To be an Industrial Partner as Product/Process/Material Developer
For Shift2Rail 2019 Open Call
PVC PROFILE PRODUCTION FACILITY (Since 1992)
- PVC Profile Production 35,000 t/y
- 26 PVC extrusion lines
- Wide range of products for different climate conditions worldwide
- 15 different window, door and sliding systems

ALUMINIUM COMPOSITE PANEL PRODUCTION FACILITY (Since 2006)
- Composite panel production 10,000,000 m²/year
- Fire classification: A2, FR, B2, B1
- 20 years guarantee
- 4 Composite panel lines

GROUP OPERATION
- Aluminium Extrusion Products,
- Aluminium Architectural Systems
- Aluminium Composite Panels
- Aluminium Flat Rolled Products
- PVC Windows and Doors Systems,
- Roller Shutter and Steel Shutter Systems
- Aluminium Design Products
- ASAŞART

FLAT ROLLED PRODUCTS PRODUCTION (Since 2014)
- Continuous casting lines (120,000 t/y)
- Rolling mill (140,000 t/y)
- Plate annealing klin
- Slitting/cut-to-length lines
- Foil Mill (75,000 t/y)
- Foil Slitting Line
- Painted plate production facilities (50,000 t/y)
- Widest and fastest foil mill in the world
- Ability to roll down to 6 microns
- Low carbon foot print with regenerative thermal oxidizer

ROLLING SHUTTER FACILITY (Since 2008)
- Roller Shutter 30,000,000 m²/y
- Products: 37-39-43-55-55 Eco and 77 mm roller shutter and garage door slats with polyurethane filling by Aluminium Rollform technology
- Aluminium Roller Shutter Box (137-400 mm)
- Steel Commercial Door Profiles
- Galvanized Octagonal Tubes (40-60-70 mm)
- Accessories for Roller Shutter and Commercial Door Systems
- PVC Monoblock Roller Shutter Systems

COMPANY PROFILE
Foundation: 1990, Gebze, İstanbul
Nr Employees: 2400+
Turn Over (2017): 463m.€
Land Area: 750,000 m²
Closed Area: 300,000 m²
Export: 80+ Countries
Growth Rate: % 22 (avrg in 25 years)
Locations: Head Office; Kavacik/İSTANBUL, Factory; Akyazı/SAKARYA, Warehouse; Neuwiet, GERMANY

ALUMINIUM EXTRUSION PRODUCTION (Since 1992)
- 7 Extrusion lines (75,000 t/y)
- 55mm biggest press in Turkey
- 0.5kg-75kg/m profile up to 600mm width complex profiles
- Billet Casting (90,000 t/y)
- Extrusion Die Production (2500 t/y)
- Anodic Oxidation (40,000 t/y)
- Electrostatic Powder Coating (25,000 t/y)
- Sublimation
- Mechanical Treatment Facility
- CNC Machining, (up to 30m x 4m x 1m) Cutting, Bending, Kitting, Forming, Deburring, Cleaning, Assembly

ASAŞ
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**REFERENCES**

- FOR RAILWAY:
  - ISO/TS 22163 (IRIS)
  - DIN EN 15085-2

- GENERAL:
  - ISO/TS 16949
  - ISO 9001
  - ISO 14001
  - ISO 50001
  - ISO 27001
  - OHSAS 18001
  - CE (EN 15088)
  - CE / TS EN 40-6
  - DIN EN ISO 3834-2
  - EN 1090
  - TS EN 14351-1
  - TS 5358 EN 12608
  - QUALICOAT
  - QUALANOD
  - RAL-GZ 7161/1
INTEGRATED ALUMINIUM FACILITY

RESEARCH & DEVELOPMENT CENTER

- 82 Researcher and technicians
- 2 Ph.D., 14 MSc, 27 bachelor’s degree
- 3,100 m² equipped with laboratories and test centers
- New product and process development
- New aluminum alloy development for extrusion and rolling
- Feasibility (Metallurgical and Mechanical properties)
- Prototype/Mock up Production
- Solutions and know how provider
- Analysis/Simulation (Ansys, Qform, Solidworks,...)
- Reverse engineering
- Metallurgical and Chemical Analysis (OES, Optical, SEM, EDS, FT-IR, DSC, Conductivity Measure, Hardness,...)
- European/National/Local Projects

ALUMINIUM EXTRUSION

Billet Casting:
- 6” to 14” billets, 1xxx, 6xxx, 7xxx, 9xxx alloys
- Automatic %100 ultrasonic billet control

Die Production:
- 200 dies/month production
- Up to Ø1000mm dies, with CAD/CAM/CAE

Extrusion:
- 7 Extrusion presses (12MN to 55MN Biggest in Turkey)
- 600 mm wide, 0.05 to 70 kg/m profiles extrusion
- Capacity of 75,000 tons/year

Surface Treatment:
Anodizing:
Annual capacity 40,000 tons (apr.13,300,000 m²)
- Wide range of colors and surface effects
- In two facilities up to 15 m-long profiles.

Electrostatic Powder Coating:
- Capacity 25,000 tons (apr. 8,500,000 m²)
- Up to 8 m-long aluminium profiles and accessories
- RAL colors and various glosses in 2 lines

Mechanical Treatment:
- Machining, Bending, Forming, Punching
- 5 axial CNC operations up to 30-meter length,
- Joining (bonding, rivet, weld bolt etc.),
- Welding (MIG/TIG) robotic and manual up to 30m
- Assembly lines
**RAILWAY R&D PROJECTS**

**European :**
- **Mat4Rail** - H2020/Shif2Rail – On going – WP 5
  777595 - Designing the railway of the future: Fire resistant composite materials and smart modular design
ASAS provide co-design structure, select materials, characterization, material development (metal, aluminium alloys, sheet metal, profile, aluminium foam, honeycomb etc.) testing and control support for weight reductions, acoustic and thermal conduction
  
  www.mat4rail.eu

**National :**
- Development of Parameters For High Speed Train Extrusion Products Productivity Awards, Process Optimization
- Development of Manufacturing Technique for Structural Aluminum Profile Die which is Wider than 500 mm
  Industrial R&D Projects Grant Programme, Process Optimization

**Local:**
- Rigid Catenary System Development Internal – Finished – New Product

**OTHER PROJECTS**

**European :**
- **VULKANO** – H2020/SPIRE – On going – Demonstrator
  723803- Novel Integrated Refurbishment Solution As A Key Path Towards Creating Eco-efficient And Competitive Furnaces
ASAS validate the solution proposed by VULKANO in the aluminium sector and also related to project dissemination.
  
  http://www.vulkano-h2020.eu/

**National :**
- **Trailer Aluminum Box Body Tipper** - Industrial R&D Projects Grant Programme – Finished – Design and manufacturing
- **Semi Trailer Chassis Hanger Bracket Mono Blok Extrusion Profile** - Industrial R&D Projects Grant Programme – Finished – Design, simulation, manufacturing, validation (patented)

**Local :**
- **Heat Pipes For Satellite** – Internal – Finished – New Product

**MEMBERSHIP THE RELATED PLATFORMS**
- Aluminium Manufacturers Association of Turkey (TALSAD),
- Anatolian Rail Systems Cluster (ARUS),
- Istanbul Chamber of Industry (ISO),
- Istanbul Chamber of Commerce (ITO),
- Aluminium Surface Treatment Association (AYID),
- Turkish Exporters Assembly (TIM).
**S2R-OC-IP1-01-2019**: Advanced Car body shells for railways and light material and innovative doors and train modularity

**INTEREST TOPICS**

- New aluminum alloys and new section design for railway (lighter, thinner, more strength)
- Application to the railway sector of materials which used in other industries

**Contribution/ Project Idea**

- design lighter aluminium car body, windows and door frames,
- develop special welding, bolting, gluing, fixing process together with....
- develop special fixtures and apparatus for sub and final assembly processes
- develop extrusion die technology for railway business
- simulate all extrusion process
- improve design together OEM
- create combined process aluminium profiles and sheets,
- develop new aluminum alloys/materials
- produce mock up

**We can**
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THANK YOU