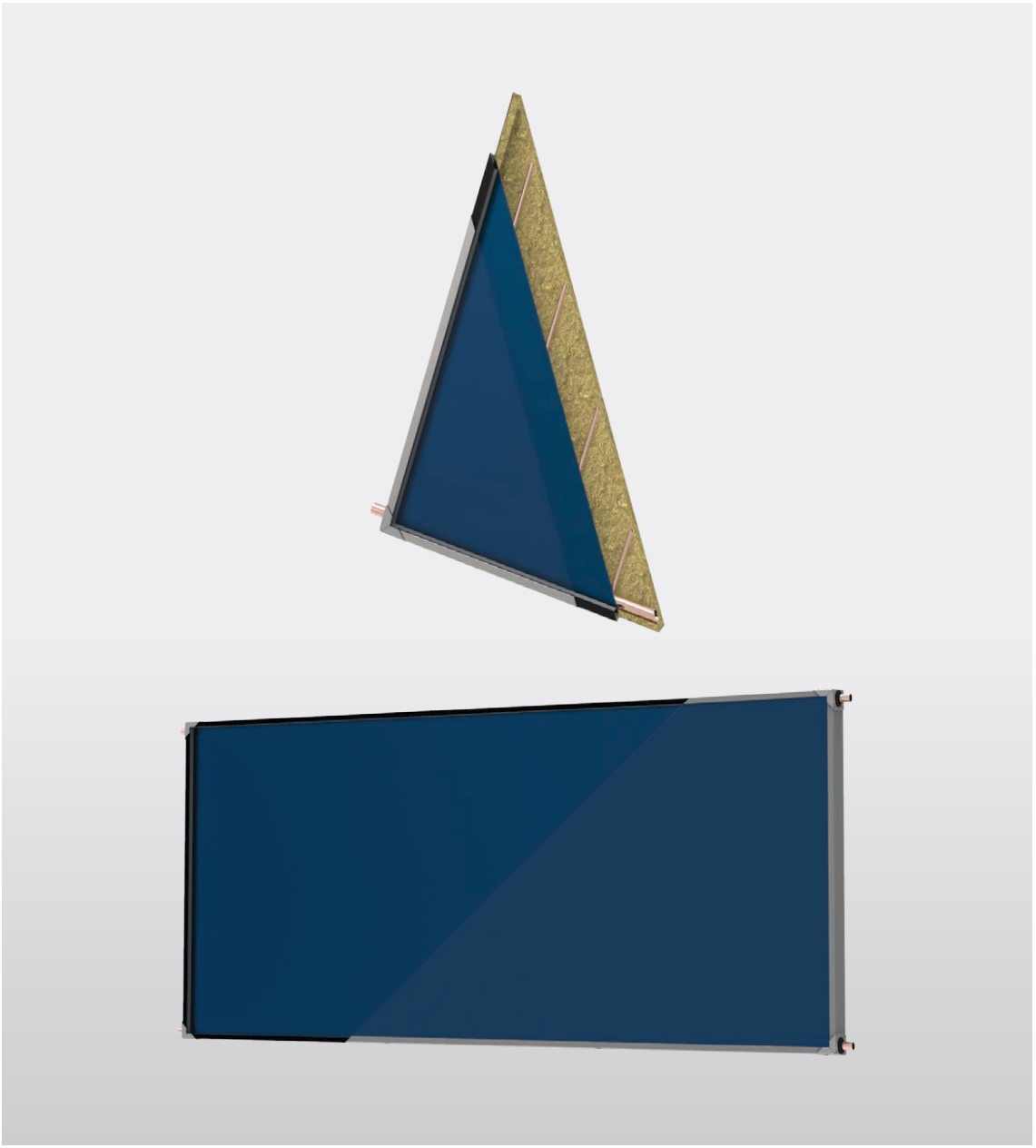
> PRE-PAINTED GALVANIZED STEEL SHEET

RAL 9006 RAL 9007

RAL 9010

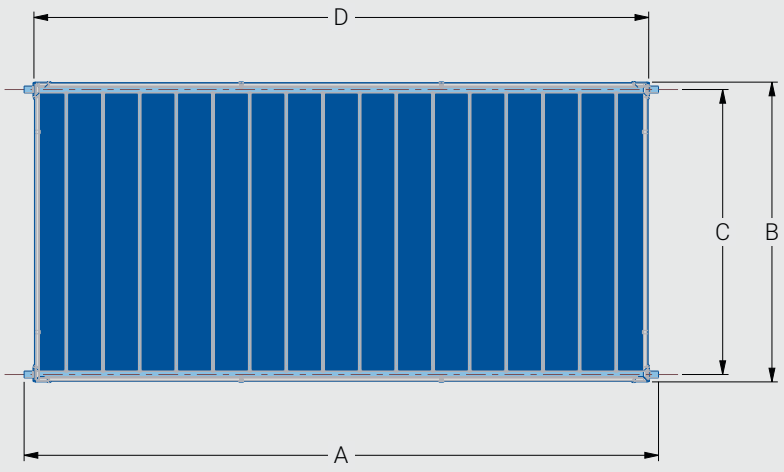
> ALUMINIUM

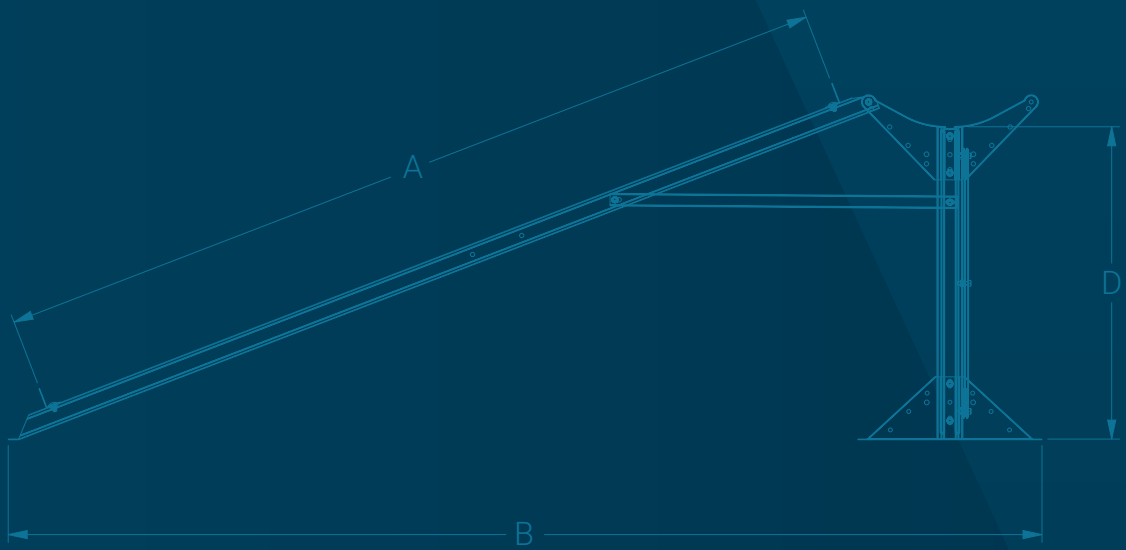
RAL 9005 RAL 9006

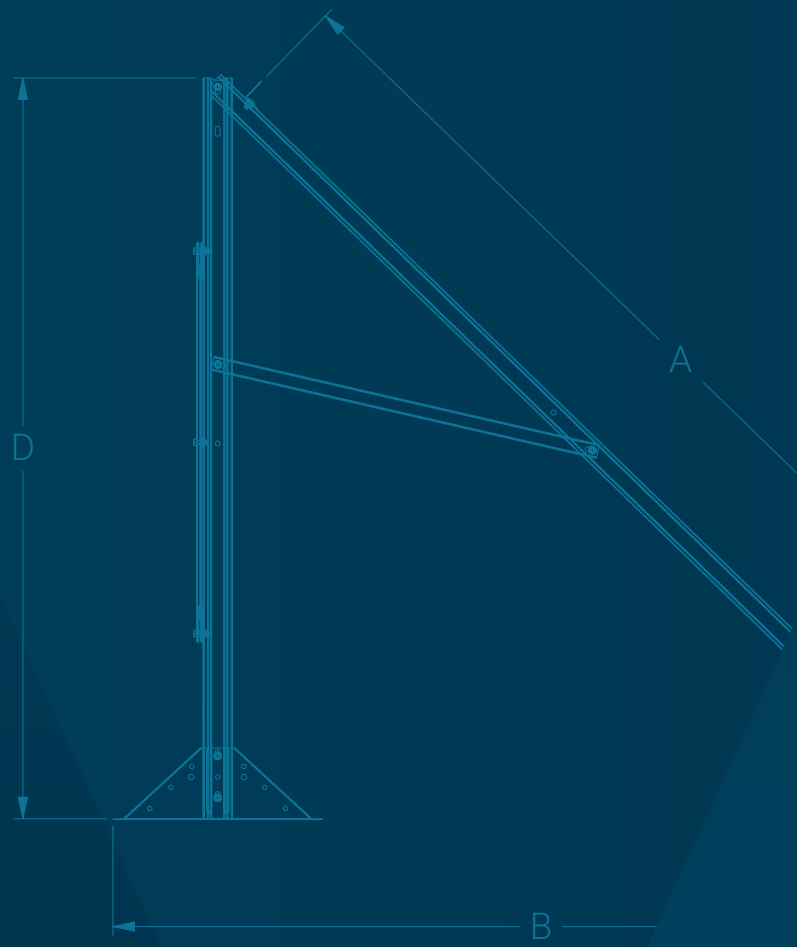


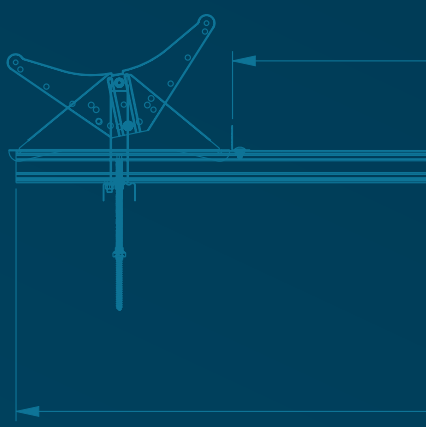
H81S – 20	
A	2028 mm
B	960 mm
C	911 mm
D	1960 mm

H81S – 25	
A	2028 mm
B	1210 mm
C	1161 mm
D	1960 mm

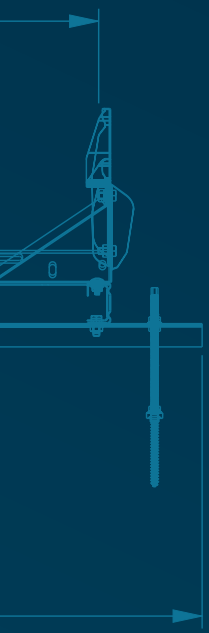








Specification and design are subject to change without any notice.



VENMAN
ENERGY SAVING PRODUCTS

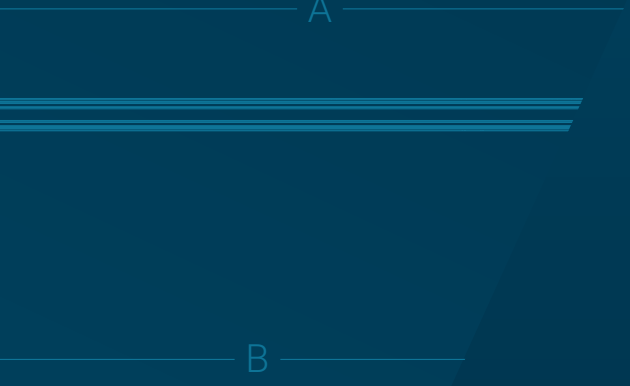
MOUNTING STRUCTURES FOR SOLAR THERMAL SYSTEMS

Venman's mounting structures for solar thermal systems are manufactured according to the stability and resistance against time and adverse weather conditions.

With these systems we achieve:

> Easy installation
> Less storage space
> Logistics' cost reduction
> Easy transportation

The standard material of the mounting system parts is galvanized steel. Alternatively you can choose the mounting system parts to be made out of magnelis/aliminum and the fasteners made out of stainless steel.

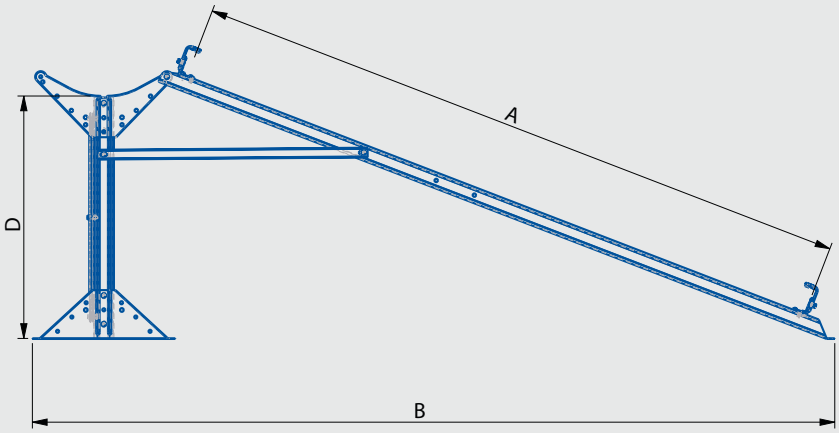


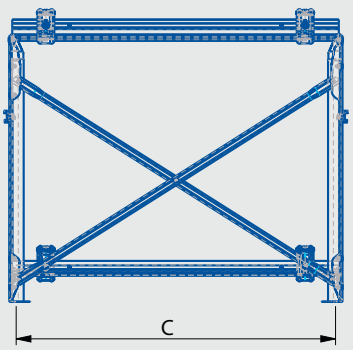
DELTA type (21°)

DIMENSIONS (MM)

A*	1970 – 2035
B	2383
C	940
D	720
Kg (*one collector*)	17,44
Kg (*two collectors*)	21,98

m² collector	**Collectors Quantity**	
2 m²	1	2
2,5 m²	1	2
Maximum system capacity for support 300L		



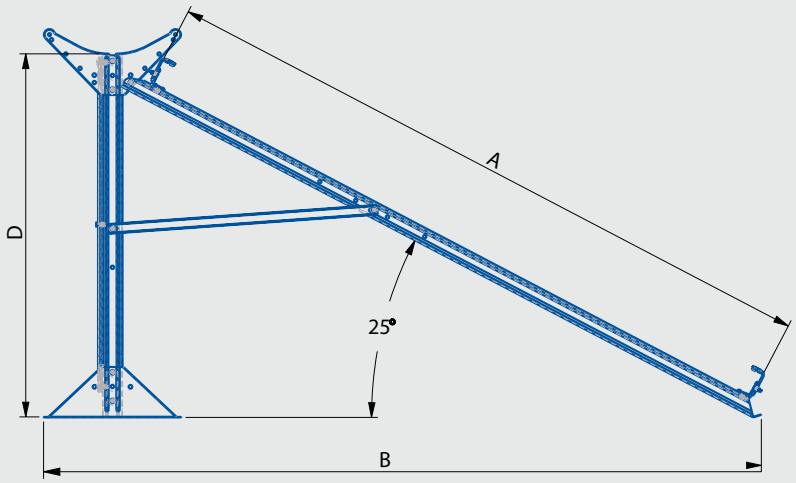


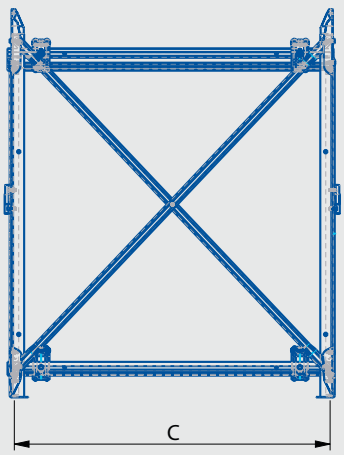
DELTA type
(25°– 35°)

DIMENSIONS (MM)

A	1970 – 2035
B	1955 (35°) – 2205 (25°)
C	780 / 940
D	1080 (35°) – 1080 (25°)
Kg (*one collector*)	18,5
Kg (*two collectors*)	22,5

m² collector	**Collectors Quantity**	
2 m²	1	2
2,5 m²	1	2
Maximum system capacity for support 300L		



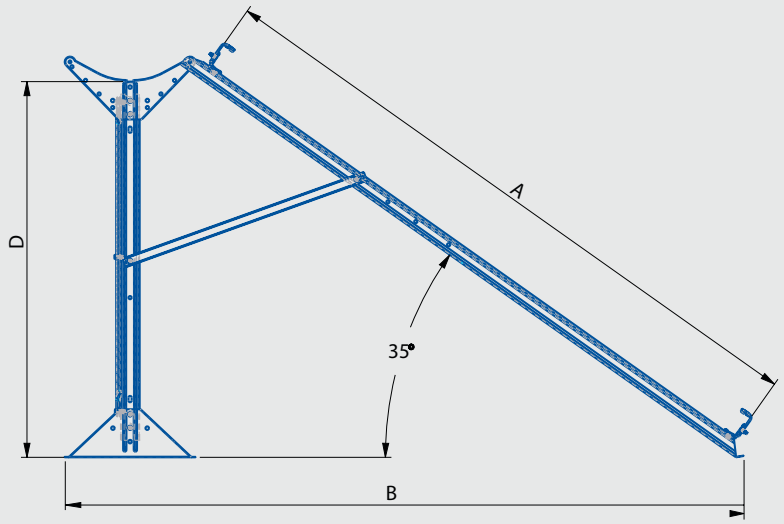


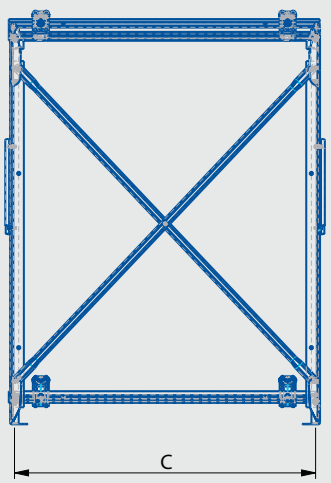
DELTA type
(35°)

DIMENSIONS (MM)

A	1970 – 2035
B	2115
C	780 / 940
D	1250
Kg (*one collector*)	18,5
Kg (*two collectors*)	22,5

m² collector	**Collectors Quantity**	
2 m²	1	2
2,5 m²	1	2
Maximum system capacity for support 300L		



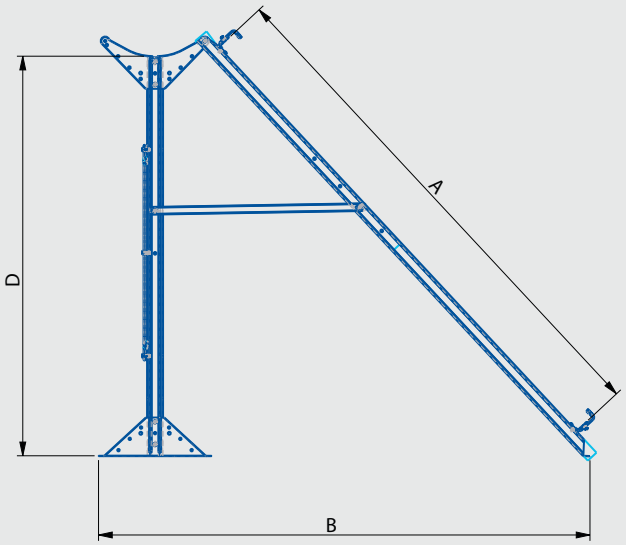


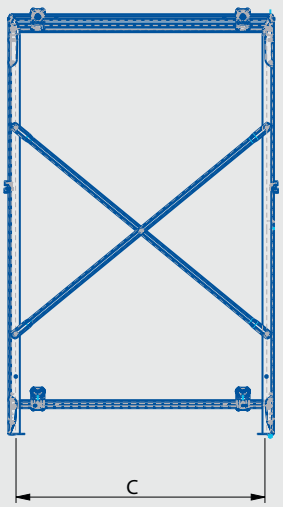
DELTA type
(45°)

DIMENSIONS (MM)

A*	1470 – 1520	1970 – 2035
B	1560	1880
C	780 / 940	780 / 940
D	1080	1500
Kg (*one collector*)	18,52	20,35
Kg (*two collectors*)	21,97	23,56

m² collector	**Collectors Quantity**	
1,5 / 2 m²	1	2
2,5 m²	1	2
Maximum system capacity for support 300L		





Tiled
Roof

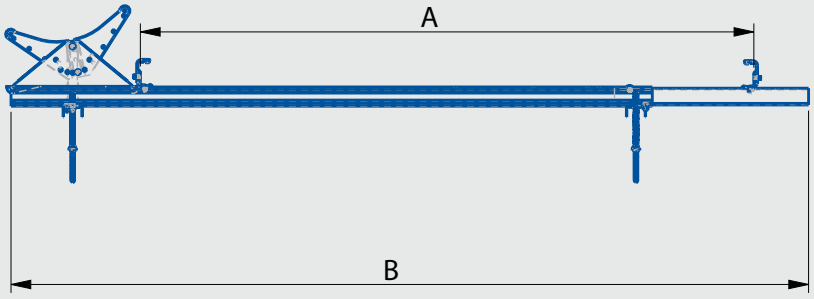
DIMENSIONS (MM)

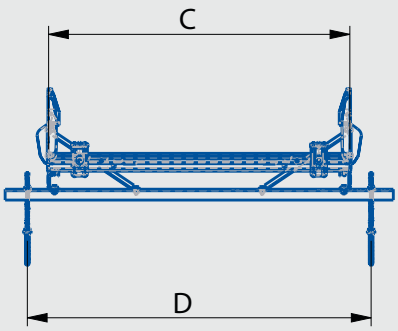
A	1470 – 2120
B	2500
C	780 / 940
D	1250
Kg (*one collector*)	22,3
Kg (*two collectors*)	25,65

m² collector	Collectors Quantity	
1,5 / 2 m²	1	2
2,5 m²	1	2

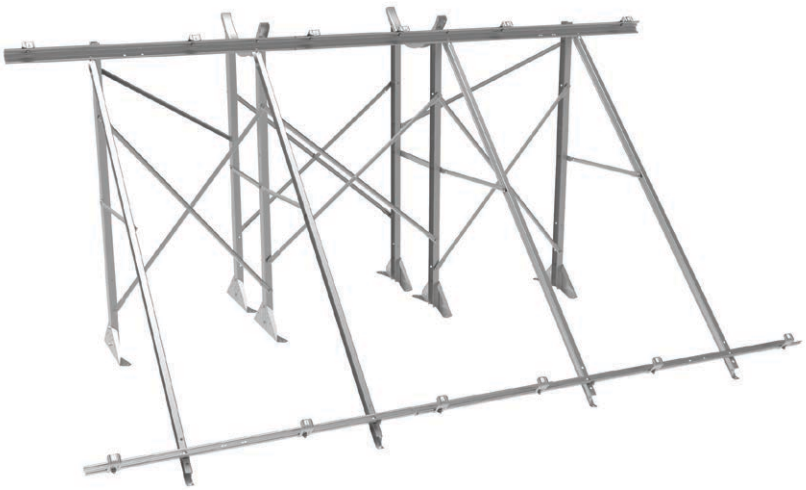
Alternative Roof Mounting

×4 pieces





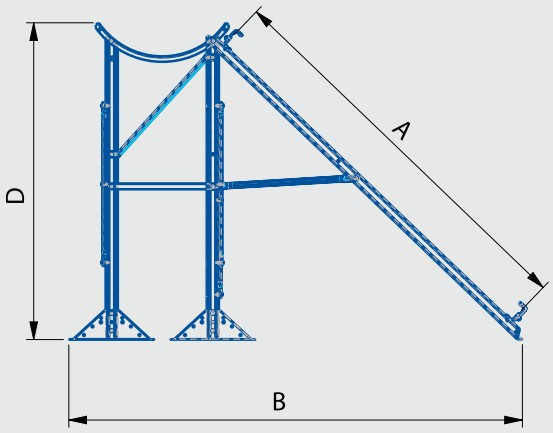
Type
for 500L Tank

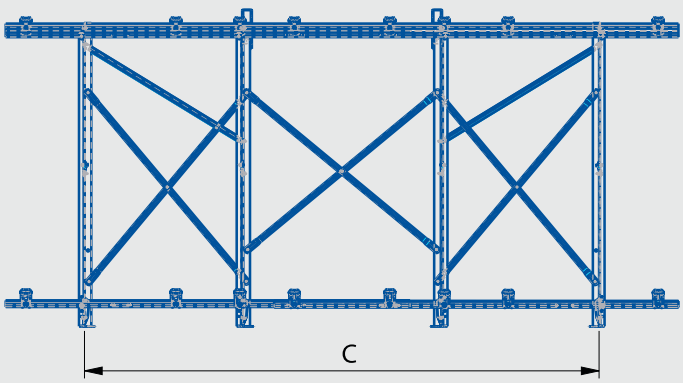


DIMENSIONS (MM)

A	1970 – 2035
B	2260
C	2500
D	1405
Kg	51

m² collector	Collectors Quantity
2 m²	3
2,5 m²	3



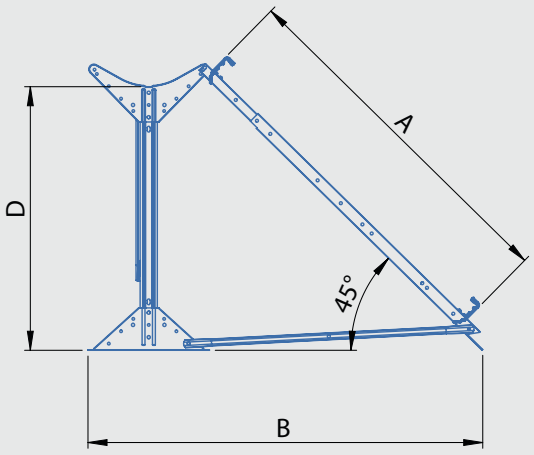


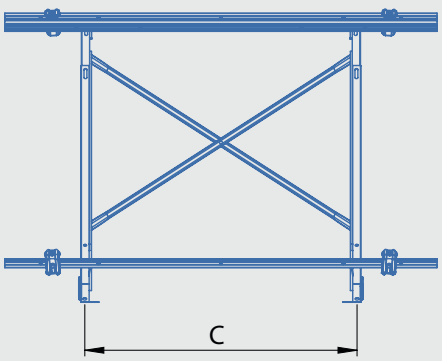
Type
for Horizontal Collector (45°)

DIMENSIONS (MM)

A	1960 – 1210
B	1370
C	780 / 940
D	915
Kg	15

m² collector	Collectors Quantity
2 m²	1
2,5 m²	1



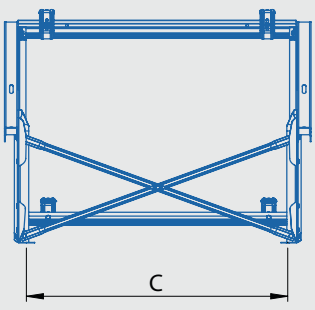


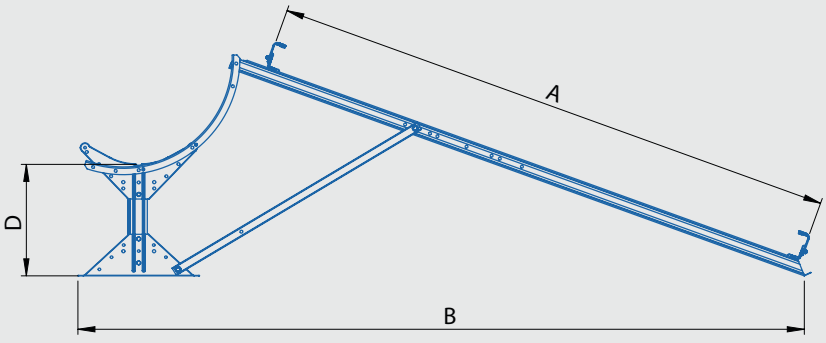
Low profile
(15°) for one collector

DIMENSIONS (MM)

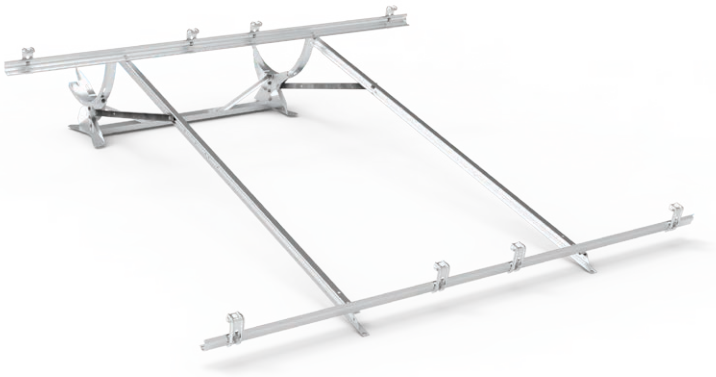
A*	1970 – 2035
B	2610
C	940
D	192
Kg	15,3

m² collector	Collectors Quantity
2 m²	1
2,5 m²	1
Maximum system capacity for support 300L	





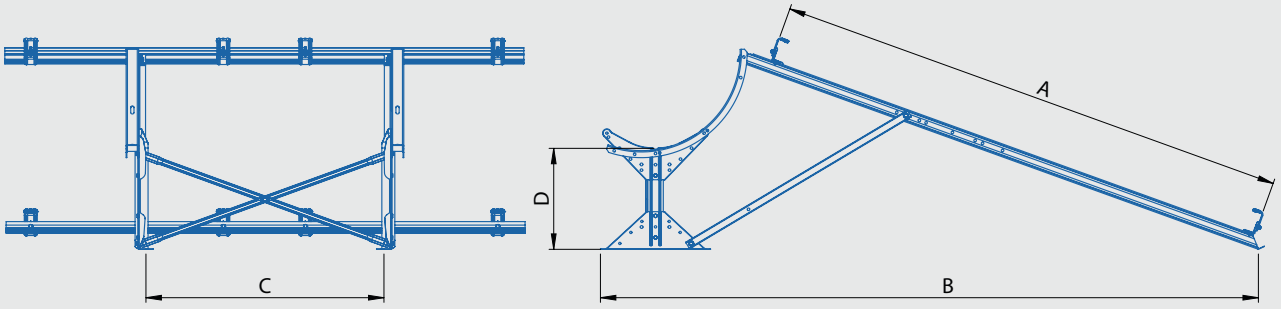
Low profile
(15°) for two collectors



DIMENSIONS (MM)

A*	1970 – 2035
B	2610
C	940
D	192
Kg	18,6

m² collector	**Collectors Quantity**
2 m²	2
2,5 m²	2
Maximum system capacity for support 300L	

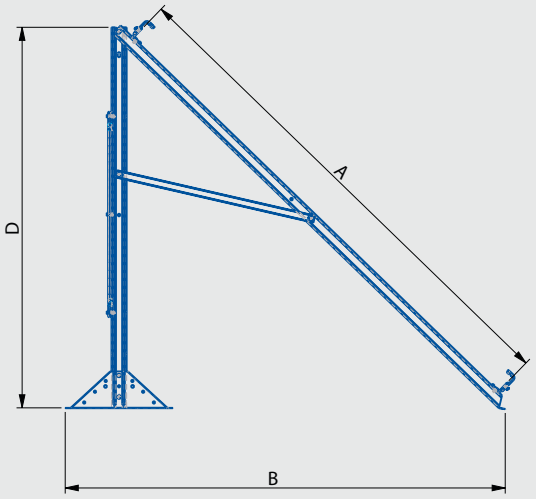


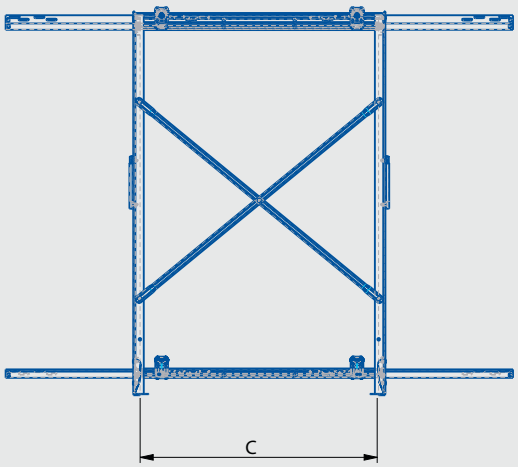
DELTA type
for Forced Circulation System

DIMENSIONS (MM)

A*	1470 – 1520	1970 – 2035
B	1560	1770
C	940	940
D	1080	1500
Kg (*one collector*)	14,5	14,5
Kg (*two collectors*)	17,35	17,35

m² collector	**Collectors Quantity**		
2 m²	1	2	3
2,5 m²	1	2	3
Maximum system capacity for support 300L			





Tiled Roof
for Forced Circulation System

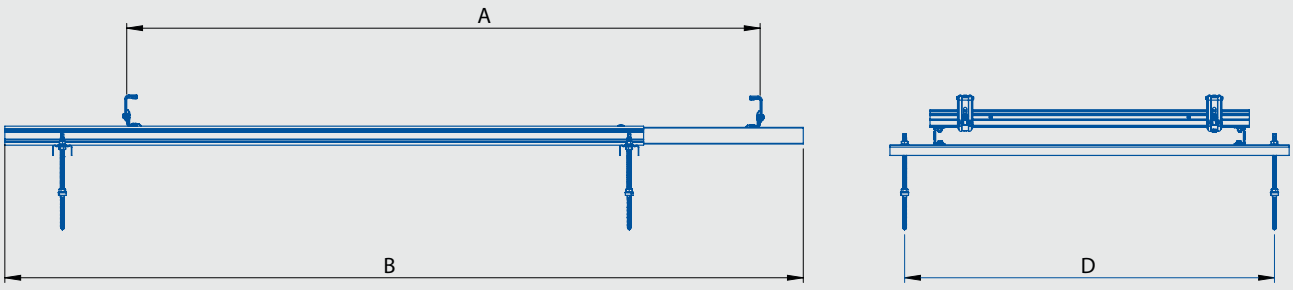
DIMENSIONS (MM)

A	1470 – 2120
B	2500
D	1250
Kg (*one collector*)	13
Kg (*two collectors*)	17,5

m² collector	Collectors Quantity	
1,5 / 2 m²	1	2
2,5 m²	1	2

Alternative Roof Mounting

×4 pieces



Tiled Roof (*Z Type*)
for Forced Circulation System

Alternative Roof Mounting

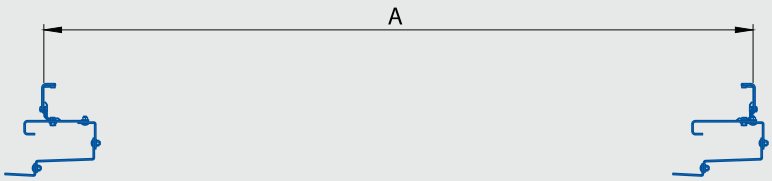
×4 pieces (for one collector)
×6 pieces (for two collectors)

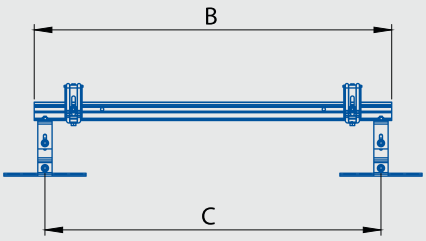
DIMENSIONS (MM)

	ONE COLLECTOR	TWO COLLECTORS
A	1500 – 2000	1500 – 2000
B	1000	2040
C	940	2250
Kg	9	15

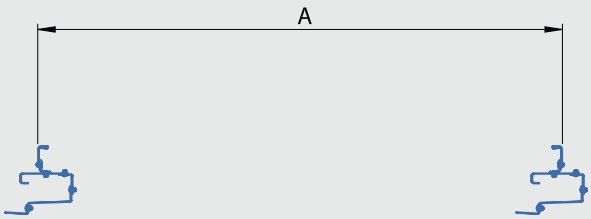
m² collector	**Collectors Quantity**
1,5 / 2,0 / 2,5 m²	1
1,5 / 2,0 / 2,5 m²	2

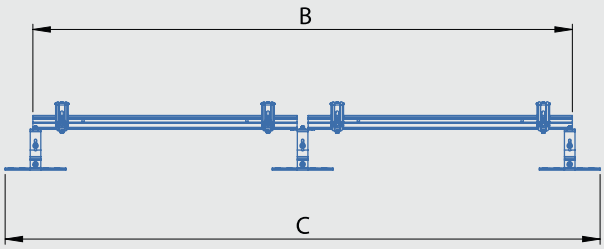
FOR ONE COLLECTOR





FOR TWO COLLECTORS



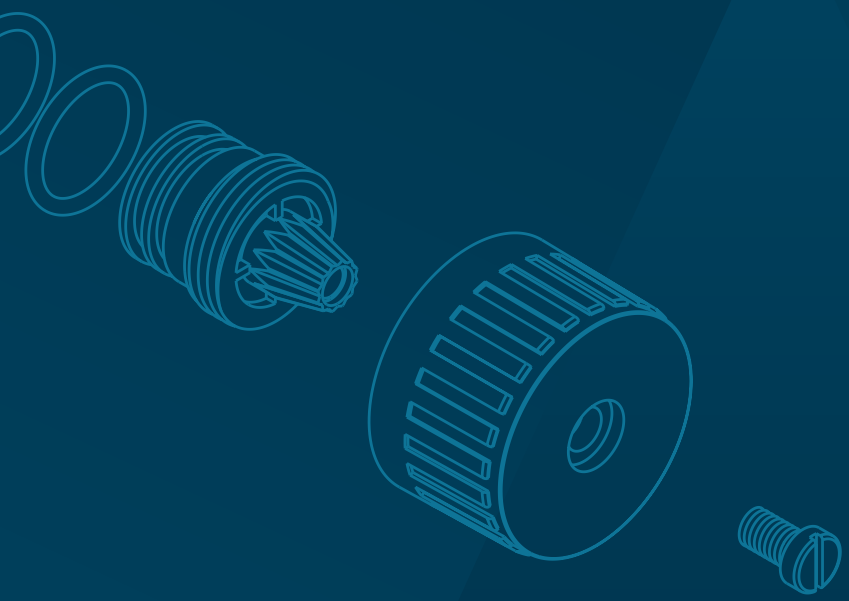



R5,15
17,5
50

VENMAN
ENERGY SAVING PRODUCTS

SOLAR THERMAL SYSTEMS **ACCESSORIES**

Using VENMAN's accessories will increase the lifespan and will preserve the efficiency of your solar water heater.



Safety & Instalation Accessories

CLOSED CIRCUIT EXPANSION VESSEL

The VTX -2 is a closed cylindrical expansion tank suitable only for the closed circuit of the solar water heater.

It has a screw thread, at the bottom, so that it can be connected to the tank of the solar water heater. On its top side, it has a spot, where a 1.5 Bar safety valve can be installed.

TECHNICAL FEATURES

> 6 bar endurance pressure
> 4 bar maximum operation pressure
> 160°C endurance pressure
> Galvanized and electrostatically painted for maximum endurance
> Designed for use outside
> Without welding

DIMENSIONS

Diameter: 155 mm
Height: 158 mm
Weight: 784 gr

OVERHEATING PROTECTION COVER

The VENMAN solar collector's cover is designed for endurance, efficiency and also easy installation. It is water-proof and reflects all the incoming solar radiation by pausing the solar collector. It has adjustable binding straps so that it can be fully attached on the collector's surface without allowing air currents to penetrate between the surfaces.

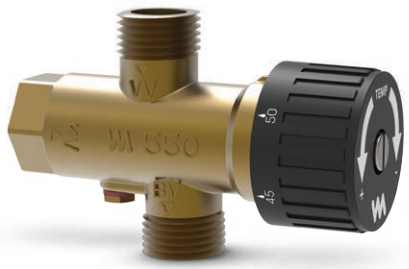
It can be easily and rapidly installed. It is also easy to store so that you do not lose it and have it always at hand.

PROTECTION AGAINST:

> Overheating
> Thermal expansion
> Dust & other materials

RECOMMENDED FOR:

> Absence from your home for a long period of time
> Cottages
> During the summer months for systems with excessive or oversized collectors



THERMOSTATIC MIXING VALVE

Thermostatic mixing valves are used in domestic hot water systems to regulate and maintain the temperature of domestic hot water, thereby providing protection against burns.

Manufactured according to European standards EN 12164:2011, EN 12165:2011, EN 1503–4:2003, EN 10088–3:2005, EN 12516–3:2003, EN 12266–1:2012.

TECHNICAL FEATURES

Material: Dzr brass
Max working pressure: 1,0 MPa (*10 bar*)
Max working temperature: 99°C
Temperature setting range: +38°C to +65°C

SOLAR SYSTEM CONNECTION MATERIAL

Complete solution variety to choose for your solar themosiphonic system set. All the offered sets are quality specified with respect towards the end user.

Safety & Instalation Accessories

TEMPERATURE & PRESSURE SAFETY VALVE

Temperature and pressure relief valves are suitable for the solar water heaters to provide automatic overpressure and overheating protection.

At first, it responds to excessive pressure by opening the valve at the regulated pressure level, typically at 10 Bar, to prevent further pressure increase. The pressure & temperature relief valve detects excessive pressure, opens and discharges thermal expansion by returning pressure back to normal conditions.

Secondly, it responds to overheating. When the water temperature in the solar water heater reaches 95°C, the internal thermostatic element of the discharge valve expands, lifting the valve tray from its position to expel the overheated water. This allows colder water to enter the tank and adjust the temperatures. When the temperature returns to a safe level (*below 95°C*), the thermostat shrinks, allowing the spring to reposition the valve. At this point the temperature discharge element is ready to protect the system again.

TECHNICAL PARAMETERS

Pressure setting: 10 Bar
Adjustable pressure tolerance: +5%, -10% of the adjusted pressure
Temperature adjustment: Up to 99°C
Temperature tolerance setting: 95°C – 99°C

REMOVABLE SOLAR WATER HEATER EXCHANGER

What it is

The Solar Water Heater Exchanger is a device designed by VENMAN which is used to transfer heat from the boiler or heat pump to your Solar Water Heater tank.

Your benefits

You enjoy domestic hot water even in days with little or no sunlight.

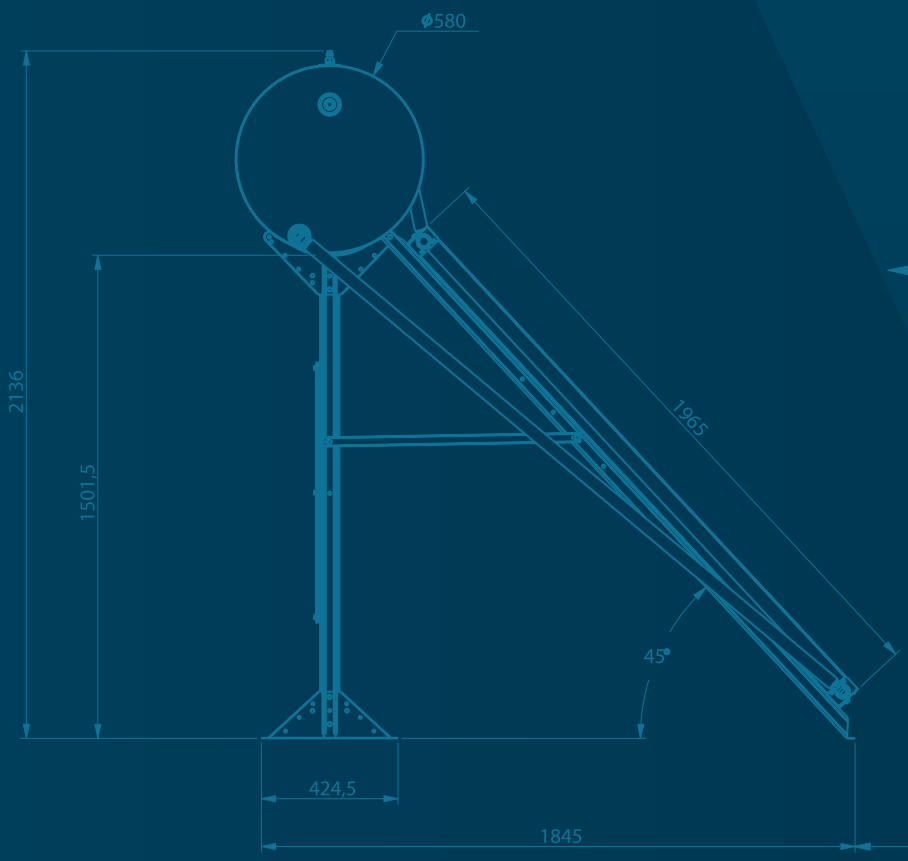
Advantages

> It is made of materials that do not generate electrolysis effects, which would reduce the life of your solar water heater.

> It is accompanied by a complete installation set that includes a vent, an isolation valve and connection accessories.

> It has a built-in electrical resistance, in case you are not able to use the two other energy sources.

> It is compatible with all solar water heaters, which you can convert from using a single energy source to using three energy sources, directly and easily, without uninstalling the tank.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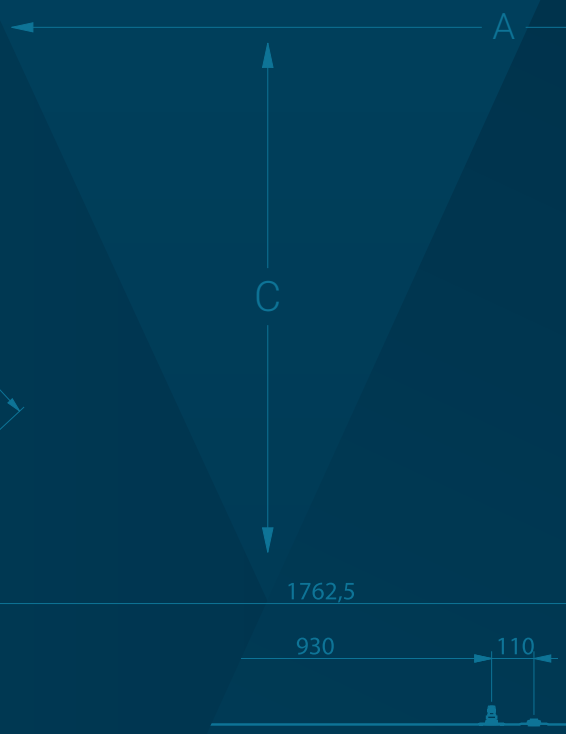
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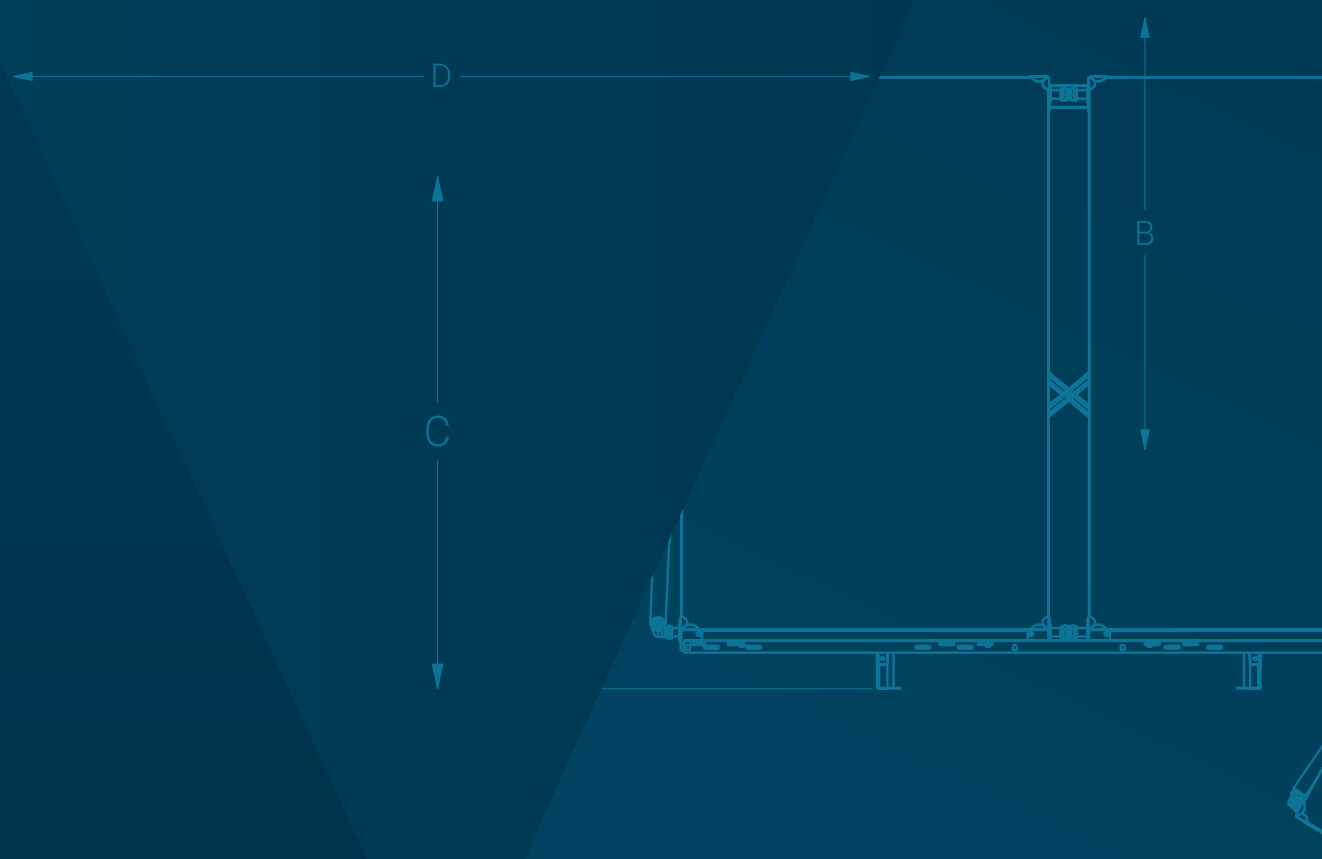
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VENMAN

ENERGY SAVING PRODUCTS

INTEGRATED SOLAR THERMAL SYSTEMS WITH INTERNATIONAL CERTIFICATIONS

Venman's integrated product range has been designed to cover every need for high performance, resistance and money-saving.

Complete
OEM solutions

← Brand

Ability to print your brand
over your system.

SOLAR HOT WATER
SYSTEMS WITH
INTERNATIONAL
CERTIFICATIONS
SOLAR KMARK
AND DCL

↑ Certified

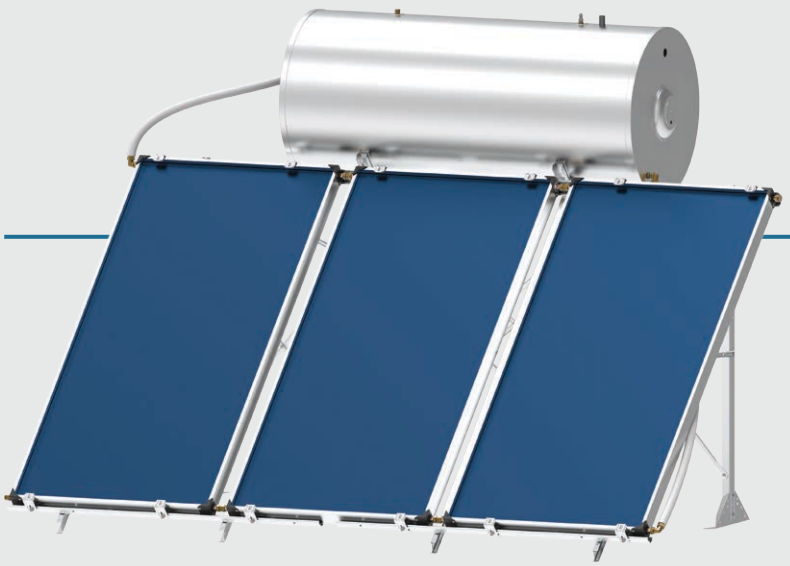
Certificate issue under
your private label company.

Customized Solutions →

Ready to customize the products to your specific needs, by using:

> private logo
> different color
> different external material,
> different solar panel,
> different fixation support
> different combinations

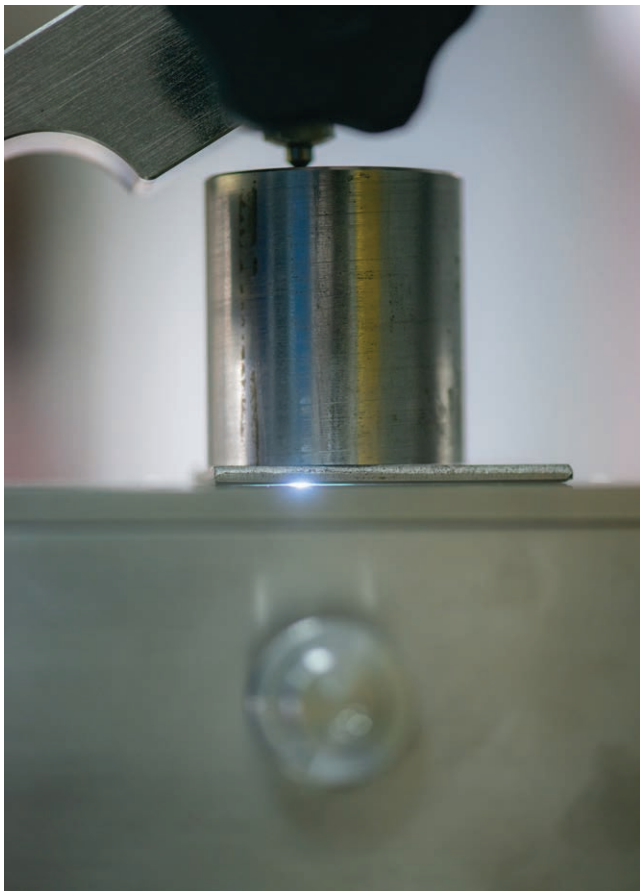
Stainless Steel Internal Tank



← Additional Possibilities

> Different types of solar panel to choose.
> Several fixation supports available.
> Many combinations to mix solar panels and solar tanks.

Quality control
for materials and products



Control
and development
of products

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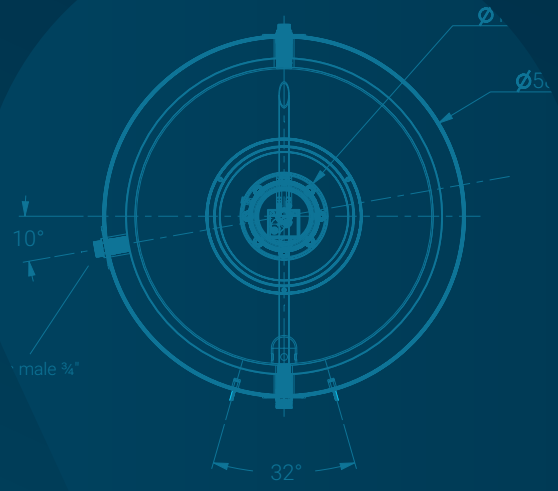

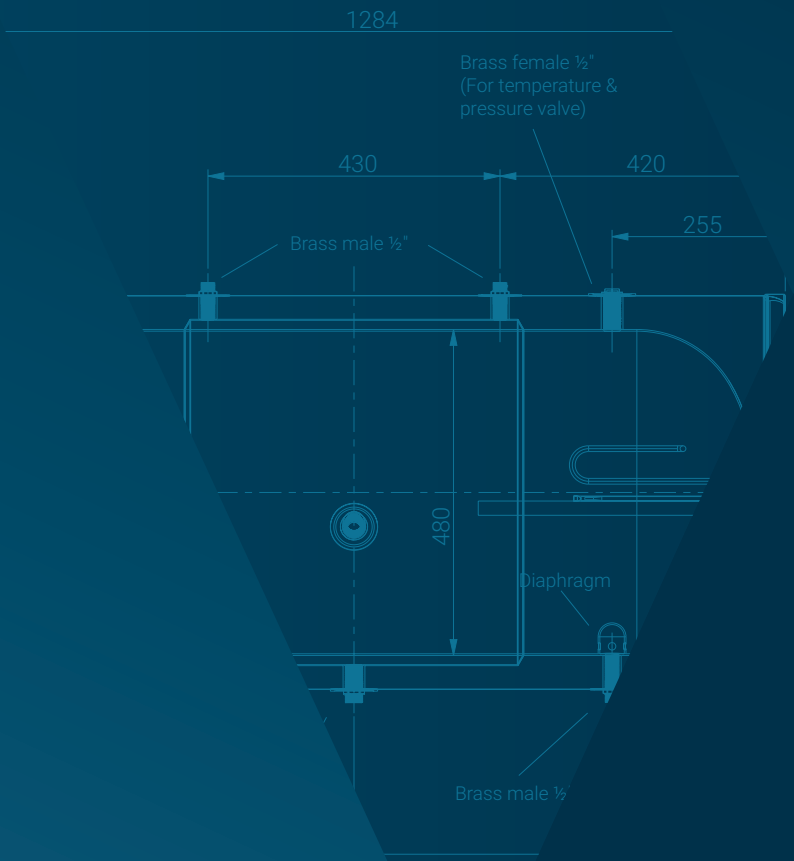

VENMAN
ENERGY SAVING PRODUCTS

11th klm Old National Road Thessaloniki – Kilkis
PC: 57022 – PO Box: 1091
Sindos Industrial Area, Thessaloniki, Greece
T: +30 2310 788 700
E: info@venman.gr

WWW.VENMAN.GR