

# Yeşilova Die Casting Company Presentation

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2025

 **YEŞİLOVA**  
DIE CASTING

**SECURE  
SUSTAINABLE  
SUCCESS ■**





## The Story Of Yeşilova Group...

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At Yeşilova, we're shaping a clean, sustainable future. Since 1975, we've been engineering precise aluminum solutions for world-renowned brands. In a world of quick fixes, we chose sustainable success, focusing on innovation that benefits both our clients and the environment.

We design cutting-edge products for industries like automotive, rail, energy, and construction. With nearly 50 years of expertise, we remain committed to reducing environmental impact while driving progress for a better tomorrow.



## From 1975 to Today...







📍 Yeşilova HQ Bursa/Türkiye

📍 Yeşilova GmbH Business Development Office Frankfurt/Germany





## Key Figures of Yeşilova Group

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**2000**  
EMPLOYEES



**50** YEARS OF  
EXPERIENCE



EXPORT TO  
**40** COUNTRIES



**6** PRODUCTION  
PLANTS



**125.000**<sup>m²</sup>  
PRODUCTION AREA



**100% FAMILY  
OWNED**



# What We Do?





Aluminium Extrusion

-  5 Hard, 1 Soft Alloy  
6 Extrusion Lines  
40MN Press Force
-  Up to  
10" Press Diameter
-  Up to  
12m Profile Length
-  20kg/m Profile Weight
-  Yearly  
50.000 Tons Capacity
-  Over 14.000 Extrusion Dies











Aluminium Die Casting

-  13 HPDC Presses,  
1320 Ton Press Force
-  12 kg/shot Weight
-  Yearly  
12.000 Tons Melting Capacity
-  Alloys  
According to EN AC;  
46.000, 44.300, 46.100, 47.100,  
43.500, UNIFONT 94



Die Casting Presses

-  1320T
-  1050TX3
-  750TX3
-  700T
-  640T
-  550T
-  400TX2
-  200T

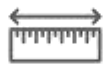




# What We Do?



## Mechanical Process



Up to  
12m  
Profile Length



Yearly  
8.000 Tons  
Capacity



> 100 CNC  
Machines



Stretch  
Bending



Drilling /  
Cutting



Marking  
(Laser / Mechanic)



## Joining Technologies



Robotic CMT

Robotic FSW



MIG  
Welding



TIG  
Welding



Oxygen  
Welding



Riveting



Bonding

## Surface Treatment



Anodizing

Yearly 6.000 Tons Capacity  
Up to 7 Meter Length  
Up to 30 Micron Coating



Powder Coating

Yearly 3.000 Tons Capacity  
Up to 7 Meter Length  
Sprey / Electrostatic Coating



Shot Blasting

Continues Type  
Hanging Type



Dimensional & Mechanical

Romidot  
CMM  
Tensile & Compression Test  
Surface Hardness Test  
3P Bending  
Surface Roughness



Material

Spectrometer  
Microstructure Analysis  
Radiographic Inspection  
CT X-RAY  
Density Measurement Device  
Metallurgical Welding Measurement



Paint & Surface

XENON Test  
Humidity Control Chamber Test  
Corrosion Test

## Test Capabilities



The background of the slide is a photograph of an industrial manufacturing facility. It shows various pieces of machinery, including what appears to be a large die casting machine with a red robotic arm. In the foreground, there are several grey industrial units on wheels, one of which has the label 'TWO' on it. A yellow overhead crane is visible in the upper right. The scene is dimly lit, with a yellow light source or panel visible in the upper center. The text 'Value Added Products With Aluminium Die Casting' is overlaid in large white font.

# Value Added Products With Aluminium Die Casting

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With our knowledge and experience in aluminium, we produce value-added products and produce solutions that meet all the expectations of our customers.



## Melting & Degassing

6 different alloy can be melt in different furnaces by using poke yokes and andon screens.

- **Simultaneous Melting with Different Alloys**
- **Automatic Flux Feed Degassing**

### **Alloys:**

EN AC 46.000, EN AC 44.300, EN AC 43.400,  
EN AC 43500, EN AC 46.100, EN AC 47.100,  
EN AC 71.100.

Yearly Capacity **12.000** Tons/Year



## Casting

### Machine Park

Closed Die Casting Cells with robotic applications.



#### High Pressure Die Casting Presses

- 1320T
- 1050TX3
- 750TX3
- 700T
- 640T
- 550T
- 400TX2
- 200T

**Fully automated** state of the art technology



## Casting & Trimming

- Automatic Transversal Ladle
- Automatic Die Sprayer
- Automotic Extractor
- Hydraulic Trimming Presses Integrated with
- Temperature Control Unit
- Vacuum Casting
- Jet Cooling



## Surface Finishing

- Visual Surface Finishing
- Shot Blasting
- Vibratory Finishing





## Machining & Assembly

- Multi-Threading
- CNC Milling
- CNC Lathe
- Nut / Insert Assembly



## Laboratory & Inspections

### TESTING

#### **DIMENSIONAL & MECHANICAL VERIFICATION**

- Romidot
- CMM
- Static Material Testing Machine
- Surface Hardness
- Surface Roughness

#### **MATERIAL VERIFICATION**

- Spectrometer
- Micro Structure Analysis
- Radiographic Inspection (X-RAY)
- CT X-RAY
- Density Measurement Device

#### **PAINT & SURFACE VERIFICATION**

- XENON Test
- Humidity Control Chamfer Test
- Corrosion Test





## Design & Engineering

In the Yeşilova R&D Department, we are working with 25 engineer colleagues, along with 8 design engineers within our organization, to create custom solutions.

We are conducting weight reduction and design improvement work with our competent colleagues in the field.



MAGMA



## Design & Engineering

### ENGINEERING PROGRAMS

#### Product & Mold Design

- Catia,
- Solidworks
- Nx 90

#### Analysis

- Ansys, Hyperworks

#### Flow & Casting Simulation

- Magmasoft





# Aluminium HPDC

## Suspension Parts

Up to 12 kgs, High Pressure Die Casting & Machined Brackets, Housings  
Mounting parts can be designed and produced in our fully automated,  
closed cell machines.

**Engine Mount & brackets**



**Chassis Mounts**



**Air Spring Piston**



# Aluminium HPDC

## Housing & Brackets

Value-added products with machining processes, leakage, and cleanliness requirements.  
High traceability with laser marking.

Steering Housing



Liquid Parts Brackets



Housing & Brackets





# Aluminium HPDC

## Other HPDC Solutions

Visual parts with outsourced coating solutions, heat sinks for lighting systems of the vehicles, air pistons, and bearing caps for general industry demands are also in our product groups.

**Lighting Systems  
Brackets & Heat Sinks**



**Piston Bearing Caps**



**Roof Rack Supports**



# Aluminium HPDC



## Electric Vehicle Die Casting Components (Target Products)

With the conversion of electric vehicles, there are too many heat points in the vehicle due to the increase of high-voltage parts. The operation of high and low voltage products at optimum temperatures is also very important for the correct operation of the vehicle's driving systems. For this, liquid-cooled housings and the parts they work with have become critical. HPDC is the safest and feasible solution for these needs.

### Converter Housing

Target Products



### High Voltage Compressor & Electric Liquid Pump

Target Products



### HPDC Heat Sinks

Target Products



\* The images above are exemplary as a representation.

# Certificates

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16949



50001



14001



45001







# Yeşilova R&D

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We Design the Future of Transportation

# Yeşilova R&D

## Product Development Capabilities

### OEM First Serial Design



Weight Decrease  
Solutions

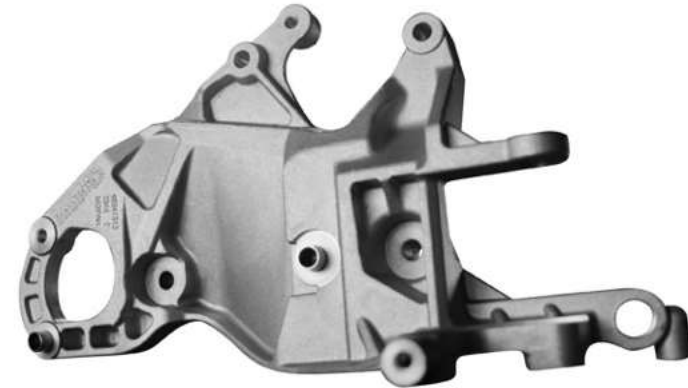
(1,9 kg to 1,2 kg)  
(- %36 )



Optimum Tool  
Design  
Capability

(- 305.830 kg CO2)

### Can Metal Weight Decrease Design



Highly Recyclable  
Environment  
Friendly



Simple Design  
More Space

(- 30.000€ Tool cost)



# Yeşilova R&D

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Key Numbers for R&D

**100<sup>+</sup>**

TOTAL PROJECT

**3<sup>m€</sup>**

FUNDS RECEIVED  
WITH OUR  
INNOVATIVE PROJECTS

**100<sup>+</sup>**

SCIENTIFIC PUBLICATION  
CONTRIBUTION  
TO THE ACADEMY

**100<sup>+</sup>**

INTELLECTUAL  
PROPERTY RIGHT





# Sustainability In Yeşilova

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# Sustainability Road Map

"We are transforming our corporate culture to prepare a sustainable future while increasing our market share"





# NET 0 ROAD MAP

Sustainable Future in 5 Steps



- 1** 
- 2** 
- 3** 
- 4** 
- 5** 

## ENERGY EFFICIENCY

Our primary priority is to increase energy efficiency by reviewing our existing systems. We aim to eliminate all inefficient points in our operations.

## BEHAVIORAL CHANGES

We focus on reducing the carbon footprint of our employees and ecosystem through conscious consumption habits. This will help us further reduce our overall impact by creating a sustainable culture.

## RENEWABLE ENERGY

By transitioning our energy sources to completely renewable energy, we aim to minimize the environmental impacts of our operations. This step is a fundamental move to support long-term sustainability.

## ELECTRIFICATION

Completely getting rid of fossil resources and meeting our energy needs with electrification, if possible, will help our operations move in a cleaner and lower-carbon direction.

## HYDROGEN, CARBON CAPTURE

By investing in future technologies, we evaluate solutions such as hydrogen and carbon capture, which are currently uneconomical but are expected to become more accessible in the coming years. This is part of our process to reduce remaining emissions and achieve our net zero carbon goal.

EU Default Value  
Direct tCO<sub>2</sub>/t goods

2,43



Yeşilova Die Casting  
Direct tCO<sub>2</sub>/t goods

0,52



%79

less Direct  
tCO<sub>2</sub>/t goods





## Environmental Progress Indicators



**29%**

REDUCTION IN  
REVENUE BASED  
EMISSION INTENSITY  
IN THE LAST 5 YEARS



**31%**

REDUCTION IN  
REVENUE BASED  
ENERGY INTENSITY  
IN THE LAST 5 YEARS



**49%**

REDUCTION IN  
REVENUE BASED  
WATER INTENSITY WITH DRAWN  
IN THE LAST 5 YEARS



# Our Achievements



Chairman of the  
Board of Directors  
of Turkish Aluminium  
Association



Supervisory  
Board Member  
of Turkish Automotive  
Industry Association





## Where Are We?



**Bursa/TÜRKİYE**  
Headquarters



**Frankfurt/GERMANY**  
Business Development Office







**YEŞİLOVA**  
DIE CASTING

**SECURE  
SUSTAINABLE  
SUCCESS.**