

# solar energy systems

# **GENERAL PRODUCT CATALOG**



THE FOUR SEASONS



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- \*\*\*Not to be in a trusting cooperation with suppliers and suppliers
- \*\*\* To serve the purpose of making the name of our company and Turkey more known to the world, azere, existing technical, administrative and mall units are planning to move abroad
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### ABOUT US.

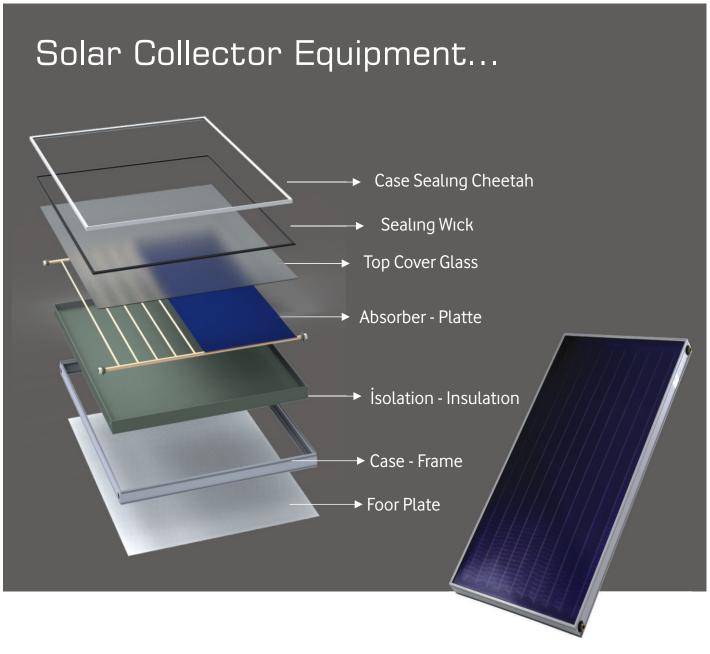
Thermocol Solar Energy Systems was established in 2016 by bringing together partners with 20 years of experience in solar energy Dec. the company, which entered the process of change after 2018, has made innovative decisions about purchasing, production, marketing and sales strategies and thanks to these decisions, it is currently in the first place in the solar energy systems sector in terms of production diversity and capacity

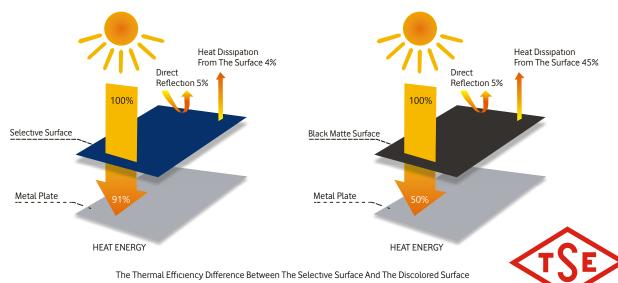
Solar energy collector (annual capacity: 10.000 pcs) solar energy panel (annual capacity: 10.000 pcs) vacuum tube solar energy systems (annual capacity: 5.000 pcs) chrome hot water tank (annual capacity: 5.000 pcs) chrome cold water tank (annual capacity: 5.000 pcs) enamel and galvanized upright recumbent boilers (annual capacity recumbent boiler: 5.000 pcs, in the upright boiler:000 units) Solar energy stand (annual capacity: 10,000 units) production is carried out. Our most important goal is to provide maximum benefit to the national economy by reflecting our sector experience on product quality.

Our goal is to lead our sector and to provide unconditional customer satisfaction without ever compromising on quality. We also have a large share in the foreign market through visits abroad and we provide continuous training to our employees and contribute to their personal development in order to contribute to the country's economy.





















Technical Specifications		Standard Aluminum Solar Collector		r	
Product Code		K-	-2033	K-203	4
Absorbent Cross Section		Round	Section	Oval Section	
Absorbent The Material		Self Aluminum Fins Round Tube Extrusion Technology		Self Finned Aluminum Oval Tube Extrusion Technology	
Size	mm		930 -19	30 - 85	
Span Surface Area	m <sup>2</sup>	1,8			
Gross Collector Area	m <sup>2</sup>	1,6			
Test Pressure	Bar	9			
Max Working Pressure	Bar	6			
Number Of Carrier Pipes	Piece	1	2	1	0
Material Listopad		Electrostatic Powder Coated Aluminum			
Top Cover Glass Specifications		Flat Glass Or Tempered Glass			
izolation		Glass Wool	Polyurethane	Glass Wool	Polyurethane
Liquid Capacity	It.	4	,2	4,	.8
Weight	Kg		3	0	











Solar Collectors are the main part of solar water heating systems.

In order to meet your Hot Water needs, it is very important that the solar collector you choose also has the appropriate specifications. When choosing a solar collector, it is necessary to make a choice by taking into account criteria such as the climatic conditions of the region, the amount of consumption, the area to be installed.

The surfaces used in Solar Collectors are basically two groups in terms of application. These

- 1- Black painted surfaces
- 2- Selective (selective) surfaces

The ideal black surface is the ideal job absorber. It swallows up all of the work coming at it at all wavelengths, at every angle. However, real objects (surfaces) are not like the ideal black surface, they do not swallow all of the work that comes on them, but they reflect some of it depending on the angle of arrival, they cannot swallow it whole. The ideal black body is also the ideal emitter for radiant radiation.





Absorbent surfaces used in collectors are also required to have a high rate of solar radiation absorption and no irradiance (emissivity) Short-wavelength radiation, that is, almost all solar radiation is absorbed and its surface temperature also increases, since surfaces that emit minimal radiation from its surface to its surroundings are called selective (selective) surfaces. Surfaces that emit a maximum of 30% of the absorbed work are called selective surfaces. The reabsorption rates of the selective surfaces used in Promax Extra solar collectors are 5%.











# maximum contact maximum efficiency

Ekstra Series Solar collector has various absorber plates made of Aluminum, Copper, partial finned (fin) copper selective and copper full plate selective material. Absorber plates are the most important part of the solar energy system. The absorber plate allows the radiation from the Sun to be transferred to the heating fluid contained in it as thermal energy. Solar Collector case (circumference) Made of Aluminum materialthe finished product is produced with electrostatic powder coating, the outer surface of which is resistant to external influences. The upper cover is in the form of tempered glass with prismatic pattern. Complete sealing is ensured by using aluminum glazing plate and glass seal made of EPDM material. It has the feature of being able to be Used Horizontally and Vertically.





# Thermomix Technical Characteristics Of Solar Collectors

Technical Specifications			tra olar Collector	Copper Solar Collector	Copper Selective Solar Collector	Aluminum Selective Solar Collector
Product Code		K-2033	K-2034	K-2035	K-2036	K-2037
Absorbent Cross Section		Round Section	Oval Section	Ultrasonic Welding Cross Section	Ultrasonic Welding Cross Section	Laser Welding Cross Section
Absorbent The Material		Self F Aluminum Extrusion T	Oval Tube	Ultrasonic Welding Technology With Copper Tube Fins	Copper Pipe Copper Selective Finned Ultrasonic Welding Technology	Copper Tube Aluminum Full Plate Selective Fin Laser Welding Technology
Size	mm	12 15 -19 10 - 85				
Span Surface Area	m <sup>2</sup>	2,16				
Gross Collector Area	m <sup>2</sup>	2,31				
Test Pressure	Bar		9	13,5		
Max Working Pressure	Bar	6		9		
Number Of Carrier Pipes	Piece	16 13		10		
Material Listopad		Electrostatic Powder Coated Aluminum				
Top Cover Glass Specifications		Prismatic Patterned Tempered Glass and Flat Glass				
Liquid Capacity	lt.	5,6	7,5	1,49	1,49	1,27
Weight	Kg			41		











### **PRESSURE TANKS**

120 lt in Pressurized Systems. - 150 lt. 170 lt. - 200 lt. - 300 lt. 500 lt.

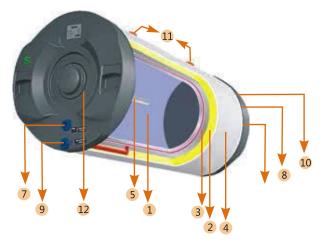
Boiler Inner Surface Coating: Enamel Coating Providing High 100% Hygiene in accordance with DIN 4753 standard

Working Principle: New generation solar energy system with heating fluidInsulation

Material: Polyurethane coated sheet overThe Utility Water Tank is Max.

Working Pressure: 6 Bar Heating Circuit (Outer Wall) Max. Working

Pressure: 3 Bar Optional: Electric Heater



1	Inner Tank: Made Of Enameled Steel Material.	
2	Insulation: 50mm Thick Direct İnjected Polyurethane	
3	Outer Jacket (heating Wall)	
4	Outer Coating: Metal Coated With Electrostatic Powder Coating, Baked At 200°c	
5	Magnesium Anode	
6	Electric heater inlet	
7	Cold water inlet	
8	Hot fluid return from the collector	
9	Cold fluid going to the collector	
10	Using hot water outlet	
11	Air purifier and retort connections	
12	Side protection covers	



Product	: Model	Diameter	Length
120 E	Boiler		1220mm
150 E	Boiler	Ø 50mm	1520mm
170 E	Boiler		1620mm
200 E	Boiler	Ø 60mm	1220mm
300 E	Boiler	Ø 60mm	1720mm
500 E	Boıler	Ø 75mm	1750mm











# Pressurized Solar Energy System (Enamel-Pressurized)







120 Lt. Pressurized System

### Package Elements 1 Piece L

Size According To Preference Collector Safety Group Fasteners Disassembled Coffee Table



150 Lt. Pressurized System

#### Package Elements

1 Piece S Size According To Preference Collector Safety Group Fasteners Disassembled Coffee Table



170 Lt. Pressurized System

### Package Elements 1 Piece L

Size According To Preference Collector Safety Group Fasteners Disassembled Coffee Table



300 Lt. Pressurized System

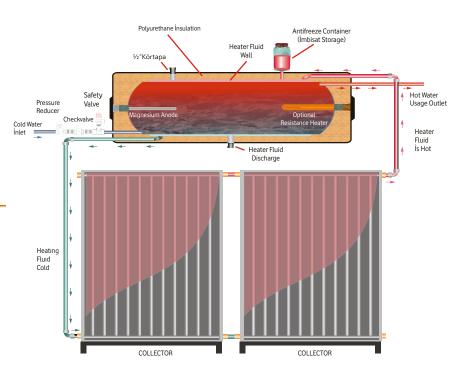
#### Package Elements

1 Piece L Size According To Preference Collector Safety Group Fasteners Disassembled Coffee Table



500 Lt. Pressurized System

Package Elements 1 Piece L Size According To Preference Collector Safety Group Fasteners Disassembled Coffee Table















# Rainbow Solar Energy Systems





Rainbow Systems to Vacuum Systems
It is Produced As an Alternative.

- \* They are antifreeze (-30 C') Systems.
- \*There Are 2 Solar Collectors in Each System.
- \*It Is Easy And Practical To Install
- \* Chrome And Painted Outer Case Types Are Available
- \* Standard and tamboy cold water models vacuum systemsit has the same characteristics as and has a chrome float.













Cold Water Capacity: 60 It. 150 It. - 200 It.

Hot Water Capacity: 150 lt. - 200 lt.

Warehouse Interior Material: 304 Grade - Chrome/Nickel (Cr-Ni)

Warehouse Exterior Surface Material: 430 Quality - Chrome-Static Painted Sheet

Insulation Material: Polyurethane insulation

Static Powder Coated Case

Outer	2 COI
Sheath	Rated Vol
Hot Water Tank	
Company  Company  Company	Star
Company  Company  Company	Full Size (
Company G	42x1,5 i
Collector	Day Col

2 COLLECTOR SYSTEM B Rated Volume And Characteristics 150 lt.		EQUIPMENT
Standard	60 lt.	
Full Size (İnsulated)	150 lt.	††††
42x1,5 mm Galvanized Pipe Profile Coating		
Day Collector With 12 Pipes 2 Pcs		

Rated Volume And Characteristics 200 lt.		
Standard	60 lt.	À Ť À Ť
Full Size (İnsulated)	200 lt.	**
42x1,5 mm Galvanized Pipe Profile Coating		
Day Collector With 12 Pipes 2 Pcs		



2 COLLECTOR S	SYSTEM E	QUIPMENT
Rated Volume And Ch	naracteristics	
150 lt		
Standard	60 lt.	
Full Size (İnsulated)	150 lt.	††††
42x1,5 mm Galvanized Pipe Profile Coating		
Day Collector With 12 Pipes 2 Pcs		

2 COLLECTOR	SYSTEM E	QUIPMENT
Rated Volume And Cl	naracteristics	
200 lt.		
Standard	60 lt.	ÀŤÀŤ
Full Size (İnsulated)	200 lt.	**************************************
42x1,5 mm Galvanized Pipe Profile Coating		
Day Collector With 2 Pcs	n 12 Pipes	



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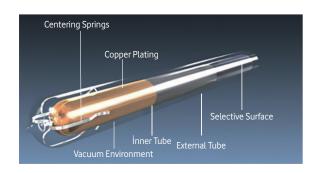








The heat obtained from vacuum tubes with selective Absorber surface is transferred directly to the water of use. Thus, maximum performance is ensured in the heating. It has the ability to work at -25 °C. It is a natural circulating and floating system.













Vacuum Solar Energy System (With Chrome Nickel Case)





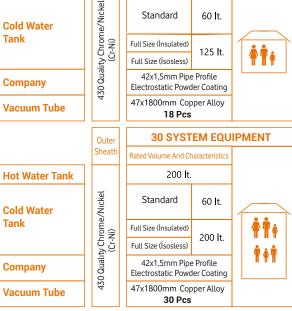
Cold Water Capacity: 60 It. -125 It. 150 It. 200 It. Hot Water Capacity: 125 lt. 150 lt. 200 lt. 225 lt. Warehouse Interior Material: 304 Grade - Chrome/Nickel (Cr-Ni) Warehouse Outer Surface Material: 430 Quality - Chrome/Nickel (Cr-Ni) Insulation Material: Polyurethane insulation Edge Outer Covers: Korm/ Nickel Sheet CoverThere is an Electric heater entrance in the warehouses.

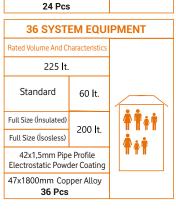
Hot Water Tank
Cold Water Tank
Company
Vacuum Tube

Oute Sheath

18 SYST	EM EQU	IPMENT
Rated Volume And Ch	Rated Volume And Characteristics	
125 lt.		
Standard	60 lt.	
Full Size (İnsulated)	125 lt.	
Full Size (İsosless)	125 II.	
42x1,5mm Pipe Profile Electrostatic Powder Coating		
47x1800mm Cop		
18 Pcs		

24 SYST	EM EQU	IIPMENT
Rated Volume And Characteristics		
150 <b>l</b> t.		
Standart	60 lt.	
Full Size (İnsulated)	150 lt.	<b>AT</b>
Full Size (İsosless)	150 It.	
42x1,5mm Pipe Profile Electrostatic Powder Coating		
47x1800mm Copper Alloy <b>24 Pcs</b>		







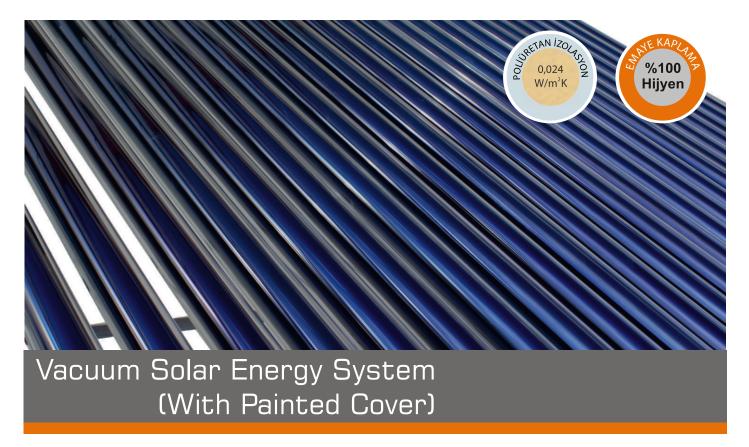






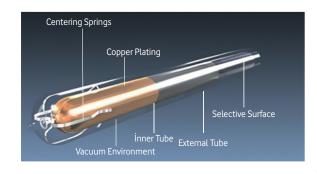








The heat obtained from vacuum tubes with selective Absorber surface is transferred directly to the water of use. Thus, maximum performance is ensured in the heating. It has the ability to work at -25 °C. It is a natural circulating and floating system.













Cold Water Capacity: 60 It. -125 It. 150 It. 200 It.
Hot Water Capacity: 125 It. 150 It. 200 It. 225 It.
Warehouse Interior Material: 304 Grade - Chrome/Nickel (Cr-Ni)
Warehouse Outer Surface Material: 430 Quality - Chrome/Nickel (Cr-Ni)
Insulation Material: Polyurethane insulation Edge Outer
Covers: Korm/ Nickel Sheet CoverThere is an Electric heater entrance in the warehouses.

		18 SYST	IDMFNT	
	Outer Sheath	Rated Volume And Ch		II WILITI
Hot Water Tank		125 lt.		
Cold Water	430 Quality Chrome/Nickel (Cr-Ni)	Standard	60 lt.	
Tank	hrom -Ni)	Full Size (İnsulated)	sulated) 125 lt.	
	Cr.	Full Size (İsosless)	│ <del>  T</del> T† │	
Company	30 Qua	42x1,5mm Pipe Electrostatic Powo		
Vacuum Tube	.4	47х1800mm Сор <b>18 Рсs</b>		
		30 SYST	FM FOLI	IPMFNT
	Outer Sheath	Rated Volume And Ch		

TEM EQU	IPMENT
haracteristics	
60 lt.	
150 la	<b>  ††</b> †
150 It.	
e Profile der Coating	
pper Alloy	
	60 lt. 150 lt. e Profile der Coating



Hot Water Tank
Cold Water Tank
Company
Vacuum Tube

	18 Pcs		
Outer	30 SYST	EM EQU	IPMENT
Sheath	Rated Volume And Ch	aracteristics	
	200 lt.		
430 Quality Chrome/Nickel (Cr-Ni)	Standard	60 lt.	
ro me	Full Size (İnsulated)	200 lt.	│ <b>ᆥ</b> ᆥ │
5 5 5	Full Size (İsosless)	200 It.	m A m
0 Quali	42x1,5mm Pipe Electrostatic Powd		n <del>n</del> n
43	47x1800mm Cop <b>30 Pcs</b>	per Alloy	

36 SYSTI	EM EQUI	PMENT
Rated Volume And Ch		
225 <b>l</b> t.		
Standard	60 <b>l</b> t.	
Full Size (İnsulated)	200 4	゚゚゚゚゚゚゚゚゚゚゚゚゚゚゚゚゚゚゚゚゚゚゚゚゚゚
Full Size (İsosless)	200 lt.	
42x1,5mm Pipe Electrostatic Powo		TTT
47x1800mm Cop <b>36 Pcs</b>	per Alloy	













Cappadocia Serial solar energy system is a natural circulating system. No pump movement mechanism is used in the operation of the system.

It works in a closed circuit. From the outside, it looks like a single warehouse. The inner body consists of two parts. There is cold water in the upper section and hot water in the lower section. Cold water from the mains enters the upper section first. A buoy controls the entrance of the water. When hot water is used, there is a cold water supply from the upper section to the lower section.



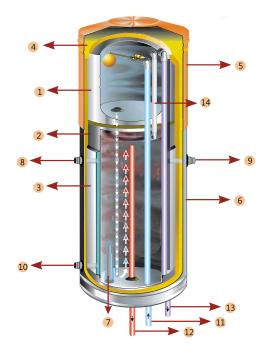




In these systems, the system works with double-walled, wall-to-wall heating method in two separate circuits

(closed circuit). There is a solar collector and a heating fluid on the outer wall of the tank, which heats the domestic water in the inner part of the tank and prevents the system

from freezing. It is recommended in regions with a cold climate where frost is frequently observed and where there is no water interruption.



#### Cappadocia Series Warehouse Interior Structure

1	Cold Water Tank: It is made of 304 Quality Chrome Nickel material.
2	Hot Water Tank: It is made of 304 Quality Chrome Nickel material.
3	Outer Jacket (heating Cidan): Made Of 304 Quality Chrome Nickel Material.
4	Insulation: Polyurethane or Glass Wool
5	Top Outer Coating: Metal coated with electrostatic powder coating, baked at 200°C
6	Bottom Tooth Coating: Aluminum
7	Electric Heater Inlet
8	Imbisat connections
9	Hot fluid return from the collector
10	Cold fluid going to the collector
11	Cold Water Inlet
12	Using Hot Water outlet
13	Evacuation Exit
14	Ventilation







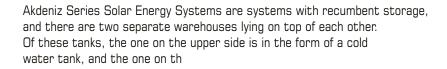






Akdeniz Series Solar Energy Systems are manufactured for places with water shortages.

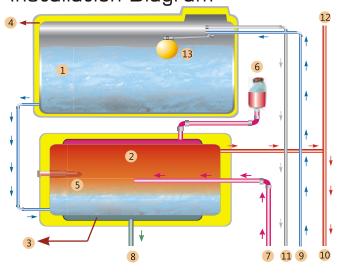
In areas where frost is observed, the cold water tank should be insulated.



lower side is in the form of a hot water tank. The working principle can be used as a float, mountain circulation, closed or open circuit.

180 lt.+180 lt. 240 lt.+240 lt.

### Closed Circuit Installation Diagram



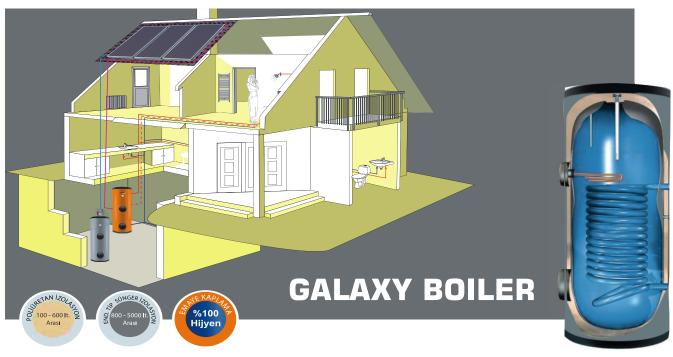
#### **Internal Structure Of Akdeniz Series Warehouse**

1	Cold Water Tank: It is made of 304 Quality Chrome Nickel material.
2	Hot Water Tank: It is made of 304 Quality Chrome Nickel material.
3	Outer Jacket (heating Cidan): Made Of 304 Quality Chrome Nickel Material.
4	Insulation: Polyurethane or Glass Wool
5	Electric Heater Inlet
6	Imbisat connections
7	Hot fluid return from the collector
8	Cold fluid going to the collector
9	Cold Water Inlet
10	Using Hot Water outlet
11	Evacuation Exit
12	Ventilation
13	Buoy









#### TECHNICAL DIMENSION TABLE OF GALAKSI SINGLE COIL BOILER

MODEL	Unit	L 101	L 161	L 201	L 301	L 501	L 601	L 801	L 1001	L 1501	L 2001	L 2501	L 3001
Capacity	lt.	100	160	200	300	500	600	800	1000	1500	2000	2500	3000
Warehouse Diameter	mm	380	480	480	480	640	640	850	850	1050	1200	1320	1320
Extent	mm	480	580	580	580	750	750	950	950	1150	1300	1450	1450
Height	mm	1020	970	1120	1620	1560	1850	1540	1940	1780	1920	1880	2170
Cold Water Boiler Inlet Hot Water Usage Boiler Outlet	inç	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/2"	11/2"
Circulation	inç	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/2"	11/2"
Thermostat Sensor Input	inç	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"
Heater Fluid Hot Inlet - Serpentine	mm	Ø9	Ø9	Ø9	Ø9	Ø9	Ø9	Ø9	Ø9	Ø9	Ø9	Ø9	Ø9
Heater Fluid Cold Outlet - Serpartin	inç	1 1/4"	11/4"	11/4"	1"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"
Serpentine Heating Surface Area	inç	1 1/4	11/4"	11/4"	1"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"
Mg- Anode Coupling	m <sup>2</sup>	0,59	0,67	0,99	1,52	2,33	2,33	3,26	3,53	3,97	4,95	5,92	7,39
Electric heater Inlet	inç	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"
Isolation	inç	11/2"	11/2"	11/2"	11/2"	11/2"	11/2"	11/2"	11/2"	11/2"	11/2"	11/2"	11/2"
Insulation Thickness		High De	nsity - Polyure	thane İnsulatio	n With Low Hea	t Conduction C	Coefficient			Özel Endüstr	iyel Tip Süngei	İzolasyon	
Domestic Water Maximum Operating Pressure	mm	50	50	50	50	50	50	80	80	80	80	80	80
Bar	Bar	10	10	10	10	10	10	10	10	10	10	10	10
Gross Weight	Kg	57	70	95	129	204	225	300	390	476	630	843	1150

#### **TECHNICAL CAPACITY TABLE OF SINGLE SERPENTINE GALAXY BOILER**

INLET OF USING WATER 10 °C - 45 °C		L 101	L 161	L 201	L 301	L 501	L 601	L 801	L 1001	L 1501	L 2001	L 2501	L 3001	L 3001
	90 °C	693	793	1248	1777	2913	2913	4078	4395	6193	6193	7407	9239	
Capacity İn Continuous Mode İt/h	80 °C	563	644	1013	1443	2365	2365	3311	3582	5028	5028	6015	7501	9239 7501
Heater Fluid Temperature	70 °C	425	486	765	1089	1786	1786	2500	3041	3797	3797	4542	5664	5664
INLET OF USING WATER 10 °C - 60 °C		L 101	L 161	L 201	L 301	L 501	L 601	L 801	L 1001	L 1501	L 2001	L 2501	L 3001	L 3001
Capacity İn Continuous Mode	90 °C	388	443	698	994	1630	1630	2282	2468	3465	3465	4144	5169	5169
it/h Heater Fluid Temperature	80 °C	280	321	505	719	1179	1179	1657	1785	2506	2506	2997	3738	3738
Heater Fluid Temperature	70 °C	167	191	300	427	700	700	981	1061	1489	1489	1781	2221	2221
INLET OF USING WATER 10 $^{\rm o}{\rm C}$ - 45 $^{\rm o}{\rm C}$ FOR THE SOLAR SY	STEM	L 101	L 161	L 201	L 301	L 501	L 601	L 801	L 1001	L 1501	L 2001	L 2501	L 3001	L 3001
Capacity İn Continuous Mode İt/h Heater Fluid Temperature	65 °C	387	442	696	991	1624	1624	2273	2459	3452	3452	4129	5150	5150
INLET OF USING WATER 10 °C - 60 °C SOLAR SISTEM	i çin	L 101	L 161	L 201	L 301	L 501	L 601	L 801	L 1001	L 1501	L 2001	L 2501	L 3001	L 3001
Capacity İn Continuous Mode İt/h Heater Fluid Temperature	65 °C	143	163	257	365	599	599	838	907	1273	1273	1523	1899	1899
PRESSURE VALUES		L 101	L 161	L 201	L 301	L 501	L 601	L 801	L 1001	L 1501	L 2001	L 2501	L 3001	L 3001
The Flow Rate Of The Heater Fluid İn The Continuous Mode İs	m³/h	0.7	0.8	1.25	1.8	3	3	4.1	4.4	6.2	6.2	7.4	9.2	9.2
Serpentine Pressure Loss	mmSS	102	152	80	1403	757	757	1751	2199	4736	4736	7632	13882	13882

Note: In Order To Produce Hot Water Quantities Corresponding To The Temperatures Specified Above For Boilers Of Different Capacities, The Heating Fluid Must Be Supplied To The Boilers At The Flow Rate İndicated At The Bottom Of Each Table.



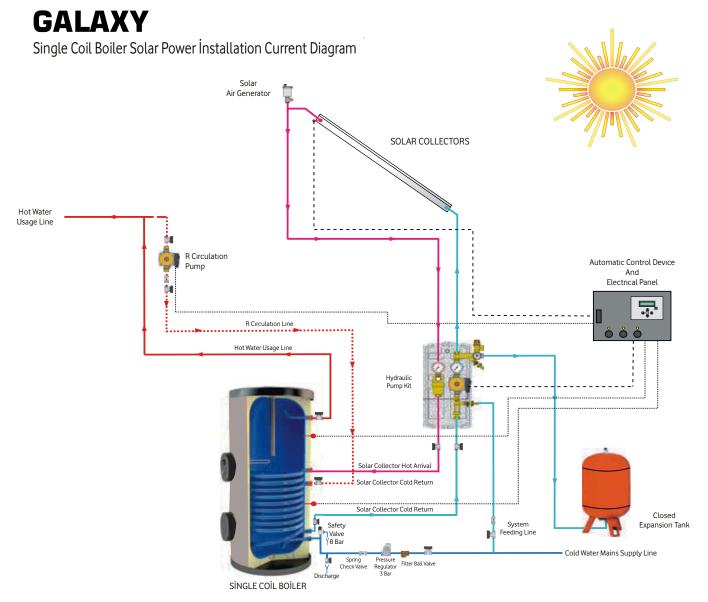




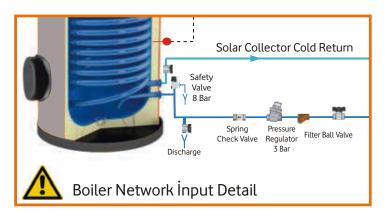




# the correct installation in the dimensions is very important



 $Note: In\ The\ \dot{I}nstallation\ Diagram\ Given\ Above,\ The\ Electric\ Heater\ Located\ \dot{I}n\ The\ Boiler\ \dot{I}s\ \dot{I}nstalled\ Optionally.$ 











MODEL	Unit	L 202		L 502		L 802					L 3002
Capacity	lt.	200	300	500	600	800	1000	1500	2000	2500	3000
Warehouse Diameter	mm	480	480	640	640	850	850	1050	1200	1320	1320
Extent	mm	580	580	750	750	950	950	1150	1300	1450	1450
Height	mm	1120	1620	1560	1850	1540	1940	1780	1920	1880	2170
Cold Water Boiler Introduction	inç	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"
Hot Water Usage Boiler Outlet	inç	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"
Circulation	inç	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"
Thermostat Sensor Input	mm	Ø9	Ø9	Ø9	Ø9	Ø9	Ø9	Ø9	Ø9	Ø9	Ø9
Heater Fluid Hot Inlet - Serpentine	inç	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"
Heater Fluid Cold Outlet - Serpartin	inç	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"
Serpentine Heating Surface Area	m <sup>2</sup>	0,99	1,52	2,33	2,33	3,26	3,53	3,97	4,95	5,92	7,39
Heater Fluid Hot Inlet - Upper Coil	inç	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"
Heater Fluid Cold Outlet - Upper Serpentine	inç	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"
The Heating Surface Area Of The Upper Erpantine	m <sup>2</sup>	0,78	1,03	1,41	1,41	1,65	1,80	2,67	2,73	3,00	3,46
Mg- Anode Coupling	inç	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"	11/4"
Electric heater Inlet	inç	11/2"	11/2"	11/2"	11/2"	11/2"	11/2"	11/2"	11/2"	11/2"	11/2"
Isolation			Poliüretan İ	zolasyon				Özel Endüstri	yel Tip Sünge	er İzolasyon	
Insulation Thickness	mm	50	50	50	50	80	80	80	80	80	80
Domestic Water Maximum Operating Pressure	Bar	10	10	10	10	10	10	10	10	10	10
Gross Weight	Kg	110	145	266	295	326	432	511	673	895	1223

Galaksi Series Double Serpentine Boilers are devices used to transfer the heat obtained in solar collectors to the utility water with the help of a lower serpentine. In cases where the solar energy is not sufficient, the heat obtained from the boiler or boiler is transferred to the utility water with the help of the upper serpentine. Thus, the boiler works in a bivalent way. As the third energy source, an electric heater can be installed optionally.

Thermokol Galaksi Series Boilers have an aesthetic and innovative boiler design and are produced in accordance with internationally recognized CE standards.

Thanks to its special design, the

heat energy obtained in the serpentine shows a homogeneous distribution into the boiler.  $\label{eq:control}$ 

The inner surface coating is coated with enamel, which is corrosion resistant, provides 100% hygiene in accordance with DIN 4753 standard.

The Maximum Working Pressure of the Boyles is 10 Bar.

Electric Heater Mg/Anode Indicator and Thermometer can be attached to the boilers optionally

#### TECHNICAL CAPACITY TABLE OF THE DOUBLE SERPENTINE GALAXY BOILER Üst Serpantin için

KULLANMA SUYU GİRİŞİ 10°C - 45°C KALORİ	FER IÇIN	L 202	L 302	L 502	L 602	L 802	L 1002	L 1502	L 2002	L 2502	L 3002
The Quality Of Continuous	90 °C	974	1201	1756	1756	2064	2256	2279	2279	3116	3553
Painting it/h Upper Serpentine Heater	80 °C	791	975	1426	1426	1676	1831	1850	1850	2530	2885
Fluid Temperature	70 °C	597	736	1077	1077	1266	1383	1402	1402	1916	2185
KULLANMA SUYU GİRİŞİ 10 °C -60 °C KALORİ	FER İÇİN	L 202	L 302	L 502	L 602	L 802	L 1002	L 1502	L 2002	L 2502	L 3002
The Quality Of Continuous	90 °C	545	672	983	983	1155	1262	1831	1831	2546	2903
Painting it/h Upper Serpentine Heater	80 °C	394	486	711	711	835	913	1320	1320	1820	2060
Fluid Temperature	70 °C	234	289	422	422	496	540	787	787	1095	1248
JPPER SERPENTINE PRESSURE VALUES		L 202	L 302	L 502	L 602	L 802	L 1002	L 1502	L 2002	L 2502	L 3002
The Flow Rate Of The Heater Fluid In The Continuous Mode Is	m³/h	1.01	2.48	1.83	1.83	2.15	2.35	3.55	3.55	3.92	4.51
	mmSS	38	433	153	153	227	291	845	845	1000	1427
Alt Serpantin için	,	38 L 202	433 L 302	153 L 502	153 L 602	227 L 802	291 L 1002	845 L 1502	845 L 2002	1000 L 2502	1427 L 3002
Alt Serpantin için KULLANMA SUYU GİRİŞİ 10 ℃-45 ℃ SOLAR SİSTE	,										
Alt Serpantin için  UULANMA SUYU GİRİŞİ 10 °C - 45 °C SOLAR SİSTE  The Qualify Of Continuous  Paintrig it/h  Löwer Serpentine Heaterliquid Temperature	M İÇİN 65 °C	L 202	L 302	L 502	L 602	L 802	L 1002	L 1502	L 2002	L 2502	L 3002
	M İÇİN 65 °C	L 202	L 302	L 502	L 602	L 802	L 1002 2456	L 1502	L 2002 3452	L 2502 4129	L 3002 5130
Alt Serpantin için  ULLAMMA SUYU GİRİŞİ 10°C-45 °C-SOLAR SİSTE the Quality Of Continuous Pariting rt/h Lover Serpentine Hesterliquid Temperature  ULLAMMA SUYU GİRİŞİ 10°C-60 °C-SOLAR SİSTE the Quality Of Continuous Pariting rt/h Lover Serpentine	M İÇİN 65°C M İÇİN	L 202 696 L 202	L 302 994 L 302	L 502 1670 L 502	L 602	L 802 2273 L 802	L 1002 2456 L 1002	L 1502 3452 L 1502	L 2002 3452 L 2002	L 2502 4129 L 2502	L 3002 5130 L 3002
Alt Serpantin için  ULLAMMA SUYU GİRİŞİ 10°C-45°C SOLAR SİSTE the Gualdıy Of Continuous Panting rt/h Hoteleti depentative Heteletiyelü demperature  ULLAMMA SUYU GİRİŞİ 10°C-60°C SOLAR SİSTE the Gualdıy Of Continuous Panting rt/h Lover Serpentire Heteletiyelü Temperature Heteletiyelü Temperature	M İÇİN 65°C M İÇİN	L 202 696 L 202 257	L 302 994 L 302 367	L 502 1670 L 502 616	L 602 1670 L 602 616	L 802 2273 L 802 838	L 1002 2456 L 1002 907	L 1502 3452 L 1502 1273	L 2002 3452 L 2002 1273	L 2502 4129 L 2502 1523	L 3002 5130 L 3002 1899

Not: Yukanda değişik kapasitelerdeki boylerler için belirttiğimiz sıcaklıklara denk gelen sıcak su miktarlarının üretilebilmesi için, her tablonun alt kısımında belirtilen debide ısıtıcı akışkanın boylere gelmesi gerekmektedir.









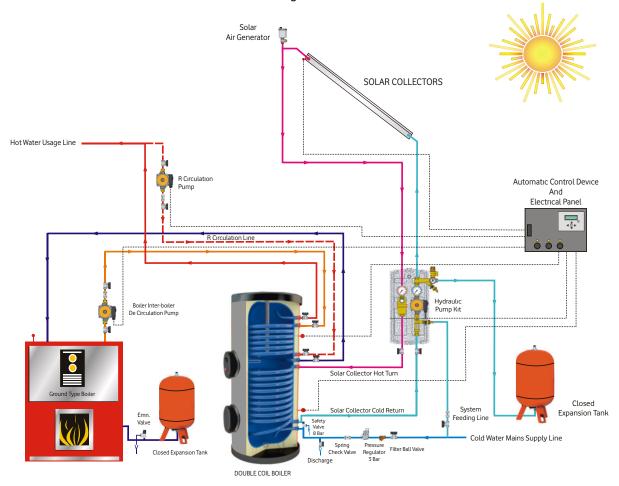




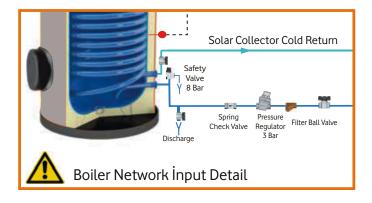
### the correct installation in the dimensions is very important

### **GALAXY**

Double Coil Boiler Solar Power Installation Current Diagram



Note: In The İnstallation Diagram Given Above, The Electric Heater Located İn The Boiler İs İnstalled Optionally.













# Accessories And Equipment

**SOLAR COLLECTOR CARRIER COFFEE TABLES CONNECTION EQUIPMENT SOLAR LIQUID** 











#### Connection Equipment



Product Name and Product Description
3/4" Corner Connection Record
3/4" Nipple Record
3/4" Brass BlindAutomatic Air Purifier (Imported)
Imported Safety Valve
Safety Valve Domestic
Pressure Regulator 1/2"
DomesticImported Pressure Regulator 1/2
Imported Pressure Regulator 1/2"
"3/4 Check Valve

### Solar Liquid (Red Antifreeze)





Solar Energy Liqui dorganic Red -37°C In 50% Mixture

Solar Energy Liqui Red -37°C In 50% Mixture - 20°C

### Capacity

Antifreeze 3 lt.

Antifreeze 15 kg.













# Accessories And Equipment

Absorber - Panels Solar Control Panels



### **Absorber Panels**



### Solar Control Panels And Equipment



#### **Product Name And Description**

12-Tube Self-Finned Round Panel

10-Tube Self-Finned Oval Panel

16 Tubular Self-Finned Round Alm. Dashboard

13-Tube Self-Winged Oval Alm. Dashboard

10-Tube - Ultrasonically Welded Copper Panel

8-Tube - Ultrasonically Welded Copper Panel

10-Tube - Panel with Ultrasonic Welded Selective Face

8-Tube - Panel with Ultrasonic Welded Selective Face

#### **Product Name**

Solar Control Paneli (Single)

Solar Control Paneli (Double)









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