



RELIABLE

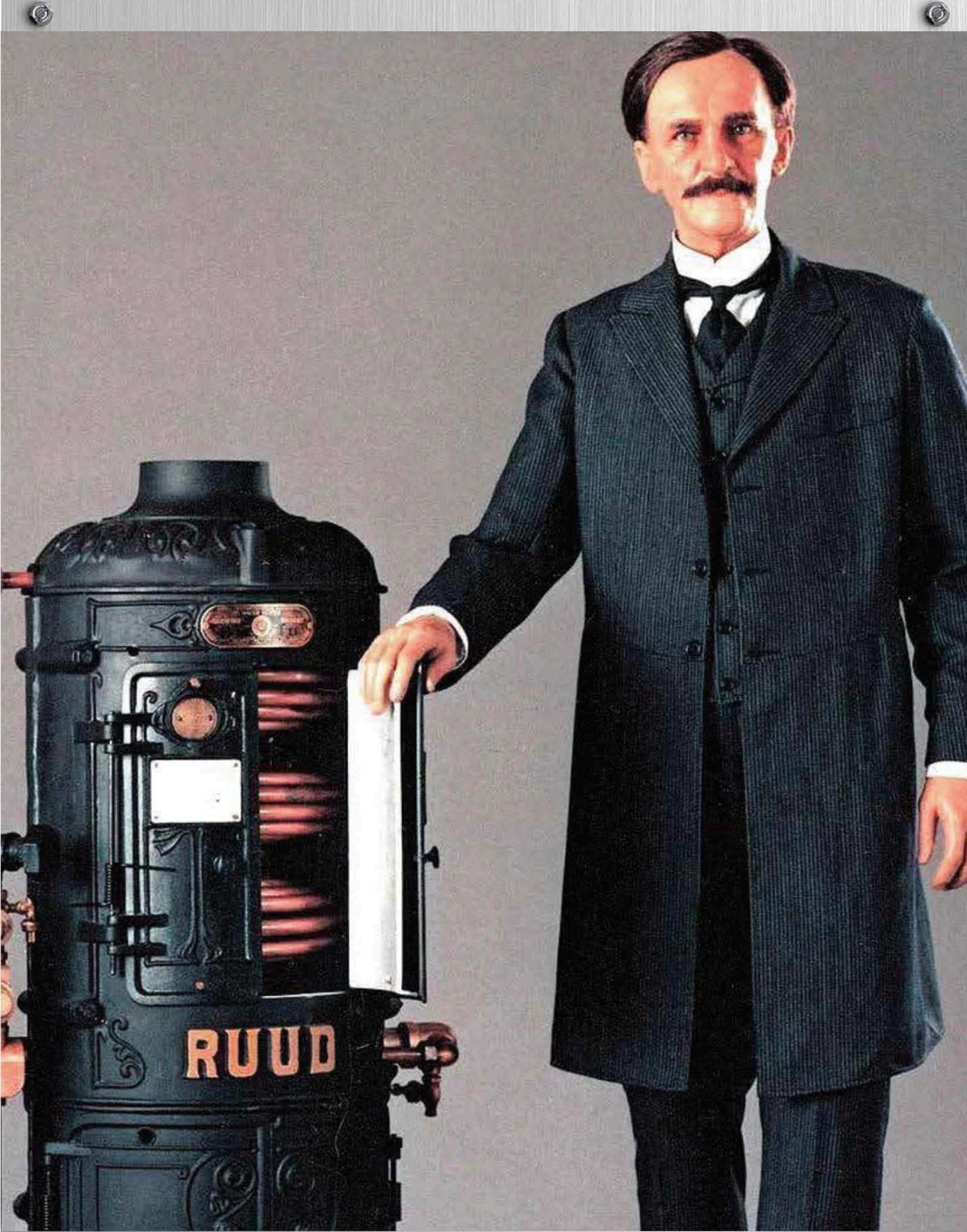
SOLAR WATER HEATING SYSTEM



RELY ON RUUD.™

@ruudmea
 Ruud Middle East and Africa

Learn more at:
www.ruud-mea.com



RELY ON RUUD.™

A BRIEF INTRODUCTION **A GLOBAL AMERICAN BRAND**

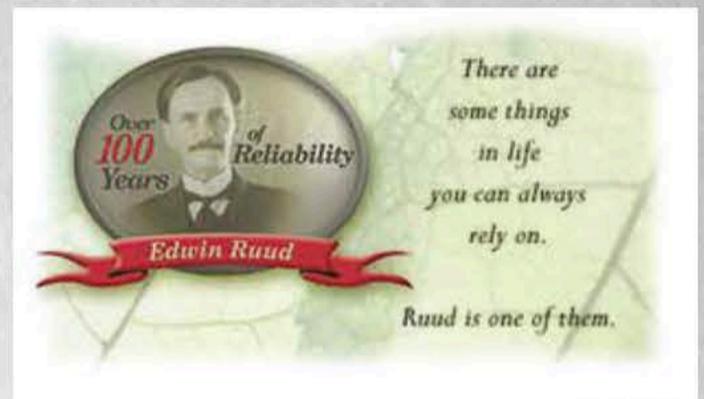
About Ruud®

More than 100 years ago, Edwin Ruud, a Norwegian mechanical engineer, came to America and developed the first successful automatic water heater. That early success marked the beginning of a tradition of innovation and value that led to the introduction of RUUD® air conditioning and water heating equipment in the 1950s.

Since then, the RUUD® has grown into one of North America's largest manufacturers of quality air conditioning and water heating products for residential and light commercial use.

Today, RUUD® operates manufacturing facilities employing highly trained workers and state-of-the-art equipment. Over the years, the product lines have expanded, changed, and improved significantly as new design techniques and better manufacturing technologies have become available.

What remains unchanged throughout our history, however, is our commitment to producing the most reliable, long-lasting, efficient equipment you can buy.



11

R & D Centers

13

Rheem Business Offices

25

Manufacturing Facilities



RUUD COMMITMENT & DESIGN PHILOSOPHY

Our commitment to **SUSTAINABILITY**

A GREATER DEGREE OF GOOD

As a member of the Rheem® family of brands, Ruud® is a big part of Rheem Manufacturing's commitment to taking a greater degree of responsibility for future generations.

NEXT-GENERATION THINKING

We're focused on innovating Ruud® products with intent, engineering solutions with lifetime sustainability in mind—from material selection to smart features to responsible recycling. And, our products are designed to meet our customers' needs—giving them greater control over their energy and water consumption, lowering their environmental impact. We are transforming the industry by introducing ground-breaking, intelligent air and water solutions to homes and businesses around the globe.

DESIGNED FOR ZERO WASTE



DEGREES OF
LEADERSHIP



DEGREES OF
INNOVATION



DEGREES OF
EFFICIENCY



RUUD COMMITMENT & DESIGN PHILOSOPHY

Our Philosophy of Innovation

We believe the best design delivers everything our customers need and want. The Ruud® 360°+1 design philosophy embodies this commitment to examine every aspect of every product (and program) we develop from every angle, so we can provide the ultimate performance, installability, serviceability, durability, integration, peace of mind and partnership for consumers and industry professionals alike. The Ruud® 360°+1 design philosophy applies to everything we do—from the way we build our products, to the way we continue to build our reputation.

360°+1 Pillars

The Ruud® 360°+1 design philosophy is built around pillars that guide us in innovating even better solutions for our customers. These pillars bring our 360°+1 design philosophy to life, helping us further explain the benefits we deliver.

DRIVEN BY



PHILOSOPHY



360° Integration ®



360° Installability ™



360° Serviceability ®



360° Durability ™



360° Peace-of-Mind ™



RELIABLE

SOLAR WATER HEATING SYSTEM



SOLAR
WATER
HEATERS

Features & Benefits

- TRUSTWORTHY FOR POWER SAVINGS
- RELIABLE THERMAL PERFORMANCE
- PIONEERED FOR HOT WATER ALL ALONG
- LONG LASTING EVEN IN HARSH WEATHER
- PROTECTION FROM HIGH-SALINITY
- STRONG INSTALLATION

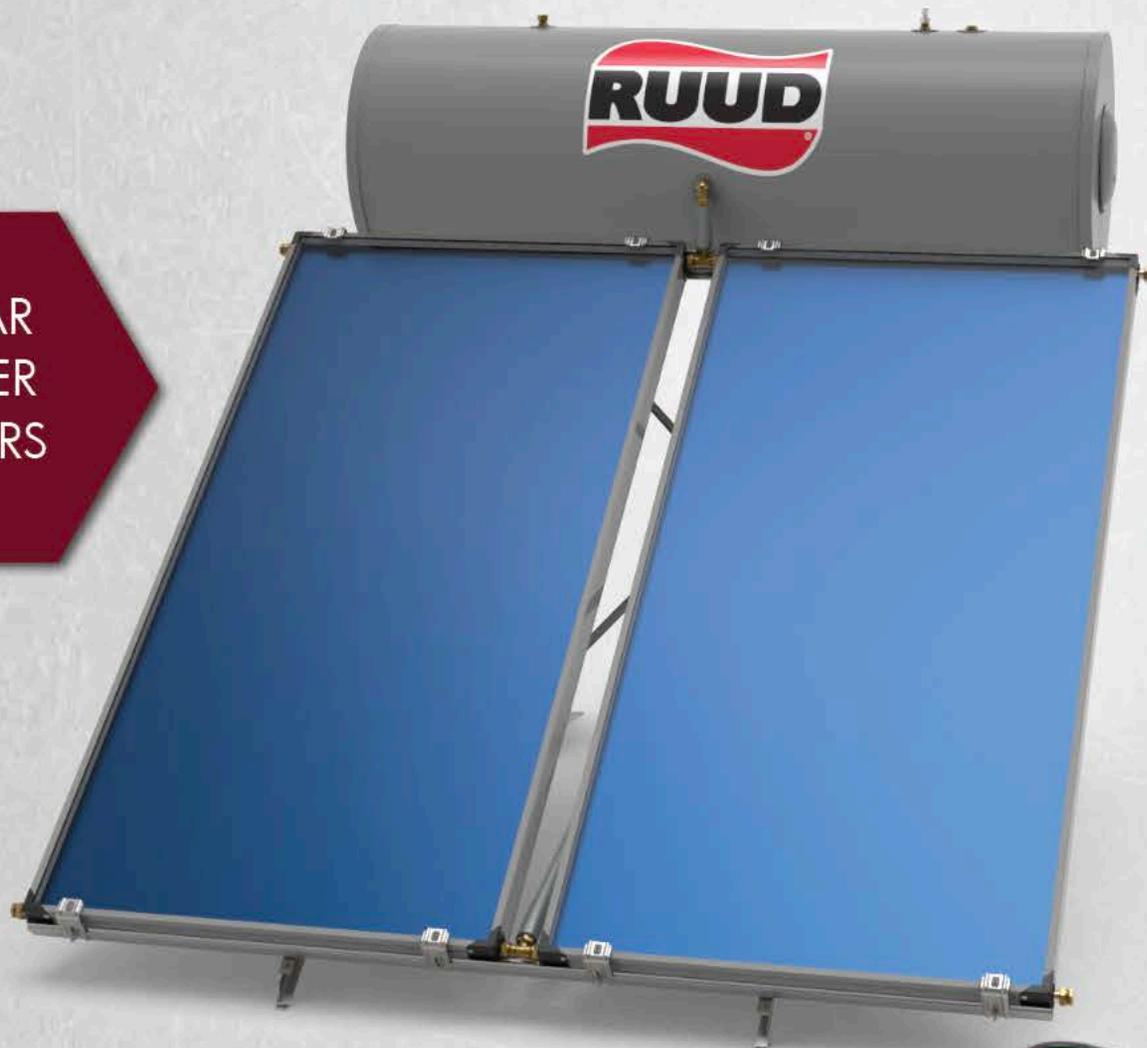


System Nomenclature

Nomenclature 50Hz

RX	S	150L	C1	A20	F21	T1 1	EHC
Brand	Offerings	Capacity in Liters	Collector Qty	Type Of Solar Collector	Support Base Angle	Tank Type:	EHC Type:
RU: RUUD	S: Standard O: Optional	150L 200L 250L 300L	C1: One Collector C2: Two Collectors	A: Clear tempered, Mineral R 10/11 : GA 1.88m2 B: Mat Prismatic clear Mineral, R 10/11 : GA 1.88m2 C: Mat Prismatic clear double antireflective, R 13/16 : GA 1.88m2 D: Mat Prismatic clear double antireflective,, Rigid PU, R 13/16 : GA 2.0 m2 Tall, or Short E: Horizontal Clear tempered, Mineral R 16/17 : GA 1.88m2	F21: 21 degree F35: 25-35 degree F45: 45 degree	T1: Bottom Connections T2: Side Connections T3: Heat Pump Connection	150L-1.5KW 200L-2.0KW 250L-2.0KW 300L-2.0KW
						Tank Paint or Cover Material: 1: Prepainted Galvanized Steel 9006 2: Aluminum 3: Magnelis 4: SS304 5: Prepainted GS with RAL 9010	

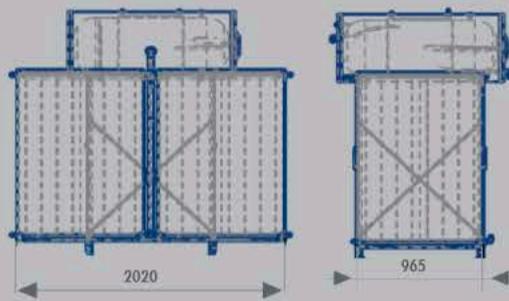
SOLAR
WATER
HEATERS



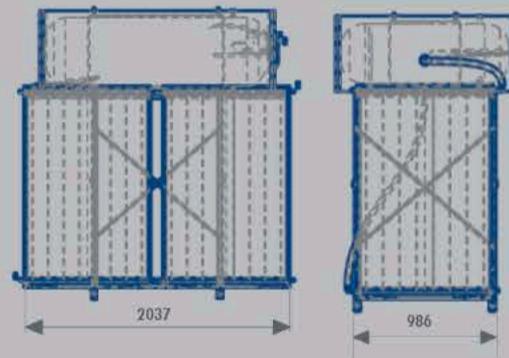
Technical Specifications: System

Collector A20 (Gross Area 1.88m ²)		Standard Configuration with Collector Type A20: Clear Tempered, Mineral R 10 Gross Area 1.88m ²							
S. No	Model Size	Cylinder Weight	"Cylinder Dimensions (LXWXD) mm"	Collector Qty	Collector Gross Area(m ²)	"Each Collector Weigh (kg)"	Test Pressure(bar)	Support Base Weight (kg)	Total Equipment Weight Empty (kg)
1	RXS150LC1-A20F35T11-150	58	1285x400	1	1.88	37	15	18.50	113.50
2	RXS200LC1-A20F35T11-200	68	1285x480	1	1.88	37	15	18.50	123.50
3	RXS200LC2-A20F35T11-200	68	1285x480	2	3.76	37	15	22.50	164.50
4	RXS250LC2-A20F35T11-200	82	1551x480	2	3.76	37	15	22.50	178.50
5	RXS300LC2-A20F35T11-200	100	1785x480	2	3.76	37	15	22.50	196.50

For Configuration : A , B & C

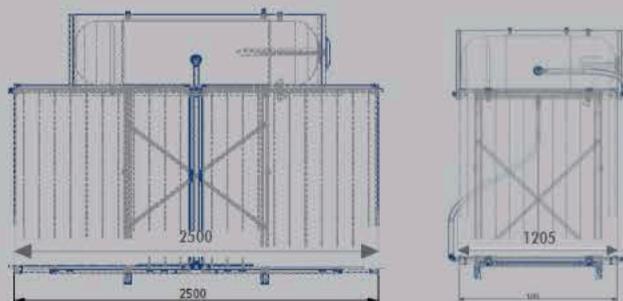


For Configuration :D

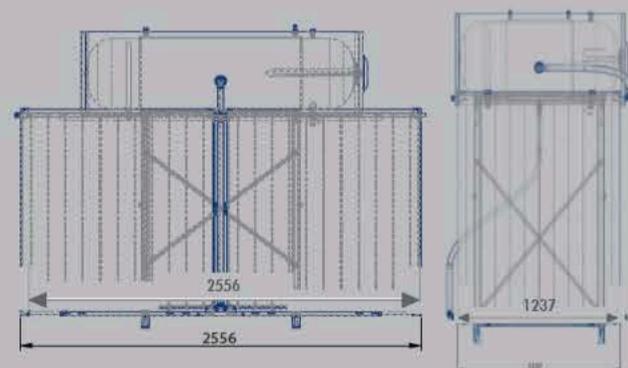


Collector A25 (Gross Area 2.37m ²)		Optional Configuration with Collector Type A25: Clear Tempered, Mineral R 11 : Gross Area 2.37m ²							
S. No	Model Size	Cylinder Weight	"Cylinder Dimensions (LXWXD) mm"	Collector Qty	Collector Gross Area(m ²)	"Each Collector Weigh (kg)"	Test Pressure(bar)	Support Base Weight (kg)	Total Equipment Weight Empty (kg)
1	RXO150LC1-A25F35T11-150	58	1285x400	1	2.37	41	15	18.50	117.50
2	RXO200LC1-A25F35T11-200	68	1285x480	1	2.37	41	15	18.50	127.50
3	RXO250LC1-A25F35T11-200	82	1551x480	1	2.37	41	15	18.50	141.50
4	RXO300LC1-A25F35T11-200	100	1785x480	1	2.37	41	15	18.50	159.50
5	RXO300LC2-A25F35T11-200	100	1785x480	2	4.74	41	15	22.50	204.50

For Configuration : A , B & C



For Configuration :D



Other Optional Collectors are as listed below,

Collector Type B: Mat Prismatic clear Mineral, R 10/11 : GA 1.88m²

Collector Type C: Mat Prismatic clear double antireflective, R 13/16 : GA 1.88m²

Collector Type D: Mat Prismatic clear double antireflective,, Rigid PU, R 13/16 : GA 2.0 m² Tall, or Short

Collector Type E: Horizontal Clear tempered, Mineral R 16/17 : GA 1.88m²



STORAGE TANKS

RUST11 Tank: Standard

TECHNICAL SPECIFICATIONS

	RUST11 model	150 lt	200 lt	250 lt	300 lt
	Gross Capacity (lt)	144	199	242	295
A	Tank's Length (mm)	1285	1285	1551	1785
B	External Diameter (mm)	Ø 500	Ø 580	Ø 580	Ø 580
C	Main Tank's Diameter (mm)	Ø 400	Ø 480	Ø 480	Ø 480
	Jacket's Capacity (lt)	8	9	12	19
D	Flange Diameter (mm)	Ø 140	Ø 140	Ø 140	Ø 140
	Weight (kg)	58	68	82	100

Main Tank's Material: DC Sheet (EN 10130/2006)

Internal Anti-corrosion Protection: a) LIQUID enamel (DIN 4753-3), totally safe for public health (DIN 51032 & EN 1388-2) and b) magnesium anode (EN 12438)

Welding: MIG

Insulation: Hard polyurethane foam 48kg/m³ (DIN 53420), self-extinguishing (DIN 4102)

Maximum Working Pressure for the Main Tank :10 bar

Test pressure for the Main Tank: 15 bar (EN 12976-1, 4.1.6)

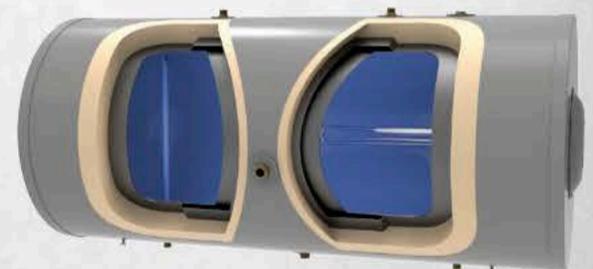
Maximum Working Pressure for the Jacket (exchanger):3,2 bar

Test Pressure for the Jacket (Exchanger):5 bar (EN 12976-1/2006, 4.1.6)

Maximum Working Temperature of the Main Tank: 95°C

Heating Element: Optional, upon request

External Cover: Pre-painted galvanized steel sheet 0,5mm (EN 10204 / 2.2)



STANDARD

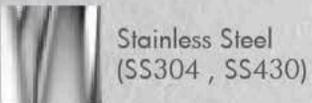


AVAILABLE
IN DIFFERENT
COLOURS
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GALVANIZED
STEEL SHEET)

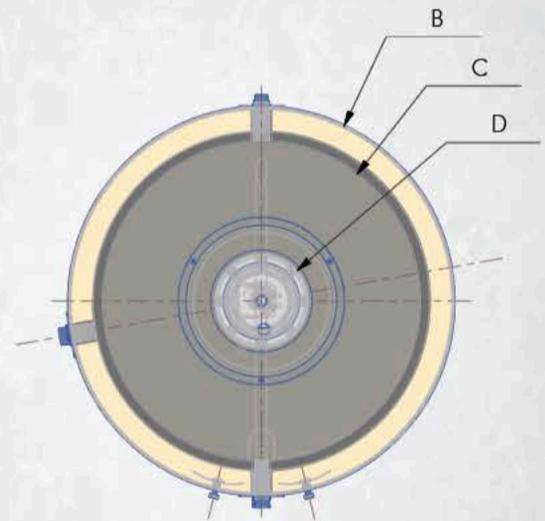
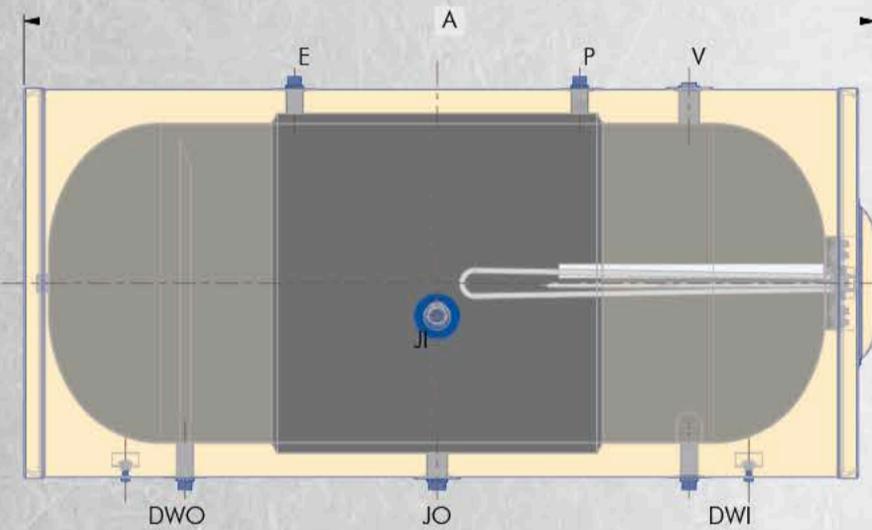
OPTIONAL



OPTIONAL EXTERNAL MATERIAL



i "For optional colors, please check with your sales representative for more details"



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
DWI	Domestic cold Water Inlet
JO	Closed circuit cold water outlet
Jl	Closed circuit hot water inlet

Standard Element KW are:
For 150L to 200L: 2KW ,
For 250L to 300L: 3.5KW ,

For other optional KW within the available range of 1.5 to 3.5 KW

Please check with your sales representatives for more details.



RUOT21 Tank: Optional

(SIDE CONNECTION FOR CLOSED CIRCUIT , DOMESTIC HOT-COLD WATER INLET & OUTLET)

STANDARD



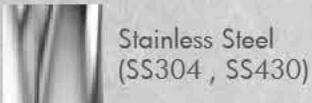
AVAILABLE
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COLOURS
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STEEL SHEET)



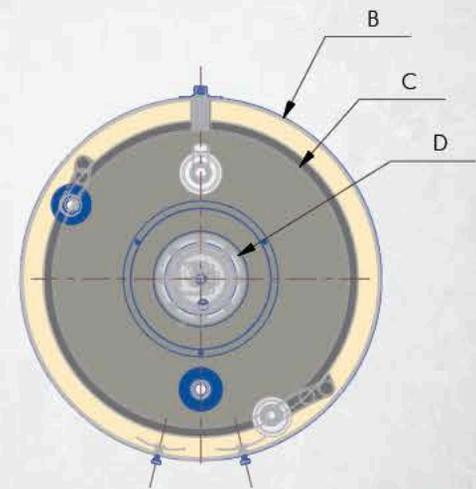
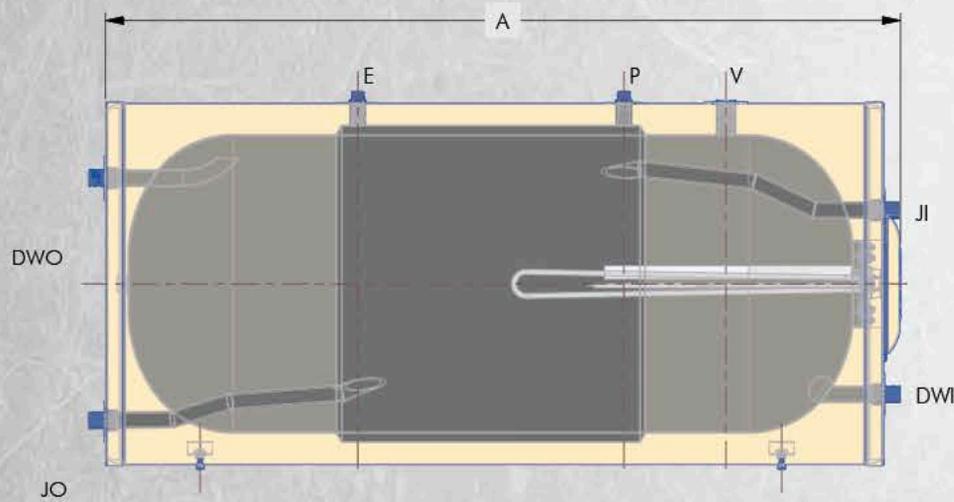
OPTIONAL



OPTIONAL EXTERNAL MATERIAL



i "For optional colors, please check with your sales representative for more details"



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
DWI	Domestic cold Water Inlet
JO	Closed circuit cold water outlet
JI	Closed circuit hot water inlet

Standard Element KW are:
For 150L to 200L: 2KW ,
For 250L to 300L: 3.5KW ,

For other optional KW within the available range of 1.5 to 3.5 KW

Please check with your sales representatives for more details.

RUOT31 Tank: Optional

(DESIGNED FOR HEAT PUMPS)

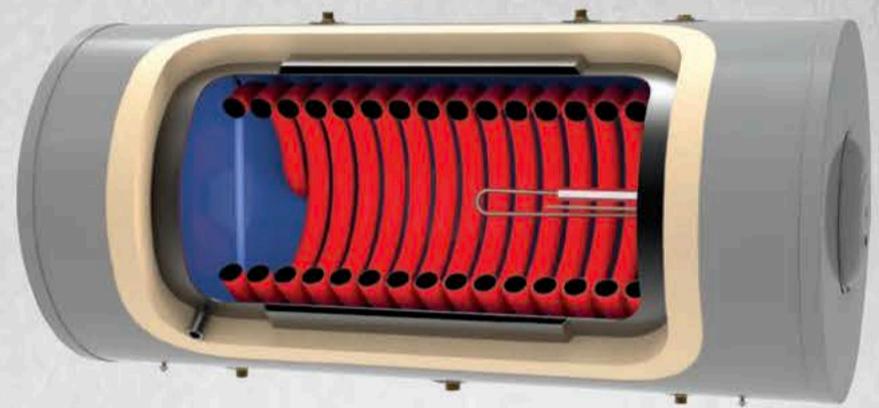
STANDARD



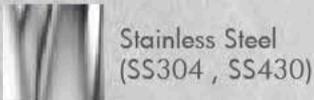
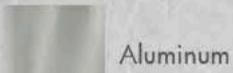
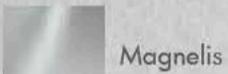
AVAILABLE IN DIFFERENT COLOURS (PRE-PAINTED GALVANIZED STEEL SHEET)



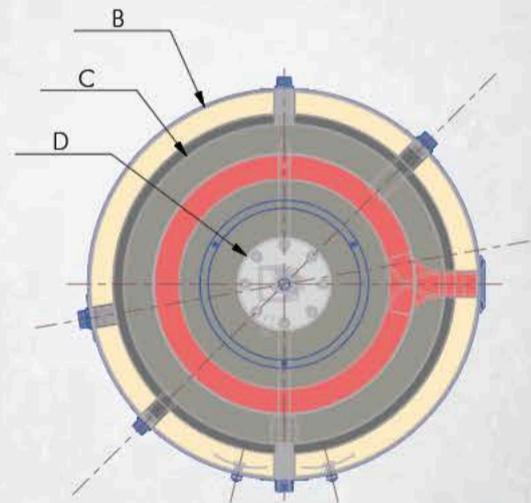
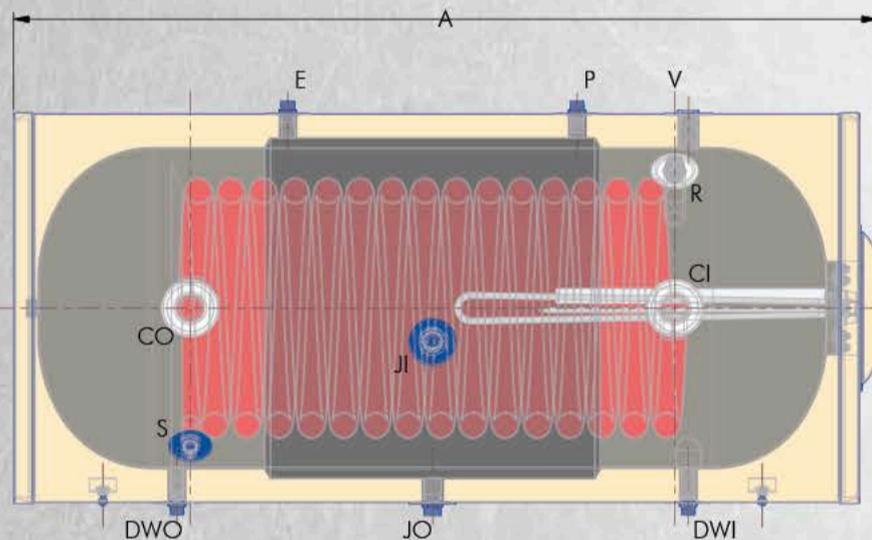
OPTIONAL



OPTIONAL EXTERNAL MATERIAL



i "For optional colors, please check with your sales representative for more details"



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
DWI	Domestic cold Water Inlet
JO	Closed circuit cold water outlet
JI	Closed circuit hot water inlet

Standard Element KW are:
For 150L to 200L: 2KW ,
For 250L to 300L: 3.5KW ,

For other optional KW within the available range of **1.5 to 3.5 KW**

Please check with your sales representatives for more details.



SOLAR THERMAL COLLECTORS

RUA Collector: Standard

TECHNICAL SPECIFICATIONS

TECHNICAL DATA	MEASUREMENT UNIT(SI)	COLLECTOR'S CHARACTERISTICS RUA20 - FULL FACE		
		RUA15	RUA20	RUA25
TYPE		RUA15	RUA20	RUA25
Extrenal dimensions <i>(height x width x thickness)</i>	mm	1460x960x80	1960x960x80	1960x1260x80
Gross area	m ²	1,40	1,88	2,37
Aperture area	m ²	1,32	1,79	2,27
Absorber area	m ²	1,35	1,83	2,33
Absorber capacity	L	1,45	1,63	1,81
Compact Tray / thickness	mm	Pre-painted galvanized metal sheet / 0,5		
Glass		Clear tempered		
Insulation <i>(Back and side) thickness / density</i>	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	11
Maximum operating pressure	Bar	10		
Heat transfer mean		Antifreeze and water solution (monopropylene glycol)		
Layout		Vertical		
Weight (empty & packed)	Kg	30	37	41



AVAILABLE
IN DIFFERENT
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GALVANIZED
STEEL SHEET)

STANDARD



OPTIONAL EXTERNAL MATERIAL



RUA15

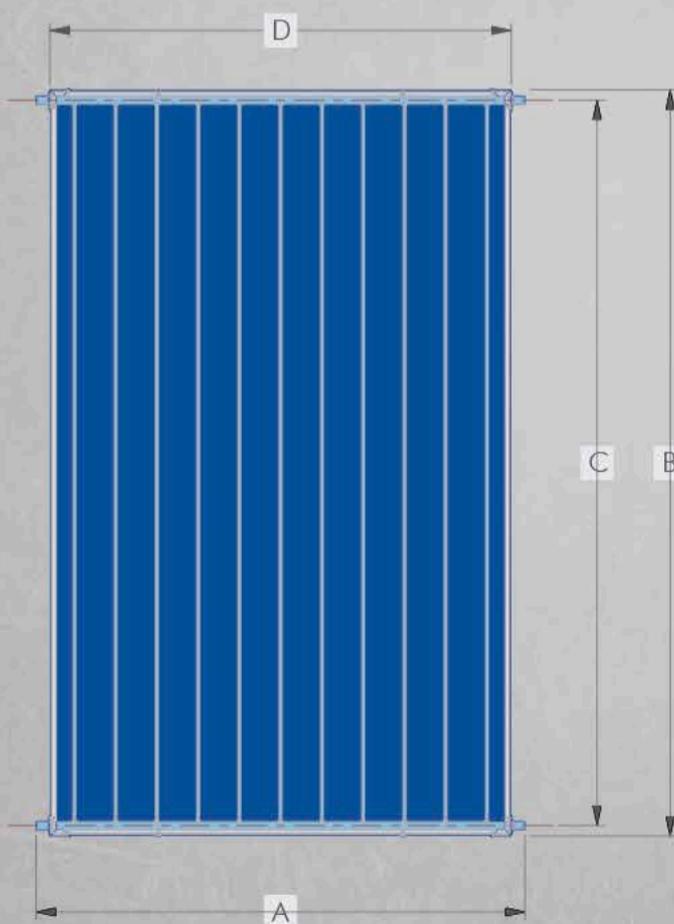
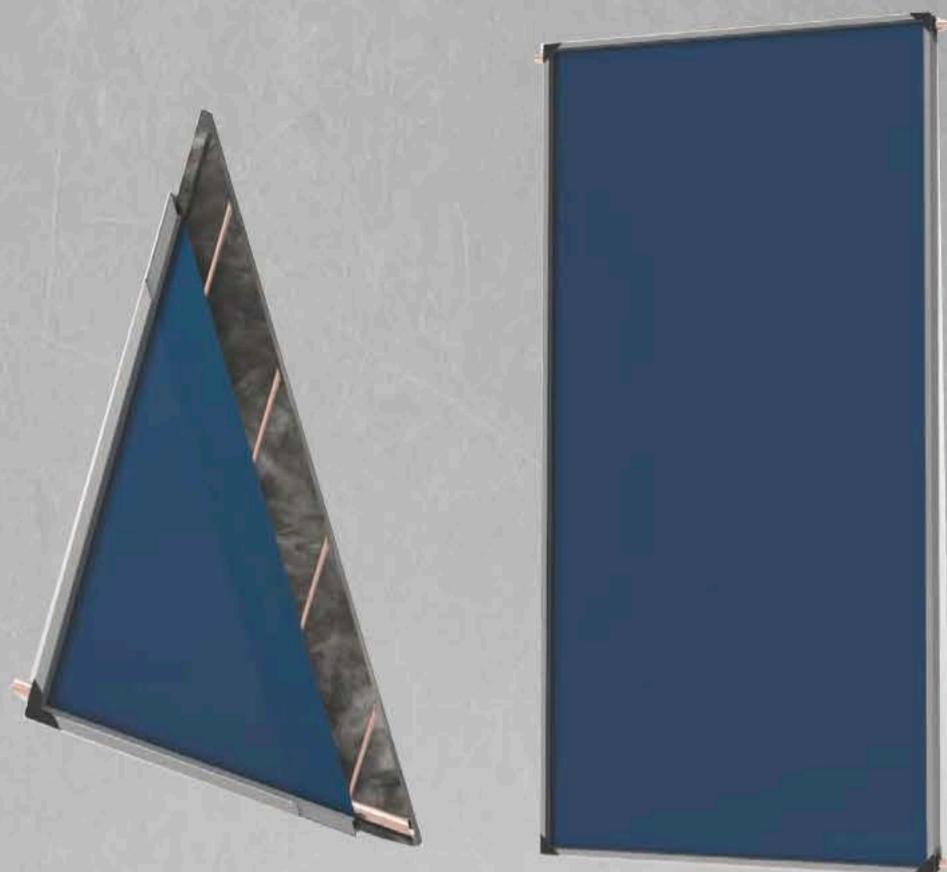
A	1030 mm
B	1460 mm
C	1405 mm
D	960 mm

RUA20

A	1030 mm
B	1960 mm
C	1910 mm
D	960 mm

RUA25

A	1280 mm
B	1960 mm
C	1910 mm
D	1210 mm



RUE Horizontal Collector: Optional

(with frame)

TECHNICAL SPECIFICATIONS

TECHNICAL DATA	MEASUREMENT UNIT(SI)	COLLECTOR'S CHARACTERISTICS RUE20 - FULL FACE	
		RUE20	RUE25
TYPE			
Extrenal dimensions <i>(height X width X thickness)</i>	mm	960×1965×80	1210×1965×80
Gross area	m ²	1,88	2,38
Aperture area	m ²	1,79	2,28
Absorber area	m ²	1,85	2,34
Absorber capacity	L	1,94	2,15
Frame / thickness	mm	Pre-painted galvanized metal sheet / 0,5	
Glass		Clear tempered	
Insulation <i>(Back and side) thickness / density</i>	mm /Kg/m ³	Mineral glass wool thickness 30mm / density 50 kg/m ³ . Product specifically designed for collectors, with very low conductivity to avoid losses. Its properties remain unchanged over time. Parasites are prevented.	
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	34	42



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STEEL SHEET)

STANDARD



**OPTIONAL
EXTERNAL MATERIAL**

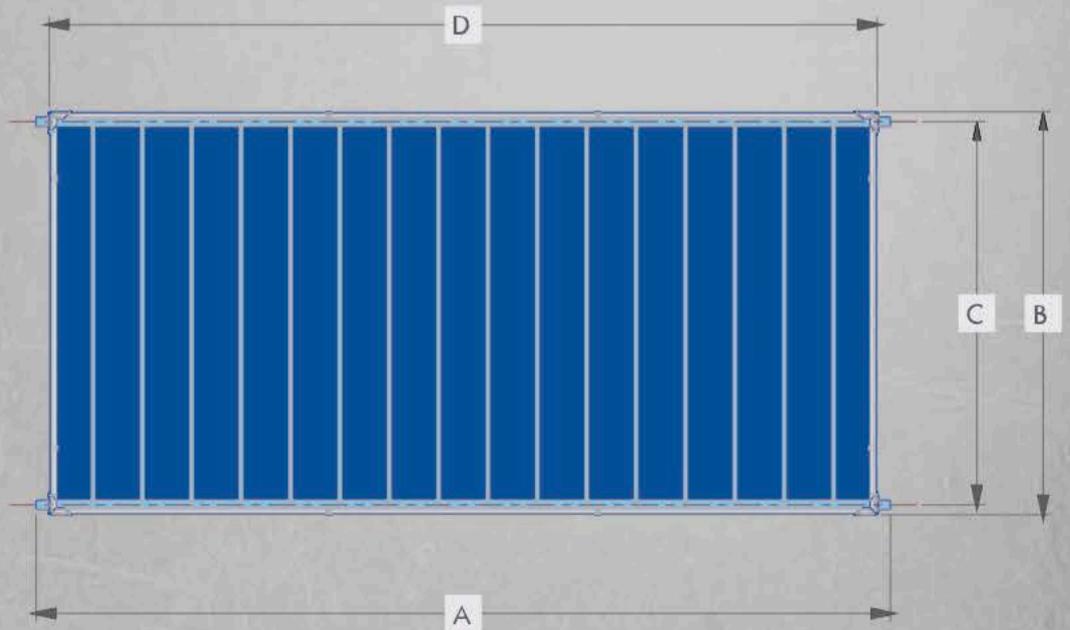


RUE20

A	2028 mm
B	960 mm
C	911 mm
D	1965 mm

RUE20

A	2028 mm
B	1210 mm
C	1161 mm
D	1965 mm



RUB Vertical Collector: Optional

(with frame)

TECHNICAL SPECIFICATIONS

TECHNICAL DATA	MEASUREMENT UNIT(SI)	COLLECTOR'S CHARACTERISTICS RUB20 - FULL FACE	
		RUB20	RUB25
TYPE			
Extrenal dimensions <i>(height X width X thickness)</i>	mm	1970x965x80	1970x1220x80
Gross area	m ²	1,90	2,40
Aperture area	m ²	1,79	2,27
Absorber area	m ²	1,83	2,33
Absorber capacity	L	1,63	1,81
Compact Tray / thickness	mm	Pre-painted galvanized metal sheet / 0,5	
Glass		Mat prismatic, extra clear, tempered	
Insulation <i>(Back and side) thickness / density</i>	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

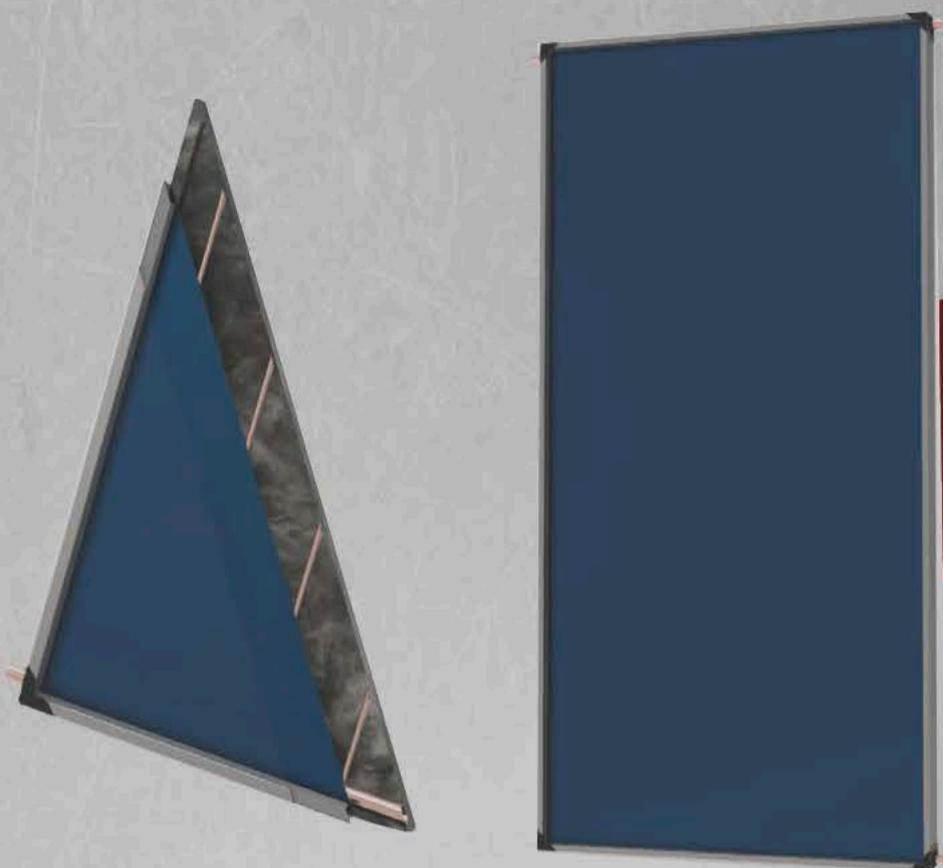


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STANDARD



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EXTERNAL MATERIAL**

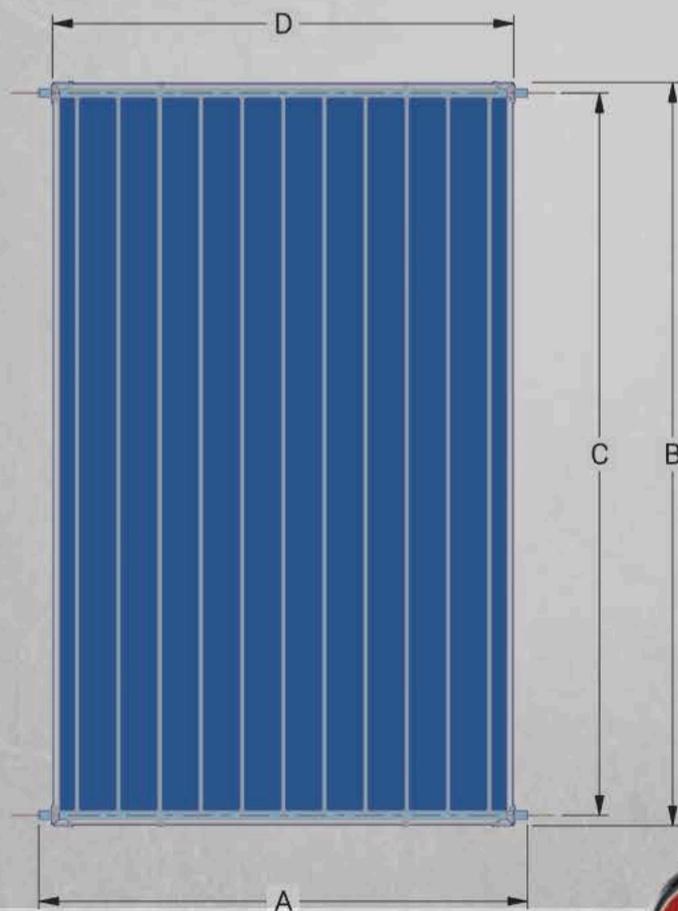


RUB20

A	1030 mm
B	1960 mm
C	1910 mm
D	960 mm

RUB25

A	1280 mm
B	1960 mm
C	1910 mm
D	1210 mm



RUC Collector: Optional

TECHNICAL SPECIFICATIONS

TECHNICAL DATA	MEASUREMENT UNIT(SI)	COLLECTOR'S CHARACTERISTICS RUC20 - FULL FACE	
		RUC20	RUC25
TYPE			
Extrenal dimensions <i>(height X width X thickness)</i>	mm	1960x960x80	1960x1210x80
Gross area	m ²	1,88	2,38
Aperture area	m ²	1,79	2,28
Absorber area	m ²	1,85	2,34
Absorber capacity	L	1,64	2,09
Compact / thickness	mm	Pre-painted galvanized metal sheet / 0,5	
Glass		Mat prismatic, extra clear, double antireflective, tempered.	
Insulation <i>(Back and side) thickness / density</i>	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	%	96	
Emission	%	4	
Header copper tube Ø / thickness	mm	Ø 22 / 0,70	
Riserer copper tube Ø / thickness	mm	Ø 8 / 0,4	
Number of vertical risers	No.	13	16
Maximum operating pressure	Bar	10	
Heat transfer mean		Antifreeze and water solution (monopropylene glycol)	
Layout		Vertical	



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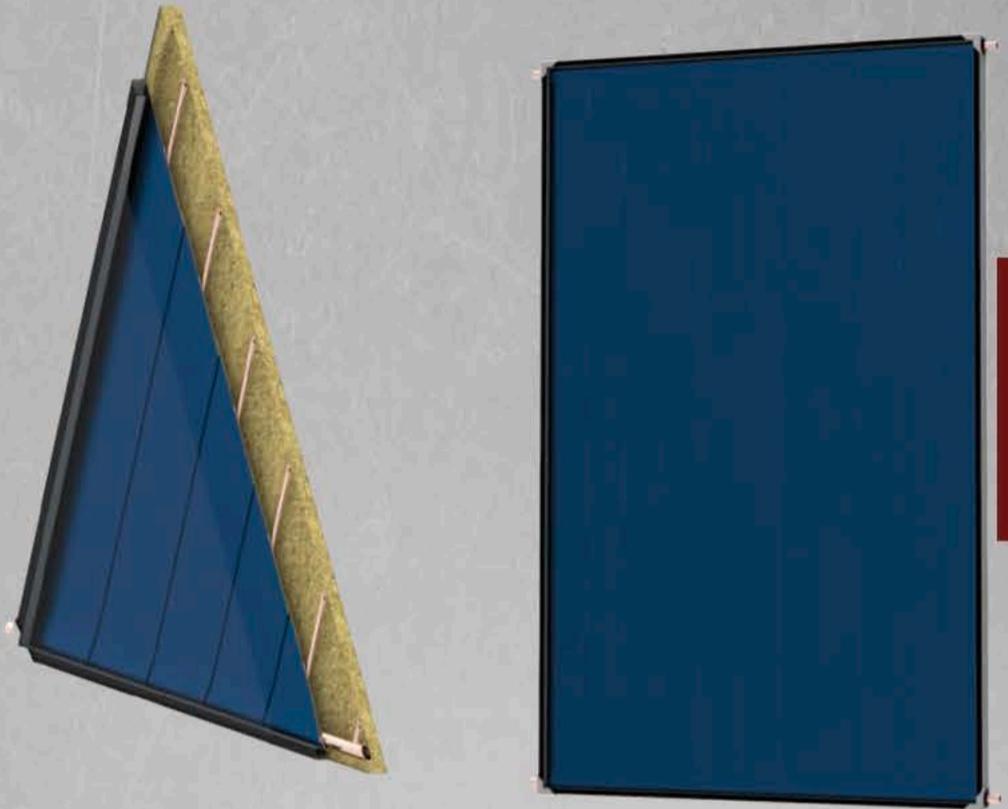
STANDARD

RAL 9006

**OPTIONAL
EXTERNAL MATERIAL**

Magnelis

Aluminum

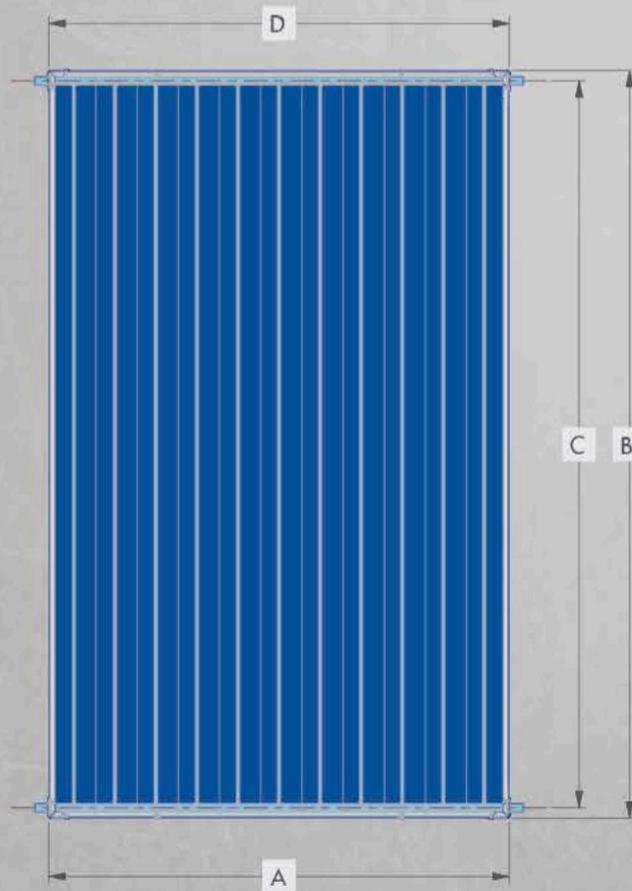


RUC20

A	1030 mm
B	1960 mm
C	1910 mm
D	960 mm

RUC25

A	1280 mm
B	1960 mm
C	1910 mm
D	1210 mm



RUD Collector: Optional

TECHNICAL SPECIFICATIONS

TECHNICAL DATA	MEASUREMENT UNIT(SI)	COLLECTOR'S CHARACTERISTICS RUD20 - FULL FACE		
		RUD20(T)	RUD20(S)	RUD25
TYPE				
Extrenal dimensions <i>(height x width x thickness)</i>	mm	2020x990x103	1594x1254x103	2020x1254x103
Gross area	m ²	2	2	2,53
Aperture area	m ²	1,85	1,85	2,38
Absorber area	m ²	1,83	1,83	2,35
Absorber capacity	L	1,48	1,67	1,89
Frame / thickness	mm	Pre- painted aluminum (frame) / 1 Pre- painted steel sheet (back) / 0,5		
Glass		Mat prismatic, extra clear, double antireflective, tempered.		
Insulation <i>(Back and side) thickness / density</i>	mm / Kg/m ³	Rigid polyurethane thickness 25mm / density 40kg/m ³ & rockwool thickness 30mm / density 50kg/m ³ . A material specifically designed for collectors, with very low contactivity preventing energy loss. Its properties remain unchanged throughout its life cycle. Prevents parasites growth.		
Absorber		Placed on the sides and the back of polyurethane insulation to reflect heat on the absorber.		
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	13	13
Maximum operating pressure	Bar	10		
Heat transfer mean		Antifreeze and water solution (monopropylene glycol)		
Layout		Vertical		
Weight (empty & packed)	Kg	38	38	43



AVAILABLE
IN DIFFERENT
COLOURS
(PRE-PAINTED
GALVANIZED
STEEL SHEET)

STANDARD



**OPTIONAL
EXTERNAL MATERIAL**



RUD20(T)

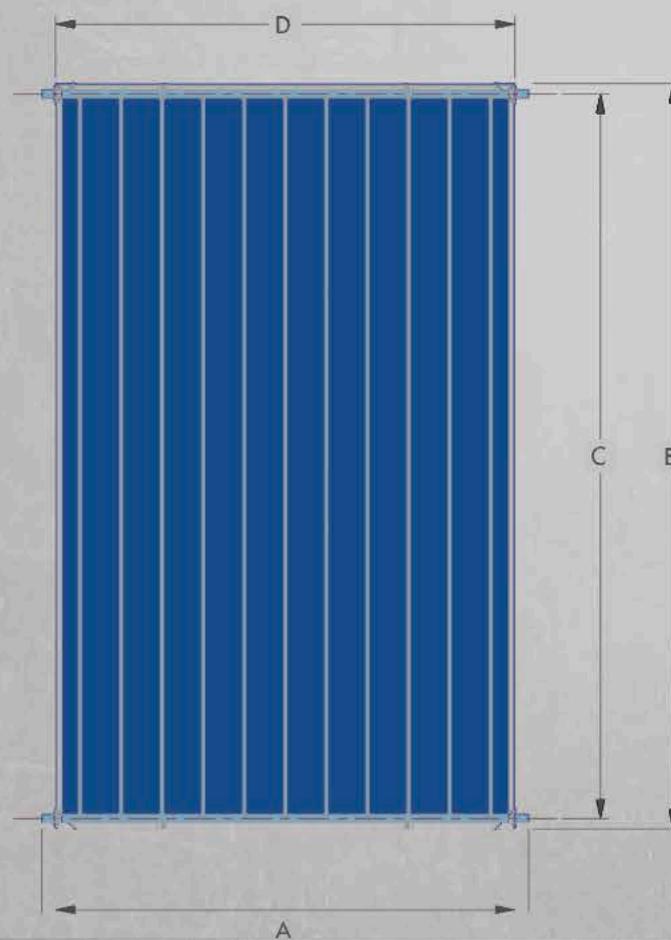
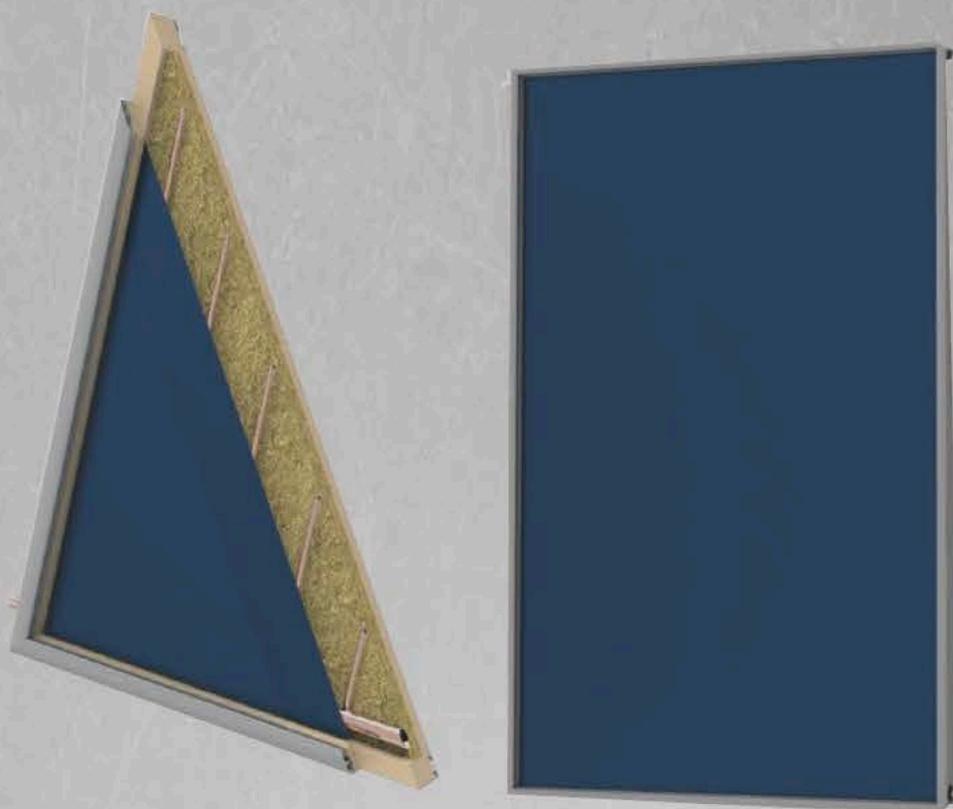
A	1046 mm
B	2020 mm
C	1923 mm
D	990 mm

RUD20(S)

A	1310 mm
B	1594 mm
C	1497 mm
D	1254 mm

RUD25

A	1310 mm
B	2020 mm
C	1923 mm
D	1254 mm



SUPPORT BASES

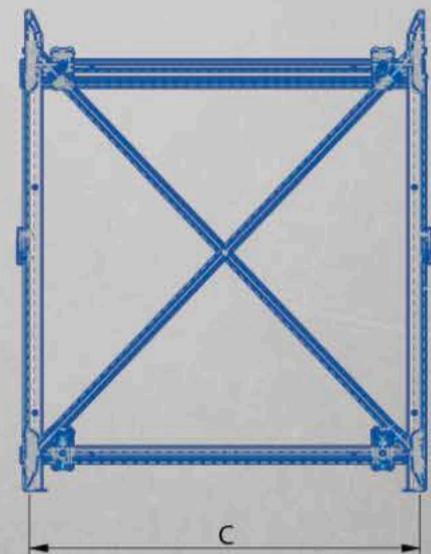
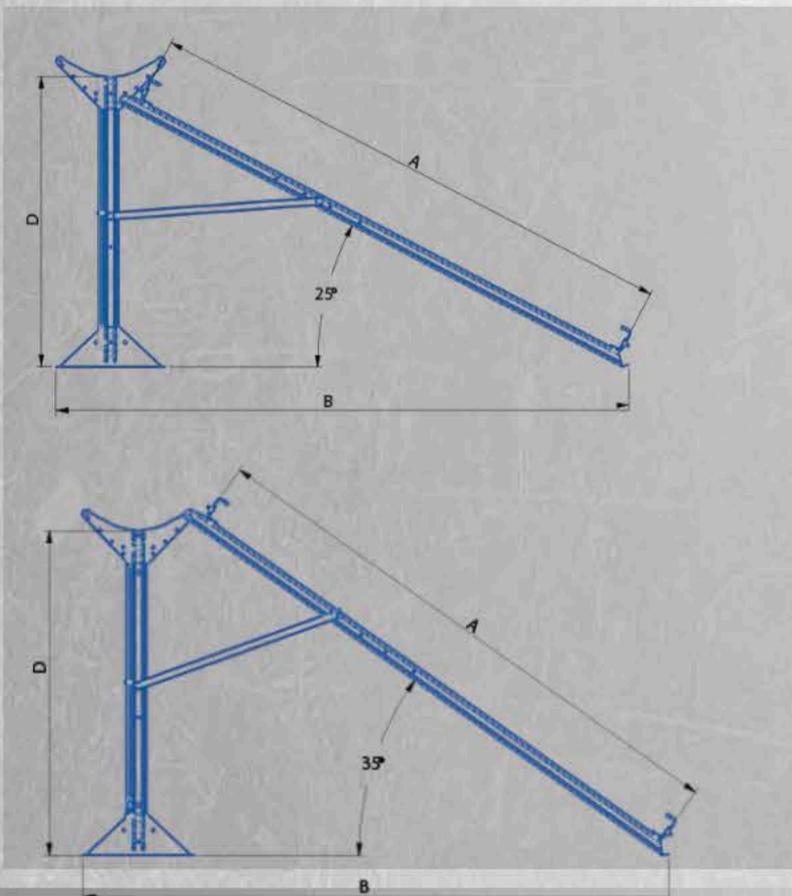
RUSF35 Base: Standard (25°-35°)

DIMENSIONS (MM)	
A	1885 to 2020
B	2120 (35) to 2135 (25)
C	940
D	1082 (35) to 1175 (25)
Kg (one collector)	18,5
Kg (two collectors)	22,5

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



MAXIMUM
SYSTEM
CAPACITY
TO SUPPORT
300L



RUOF21 Base: Optional (21°)

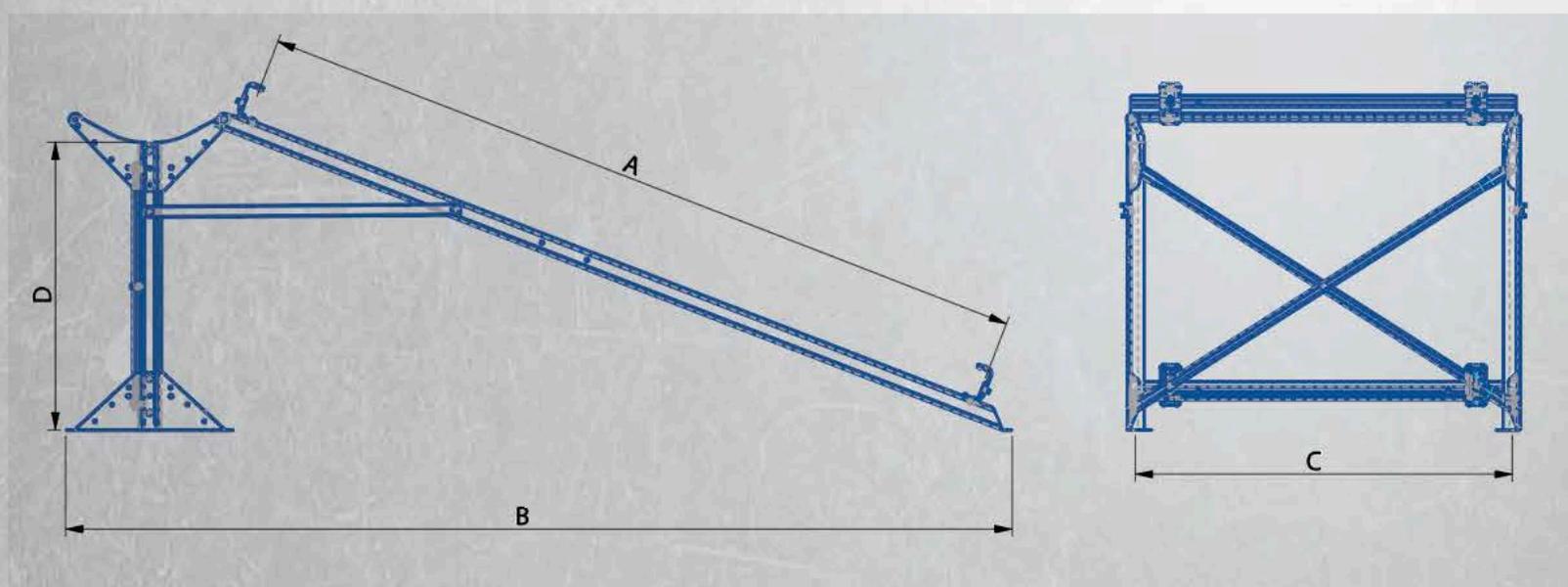
DIMENSIONS (MM)

A	1875 to 2005
B	2383
C	940
D	720
Kg (one collector)	17,44
Kg (two collectors)	21,98



MAXIMUM
SYSTEM
CAPACITY
TO SUPPORT
300L

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



RUOF45 Base: Optional (45°)

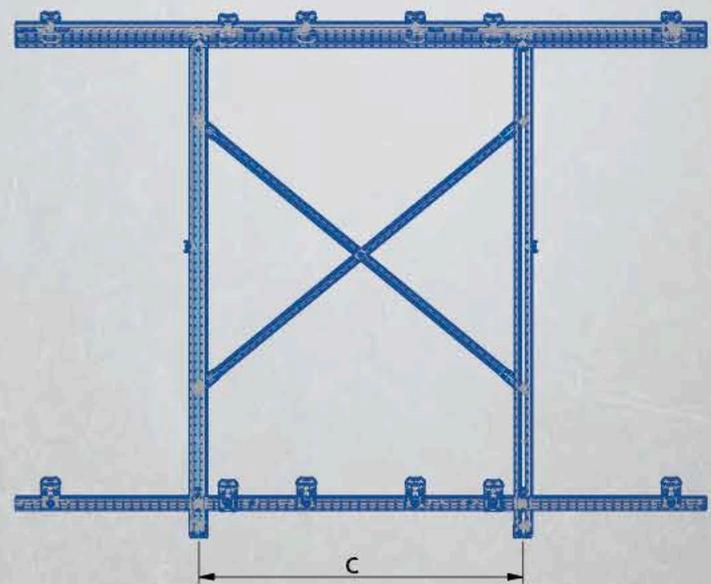
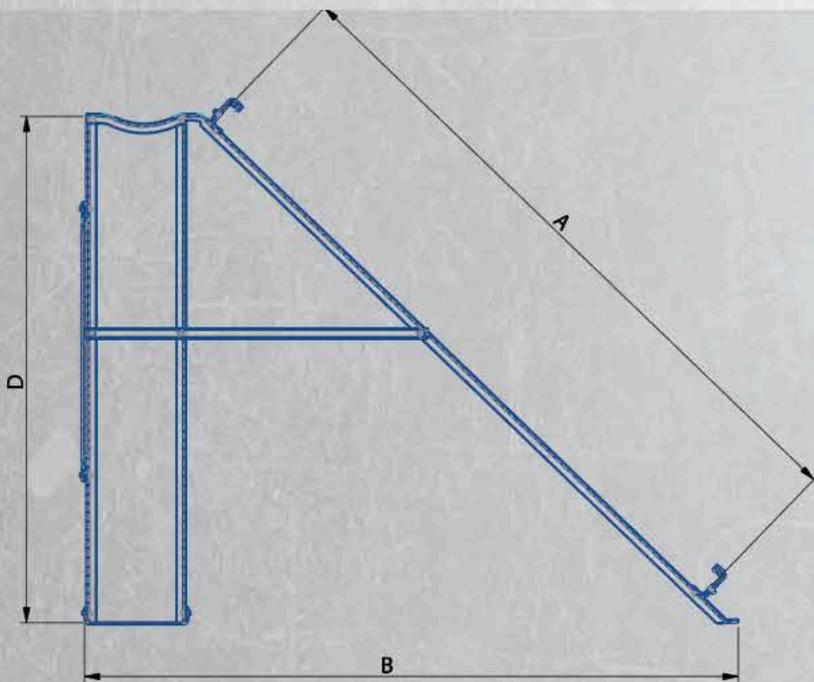
DIMENSIONS (MM)

A	1405 to 1545	1880 to 2020
B	1561	1895
C	780 / 940	780 / 940
D	1125	1470
Kg (one collector)	18,2	21,62
Kg (two collectors)	21,14	24,88

m² collector	Collectors Quantity	
1.5 / 2 m	1	2
2,5 m	1	2



MAXIMUM
SYSTEM
CAPACITY
TO SUPPORT
300L



QUALITY CONTROL

FOR MATERIALS AND PRODUCTS



Control
and development
of products





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More than 100 years ago, Edwin Ruud, a Norwegian mechanical engineer, came to America and developed the first successful automatic water heater. That early success marked the beginning of a tradition of innovation and value that led to the introduction of RUUD® air conditioning and water heating equipment in the 1950s. Since then, the RUUD® has grown into one of North America's largest manufacturers of quality air conditioning and water heating products for residential and light commercial use. Today, RUUD® operates manufacturing facilities employing highly trained workers and state-of-the-art equipment. Over the years, the product lines have expanded, changed, and improved significantly as new design techniques and better manufacturing technologies have become available. What remains unchanged throughout our history, however, is our commitment to producing the most reliable, long-lasting, efficient equipment you can buy.