

ECO - SUSTAINABLE SOLAR SYSTEM



ENERGY SAVED is **ENERGY PRODUCED**



Our mission is clear

Develop eco-sustainable systems by using solar energy



Our advantages are many

- **Best cost-effective** solution for temperature range 60-95 °C
- **Eclipse** : the exclusive patented **anti stagnation system**
- **Good performance** also by **reduced irradiation** or by **low external temperatures**
- **Higher durability** compared to standard flat plate collectors

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LIVESTOCK NUTRITION

FARM - Mantova

SOLAR THERMAL



12 thermal solar collectors
vacuum **model X-RAY 21R**
54 m2 of solar surface
4,000 liters of heated
domestic hot water



Average ACS consumption
10,000 liters/day



Savings on the bill
€7,500/year GAS

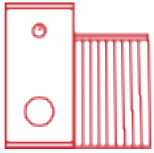
PLEION
The Sun is our Life!



WINE MAKER DELIBORI

Bardolino – Veneto

SOLAR THERMAL



30 vacuum thermal solar collectors
model X-RAY 21R

133 m² of solar surface
12,000 liters of heated DHW



Average ACS consumption
12,000 liters/day



solar prod 121130 kWh/year
solar fraction 71,40%
CO₂ saving : 41.000 kg/year

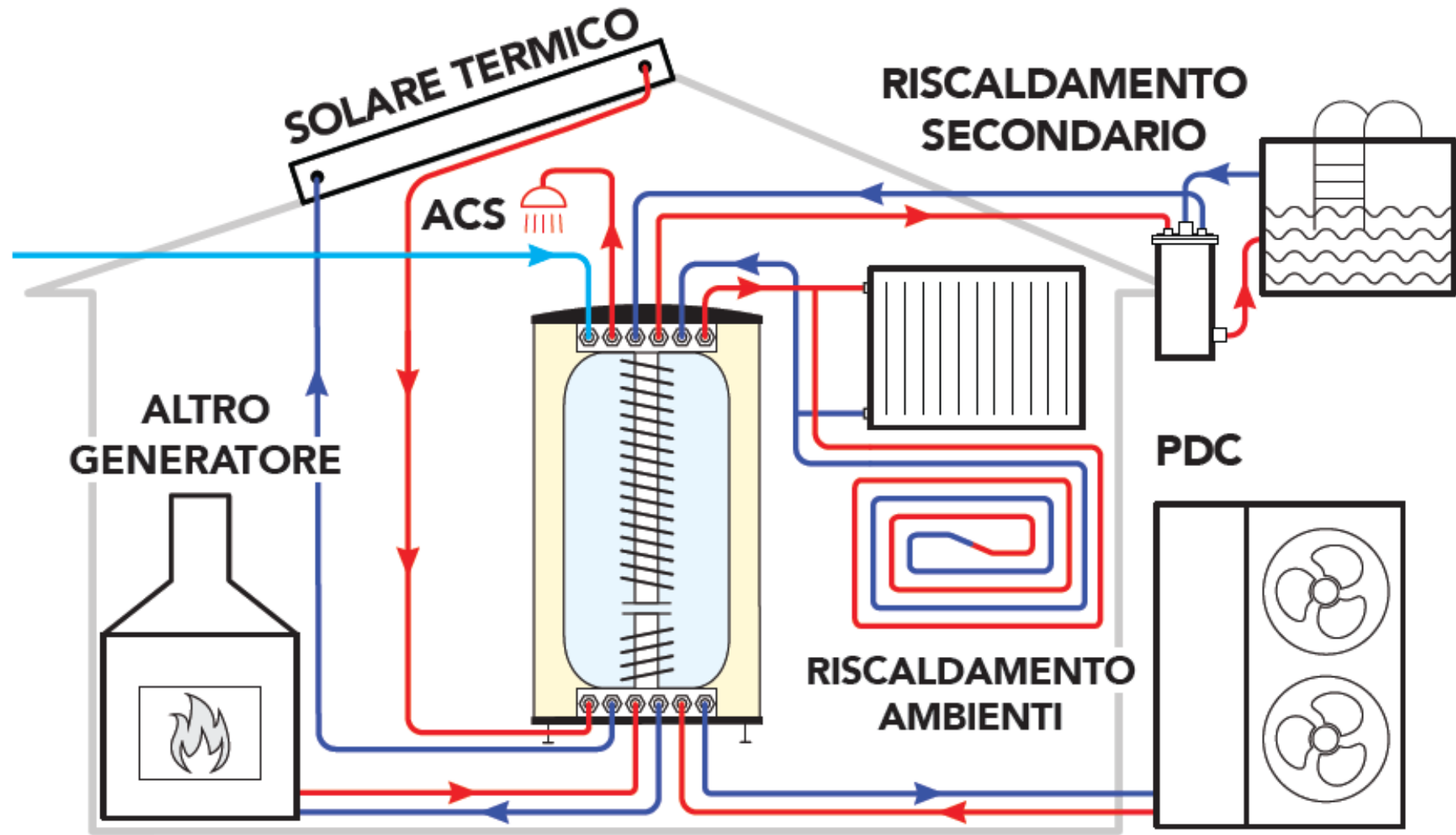


Savings on the bill
€11,000/year GAS
€55,000/year ELECTRICITY

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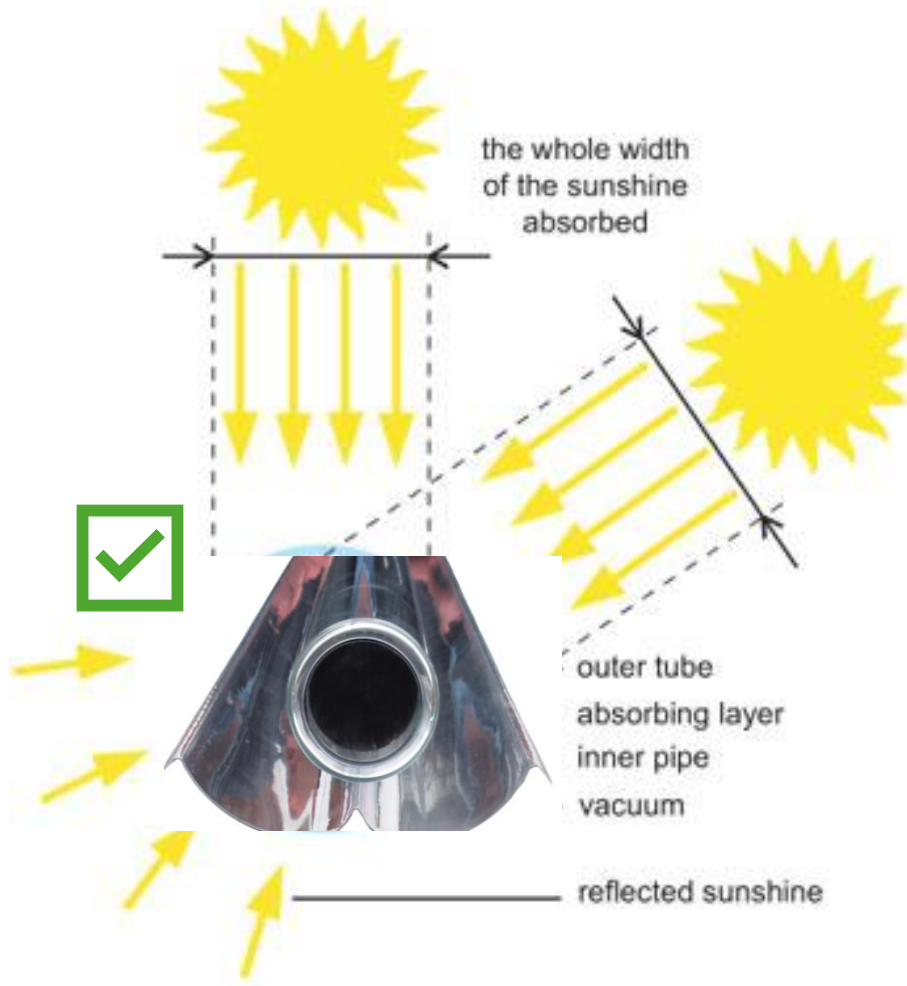


The Best way
to combine Energy



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Optical Efficiency with Vacuum tube «Sidney type» + CPC



Optimal optical efficiency during all day



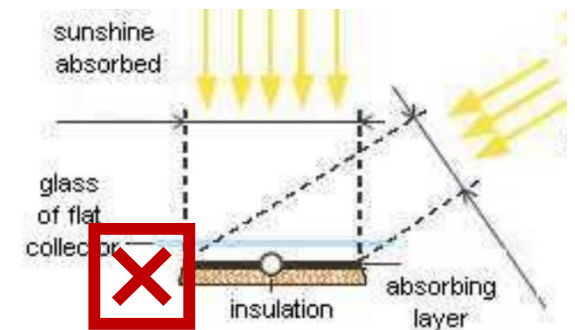
Best use of indirect irradiation



Better efficiency also by diffused irradiation

Vs Flat Collector

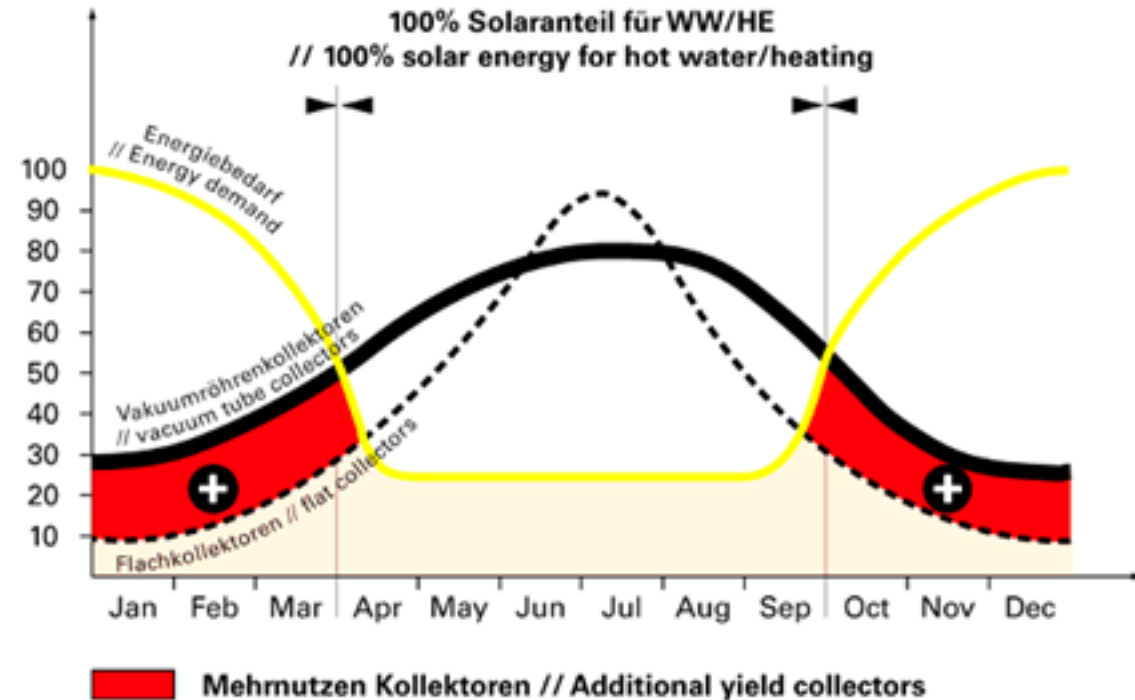
- X Variable optical efficiency during all day
- X No use of indirect irradiation
- X Low efficiency by diffused irradiation



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Season Resistance with Vacuum tube «Sidney type» + CPC

- ✓ Better distribution of the energy output along the year
(Vacuum reduces heat losses)
- ✓ Good performance also during cold season, and in case of high temperature user
(Solar cooling, process heat, district heating...).



ENERGY SAVED is **ENERGY PRODUCED**

Unmatched technology

**XRAY-R
TECHNOLOGY
COLLECTORS**

**INTEGRATED
ROTATION UNIT**

Smart
Controller in
combination
with PLEION
controller
PB404 Wi-Fi

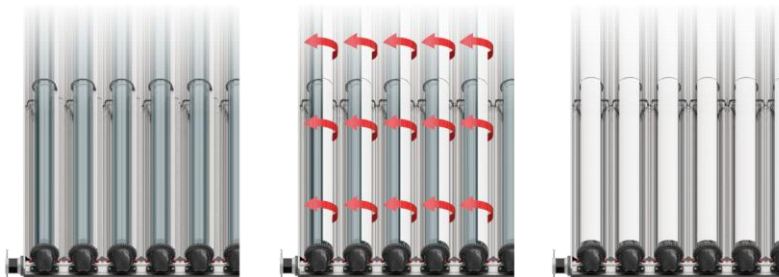
**SHADING
PROFILE**

Reinforced
PVC curved
profile

**ECLIPSE
SYSTEM**

Endless screw
mechanism,
allowing
simultaneous
closing of all
tubes

PATENTED



High-efficiency XRAY range (CPC) with Innovative, patented ECLIPSE shading system

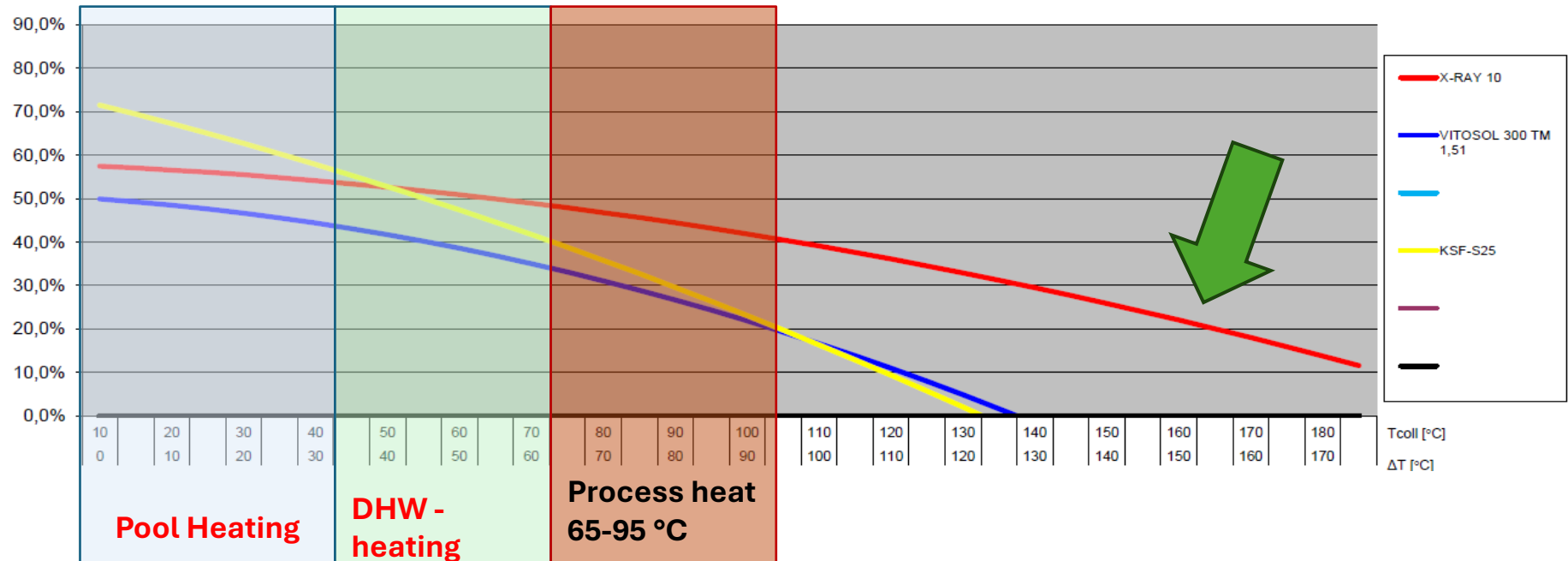
- ✓ Minimize the risk of stagnation within the solar collectors
- ✓ Optimization of system efficiency
- ✓ Higher performances of the solar collectors
- ✓ Long-term durability and reliability of all system's components

SMART CONTROLLER



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Collector's Efficiency

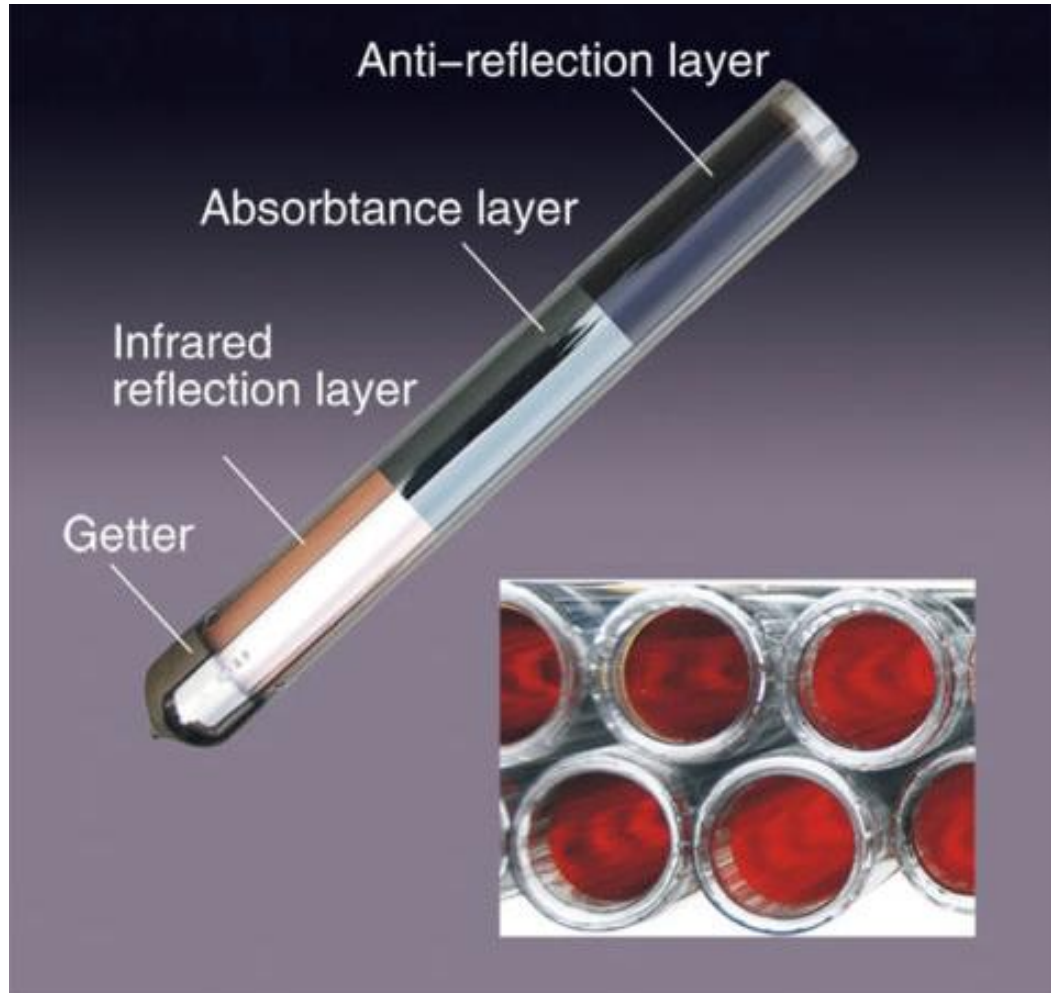


Yearly Energy Advantage

YEARLY ENERGY GAIN ACCORDING SOLAR KEYMARK						
Simulation in Wurzburg	X Ray 21 *		KSF S25 **		Vitosol 300 TM ***	
kWh/m ² at 25°C (mean fluid T)	730		706	-3%	578	-26%
kWh/m ² at 50°C (mean fluid T)	648		466	-39%	469	-38%
kWh/m ² at 75°C (mean fluid T)	562		283	-99%	366	-54%

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Vacuum tube



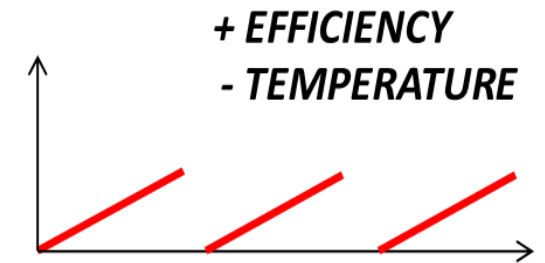
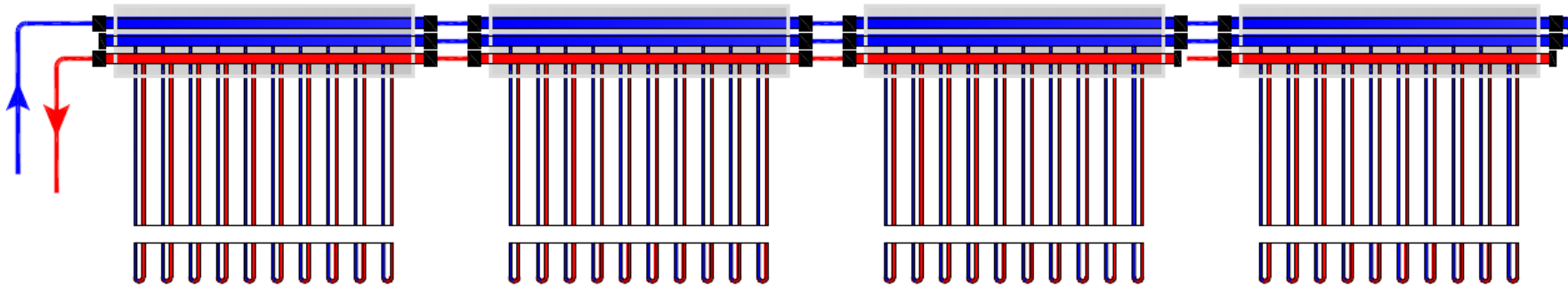
CHARACTERISTIC	VALUE	M.U.
<i>Outer diameter</i>	58	[mm]
<i>Internal diameter</i>	47	[mm]
<i>Length</i>	1800	[mm]
<i>Thickness</i>	1,6	[mm]
<i>Pressure</i>	0,003	[Pa]
<i>Hail resistance</i>	30	[mm]



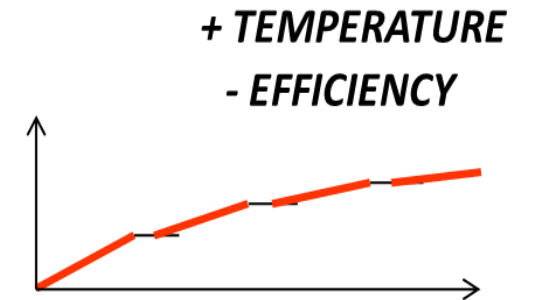
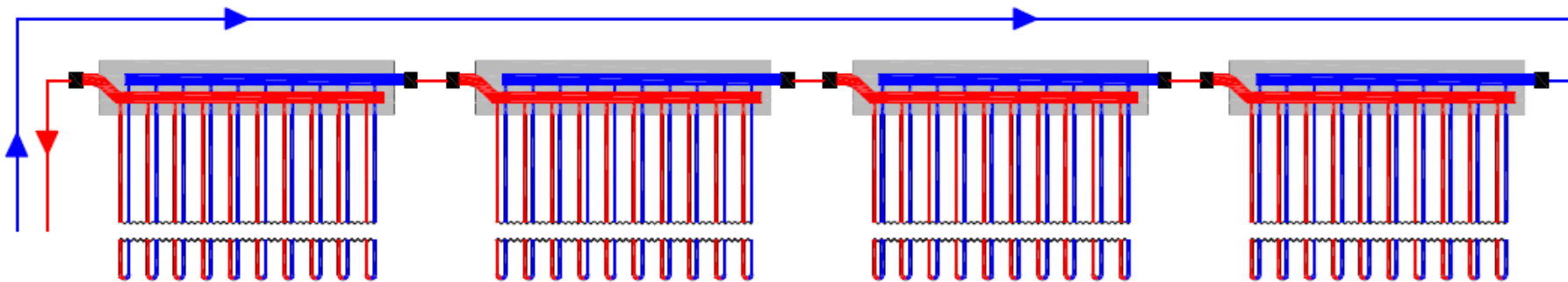
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Internal Circuit

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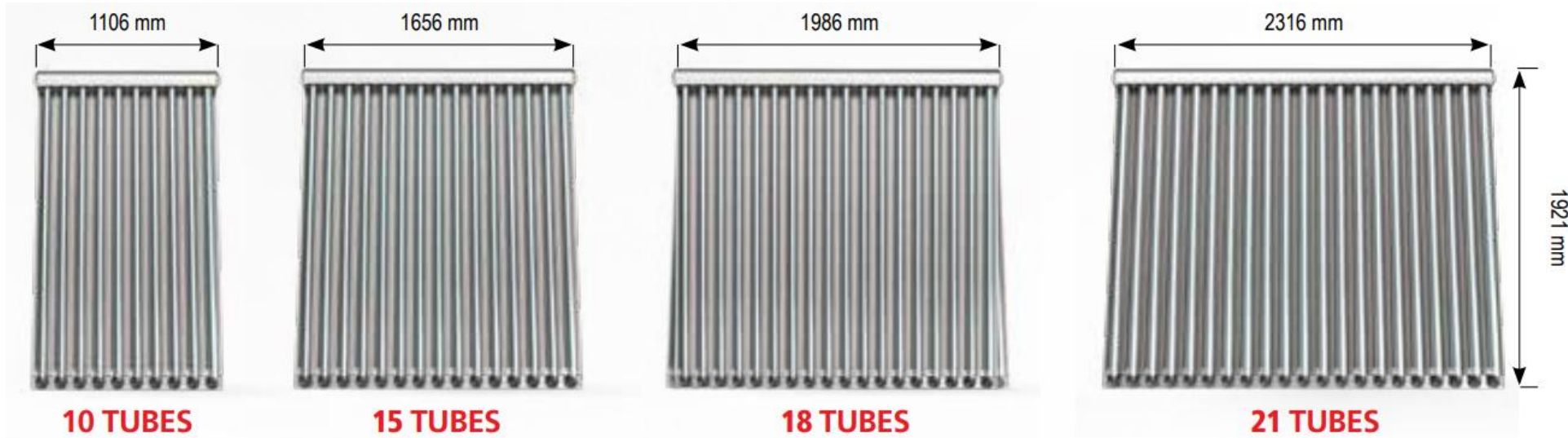


Competitors



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The Range



TECHNICAL CHARACTERISTICS					
		X RAY 10R	X RAY 15R	X RAY 18R	X RAY 21R
Evacuated tubes	[N°]	10	15	18	21
Maximum recommended number of collectors in battery	[N°]	8	5	4	3
Connections	[N°]	6			
Connection size	[Ø inch]	¾" M	¾" M	¾" M	¾" M
Aperture area	[m²]	1,912	2,866	3,4457	4,02
Absorption area	[m²]	2,574	3,852	4,62	5,39
Gross area	[m²]	2,12	3,18	3,82	4,45
Dimensions (LxHxD)	[mm]	1106x1921x114	1656x1921x114	1986 x 1921 x 114	2316 x 1921 x 114

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HOTEL GHIRONI

La spezia – Liguria

SOLAR THERMAL

12 thermal solar collectors
vacuum model

X-RAY 15R ECLIPSE

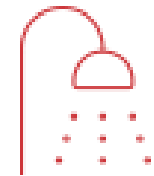
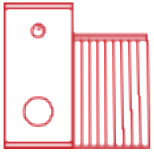
38 m² of solar surface
2,000 liters of heated DHW

110 rooms, 120
bathrooms > 200 showers per
day (in season)

Average ACS consumption
8,000 liters/day

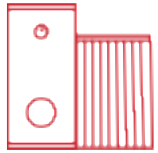
Savings on the bill
3,500€/year GAS

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CHEESE DAIRY «GIULIA» S. ANNA D'ALFAEDO (VR)

SOLAR THERMAL



ENERGY DEMAND

2.500 LITRES/DAY 65°C
58.236 kWh/year



OUR SOLUTION:

9 coll. X-RAY 21R
Heat storage 3000 liters



RESULTS

Solar Energy production

50.000 kWh/year

solar fraction 54,80%

CO2 saving :13.781 kg/year

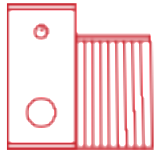


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CHARCUTERIE FACTORY

BUTTI - LECCO

SOLAR THERMAL



ENERGY DEMAND

3.000 LITRES/DAY 55°C

39.000 kWh/year



OUR SOLUTION:

10 coll. X-RAY 15R ECLIPSE SYSTEM

Heat storage 2x2000 liters



RESULTS

Solar Energy production

26.000 kWh/year

solar fraction 66,40%

CO2 saving :7.843 kg/year

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