

Yeşilova Die Casting Company Presantation

2025

 **YEŞİLOVA**
DIE CASTING

SECURE
SUSTAINABLE
SUCCESS ■



The Story Of Yeşilova Group...

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...

First
acquaintance,
first trade
with
aluminium

1975

The first
production
of aluminium
extrusion
profiles
begins...

1990

Laying the
foundations
of R&D

2002

We are
now in
Germany

2018

Merger
under the
Yeşilova
brand

2023

1988

From
trade to
Automotive
industry

1993

Aluminium
Die Casting
begins with
Can Metal

2017

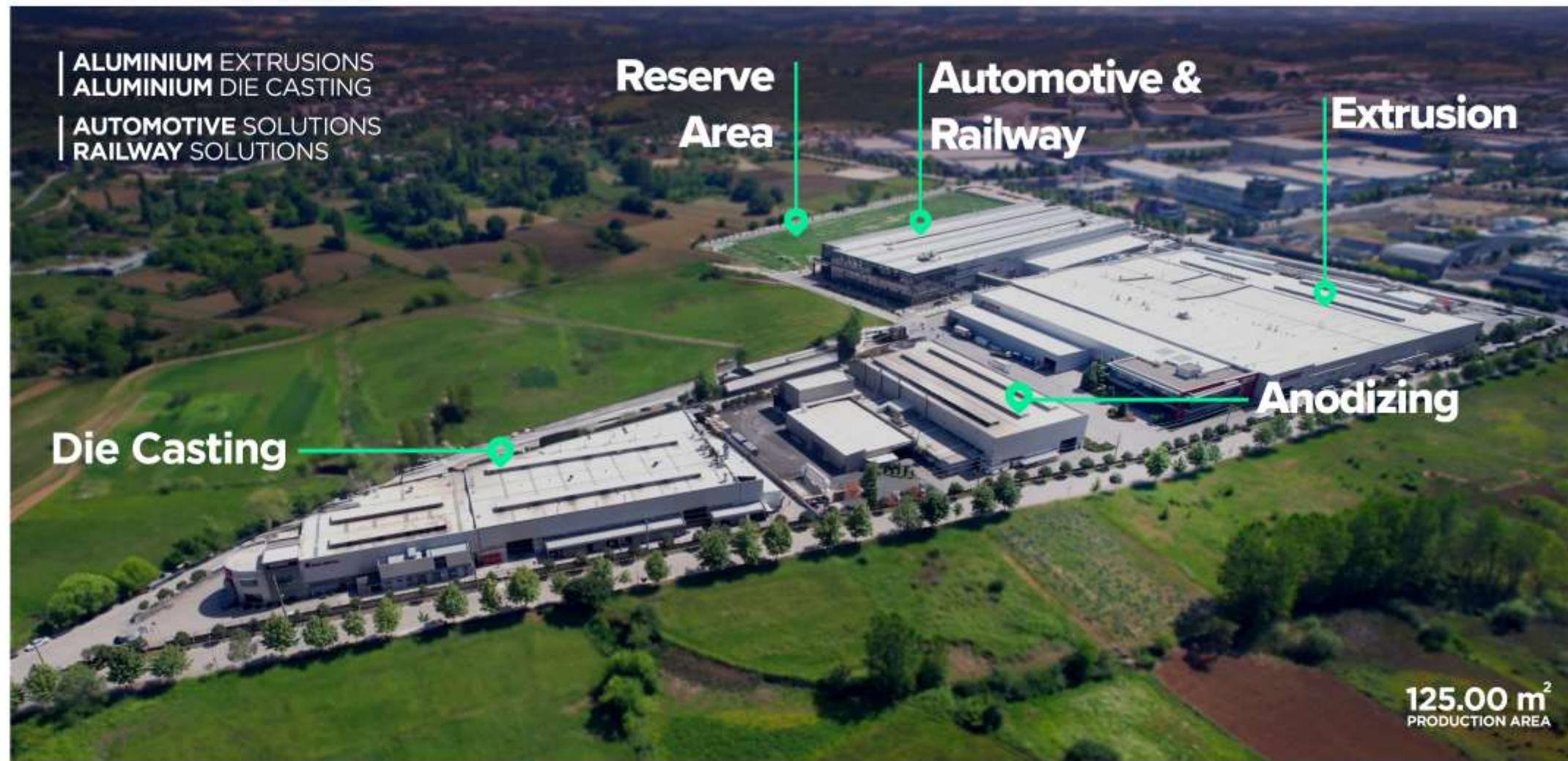
"Hello"
To the
Tourism
sector

2018

Expertise
in **Railway**
systems

Yeşilova HQ Bursa/Türkiye

Yeşilova GmbH Business Development Office Frankfurt/Germany



Key Figures of Yeşilova Group



2000
EMPLOYEES



50 YEARS OF
EXPERIENCE



EXPORT TO
40 COUNTRIES



6 PRODUCTION
PLANTS



125.000^{m²}
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

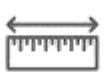
- 1320T
- 1050TX3
- 750TX3
- 700T
- 640T
- 550T
- 400TX2
- 200T



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)

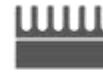
Joining Technologies



-  Robotic CMT
-  Robotic FSW
-  MIG Welding
-  TIG Welding
-  Oxygen Welding
-  Riveting
-  Bonding

Test Capabilities



-  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

A large industrial die casting machine is shown in a factory setting. The machine is a complex assembly of metal components, including a large vertical frame, horizontal arms, and various mechanical parts. It is situated in a workshop with other industrial equipment and piping visible in the background. The lighting is bright, highlighting the metallic surfaces of the machine.

Value Added Products With Aluminium Die Casting

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
- Automatic Extractor
- Hydraulic Trimming Presses Integrated with
- Temperature Control Unit
- Vacuum Casting
- Jet Cooling



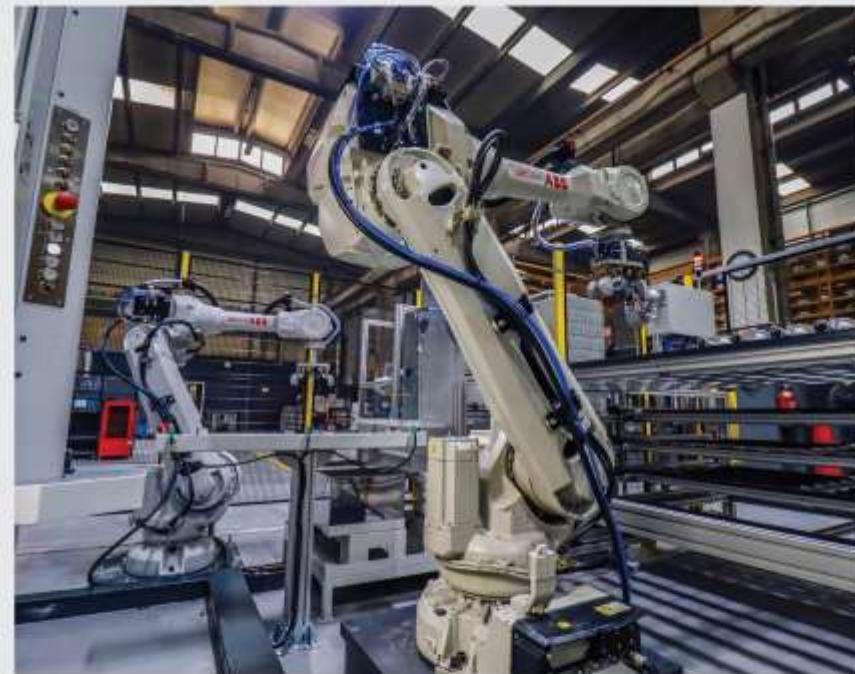
Surface Finishing

- 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

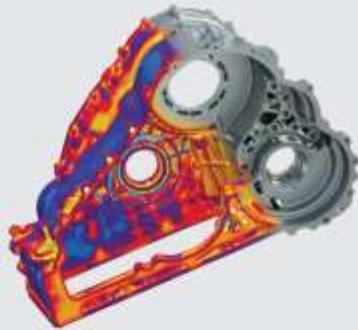
- XENON Test
- Humidity Control Chamfer Test
- Corrosion Test



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

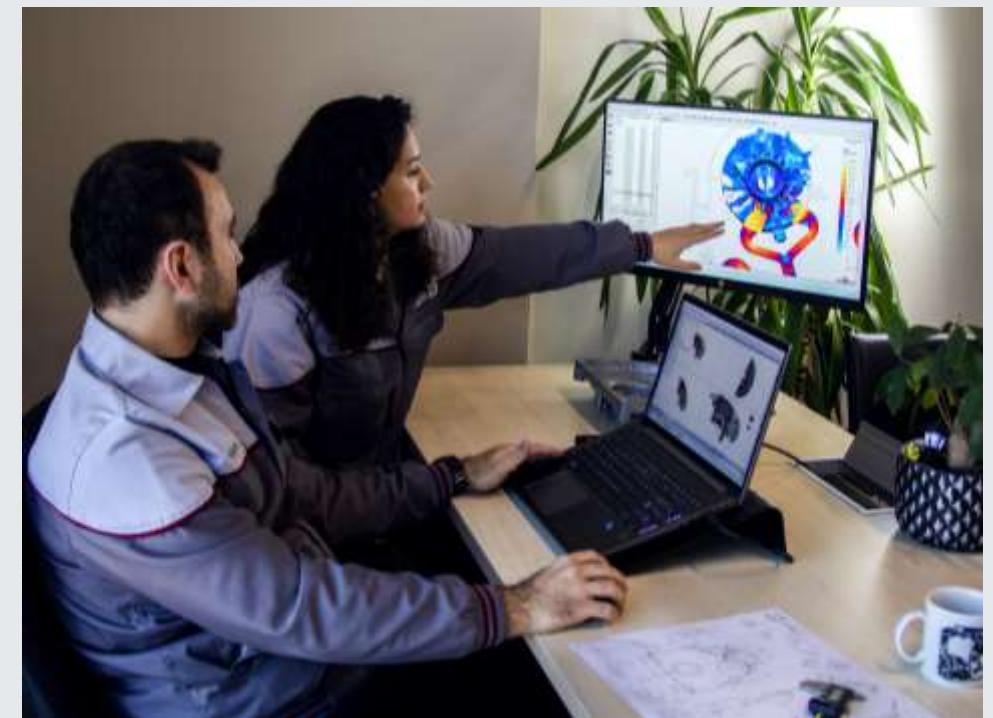
- Catia,
- Solidworks
- Nx 90

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



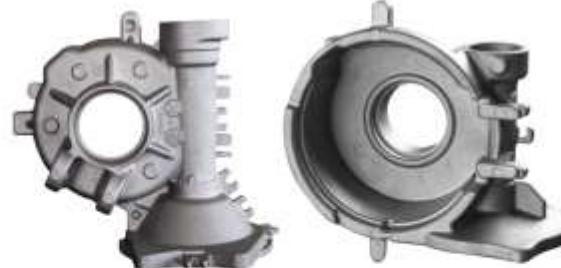
Aluminium HPDC

Housing & Brackets

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

1

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



16949



50001



14001



45001





Yeşilova R&D

We Design the Future of Transportation



Yeşilova R&D

Product Development Capabilities

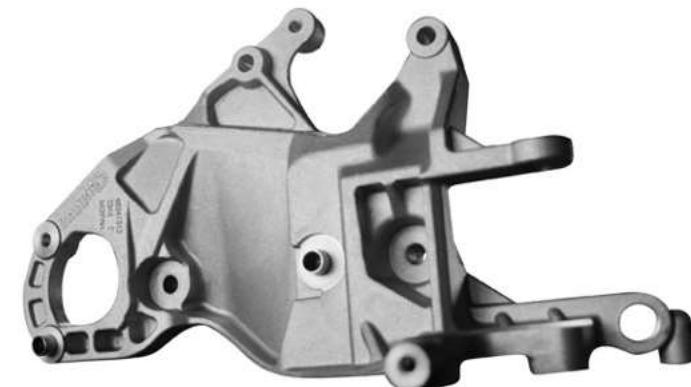
OEM First Serial Design



Weight Decrease
Solutions

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

Can Metal Weight Decrease Design



Highly Recyclable
Environment
Friendly



Simple Design
More Space

(- 30.000€ Tool cost)



Optimum Tool
Design
Capability

(- 305.830 kg CO2)

Yeşilova R&D

Key Numbers for R&D

100⁺

TOTAL PROJECT

3^{m€}

FUNDS RECEIVED
WITH OUR
INNOVATIVE PROJECTS

100⁺

SCIENTIFIC PUBLICATION
CONTRIBUTION
TO THE ACADEMY

100⁺

INTELLECTUAL
PROPERTY RIGHT





Sustainability In Yeşilova





Sustainability Road Map

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

2022



2023



2024



2025



2026



2027



BEGINNING AND AWARENESS PERIOD

SHORT TERM

NET 0 ROAD MAP

Sustainable Future in 5 Steps



YEŞİLOVA DIE CASTING



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 tCO₂/t goods

2,43



Yeşilova Die Casting
Direct tCO₂/t goods

0,52



%79
less Direct
tCO₂/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 WITHDRAWN
IN THE LAST 5 YEARS

Our Achievements



Chairman of the
Board of Directors
of Turkish Aluminium
Association

TALSAD
TURKISH ALUMINIUM INDUSTRIALISTS ASSOCIATION

Supervisory
Board Member
of Turkish Automotive
Industry Association

AUTOMOTIVE
INDUSTRY
EXPORTERS
ASSOCIATION
OIB



Where Are We?





DIE CASTING

**SECURE
SUSTAINABLE
SUCCESS ■**