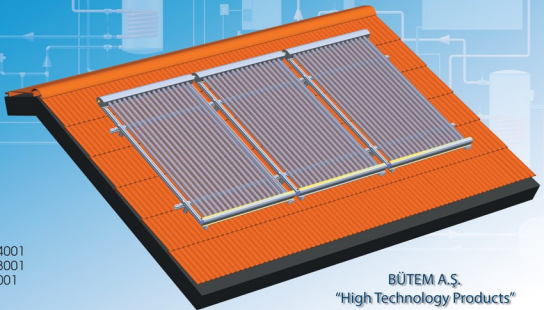


SS - 17 Circulated Direct Pressure
Vacuum Tube Collector

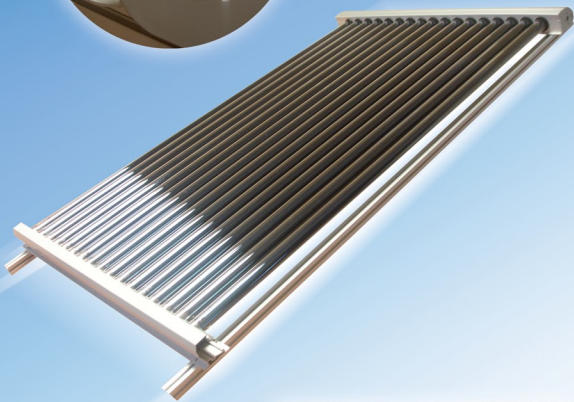


ISO 14001
ISO 18001
ISO 9001
CE

BÜTEM A.Ş.
"High Technology Products"



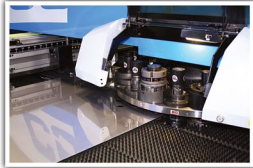
SS - 17 Vacuum - Tube
Collector



BÜTEM A.Ş.



Established in 1980 BÜTEM A.Ş. has been operating in its new facility in İstanbul Hadımköy together with its experience of 28 years of sheet processing. Offering products manufactured from thin and thick sheet to the leading brands of the world our company has been expanding its market share with the brand it creates itself for the last 10 years. Taking place in the sector with Sunmax brand our company has had a say in the market in a short time with the patents it received.



Making the technology following an objective BÜTEM A.Ş. designs its products in three-dimensional drawing programs and is able to produce in CNC machines without human touch. The technologies used move the production flexibility and efficiency to the customer satisfaction and make the products more demandable in the market every passing day.

BÜTEM A.Ş. has been using state of the art technology ERP software in Planning and Shipping operations. Upgrading its operation quality with ISO 9001 (Quality Management System Certificate)- ISO 14001 (Environmental Safety Certificate) – ISO 18001 (Laborer Health Safety Certificate) certificates and receiving “CE” Certificated for its products our company has equalized its standards to the European norms.



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Single Element Sunmax Vacuum Tube



- ① Internal tube expansion stabilizer
- ② Vacuum closing nozzle
- ③ External Tube stabilizer
- ④ External Tube
- ⑤ Vacuum space (isolation)
- ⑥ Selective surface (AL/N/AL)
- ⑦ External tube welding place

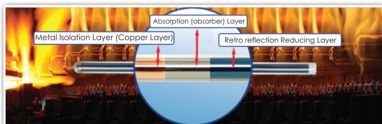
Vacuum Tubes consist of interlocking of two glass tubes manufactured from high quality borosilicate. The pressure of the empty space vacuumed between the tubes is $5 \times 10^{-3} \text{Pa}$. Barium is made use in order to protect the vacuum (isolation) between the two tubes just like in television tubes.

The Rate of Sun Radiation Damping is designated "Absorption" and the Rate it can not damp but reflects is designated "Emission". The retro reflection that is emission rate is very low in vacuum tubes compared to the other collectors. The substance we know as Aluminum Nitrate is coated on the outer part of internal tube. In this way the tubes gaining the thermos property offer Selective Surface and high performance coated integrally over aluminum nitrate. The collectors in which these tubes are used have the absorption between 91-93% and 7-9% emission. Because of these reasons they provide high usage rate even in regions weak by Sun Radiation and they do not need anti-freeze by their structures.

Vacuum Tubes Receive the Sun Rays Vertically By Their Structures



Three-Element Sunmax Vacuum Tubes



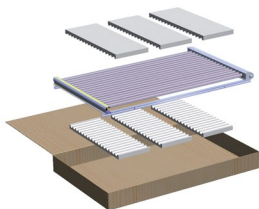
In addition to the Aluminum Nitrate layer in standard tubes, the entry of two layers in three element tubes to the process.

1. Metal Isolation Layer: Copper Layer
2. The layer with the antioxidant and the anticorrosion properties is used with Selective surface (AL-N/AL) and the stainless.
3. Retro reflection Reducing Layer: Also found in the Standard Tubes the layer is used because of High Absorption and low Emission.

No.	Description	Single Element Tubes	Three Element Tubes	
		Single Element Standard Sunmax Tubes	Standard Tubes in the Market	Three Element Sunmax Tubes
1	The material used in coating	AL-N / AL	AL-N / AL	SS-ALNx / Cu
2	Absorption rate before the vacuum	$\geq 92\%$	$\geq 86\%$	≥ 93
3	Average Loss Coefficient	$\leq 0.75 \text{ W/m}^2 \text{ C}$	$\leq 0.85 \text{ W/m}^2 \text{ C}$	$\leq 0.75 \text{ W/m}^2 \text{ C}$
4	Stagnation Temperature	$\geq 200 \text{ m}^2 \text{ C/kw}$	$\geq 190 \text{ m}^2 \text{ C/kw}$	$\geq 200 \text{ m}^2 \text{ C/kw}$

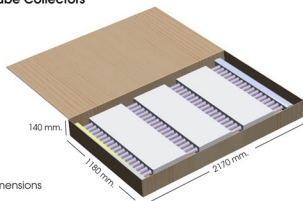
SS-17 Vacuum-Tube Collector

SS-17 Collectors are submitted to you packaged suitable with the CE norms. Unlike other vacuum-tube systems, glass tubes are prepared for the transportation already assembled (as one item). The tubes are fully closed from the back and front to press each other by the styrofoam support material. Thus, they are well protected for any potential hits. In the collector box, besides the collector itself there are 2 pieces 1/2 inch Nipel and 2 pieces of 1/2 inch conic 304 quality Conic Records made of chrome-steel.

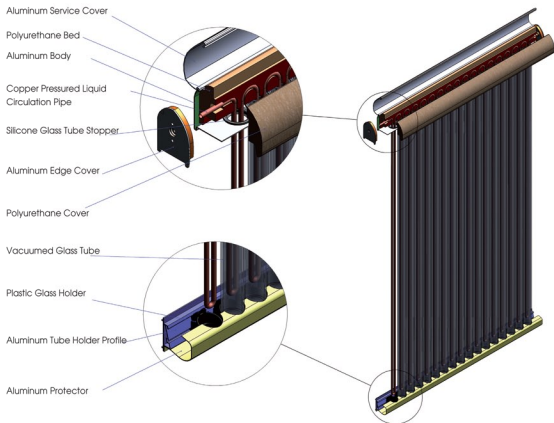


Advantages of the SS – 17 Vacuum-tube Collectors

- * Safe package
- * Resistance against corrosion
- * Long warranty period
- * High efficiency
- * Frost insurance up to -45°C .
- * Easy transportation
- * Harmony with the standard euro pallet dimensions
- * CE certificate



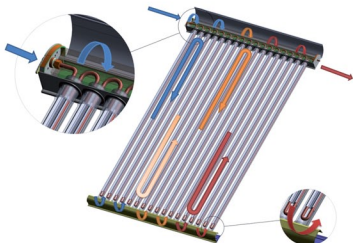
Features of the SS – 17 Vacuum-Tube Collector



The directly circulated vacuum tube collectors require copper piping. A copper pipe collects the entire heat by going in and out of every tube. Therefore in every tube there is one cold in and one hot out-leading. This structure is supported by the "Heat Collector" aluminum used in the tubes. The collector reduces and pushes the air quantity in the tube and therefore increases the surface and provides for the copper to collect more heat. This way, the collector turns cold during the circulation more delayed. The temperature isolation is carried out by the pure silicone seal at the tube heads. Also the polyurethane injected by the mould used in the collector body decreases the loss during the heat transfer to the minimum compared to other systems. For example, even if you would touch the body and the glass with your hand when the collector is at 175°C, the system would not go over the surrounding temperature.

The entire equipment used is aluminum extrusion; resistant to corrosion. It is also covered by Eloksal against oxidation. (The body covers have aluminum injection.)

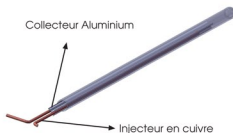
Features of the SS – 17 Vacuum-Tube Collector



These types of collectors are produced by vacuuming the air between the two interwoven borasilkat glasses. Contrary to normal vacuum tube systems, in the direct circulating systems, the heat conductor is controlled by the copper injectors instead of being free in the liquid tubes.

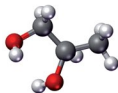
Instead of filling the glass with liquid, there are copper in and out-leading injectors fulfilling that task. The liquid put into the collector circulates in the copper pipes. The copper pipes are installed into the glass tubes with aluminum collectors. The aluminum collectors absorb the heat from the tube completely and transmit to copper injectors.

Unlike the heat-pipe systems, this way the heat transmission can be carried out more clearly and healthy.



Propylene-Glycol (Transmitting Liquid)

Within the system, transmitting liquid is used instead of water. The "propylene-Glycol" is a derivative of alcohol. It is not flammable and does not contain any acid derivatives harmful for human health. It does not cause any problems that water does; such as early tearing, corrosion, rusting, early boiling or expansion. Therefore it expands the materials' life span and increases their performance.



Technical Information on SS - 17 Collectors

Diameter of the outer tube Ø	48 mm
Diameter of the inner tube Ø	38 mm
Thickness of glass	1 mm
Copper pipe's outer diameter Ø	10 mm
Copper pipe's inner diameter Ø	9 mm
Copper pipe's pulp thickness	0.50 mm
Length of tube	1800 mm
Operation pressure	6 bar
Test pressure	10 bar
Heat transmitting liquid	Propylene glycol
Liquid quantity put into collector	4 liters / pieces
Net absorbing area	1.80 m ²
Gross absorbing area	2.3 m ²
Dimensions (width x length x height)	1150 mm x 2000 mm x 110 mm
Gross weight of the collector	60 kg
Net weight of the collector	54 kg

Information on SS – 17 Collector's Performance

Hot Water Performance Test

Months	Hot Water Production	T _{in}	T _{out}
January	75 liters / day	9°C	47°C
February	85 liters / day	9°C	49°C
March	95 liters / day	10°C	50°C
April	115 liters / day	11°C	51°C
May	135 liters / day	12°C	52°C
June	145 liters / day	13°C	51°C
July	165 liters / day	14°C	52°C
August	155 liters / day	15°C	51°C
September	135 liters / day	13°C	50°C
October	125 liters / day	12°C	50°C
November	115 liters / day	11°C	50°C
December	85 liters / day	10°C	47°C

Performance Test

$$L = 880 \text{ w/m}^2$$

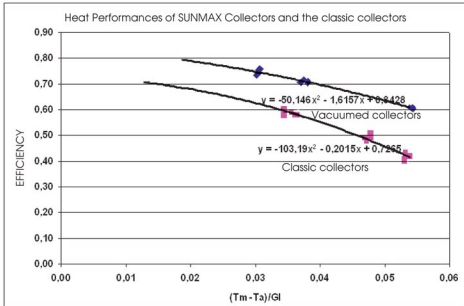
$$Q = 1.5 \text{ liters / minute}$$

$$T_{in} = 70 \text{ }^{\circ}\text{C}$$

$$T_{out} = 84 \text{ }^{\circ}\text{C}$$

$$T_{environment} = 33 \text{ }^{\circ}\text{C}$$

Technical Information on SS - 17 Collectors



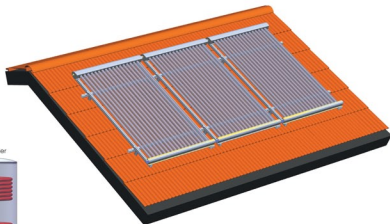
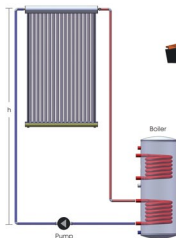
Source: EIEI Department Head (Ankara) Test Results

DATE / HOUR	T _{out} °C	T _{in} °C	T _{environment} °C	I w/m ²	Q _i /liter/min
30.06.2008 13:21	70,01	65,12	30,55	1066,61	3,4
30.06.2008 13:24	70,98	65,28	31,03	1066,61	3,33
30.06.2008 13:27	72,01	64,91	30,18	1066,61	3,35
30.06.2008 13:28	72,39	64,8	30,18	1066,61	3,33
30.06.2008 13:29	72,55	65,28	29,64	1066,61	3,31
30.06.2008 13:30	72,88	66,42	29,96	1066,61	3,33
30.06.2008 13:33	73,42	65,61	29,75	1066,61	3,4
30.06.2008 13:34	73,63	65,66	29,86	995,5	3,42
30.06.2008 13:35	73,9	65,34	29,75	995,5	3,39
30.06.2008 13:36	74,23	65,34	29,69	995,5	3,4
30.06.2008 13:40	74,93	65,07	29,86	1066,61	3,39
30.06.2008 13:41	75,2	64,96	29,86	1066,61	3,39
30.06.2008 13:42	75,42	65,12	30,34	1066,61	3,44
30.06.2008 13:45	75,91	67,02	30,23	995,5	3,4
30.06.2008 13:46	75,96	67,67	29,8	995,5	3,41
30.06.2008 13:47	76,12	67,45	29,48	995,5	3,42
30.06.2008 14:14	81,21	71,03	30,02	995,5	3,4
30.06.2008 14:15	81,43	70,92	29,59	995,5	2,37
30.06.2008 14:16	82,08	70,48	30,02	995,5	1
30.06.2008 14:17	82,73	70,11	29,96	995,5	1,31
30.06.2008 14:20	83,81	69,4	30,07	995,5	1,36
30.06.2008 14:21	83,11	69,13	30,12	995,5	2,57
30.06.2008 14:22	83,87	69,35	30,66	995,5	2,23
30.06.2008 14:25	84,19	69,67	30,5	995,5	3,46
30.06.2008 14:26	84,03	69,94	30,6	995,5	3,47
30.06.2008 14:27	83,98	70,16	31,03	995,5	3,5
30.06.2008 14:30	83,76	70,21	31,09	995,5	3,54
30.06.2008 14:31	83,76	70,43	30,66	995,5	3,53

The collectors' area at the test is 4.8m².

Individual Installments

Rules to be followed for Individual Installments



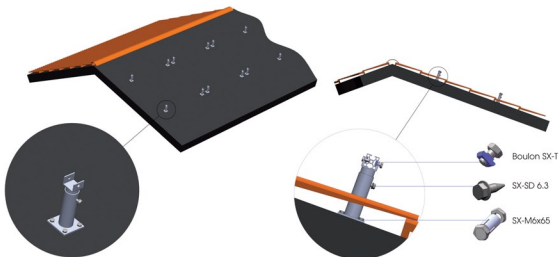
Note: Please select the pumping power according to height from the table below.

When installments for families (such as villas, apartments) are carried out, terms indicated below should be considered. Our collector systems for individual usage can be installed vertically up to 3 units. For installments over 3 units, vertical installments are not suggested.

Number of Collectors	Height (h)	Pump power (W)	Flow (Q/min.)	Boiler capacity (liter)	Daily operation capacity (hour)	Diameter of pipe (Ø inch)
1	3	93	1,5	100 - 150	3 - 5	3/8' - 1/2'
1	6	93	1	100 - 150	3 - 5	1/2'
1	12	132	1,5	100 - 150	3 - 5	3/4'
2	3	132	2,5	150 - 200	3 - 5	3/4'
2	6	132	1,85	150 - 200	3 - 5	3/4'
2	12	195	3	150 - 200	3 - 5	1'
3	3	195	2,5	200 - 300	3 - 5	1'
3	6	245	3,45	200 - 300	3 - 5	1'
3	12	245	3	200 - 300	3 - 5	1 1/4'

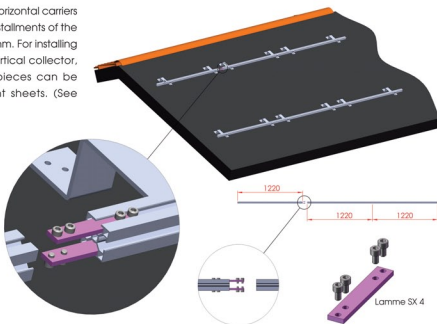
Note: By increasing the number of pumps to 2, you can renew the system and double the number of circulation.

Vertical Installment: Applications for Tile Roofs (mobile piston base application)

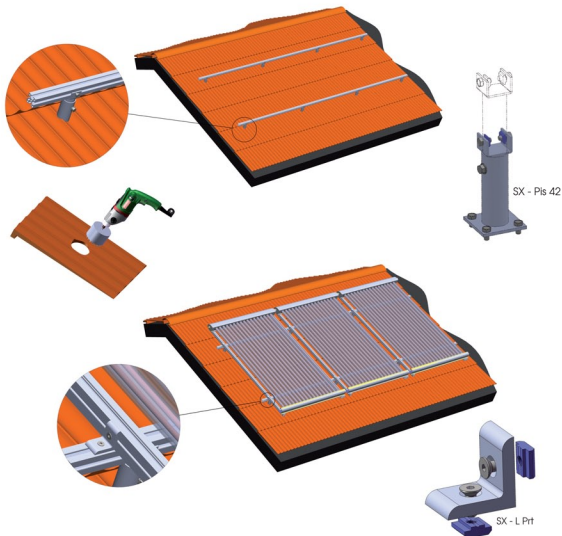


Piston style bases are especially used in the new style roofs. Independent from the type of the roof, there is always a special tile providing sealing for satellite antennas and such and enabling pipes with 40-45 mm diameter to go in. (See: Braas Roof Systems) You can use the piston type base for these tiles and provide an original roof.

The length of the horizontal carriers used for vertical installments of the collectors is 1200 mm. For installing more than one vertical collector, these 1200 mm pieces can be extended by joint sheets. (See page 22)

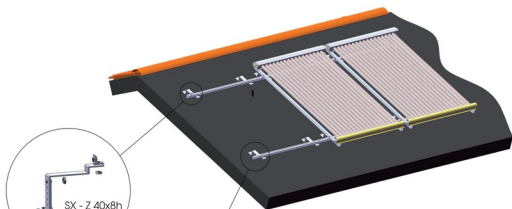


Vertical Installment: Applications for Tile Roofs (mobile piston base application)



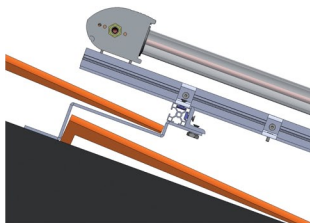
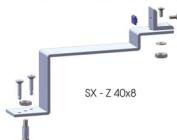
Also it is possible to dig a 45 mm diameter hole on any of your tiles by assistance of decoupage and run the piston base through this. Afterwards, you can provide sealing by using silicone for the remaining area between the piston base and the tile. Even when you cannot install the piston type base symmetrically, the sliding "L pieces" would provide for a symmetrical look by moving the collectors. Because the aluminum body profile used in the system can easily be installed to each other by the "T Nuts", no matter where the piston type base is. It is also possible to adjust the collectors' inclination to the roof by lifting and lowering the piston type base.

Vertical Installment; Application for Tile Roof (Mobile Z Base Applications)



Where the piston type bases are not preferred, you can use the Z type base. The very practical Z type base can be applied to any kind of tile. If the inclination of the roof is lower than desired, the Z type base should be used in order to bring the back part of the collectors higher.

On the top of the Z type base, there are screws suitable for installment on concrete or wood.

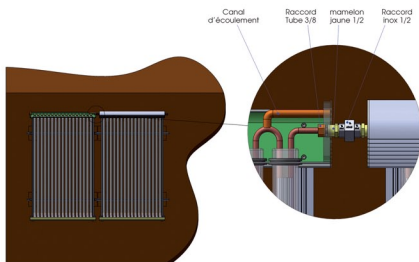
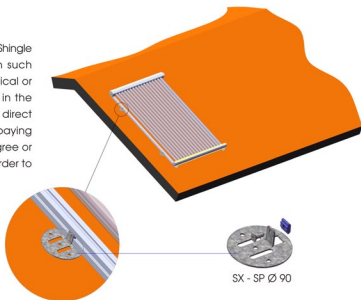


You can easily attach the Z type base to aluminum profiles with channels by using the T nuts and install the collectors also into the horizontal profile following the same principle.

As the profile and the horizontal carrier profile used in the body of the collectors are the same, you can move the collectors up, down, to left and right and also fix them by the "L" pieces. The 3-way mobility helps you to hide the existing installments and to nail on the Z type base where you want.

Vertical Installment; Installment to Shingle Roof Systems

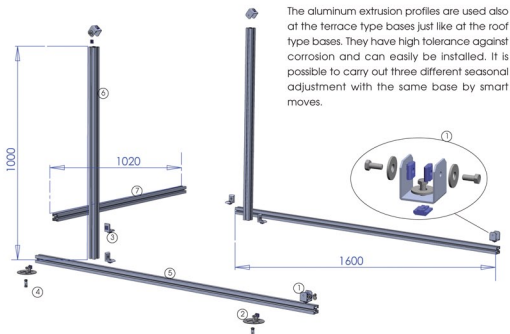
It is possible to carry out installments at Shingle type roofs with one fixing piece. In such systems it is not necessary to use vertical or horizontal carriers. The profiles used in the body of the collector are suitable for direct fixing. You can use these pieces by paying attention to the roof's inclination degree or you can also use the Z type base in order to adjust to the inclination.



At the joints of the collectors, a 1/2 inch Nipel is installed on both of the sides of the collectors' covers. These two Nipels are extended by the conic record.

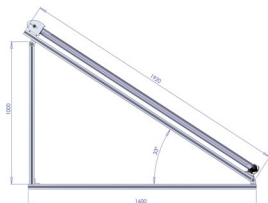
After the installment is finished and the sealing is controlled, this extension piece needs to be covered by isolation material thermostable up to 145°C. The sensor slots are suitable for "PT 100" sensor series and the sensor side must always be used as the hot turn.

Vertical Installment: Terrace Installment (Even Ground)



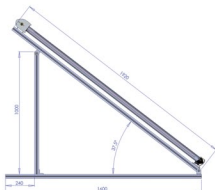
Nr.	Code	Explanation	Quantity used
	SX TD 1600	Complete vertical terrace base	
1	SX - K Sab	Collector fixer aluminum block	4
	SX - Tnut	T Nut M6	12
	SX - Imbus	M 6 x 15 imbus Heads	12
2	SX - SP Ø90	Fixed on ground	4
	SX - Tnut	T - Nut M6	4
	SX - Imbus	M 6 x 15 imbus Heads	4
3	SX - LPrt	L Aluminum part	4
	SX - Tnut	T - Nut M6	8
	SX - Imbus	M 6 x 15 imbus Heads	8
4	SX - M6x65	Steel Plug	4
5	SX - 1600mm	Ground Horizontal Carrier	2
6	SX - 1000mm	Vertical Carrier	2
7	SX - 1020mm	Horizontal Stabilizer	1

Montage vertical; Montage sur terrasse (base plate)



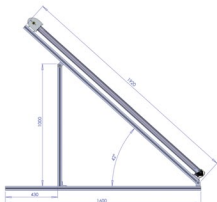
4 Seasons

Collectors' angle with the ground determines their seasonal performance. For example, 33° angle can be used for 4 seasons across the world. Collectors in general can function with 33° angle in every season over 70% performance. This angle is mostly preferred for homes.



Seasonal Transitions

When collectors' angle is increased, the winter performance of the collector starts to increase as well. The 37.5° angle is generally popular where seasonal transitions are important. The 37.5° angle provides for high performance in October, November, March and April.

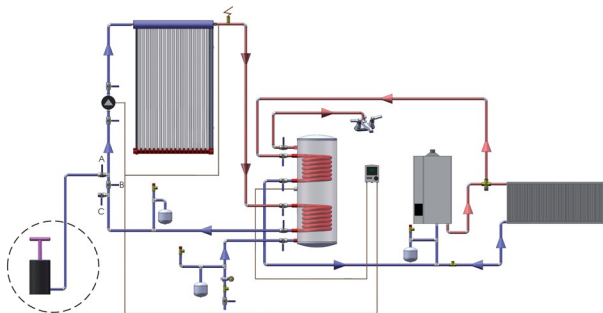


Winter Adjustment

When collectors' angle is increased, the winter performance of the collector starts to increase as well. The 37.5° angle is generally popular where seasonal transitions are important. The 37.5° angle provides for high performance in October, November, March and April.

Individual Hot Water Supporter Combi Boiler, Boiler Systems

Instead of the thermosiphon systems (with storage on the roof) The Cebri System cycles used only for hot water purposes are preferred where architectural look is important. The Cebri hot water systems work also in harmony with boilers and boiler-type heaters at home.

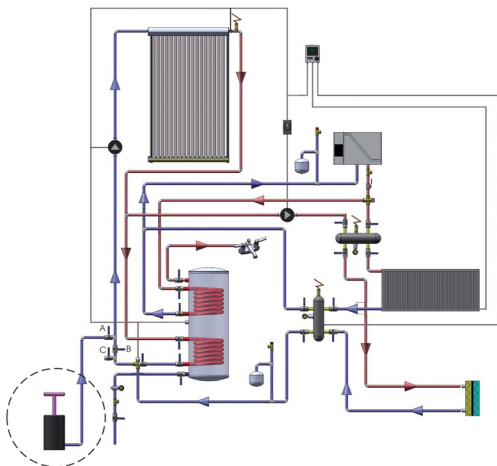


The pump in the circle is used by the Authorized Agencies for Propylene-Glycol. Pump B will be closed and C will be opened when connected to A. The pumping process continues until liquid transmitter comes from C. After the liquid from C arrives, C will be closed and B will be opened. This process continues until the necessary pressure is provided. When the system arrives the recommended level, A and C will be closed and B will remain open; then the system is taken into function.

Individual Hot Water and Heating Supporter Combi Boiler, Boiler Systems

Le système à ajout d'eau chaude a été conçu pour les radiateurs à panneau en aluminium, et ne contient une chaudière de réserve que pour l'eau chaude. Le système ne comprend pas de réserve pour le chauffage de l'eau, et dès que l'énergie est produite elle est envoyée dans le système.

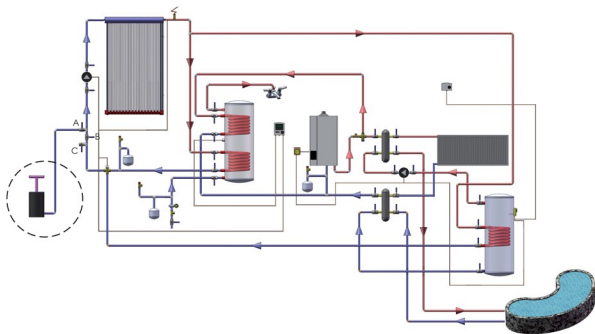
L'utilisation de radiateurs à panneau en aluminium élimine les problèmes de corrosion, et le fluide conducteur dans le collecteur et dans la boucle de chauffage est le même. Comme il n'y a pas de transfert de chaleur, le système est efficace énergétiquement. L'investissement est, comparativement aux systèmes avec réserve de chauffage, plus faible.



The pump in the circle is used by the Authorized Agencies for Propylene-Glycol. Pump B will be closed and C will be opened when connected to A. The pumping process continues until liquid transmitter comes from C. After the liquid from C arrives, C will be closed and B will be opened. This process continues until the necessary pressure is provided. When the system arrives the recommended level, A and C will be closed and B will remain open; then the system is taken into function.

Individual Hot Water and Heating Supporter Combi Boiler, Boiler Systems

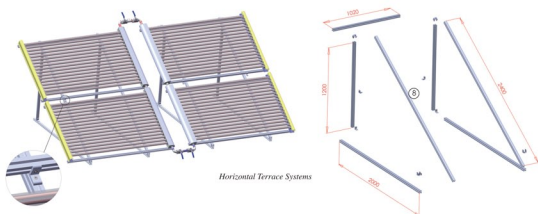
Here the difference from the previous system is that the heating cycle has a reserve. Therefore the heat energy accumulated from the sun can be stored and used in the most appropriate time according to the need. The system can also easily be linked to other locations such as saunas, pools, and baths due to its heating reserve -unlike at the Panel Radiators. Thus, as an advantage of the heating cycle, the system works in summer as well as in winter and the amortization period of the system becomes shorter.



The pump in the circle is used by the Authorized Agencies for Propylene-Glycol. Pump B will be closed and C will be opened when connected to A. The pumping process continues until liquid transmitter comes from C. After the liquid from C arrives, C will be closed and B will be opened. This process continues until the necessary pressure is provided. When the system arrives the recommended level, A and C will be closed and B will remain open; then the system is taken into function.

The Horizontal Systems (the Industrial Systems)

The multiple systems: These are used when the number of collectors exceeds 3 units such as at hotels, industrial hot water washing, hamams, saunas, swimming pool heating, glasshouse heating and the cooling with absorption where hot water is used widely. The only difference from the vertical system installment is that the Aluminum Profile is placed under the Collector vertically instead of horizontally. The only changing factor is the profile's dimensions. When the collector is placed horizontally, each unit consists of 2 pieces. Each carrier unit allows 2 pieces of unit Collector connections.

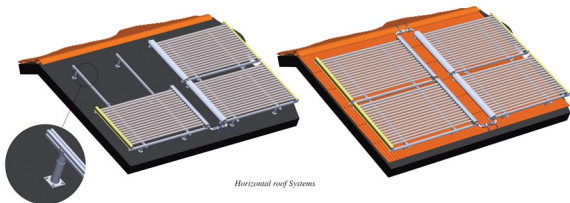


Horizontal Terrace Systems

Nr.	Code	Explanation	Sub Parts Used
	SX TY 2400	Complete horizontal terrace base	
1	SX-K Sab	Collector fixer aluminum block	4
	SX - Tnut	T Nut M6	12
	SX - Imbus	M 6 x 15 imbus heads	12
2	SX - SP Ø90	Fixed on ground	4
	SX - Tnut	T Nut M6	4
	SX - Imbus	M 6 x 15 imbus heads	4
3	SX-LPrt	Steel on Ground	8
	SX -Tnut	L Aluminum part	16
	SX-Imbus	M 6 x 15 imbus heads	16
4	SX-M6x65	Steel plug	4
5	SX - 2000mm	Ground horizontal carrier	2
6	SX - 1200mm	Vertical carrier	2
7	SX - 1020mm	Horizontal stabilizer	1
8	SX - 2400mm	Horizontal carrier for below collector	2

Bemerkung: Für die oben stehenden tabelle 13. sie können das bild verwenden auf seite. Just-Nr. 8 markiert im bild oben.

The Horizontal Systems; Exemplary Applications



Horizontal roof Systems

As seen in the pictures above, the difference is that the carrier profiles are placed vertically instead of horizontally and that their lengths are changed. You can order those vertical profiles additionally that you can find on the Price List page (page number 21). They are completely suitable for piston type and Z type bases.

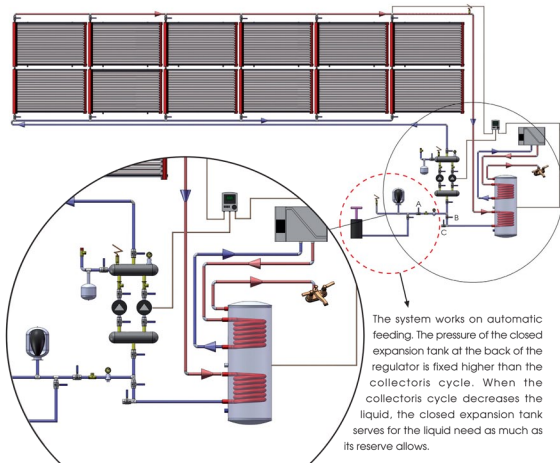
Rules Tube Followed for Horizontal System

Number of Collectors	Height (h)	Pump power (W)	Boiler capacity (liter)	Daily operation capacity (hour)	Daily operation capacity (hour)	Diameter of pipe (Ø inch)
4	3	132	3,85	400 - 500	4 - 6	1'
4	6	195	3,95	400 - 500	4 - 6	1'
4	12	245	3,75	400 - 500	4 - 6	1'
8	3	257	7,7	800 - 1000	4 - 6	1 1/4'
8	6	380	7,9	800 - 1000	4 - 6	1 1/4'
8	12	478	7,5	800 - 1000	4 - 6	1 1/4'
16	3	502	15,2	1800 - 2000	4 - 6	1 1/4'
16	6	741	15,41	1800 - 2000	4 - 6	1 1/2'
16	12	932	14,63	1800 - 2000	4 - 6	1 1/2'

Note: By increasing the number of pumps to 2, you can renew the system and double the number of circulation.

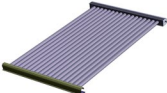
Exemplary Drawing for Multiple Industrial Systems

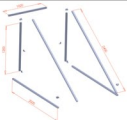
The other name for these systems is Cebri systems. These can be designed as 500 - 10000 liters units. They are designed individually for each project as they are original and big. These are very economical solutions for venues where hot water is widely used. The guarantee period of the collectors used in the systems is longer than their amortization period. They are used widely at hotels, student dormitories and at venues where industrial hot water washing, heating, and cooling with absorption is needed.




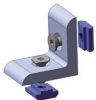
The pump in the circle is used by the Authorized Agencies for Propylene-Glycol. Pump B will be closed and C will be opened when connected to A. The pumping process continues until liquid transmitter comes from C. After the liquid from C arrives, C will be closed and B will be opened. This process continues until the necessary pressure is provided. When the system arrives the recommended level, A and C will be closed and B will remain open; then the system is taken into function.

External Installation Apparatus and the Price List


	Code	Explanation	Quantity of Packing	Price Per Box
	SX - SS 17	Vacuum tube directly circulated collector	1 piece	1.200 TL.

	Code	Explanation	Quantity of Packing	Price Per Box
	SX - TY 2400	Complete horizontal terrace base Horizontal installment base for dual collector	Set	320 TL.







	Code	Explanation	Quantity of Packing	Price Per Box
	SX - TD 1600	Complete vertical terrace base Vertical installment base for single collector	Set	170 TL.

	Code	Explanation	Quantity of Packing	Price Per Box
	SX - L PRT	"L" part used for all systems to fix the carrier profiles to collectors (2 pieces T Nut included)	4 pieces (1 piece for the collector)	40 TL.

 Horizontal Aluminium Carrier for Vertical Collector Installment 35x35 mm	Code	Explanation	Quantity of Packing	Price Per Box
	SX - 1200 Y	For 1 Piece Collector	2 pieces	60 TL.

 Vertical Aluminium Carrier for Horizontal Collector Installment 50x35 mm	Code	Explanation	Quantity of Packing	Price Per Box
	SX - 2400 D	For 2 Piece Collector	2 pieces	120 TL.

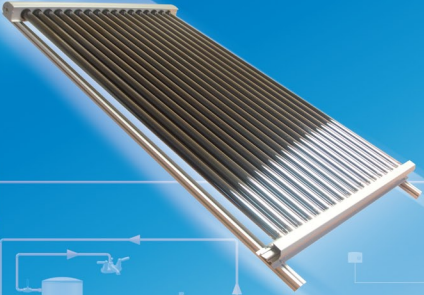
Accessoires de Montage et Liste de Prix

	Code	Explanation	Quantity of Packing	Price Per Box
	SX - Z 40x8	Z type base (fixed)	1	15 €
	SX - M 6S	Nut	1	
	SX - TNut	T nut - M6	1	
	SX - Imbus	M 6x15 imbus head	2	
	SX - L Prt	L aluminum part	1	
	SX - M 10	Steel stamp	1	
	SX - Z 40x8-h	Z type base (moving)	1	25 €
	SX - M 6S	Nut	3	
	SX - TNut	T nut - M6	1	
	SX - Imbus	M 6x15 imbus head	2	
	SX - L Prt	L Aluminum part	1	
	SX - M 10	Steel stamp	3	
	SX - M 6x15	Nut	2	
	SX - Pis 42	Pied type Piston	1	30 €
	SX - SD 6.3	Smart Nut	1	
	SX - TNut	T nut - M6	2	
	SX - Imbus	M 6x15 imbus head	2	
	SX - M 6x65	Steel plug	2 (concrete roof)	
	SX - Av 6x60	Woden nut	4 (wooden roof)	
	SX - Lam 4	Assembling piece	2 St.	5 €
	SX - SP ø 90	Fixation au Sol	1	7.5 €
	SX - TNut	Smart Nut	1	
	SX - Imbus	T nut - M6	1	
	SX - M 6x65	M 6x15 imbus head	1 (concrete roof)	
	SX - Av 6x60	Steel plug	2 (wooden roof)	
	SX - P G	Propylene-Glycol	5 kilos	4.5 € / kilo

Referances



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