

# POOL

## POOL-CRF

Pool Dehumidification Unit with Cross Flow Heat Exchanger

## POOL-00

Pool Dehumidification Unit without Plate Heat Exchanger



# FOCUS DOGU

For the Future of Heat

With our R&D investments and competent team leading the HVAC sector, we are at the forefront of designing HVAC products that are **both human- and environmentally-friendly.**



**POOL**  
POOL-CRF  
Pool Dehumidification Unit with  
Cross Flow Heat Exchanger

## POOL

PACKAGE POOL DEHUMIDIFICATION UNIT

### DEVICES PROPERTIES

- Standard galvanise sheet, optional painted sheet
- 50 mm rockwall insulation
- Corrosion-resistant coil:
  - Evaporator: hydrophilic coated fin and electrostatic powder coated
  - Condenser: epoxy coated fin and electrostatic powder coated
  - Water heater: epoxy coated fin and electrostatic powder coated
- Plug fan with frequency inverter or optional EC plug fan
- Dehumidification with fresh air mod for energy saving
- R410A refrigerant
- Thermostatic expansion valve or optional electrostatic expansion valve



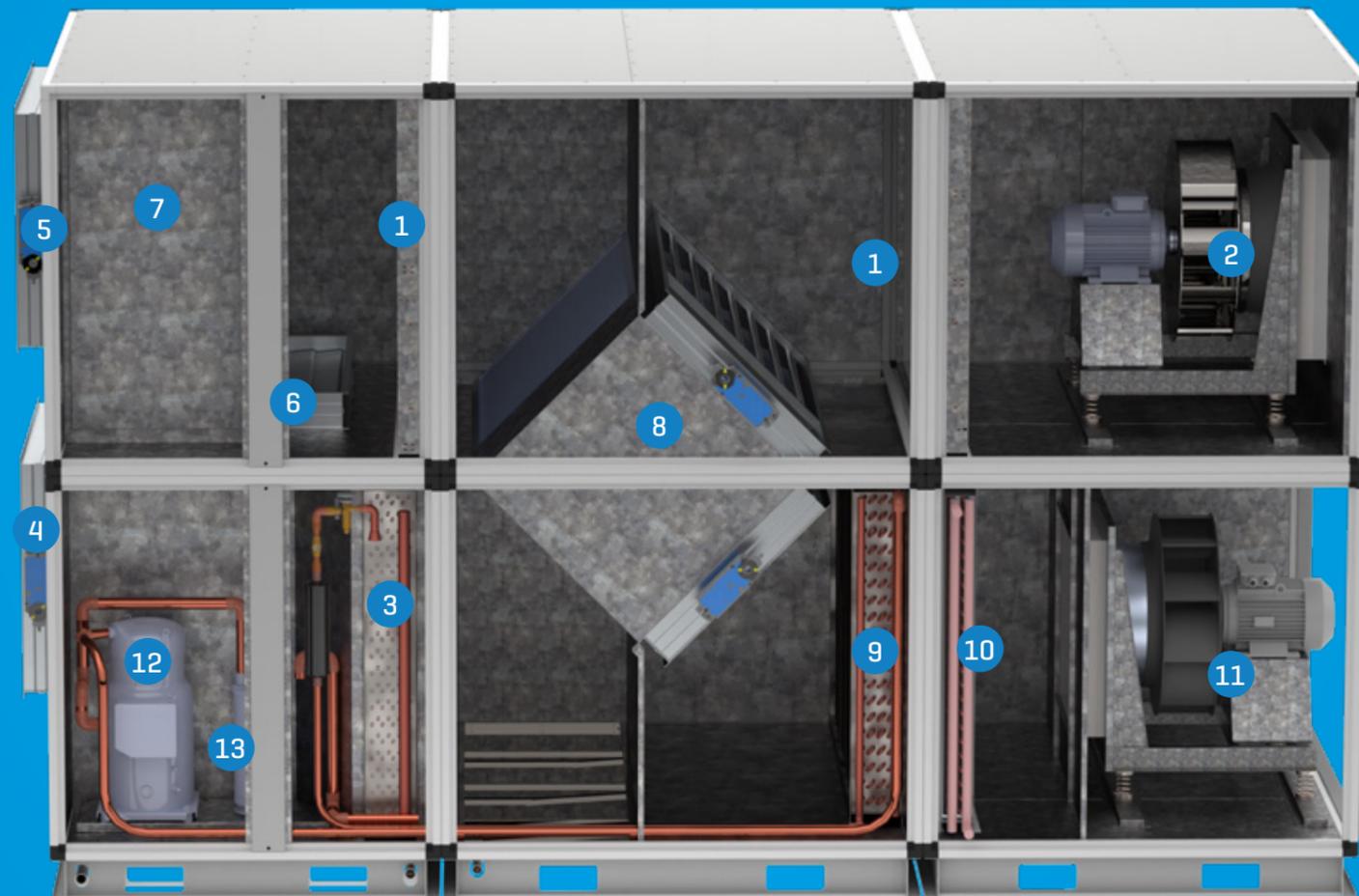
# POOL

## PACKAGE POOL DEHUMIDIFICATION UNIT

### COMPONENTS



- ① ISO COURSE FILTER
- ② ASPIRATOR FAN
- ③ EVAPORATOR
- ④ EXHAUST DAMPER
- ⑤ FRESH AIR DAMPER
- ⑥ MIXING DAMPER
- ⑦ AUTOMATION BOARD



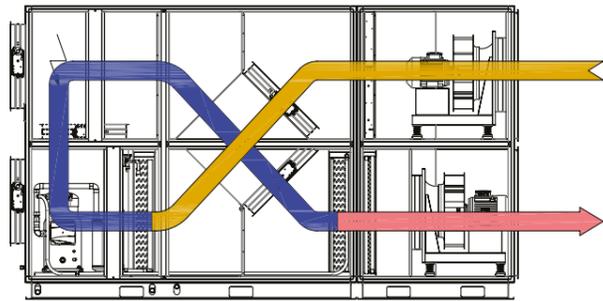
- ⑧ CROSS FLOW HEAT EXCHANGER
- ⑨ CONDENSER
- ⑩ WATER HEATER
- ⑪ VANTILATOR FAN
- ⑫ SCROLL COMPRESSOR
- ⑬ ACCUMULATOR

# POOL

## PACKAGE POOL DEHUMIDIFICATION UNIT

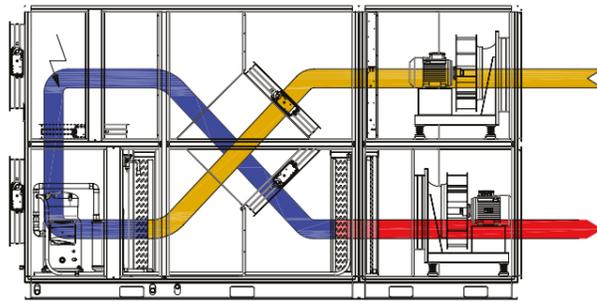
### WORKING PRINCIPLE

#### Wet Room Air



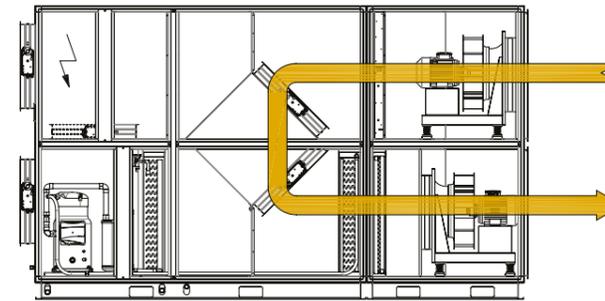
Wet and Warm Room Air

#### Recirculated Working

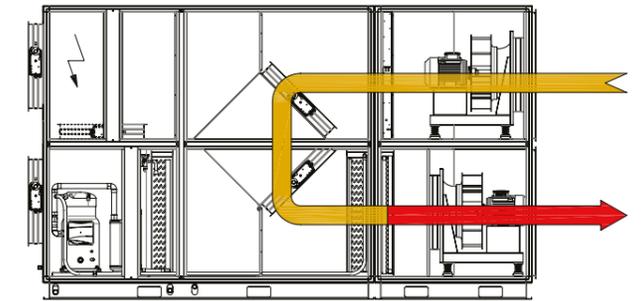


Wet and Cold Room Air

#### Dry Room Air

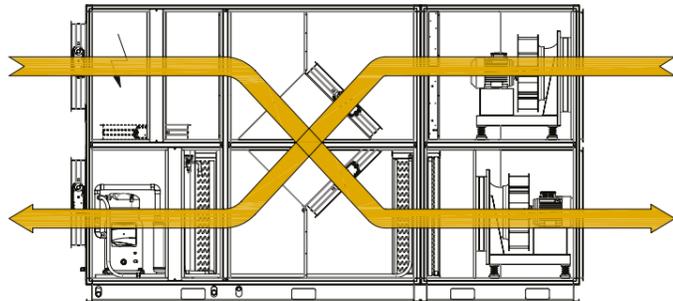


Dry and Warm Room Air

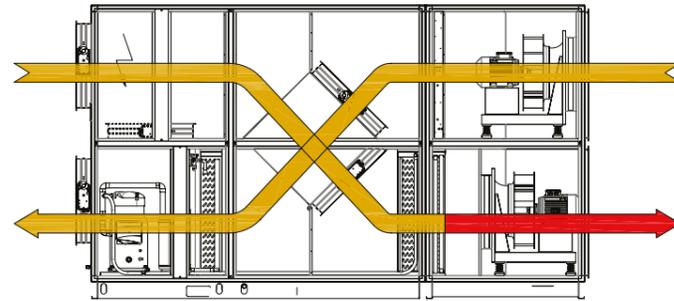


Dry and Cold Room Air

#### 100% Outside Air Working

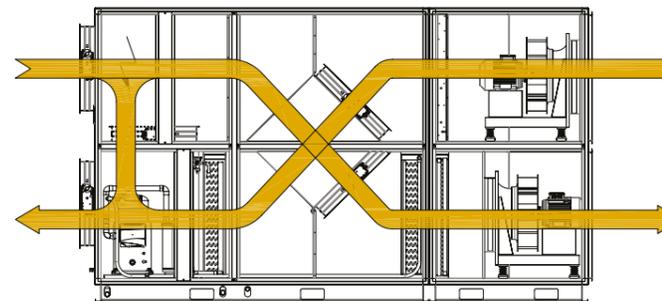


Dry and Warm Outside Air

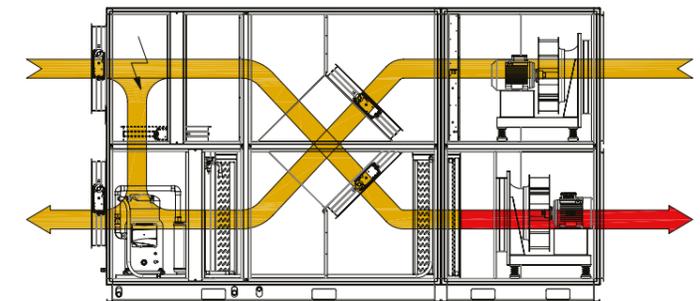


Dry and Cold Outside Air

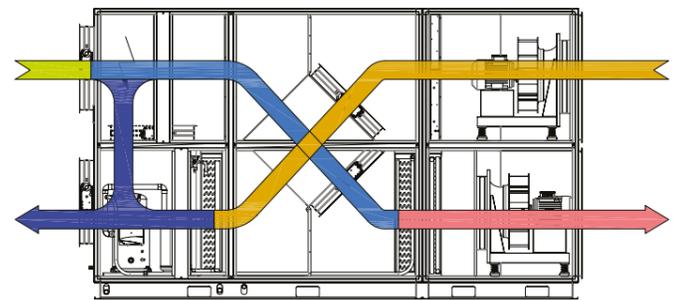
#### Mixed Air Working



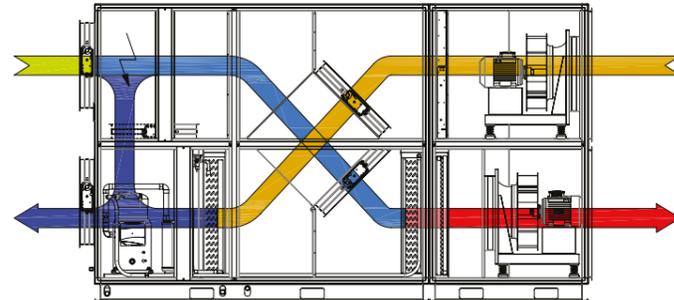
Dry-Warm Room and Outside Air



Dry-Cold Room and Outside Air



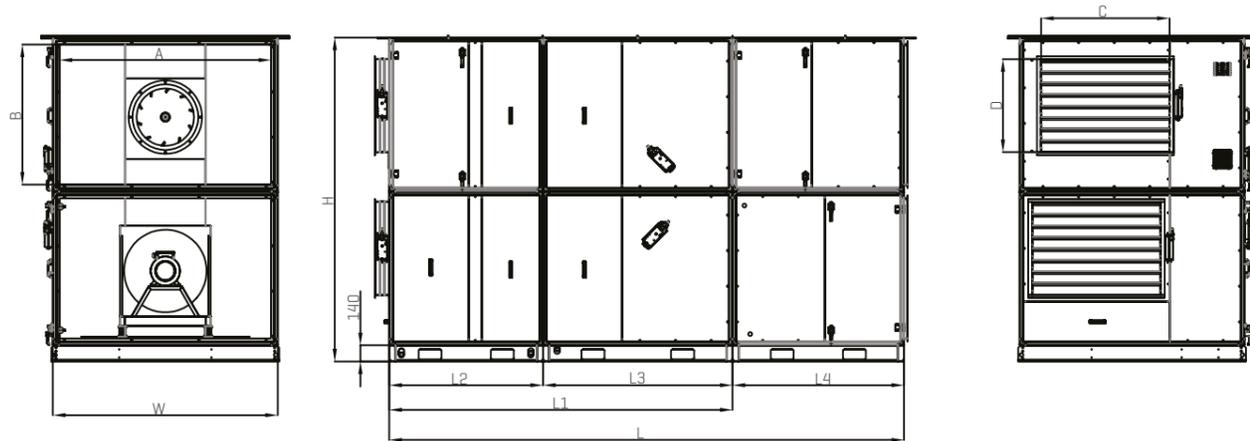
Dry-Warm Room and Outside Air



Wet-Cold Room and Outside Air

## DIMENSIONS and TECHNICAL DATA

### Pool Crf - Pool Dehumidification Unit with Cross Flow Heat Exchanger



	POOL CRF 030	POOL CRF 045	POOL CRF 060	POOL CRF 080	POOL CRF 100	POOL CRF 120	POOL CRF 160	POOL CRF 180	POOL CRF 200	POOL CRF 250
<b>L</b>	3225	3225	3535	3690	4000	4155	4485	4950	5725	5880
<b>L1</b>	2195	2195	2505	2505	2660	2815	-	-	-	-
<b>L2</b>	-	-	-	-	-	-	1340	1340	1805	1960
<b>L3</b>	-	-	-	-	-	-	1650	1960	2270	2270
<b>L4</b>	1030	1030	1030	1185	1340	1340	1495	1650	1650	1650
<b>W</b>	875	1030	1030	1340	1340	1650	1960	1960	1960	2270
<b>H</b>	1560	1870	2180	2180	2490	2490	2820	2820	3440	3440
<b>A-B</b>	160x600	910x760	910x910	1220x910	1220x1070	1530x1070	1840x1120	1840x1120	1840x1530	2150x1530
<b>C-D</b>	370x370	500x510	500x610	655x610	655x710	810x710	1120x810	1120x810	1120x910	1280x910
<b>Weight (kg)</b>	990	1060	1220	1400	1750	2050	2600	2600	2860	4490

Note: All dimensions are mm.

Device Model	UNIT	POOL CRF 030	POOL CRF 045	POOL CRF 060	POOL CRF 080	POOL CRF 100	POOL CRF 120	POOL CRF 160	POOL CRF 180	POOL CRF 200	POOL CRF 250
<b>Air-flow</b>	m <sup>3</sup> /h	3000	4500	6000	8000	10000	12000	16000	18000	20000	25000
<b>External Static Pressure</b>	Pa	450	450	450	450	450	450	450	450	450	450
<b>ASP/VANT Motor Power</b>	kW	1,5/1,5	2,2/2,2	3/3	5,5/5,5	5,5/5,5	5,5/5,5	7,5/7,5	11/11	11/11	15/15
<b>Opsiyonel EC Fan ASP/VANT Motor Power</b>	kW	1,14/1,14	1,85/1,85	3,47/3,47	3,51/3,51	4,7/4,7	6,75/6,75	7,7/7,7	12/12	11,6/11,6	11,6/11,6
<b>Dehumidification Capacity according to VDI 2089</b>	kg/h	19.1	28.6	38.2	50.9	63.7	76.3	101.8	114.5	127.2	159.0
<b>Evaporator Capacity</b>	kW	16.46	25.37	33.3	42.11	52	63.2	81.8	96.66	100.93	128.63
<b>Condenser Capacity</b>	kW	20.7	31.4	40.1	51.5	61.9	79.3	100	121.7	123.8	158.5
<b>Water Heater Capacity (80°C/60°C)</b>	kW	27.5	43.8	56	76.7	96	120.2	162.8	175.3	200.2	247.9
<b>Compressor-Circuit Number</b>	kW	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	2-2	2-2
<b>Total Absorbed Power*</b>	kW	9.2	13.9	18.5	27.5	29.5	35.5	45	59	59	79
<b>Total Absorbed Power with Optional EC Fan*</b>	kW	8.8	14.9	19.2	25.4	29	35.9	44.12	51.1	56.56	71.6
<b>Voltage/Hertz/Phaset</b>		400V / 50Hz / 3 Phase									

Note:

Designed according to VDI 2089.

Total absorbed power without electrical heater.

\*Values calculated based on 30°C temperature and 50% relative humidity.

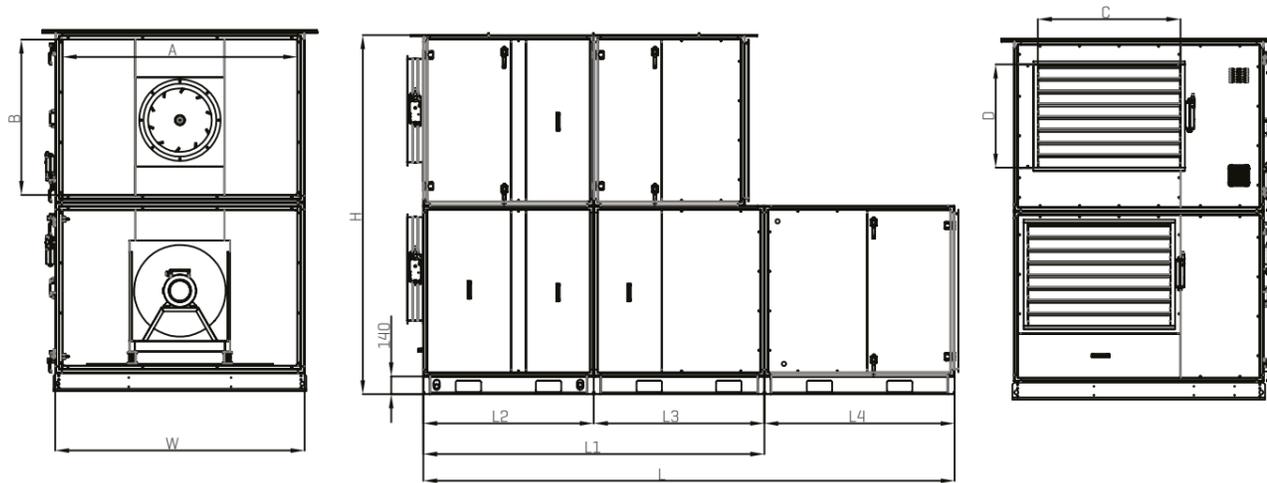
All dimensions are in mm. Doğu HVAC has the right to change dimensions without notice.

# POOL

## PACKAGE POOL DEHUMIDIFICATION UNIT

### DIMENSIONS and TECHNICAL DATA

#### Pool 00- Pool Dehumidification Unit Without Plate Heat Exchanger



	POOL 00 030	POOL 00 045	POOL 00 060	POOL 00 080	POOL 00 100	POOL 00 120	POOL 00 160	POOL 00 180	POOL 00 200	POOL 00 250
<b>L</b>	2915	2915	3225	3380	3690	3845	4175	4640	5415	5570
<b>L1</b>	1885	1885	2195	2195	2350	2505	-	-	-	-
<b>L2</b>	-	-	-	-	-	-	1340	1340	1805	1960
<b>L3</b>	-	-	-	-	-	-	1340	1650	1690	1690
<b>L4</b>	1030	1030	1030	1185	1340	1340	1495	1650	1650	1650
<b>W</b>	875	1030	1030	1340	1340	1650	1960	1960	1960	2270
<b>H</b>	1560	1870	2180	2180	2490	2490	2820	2820	3440	3440
<b>A-B</b>	760x600	910x760	910x910	1220x910	1220x1070	1530x1070	1840x1120	1840x1120	1840x1530	2150x1530
<b>C-D</b>	370x370	500x510	500x610	655x610	655x710	810x710	1120x810	1120x810	1280x910	1280x910

Note: All dimensions are mm.

Device Model	UNIT	POOL 00 030	POOL 00 045	POOL 00 060	POOL 00 080	POOL 00 100	POOL 00 120	POOL 00 160	POOL 00 180	POOL 00 200	POOL 00 250
<b>Air-flow</b>	m <sup>3</sup> /h	3000	4500	6000	8000	10000	12000	16000	18000	20000	25000
<b>External Static Pressure</b>	Pa	450	450	450	450	450	450	450	450	450	450
<b>ASP/VANT Motor Power</b>	kW	1,5/1,5	2,2/2,2	3/3	3/3	4/4	5,5/5,5	7,5/7,5	7,5/7,5	11/11	11/11
<b>Opsiyonel EC Fan ASP/VANT Motor Power</b>	kW	1,14/1,14	1,85/1,85	2,73/2,73	3/3	3,51/3,51	4,7/4,7	6,75/6,75	6,75/6,75	11/11	12/12
<b>Dehumidification Capacity according to VDI 2089</b>	kg/h	19.1	28.6	38.2	50.9	63.7	76.3	101.8	114.5	127.2	159.0
<b>Evaporator Capacity</b>	kW	20.1	30.5	38	49	65.1	80.3	102	124.2	133.2	164
<b>Condenser Capacity</b>	kW	25.9	36.6	45.8	59.7	80.1	99.7	126	157.4	165	204
<b>Water Heater Capacity (80°C/60°C)</b>	kW	27.6	43.6	57	77.9	93.4	116.6	158.9	175.3	200.2	249.2
<b>Compressor-Circuit Number</b>	kW	1-1	1-1	1-1	1-1	1-1	1-1	1-1	2-2	2-2	2-2
<b>Total Absorbed Power*</b>	kW	6.351	10.043	13.368	16	21.14	25.49	31.79	41.49	41.08	53.08
<b>Total Absorbed Power with Optional EC Fan*</b>	kW	5.631	9.343	12.828	16	20.16	23.89	30.29	39.99	41.08	55.08
<b>Voltage/Hertz/Phaset</b>		400V / 50Hz / 3 Phase									

Note:

Designed according to VDI 2089.

Total absorbed power without electrical heater.

\*Values calculated based on 30°C temperature and 50% relative humidity.

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Function - Equipment		Usage Status
Emergency Stop Button		STANDART
Automation Card		STANDART
Duct Type Temperature and Humidity Sensor		STANDART
3 Way Valve Motor		STANDART
Damper Actuator		STANDART
Freezing Thermostat		STANDART
Communication Unit		OPTIONAL
Differencial Pressure Switch		STANDART
Cable Typ Temperature Sensors		STANDART
Room Panel		OPTIONAL
Constant Flow		STANDART

# SUSTAINABILITY SOLUTIONS AT DOĞU HVAC



**GOOD HEALTH and WELL-BEING**

We offer supplementary health insurance to our employees to promote healthy living. We also plan health-focused initiatives such as smoking cessation programs.



**QUALITY EDUCATION**

Through the DOĞU HVAC CLUB project, we organize technical tours of our factory, participate in career events, and provide sponsorships to support the skill development of university and technical high school students.



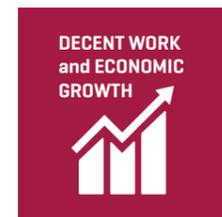
**GENDER EQUALITY**

In 2024, we increased female employment in our administrative and production departments. This step aims to contribute to gender equality by offering a workplace with equal rights for all employees.



**AFFORDABLE and CLEAN ENERGY**

Our R&D center's 2,500 m<sup>2</sup> solar panels and 0.6 MW annual capacity solar energy systems reduce our carbon footprint. We generate our electricity, ensuring a reliable, sustainable, and accessible clean energy source.



**DECENT WORK and ECONOMIC GROWTH**

Decent Work and Economic Growth: As an employer brand, our primary goal is to protect our employees' rights and create a workplace founded on equality and justice for all employees.



**SUSTAINABLE CITIES and COMMUNITIES**

We enhance indoor air quality with environmentally friendly and energy-efficient products, ensuring adherence to European standards.



**RESPONSIBLE CONSUMPTION and PRODUCTION**

We minimize waste through lean production policies and emphasize recycling, simultaneously increasing efficiency in our production processes.



**CLIMATE ACTION**

We support environmental protection through our eco-friendly, sustainable, energy-efficient product lines and R&D efforts focused on reducing waste that could contribute to climate change.



**PEACE, JUSTICE and STRONG INSTITUTIONS**

We value transparency and accountability, working with associations like İSKAV to prevent corruption and unfair competition, aligning with sectoral ethical values.

## Venues Breathe With Us



Read to watch our  
promotional video